

Does training the wider workforce make a difference?

Rapid review of international evidence
Report produced by The Evidence Centre for Skills for Health

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Key Themes

Scope

This rapid review examines evidence from around the world about whether extending access to education and training for the wider healthcare workforce improves the productivity, quality and safety of services. The wider workforce includes both unlicensed support staff and corporate workers.

To identify studies for the review, six electronic databases were searched for articles published between 1990 and February 2011. 117 references were included, though the majority are descriptive rather than empirical or focus on conceptual issues rather than the impact of training on quality, safety and productivity.

Impact of training

There is some evidence that training and development for the wider workforce can improve the quality of care. This holds true for both non professional support staff and corporate and administrative teams. Although the quality of research is problematic, there is a trend towards positive results.

There is limited evidence about the impact of training on patient safety. Available research focuses on training about technical skills or ways to manage workload and stress. These interventions have been associated with improved knowledge and skills but the link to improved patient safety or reduced risks is not usually explicitly documented.

There is limited evidence about the impact on productivity of extending training and development for the wider workforce. Those studies that do exist tend to suggest that providing development opportunities could offer a return on investment by improving the competence and productivity of support workers, by allowing support workers to substitute for more costly staff and by reducing costs through enhanced retention and job satisfaction. The empirical evidence for these claims is weak.

Key lessons

The existing literature supports training and developing the wider workforce in order to improve quality. To a lesser extent such recommendations have also been made regarding improving safety and productivity.

However the literature is sparse regarding empirical examples of how this has been achieved throughout the world and the benefits of training corporate staff and non professionally qualified frontline workers. Most of the readily available literature is descriptive in nature or focuses on small case studies or localised evaluations.

The paucity of literature in this area means that any work conducted by Skills for Health could add significantly to the knowledge base, as well as having the potential to improve the processes and efficiency of care.

Scope

Context

“Employers must be seen to advocate, support and implement education and training programmes for healthcare assistants (and other support workers).”

A myriad of similar claims are made by researchers, managers and practitioners in the UK and around the world. But is there any evidence that expanding access to training and development opportunities for the wider workforce will improve the quality, safety and value of care? Skills for Health is planning to find out.

Skills for Health helps ensure there is a skilled and flexible workforce available to provide high quality healthcare throughout the UK. Core roles include profiling and understanding the UK workforce, identifying and addressing skills gaps and shortages, improving productivity and performance, developing national workforce competences, and considering the supply and relevance of education and training.

Skills for Health is considering the value of developing programmes to support the wider workforce, including those undertaking corporate functions as well as non professionally trained support workers.

This report summarises a rapid review of literature to help Skills for Health address the following question:

What evidence is there from across the world that extending access to education and training and broadening participation rates in learning and development opportunities for the wider healthcare workforce improves the productivity, quality and safety of healthcare services and provides return on investment for organisations and the communities they serve?

In this review ‘wider workforce’ means non professionally qualified staff supporting clinical activities plus staff from administration, estates, finance and hotel services provided as a component of healthcare – but not voluntary services, social services, patient groups or others.

Non professionally qualified staff are also known as ‘unlicensed assistive personnel’ in the US and include certified nursing assistants, patient care assistants, patient care technicians, nurse aides, nurse techs, surgical technologists and health unit coordinators or unit secretaries. In the UK, as in other countries, non professionally qualified staff might also be called nursing assistants, auxiliary nurses, patient care associates, nursing techs, healthcare assistants, healthcare support workers or clinical support workers.

Non professionally qualified workers provide a substantial and sometimes under recognised contribution to healthcare services. They may spend more direct time with service users than professionally qualified staff and sometimes substitute for qualified roles.

These roles are evident in both the statutory and non statutory sectors. In the statutory sector, these roles have traditionally been linked with particular professions such as support workers working alongside nurses or social workers. Non professional staff outside the statutory sector tend to have a broader remit or not be linked to any specific profession, such as housing support workers.

Such roles have been developed due to shortages of professionally qualified staff, the drive for increased productivity and value and the need for totally new roles to take on specific tasks.²

A number of articles have suggested that it is important and useful to extend training and development opportunities to the wider workforce, including corporate and support functions and non professionally qualified frontline workers.^{3,4,5,6}

“Healthcare assistants are identified as requiring a specific training programme. They form part of the frontline workforce and yet have the least access to training but often most contact with patients.”

Various articles have examined the training and development needs of these team members in different contexts^{8,9,10,11,12,13,14,15,16} and explored the potential of training methods such as classroom sessions,¹⁷ workbooks,¹⁸ mentoring,¹⁹ vocational training²⁰ and online training.

Most of these general articles suggest that educating the wider workforce will increase capacity to care for patients, with resulting increases in the quality of care and reductions in spending.^{21,22,23,24,25} However, few empirical studies have examined the outcomes of training and development opportunities for the wider workforce. This review compiles the available literature to identify key trends and gaps in knowledge.

After outlining the review methodology, the report focuses on the impacts of extending training and development opportunities on quality, safety and productivity in turn.

Approach

To identify studies for inclusion in the review, one reviewer searched six electronic databases (Medline, Embase, Ovid, Cinahl, the Cochrane Library and Controlled Trials Register, and the Health Management Information Consortium) for articles published between 1990 and February 2011. Search terms included combinations of words such as wider workforce, non professional, support staff, healthcare assistant, administration staff, estates, corporate staff, finance, catering, education, training, learning, development and so on. Mesh terms and expanded keyword searches were used where available.

As the aim was to provide a rapid review of key themes in readily accessible literature, studies of any design, in any language and from any country were eligible for inclusion. Empirical research was prioritised, including systematic reviews, randomised controlled trials and large observational studies.

The search identified more than 10,000 potentially relevant studies, but after further review most were found not to address the core research question empirically. 117 references were included in the review, though the majority are descriptive rather than empirical or focus on conceptual issues rather than the impact of training on quality, safety and productivity.

All studies were checked for relevance by one reviewer, using the methodology of the NHS Centre for Reviews and Dissemination. Two reviewers independently extracted bibliographic data and information about key findings.

To synthesise material, the reviewers grouped studies according to topic areas and outcomes and provided a narrative summary of key trends. Meta-analysis was not possible due to heterogeneity.

The reviewers aimed to provide a mix of rapidity and rigour, but when interpreting the review, readers should bear in mind:

- The review focused on readily available literature and was completed within a short period. It is not a systematic appraisal of all material in this field.
- There are many studies of training delivery and development but these do not usually consider the impacts of the training so were excluded from the review.
- The quality of literature varied. Much of the material is descriptive and observational. The report provides a flavour of key issues but emphasises that the quality of included material was poor.
- Omission of training approaches within the review does not indicate that an issue, staff type or approach is not important, just that little has been published about it.

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- There is also a lack of comparative evidence, making it difficult to draw conclusions about the most effective forms of development.
 - Some of the evidence is from countries with very different health systems to the UK and the findings may not be generalisable.

Impact on quality

Non Professional workers

The review examines the impact of training and development for the wider workforce on quality, safety and productivity. Research in each of these areas is reported in turn. In each section, studies about the non professionally qualified workforce are first reported, followed by research about the corporate and administrative workforce.

The largest quantity of research in this field focuses on the impact of training for the non licensed workforce on healthcare quality. Training and development opportunities have taken a variety of formats and included joint training with professionals as well as standalone training, solely for non professionally qualified workers.

Collaboratives or learning networks are an example of extending joint development opportunities. Best practice collaboratives involve groups of organisations coming together to share good practice, often facilitated by quality improvement experts. These collaboratives may include structured training sessions, online and telephone support as well as coaching during a local improvement initiative. Whilst most of the staff leading the teams in collaboratives are members of the professional workforce, non professional workers also often attend training sessions and are involved in coaching and implementing practical projects. Evidence suggests that collaboratives can improve the knowledge, skills and confidence of teams and lead to tangible changes in outcomes for patients.^{26,27 28,29,30,31,32,33,34,35,36,37,38,,39,40}

Studies have also investigated the value of drawing together professional and non professional staff in online learning groups or communities of practice.⁴¹

Evidence about the effectiveness of collaboratives and online communities is based on research about all participants, not solely non professionally qualified staff. It appears that no research has been published drawing out the specific impacts from developing non professional staff in this manner.

There is more explicit research available about training the non professional workforce, though most studies combine training of professionals with non professionals. For instance, writers in the UK have suggested that widening the scope of training about public health issues to include non professionally qualified staff can impact on quality. They argue that there is a need to improve access to and the provision of public health education and training for frontline support workers, not just public health specialists. Drawing on experience from the US, it is suggested that skills and careers frameworks can be useful but it is important that any training offered to non professional staff moves away from traditional approaches of structured training in order to be more accessible and enable other workers to achieve competence in

public health. Online resources and networks or communities of practice are suggested as potential ways forward.⁴²


In England, 'Teaching Public Health Networks' have been set up to enhance collaborative working between the public health workforce and higher education and to enhance public health knowledge in the wider workforce. Researchers suggest that this approach has helped to develop innovative education and training which engages professionals and the non professional workforce that may not previously been exposed to public health thinking.⁴³

Researchers in France tested the value of workshops about primary care attended not only by professionals and non professional staff, but also by patient representatives, members of local authorities and other community stakeholders. They found that such joint training helped to build mutual recognition of roles and barriers, and foster understanding of the health system as a whole. Impacts on quality of care were not investigated.⁴⁴

Like many other aspects of care, mental care support has changed considerably in recent years, moving away from emphasising hospital services towards a focus on care in the community. This may lead to reduced length of stay. Researchers in England tested the value of running a two day course for professional and non professional hospital staff about how to support people most effectively during shorter inpatient stays. The course improved knowledge and this was sustained after six months. The researchers concluded that staff from a variety of professional and non professional backgrounds can gain knowledge and skills from fairly modest training.⁴⁵

People with acute mental health issues often present at A&E. In Australia, researchers evaluated the value of an online programme for professional and non professional staff regarding the emergency care of people with acute mental health issues in rural areas. The programme was conducted online over a 24 week period and comprised four sequential modules, each based on a clinical scenario. The course was associated with improved confidence in managing key mental health problems and self efficacy in dealing with challenging behaviours.⁴⁶

In Scotland, mixed professional and non professional teams were trained to support people with depression to use cognitive behavioural therapy self help materials. In England such materials are used by specialist workers such as IAPT services, and Scotland has trained the existing workforce to use them in day to day practice. The Structured Psychosocial InteRventions in Teams (SPIRIT) course comprises 38.5 hours of workshops and 5 hours of clinical supervision about the use of cognitive behavioural therapy self help tools. Although most of the workers trained have been professionals, some members of the wider workforce have also taken part. An evaluation found that this training improved team members' knowledge and skills and that these improvements remained after three months, with 40% of staff reporting use of materials weekly.⁴⁷



These studies have combined training for professionals and unlicensed staff, but some examples of training support staff alone are also available. For instance, in the US, patient care associates and nursing assistants took part in a workshop to promote optimal geriatric nursing care. The workshop was associated with reported improvements in knowledge and skills.⁴⁸

In England, a study compared nursing auxiliaries taking part in National Vocational Qualification (NVQ) courses versus those who did not receive extra training. Although the cohort size was small (17 people per group), the authors found that NVQ-prepared staff performed considerably better than conventional nursing auxiliaries, and in many cases, outperformed qualified nurses in terms of quality of care. Although the study was not a controlled comparison, it is one of the only such pieces of published research assessing the value of NVQs on the quality of care provided by support staff.⁴⁹

Researchers in the UK also tested a training programme to help healthcare assistants support people with dementia on hospital wards. Six self study workbooks were combined with 12 group discussions facilitated by an experienced registered nurse in the ward setting. The programme was associated with improved confidence and competence among healthcare assistants.⁵⁰

Elsewhere in the UK, researchers examined the value of a study day for healthcare assistants and social care officers regarding the causes, incidence and impact of symptoms encountered near the end of life. The study day increased knowledge about and confidence in key areas of symptom control and participants were able to use the information to improve their palliative care.⁵¹

Another example is a housekeeper induction competency programme developed in one NHS Trust to provide training, support and opportunities to share best practice for housekeepers. A multidisciplinary team provided the training, including dieticians, catering staff and facilities managers. A descriptive case study found that the programme improved the extent to which patients' nutritional needs were met as well as enhancing the ward environment.⁵²

Researchers in the US examined ways to train support staff about the best methods of supporting people with severe disabilities. A one day training programme comprising classroom verbal and video instruction, practice and feedback was followed by on the job feedback. The researchers found that support staff improved their skills and this in turn helped to improve the functioning of people with profound disabilities. This suggests that rapidly teaching skills may be acceptable and effective for support staff.⁵³

Training of non professional nursing home staff has also been assessed. For instance, one study examined the value of a nutrition education programme for a wide variety of nursing home staff. The programme used workshops, videos and role play. Training was associated with improved knowledge, attitudes and responsibilities, thus leading to better processes of care.⁵⁴

In New Zealand, an education programme for healthcare assistants improved the quality of care for older people living in a care home. The programme included 10 interactive teaching sessions. Data collected before and after the programme found that appropriate care increased by 12% and inappropriate care reduced by 12%. The programme particularly helped to improve the care of people with low functional ability or cognitive impairment.⁵⁵

But not all research is positive. Researchers in England assessed a development programme for healthcare assistants run at one NHS Trust. They found that although healthcare assistants were eager to take part, the programme had positive but very minimal impacts on the healthcare assistants' role, other health professionals and on patient care.⁵⁶ It cannot be assumed that all training will automatically improve the quality of care.

Corporate Workers

There is increasing recognition that members of corporate and administrative healthcare staff such as estates, IT and finance workers can have an impact on the quality of healthcare.^{57,58,59,60,61} However, there is little research into the type of training and development opportunities that may be most effective for the wider corporate workforce.


Researchers in England suggest that in order to improve the overall quality and monitoring of care there is a need for more training of NHS Board members, senior executives and other corporate staff regarding clinical governance.^{62,63,64} However the impact of such training approaches has not been widely documented in publically available literature.

A number of education initiatives have been set up to train corporate staff about quality improvement and total quality management, and these have been found to improve the structure of improvement initiatives and processes of care.⁶⁵

For instance, researchers in Australia attempted to strengthen the role of middle managers in a hospital quality improvement programme. They found that engaging with and training middle managers improved their understanding and ownership of the quality improvement programme and that organisational implementation of quality improvement initiatives significantly increased as a result.⁶⁶

Similarly, researchers in the US described an educational programme developed for vice presidents and service line managers in a health foundation. The aim was to educate corporate staff about information management and decision support in order to roll out quality improvement. Following the training, all corporate support staff and divisions began using decision support to facilitate continuous quality improvement.⁶⁷

Organisations in the US have also tested interprofessional education combining doctors, nurses and corporate administrative staff to good effect.



Teams made up of trainee clinical and corporate staff implemented quality improvement initiatives. This resulted not only in improvements in care processes, but also a greater knowledge and understanding of roles between corporate staff and clinicians.⁶⁸

Summary

There is some evidence that training and development for the wider workforce can improve the quality of care processes. This holds true for both non professional support staff and corporate and administrative teams. However, the quality of the evidence is low to moderate. The number of studies is relatively small and observational designs are predominantly used, but there is a trend towards positive results from extending training and learning opportunities in this way. Documented impacts focus on enhancing the processes of care rather than outcomes such as patient satisfaction, length of stay or morbidity.

Impact on Safety

Non professional workers

Whilst there is some evidence that training and development may improve the quality of care processes, the impact on patient safety is less certain and has been less well researched. A small number of relevant studies were identified.

For instance, in Italy researchers tested the value of training non professional staff and volunteers who may be involved in critical care or emergency situations. They suggested that non professional team members without appropriate training could be inhibited by emotional or psychological responses during emergency situations which could slow down the care offered, reduce the quality of treatment and increase both direct and indirect costs. To guard against this they developed a virtual reality system to assess how non professional team members perform during realistic simulations. This type of training improved the knowledge and confidence of support staff, and ultimately the safety and quality of patient care.⁶⁹

In the US, workshops and an educational video were used to upskill non professional healthcare workers in hand hygiene and other safety procedures. The workshops helped to increase knowledge and skills and had an impact on workers' behaviour. The researchers did not follow on and assess whether there were corresponding reductions in infections or morbidity.⁷⁰

Staff stress can have a negative impact on patient safety. Researchers in Wales tested the value of training intellectual disability services support staff to reduce work related stress. The Promotion of Acceptance in Carers and Teachers (PACT) programme ran over 1.5 days. Before and after data and comparisons between staff assigned to attend or not attend the programme found that training was associated with reduced levels of staff distress, although there was no reported change in workloads or the work environment. The authors concluded that a short training programme could improve psychological resilience in support staff and may have knock on effects for patient safety. The follow on effects were not tested.⁷¹

In the UK, healthcare assistants play an increasingly important role in the provision of care. They are therefore well placed to witness and challenge poor practice, but often lack the confidence to do so. A two day training course was provided to empower healthcare assistants to question their colleagues about safe practice. The course was well received and improved self report confidence, but the impacts on patient safety were not followed up.⁷²



Corporate Workers

A number of studies suggest a need for further training and development of the corporate and administrative healthcare workforce in order to improve safety.^{73,74,75,76}

For instance, interviews with senior corporate and administrative staff in the US suggested a lack of knowledge about safety issues. The researchers suggested that there was a definite need to train Board members, chief executives, finance teams and others about safety policy and practice.⁷⁷

However despite widespread acknowledgement of the potential value of such training, we identified no studies explicitly examining the impacts on patient safety of this type of training and development. A variety of well known programmes have been developed to upskill corporate workers about safety issues, such as the US Institute for Healthcare Improvement's Boards on board programme. However direct links to improved patient safety have not been documented publicly.

Summary

There is limited evidence about the impact on patient safety of extending training for non professional and corporate support workers. Whilst numerous authors suggest this would be beneficial, research and case studies about particular interventions are rare.

Those that do exist tend to focus on training about technical skills or ways to manage workload and stress. These interventions have been associated with improved knowledge and skills but the link to improved patient safety or reduced risks is not usually explicitly documented.

Impact on Productivity

Non Professional workers

The review also collated research about the impact of training the wider workforce on productivity. Most such research focused on particular types of workers.


Healthcare assistants and other non professionally qualified support staff have been introduced in many countries, often with a view to saving costs or extending capacity.^{78,79,80,81} However the extent to which training and development of these support workers impacts on productivity is uncertain.

Support staff have been found to have positive impacts on patient care^{82,83} but when healthcare assistants and other similar roles were introduced in the NHS, there were concerns over their training and development. Such support staff were sometimes substituted for professional nurses in order to reduce costs, which led to concerns over the quality of care and the potential impact on nurses' morale.^{84,85,86} Whilst effort has been placed into training and standardising the skills of support workers in the UK and internationally,⁸⁷ the impacts of this on productivity and return on investment are unclear.

In the US, the day to day work experiences and development needs of non professional support staff working in a cancer centre were assessed. The researchers found that few studies have addressed training and development initiatives for support staff caring for people with cancer, yet there is a real need for such interventions. Focus groups, interviews and a survey found that support staff had good relationships with patients and families, but wanted more training regarding coping with death and balancing function with emotion. Support staff were very interested in educational grand rounds. The authors suggested that if training is not provided it can reduce productivity due to burnout and reduced job satisfaction. Investing in training was put forward as a way of improving retention, though this was not empirically tested.⁸⁸

Other researchers in the US found that support staff working with people with developmental disabilities have high rates of staff turnover and vacancy rates, are often inadequately compensated, may have to work more than one job and feel underdeveloped. The authors concluded that training and development of these roles might help to reduce turnover and thus have important impacts on productivity and return on investment. However this hypothesis about impacts was not empirically tested.⁸⁹

In developing countries the use of non professional primary care workers is common for financial reasons,⁹⁰ but literature about the impacts of training and the effect of training on productivity and cost effectiveness is sparse.



One example comes from India, where non professional health workers were trained to undertake developmental screening of babies and young children. Following training, non professional workers were able to provide screening services of the same quality as clinicians. The authors argued that training non professional staff in this manner could decrease the costs of care and improve flow and health service usage.⁹¹

Researchers in Natal analysed the roles of support workers such as healthcare assistants, porters, security guards, clerks, gardeners and maintenance teams. They found that workers who had received task specific training were more satisfied with their roles and were more likely to be productive. The authors suggested that providing short, specific training for support workers that is very focused on their day to day roles could increase value for money by ensuring that healthcare organisations are getting the services they pay for.⁹²

These studies postulated impacts on productivity or costs but there was no solid empirical grounding.

Research has also explored the role of training lay workers or family members to provide care or peer support.^{93,94,95,96,97,98,99} A number of studies suggest that training lay people to provide services can be cost effective and provide good return on investment.¹⁰⁰

Developing new roles by training the voluntary sector, family members, peer supporters and community groups is outside the scope of this review, but some research has explored how training family members or lay workers can encourage these people to apply for formal roles within the health services, thus providing a source of less costly staffing for non professional jobs.¹⁰¹

Summary

There is limited evidence about the impact on productivity of extending training and development for the wider workforce. No empirical outcomes studies were identified about such training for the corporate workforce, and there were a small number of studies relevant to non licensed staff.

Studies about the non professionally qualified workforce tend to suggest that offering development opportunities could provide a return on investment by improving the competence and productivity of support workers, by allowing support workers to substitute for more costly staff and by reducing costs through enhanced retention and job satisfaction.¹⁰² The empirical evidence for these claims is weak.

Summary

This rapid review suggests that existing literature supports training and developing the wider workforce in order to improve quality.¹⁰³ To a lesser extent such recommendations have also been made regarding improving safety and productivity.¹⁰⁴

However the literature is sparse regarding empirical examples of how this has been achieved throughout the world, and there are few high quality examples of the impacts and benefits of training corporate staff and non professionally qualified frontline workers.

Most of the readily available literature is descriptive in nature or focuses on small case studies or localised evaluations. Examples of various training approaches have been described such as 'earn as you learn' courses developed in partnership between universities and healthcare organisations. However the impacts of this form of training have not been documented publicly.¹⁰⁵


There is some evidence that training the wider workforce can increase knowledge and skills, but quantifiable impacts on quality, safety and productivity are less clear. This means that the return on investment from such training remains uncertain.

The relative value of different types of training and learning development are also uncertain, though online training, work based learning and coaching have been favourably reviewed.^{106,107}

Regardless of the methods used, feedback suggests there is some demand for further upskilling of health and social care support workers^{108,109} as well as corporate and administrative staff.^{110,111} For instance, researchers in England examined the learning needs of frontline support staff, with a particular emphasis on access to library resources. Focus groups and interviews at one hospital suggested that most support staff would welcome the opportunity for further development through accessing NHS libraries or other information sources, but barriers included a lack of IT access and skills, lack of knowledge about what is available and lack of encouragement to seek additional training. The authors concluded:

"The learning needs of support staff need to be addressed sensitively. Many have had unfavourable experiences. Lack of access to computers and information technology training contributed to the group favouring written communication. More work needs to be done on essential skills for all staff."¹¹²

The training and development of healthcare support staff is important in both public and privately run organisations. For instance in the UK, the majority of



care homes are run as private enterprises. Researchers found that healthcare assistants play a key role in care homes and that pivotal to their effective performance is preparation, training and support.¹¹³

Almost all of the descriptive articles and case studies available in the UK and internationally suggest that developing the wider workforce is a good idea, but there are significant gaps in the evidence about how best to do this or the likely costs and impacts.

Interestingly, there is evidence that training of the non professional workforce must go hand in hand with training of professionals. This need not always be simultaneous education, but it is essential that professionals are encouraged to support and accept colleagues from the wider workforce. Research suggests that professionals' attitudes can have an enormous impact on whether changes in policy and practice are successful¹¹⁴ and that members of the non professional workforce can often be concerned about how they are perceived by professionals.¹¹⁵ Therefore training professionals to accept and work alongside the wider workforce may be just as important as learning and development opportunities for the non professional and corporate workforce. Studies in the UK and US have suggested that involving service users and non professional staff as *trainers* within professional education courses can improve acceptance and result in more positive attitudes.^{116,117}

Literature suggests that the wider corporate and non professional workforce can have a tangible effect on improving quality and productivity,¹¹⁸ but the value added by providing specific training and development opportunities for these staff is uncertain. Conceptually it appears feasible that training the wider workforce would result in downstream improvements in the services they are able to offer and the extent to which their roles can be expanded. However the empirical grounding for this is sparse.

The paucity of literature in this area means that any work conducted by Skills for Health could add significant value to the knowledge base, as well as having the potential to improve the processes and efficiency of care.

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