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Title Page

Embedding Graduate Employability Skills into Health and Social Care Course - A Scoping Review

Abstract:

This scoping review aimed to explore the graduates' employability skills required for employment in health and social care settings. Electronic literature searches were conducted to identify literature published from 1993 to 2018. The literature reviewed were research papers, educational reports and scholarly papers on graduate employability skills. The literature searches and the review were performed independently by the authors. Out of 121 articles only 42 met the inclusion criteria. The review found the perceptions of graduates, employers and academics who could contribute in developing graduates' employability skills. Service users' involvement was not evident in the literature reviewed so inclusion of their views was recommended as essential in identifying desirable graduates' employability skills.

Key words: Higher education, Employability skills, Stakeholders, Scoping review, Graduate personal attributes

Introduction

Development of graduate employability skills has become increasingly important within Higher Education Institutions (HEIs) to support and promote graduates' employment post qualification. Today's competitive work environment necessitates the acquisition of fundamental and transferable skills to meet the demands of the workplace (Universities UK, 2018). The changing milieu of the work environment in health and social care has influenced prospective employers' expectations of their future employees to be equipped with generic skills particularly problem solving, numerical and analytical skills at a higher level instead of only discipline specific competence.

This scoping review explores research papers, educational reports and scholarly papers to identify the skills necessary for graduates to gain successful and sustainable employment including the concept, meaning and the views of key stakeholders about the employability skills.

Background

Acquisition of employability skills is important for successful employment of graduates. Knight & Yorke (2001) consider the concept of employability as a synergic combination of personal qualities, a range of cognitive, social, emotional and behavioural skills including their application into the challenges encountered. Robbins (1963) and Sumanasiri et al., (2015a) identify that there is a relationship between the employability skills of graduates and their course content at HEIs with the emphasis on integration of employability skills into educational programs by adopting a variety of effective methods in order to promote graduates' employability. Yorke & Knight (2003) assert that HEIs should focus on student learning and in particular the development of transferrable employability skills. Collaboration between HEIs and employers is vital to enable students to

acquire these skills and competence. The relevant regulatory and professional standards require healthcare professionals to develop specific skills and attributes which should be embedded within their training (NMC, 2018; PHE, 2016; UKPHR, 2018 & HCPC, 2018a). Furthermore, employers seek additional employability skills, often regarded as “soft skills” (Finch et al., 2013). HEIs need to facilitate and ensure the achievement of both professional competencies and core employability skills, which include mindfulness, resilience and emotional intelligence. Contrary to stakeholders' expectations, these skills are gained by students' experiences during their work placement experience.

Pool & Sewell (2007) identify that graduates become progressively confident and better adjusted in their workplace through continuous self-monitoring, reflection and self-improvement. The expectation of both employers and professional bodies is that employees need to provide and maintain a personal and professional development plan or portfolio containing evidence of achievement of these skills. York (2001) asserts that students should reflect on their achievements and be aware of opportunities to develop their skills through the curriculum including extra-curricular activities. As lifelong learners, graduates should be facilitated and supported by both HEI's and employers to achieve these skills (Open University, 2007). A common Key Performance Indicator (KPI) for HEIs is that graduates should all be in employment within six months of completing their studies but graduates often find it difficult to articulate the relevant skills and attributes they have developed during their education in an employment application or interview (Open University, 2007). Kneale (2009) asserts that students need to follow a process to develop their employability skills by making clear links to evidence based practice. It is crucial

that employability skills should be embedded throughout their courses as a tripartite responsibility of the employers, the graduates and the education institution.

Work experience helps prepare graduates for the labour market and improves their performance in their workplace (Lowden et al., 2011). Sumanasiri et al. (2015b) suggest the notion that students need to understand the importance of equipping themselves with the necessary requisite skills for the future. Bowden et al., (2000) further emphasize that employability is not just about being successful in their career but also about contributing to society as a citizen. Due to the changing demography of the student population, the education industry needs to be more student-focused and identify how the acquisition of set employability skills shapes the way graduates are prepared for employment. Graduates are expected to be self-directed learners and be able to engage in self-reflection to maintain their levels of competencies in order to meet the needs of industry (Saunders and Zuzel, 2010). It is advantageous to be multi lingual in a multi-cultural society to benefit the health and social care needs of the population.

The aims of this Scoping Review

According to Davis et al. (2009) the intent of a scoping review is to explore all forms of evidence including primary and secondary research using a clear and consistent framework in order to gain an insight into an identified topic. It allows assessment of emerging evidence, as well as a first step in research development and utilizes a variety of relevant literature and studies using different methodologies unlike in a traditional review, meta-analysis and meta-synthesis (Peterson et al., 2017, Pham et al., 2014 & Arksey & O'Malley, 2005).

This scoping review aims to identify employability skills of graduates in health and social care and stakeholders' perception of graduate employability skills. The objectives of this review are: (1) To explore the definition of employability skills; (2) To analyse the views of key stakeholders on graduate employability skills and (3) To discuss possible areas for improving graduate employability skills.

Materials & Methods

The scoping review has used the Arksey & O'Malley (2005) framework to search and select literature, extract data, summarize and report the key review findings.

Search Strategy

A literature search was undertaken using the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, Pub Med and Google Scholar to retrieve published literature from a range of healthcare disciplines including nursing, medicine, physiotherapy and radiology. The literature search comprised of empirical research, reports and scholarly papers published between 1993 and 2018 to explore literature on various aspects of graduates' employability skills. The literature search was conducted in two phases. Phase 1 was carried out in preparation for a conference presentation in 2016. In phase 2 the literature search was broadened to encompass the recent and comprehensive information available on employability.

The search terms were based on the Population, Exposure and Outcome (PEO) model (Law et al., 1996). The databases and final search terms used in this review are detailed in Table 1.

(Table 1: Database and search terms used)

All searches were recorded and saved in an Excel Spreadsheet. To improve the search, the Boolean operators ‘AND’, ‘OR’ and ‘NOT’ were used, which helped to extract all possible literature for the review. The asterisk was also used as a wildcard to truncate words such as program*, curriculum* and employ*.

Inclusion and exclusion criteria

There were no strict limitations placed as to the study design and identification of the relevant studies (Arksey & O’Malley, 2005). Limiters such as English language, published literature, and peer reviewed articles were applied to the search. Both quantitative and qualitative research papers, integrated reviews, reports, conference papers from a range of countries (Table 3) that explored the relevant components were included.

Relevant data were extracted and presented in Table 2 under the following categories: author(s), year of publication, country, title, method/design, aims/purpose, key findings related to the scoping review question. To ensure objectivity and validity, three authors independently conducted literature searches, reviewed, critiqued and approved the results.

(Table 2: Summary of findings)

Results

A total of 121 articles were identified from the databases and Google Scholar search. The relevant literature was selected by reading the abstracts and full texts. A total of 42 publications were selected using inclusion and exclusion criteria. Literature searches were conducted by all the authors. Subsequently, selection of literature, data extraction were performed independently by three of the authors to maintain consistency and establish validity of the review findings. Any disagreements have been resolved by discussion and obtaining consensus between the three reviewers. The summary of data was extracted and presented in the above Table 2 and the types of literature and the country of origin of the papers have been presented in Table 3 highlighting the need for development of graduate employability skills as being a global issue.

(Table 3: Literature types and the origin of study)

The data presented in Table 2 were collated and categorized under three main themes: (1) definitions of employability, (2) development of employability skills in higher education and (3) Elements of employability skills as perceived by the stakeholders.

(1) Definitions of Employability

Employability is a multi-dimensional concept involving a set of skills for preparing graduates for employment. Harvey (1997) states employability is the potential of graduates for demonstrating attributes that employers expect for the effective functioning of their organization. Thus, employment and employability are used in different connotations (Holmes, 2013). The former being able to have a job and the latter means having the qualities needed to maintain employment and progress through reflection, resilience and work experience.

Dearing (1997) and Yorke & Knight (2003) discuss the importance of integrating development of key skills and the life skills to achieve 'education for employability'. Hillage & Pollard (1998) and Parfitt et al. (2013) state that employability is the possession of specific skills enabling an individual to be employed and to remain employed identifying four employability assets: (1) knowledge, skills and attitudes (2) the methods of using these assets (3) presentation of these assets and (4) the context within which the individual works.

Bowers-Brown & Harvey (2004) describe employability as a set of personal attributes, skills and knowledge that HEIs expect its graduates to develop, encouraging them to reflect and articulate what they have learnt. This will enable them to contribute to society and to their profession. Yorke & Knight (2006, p3) define employability as:

"... a set of achievements - skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations, which benefit themselves, the workforce, the community and the economy".

Bennett et al. (1999) provide a framework comprising four broad managerial skills for the development of core and generic skills such as the management of self, others, information and tasks. A range of generic skills embracing these categories are applicable in both education and employment settings of any discipline and workplace.

The framework for HEIs developed by Cole & Tibby (2013) specify a process to reflect on employability in a systematic and holistic manner. Furthermore, they state that rather than

focusing on employer- led demands for employability, a person-centred approach within healthcare settings needs to be encouraged, although embedding these skills into the curriculum could be challenging. Tibby (2015) asserts that along with the discipline specific skills students need to be equipped with interpersonal skills and positive attitudes to increase their employability prospects. These findings are in line with the USEM model which propose four interrelated components of employability comprising of understanding, skilful practice, efficacy beliefs and metacognition. This provides a starting point for any research and discussion of employability skills in higher education (Yorke & Knight, 2004). Macfarlane-Dick & Roy (2006) affirm that employability needs to be embedded in the curriculum through a variety of teaching methods, learning experiences and assessment techniques.

(2) Development of employability skills in higher education

The current emphasis on graduate employability skills requires HEIs to provide the necessary infrastructure and to adopt innovative approaches in curriculum design, its delivery and assessment and to provide students with work placements for exposure to professional settings. Engelbert & Limbach-Reich (2012) find that the Social Sciences graduates are employed immediately after graduation and they tended to assess themselves as more competent. Harvey (2001) admits the primary role of HEIs is to develop students' knowledge, skills, attitudes and abilities to enable them to become lifelong learners. Students' learning support and career guidance services should help students develop their employability skills. Pool & Sewell (2007) present a framework for development learning, which identifies the importance of work and life experience, subject specific knowledge and skills, generic skills consisting of core, key and transferable skills and emotional intelligence. They agree the role of tutors is to motivate

students to successfully achieve their learning goals; particularly by providing feedback to their students so as to enhance their self-confidence. Grant & Kinman (2014) commend the benefits of emotional intelligence which helps healthcare professionals to prevent burnout and to develop empathy towards service users.

Hadley (2017) advocates that universities should have measures to ensure that employability skills are embedded in their degree programs. Belt et al. (2010) report that universities should consider how best to further develop research and policy on employability skills. The consensus of the Australian Nursing Midwifery Council Professional Advisory Group identifies the need for embedding employability skills in the nursing program indicating the top ranked skills are communication, professional behaviours, privacy, dignity and medicine management (Brown & Crookes 2010). Nonetheless, the importance of involving the healthcare employers and their expectations should be considered in developing graduates' self management skills, problem-solving, team-working, literacy and numeracy skills (Rake 2009).

Employability skills of individuals vary depending on the point they are in their career (Belt et al., 2010). Consequently, universities should identify skill sets that will best serve the future labour market and align programs to meet those needs (Weligamage 2009). In addition, the graduates' own construct of employability skills enable their transition from the academic environment to workplace (Tomlinson, 2012). Thus, universities need to train students through work experience including fieldwork, industry-based learning, part-time employment, volunteer work cooperative education, work placements and internships (Jackson, Lower and Rudman,

2016). With the development of information technology, the role of the library has become of prime importance for development of work relevant skills (Wiley, 2014).

(3) Employability skills as perceived by the stakeholders

There is general debate as to what employability skills are expected of new graduates. In the modern world, due to the challenges of the constantly changing work environment and globalization of industries, employers are looking for soft skills such as communication, interpersonal skills, team working, entrepreneurship, resilience, reflection, problem solving and positive attitudes toward work (Brown & Crookes, 2016; Finch et al., 2013; Pegg et al., 2012; Craig & Piskur, 2012; Lowden et al., 2011; Belt, Drake & Chapman, 2010; Saunders & Zuzel 2010; Open University 2007; Cotton, 1993). Jackson, Lower and Rudman (2016) recognize that there is a skills gap in some graduates. Therefore, new graduates must be helped in developing the necessary employability skills. Draper et al (2014) put forward the critical role of mentors in facilitating supportive environments in practice resulting in positive transition, expectations, learning in practice and flexibility. Graduate skills and performance befitting the organizational culture and goals are equally important (Collet et al., 2015). Additionally, Van Sheppingen et al. (2015) recognize the importance of 'vitality at work' in maintaining organization culture. This is supported by Weligamage (2009) who adds that willingness to continue to learn, flexibility, adaptability, risk-taking and self-discipline skills are essential to enhance employability skills. Intriguingly, Finch et al. (2013) state that employers prefer job experience to academic reputation, although they still give it some consideration. The nursing and pharmacist students

recognised that the employability skills should meet the needs of present and future workforce and be embedded in the curriculum (Pusey -Murray, Daly & Stewart , 2018).

Donik et al. (2015) observe that graduates often underestimate their own level of competence compared to their employers. Graduates further express that they need support in application writing and interviewing skills (Dray et al., 2011). While identifying the Physiotherapy graduate's attributes, Stewart et al. (2016) emphasize the benefits of feedback students received in the class room in developing self-confidence and achieving their learning outcomes.

Ju et al. (2014) state that some employability skills and personal attributes are valued by both educators and employers, regardless of any disability of students. These included time keeping, respect, integrity, honesty and the ability to follow instructions. However, safety is the major concern of employers while recruiting employees with disabilities. Interestingly, some academics believe that social skills are the most important skills whereas, employers ranked basic work skills as the most important skill.

Ranta et al. (2017) identify employers' expectations of nurses as being: working with others, evidence-based nursing, risk management, decision making, interpersonal skills, social skills and coping with uncertainty and ambiguity. They also emphasize that nurses should be able to initiate their own learning and the teaching of others. The need for developing transversal competencies by a teacher to learner centred approach, transition from monodisciplinary to multidisciplinary or transdisciplinary learning environments have been highlighted by

employers. Hinchcliffe & Jolly (2011) further assert that graduates should demonstrate a commitment to their employer, such as loyalty and trustworthiness.

Sisodia & Agarwal (2017) identify India's healthcare industry's required employability skills as being teamwork, interpersonal skills, critical thinking, problem solving, communication and self-management skills. Belt et al. (2010) state that some employers find that graduates were well prepared for work and also highlight that use of employability skills is a continual process and will vary throughout individuals' careers. However, employment skills and employability skills are not the same and employers look for an array of basic skills such as communications, problem solving, positive attitudes toward work, dependability and responsibility (Cotton, 1993).

Curtis & McKenzie (2001) state that graduates who are perceived as being more capable and confident in their abilities to make decisions and set goals, are more able to work collaboratively with others and better able to continue to grow and develop from their experiences. A graduate seeking employment should be focusing on continuous personal and professional development in pursuit of improving their performance through continuing self-aware, reflective, resilient, self-directed lifelong learning. However, Naula et al. (2009) assert that employees who are satisfied with the organization culture tend to be more complacent and less likely to make any career progression.

HEIs are taking the initiative to ensure students engage with employability skills and embed them in the curriculum for all disciplines (Fallows & Steven, 2000). Trad (2011) further affirms the importance of the implementation of 'service learning projects' for Radiotherapy students for

them to develop social skills, civic mindedness and to take responsibility for contributing to their communities thus enhancing their employability. This initiative is meeting students' expectations in terms of knowledge gain, developing the right attitudes and gaining workplace experience that relates to their employment and life-long learning. Lowden (2011) reports that HEIs and employers should continue to work in partnership in providing students with the opportunity to access work-based learning enabling them to develop a range of generic skills which will have an impact on their employability.

Discussion

Bandura (1995) affirms that achievement of educational goals equips students with intellectual abilities, self-efficacy and self-confidence. Furthermore, internal reinforcement, appreciation of student performances and their ability to translate research based information into practice motivates and encourages them to learn and become reflective life-long learners. From the above review, it is pertinent that development of graduate employability skills have become major concerns of HEIs, educators, employers and graduates to maintain the sustainability of graduate employment. HEIs are increasingly focusing on developing a range of graduate skills to prepare them to succeed in the world of work. A measure of success by HEIs is the number of graduates in full time employment within six months to a year of graduation.

Yorke (2004) states employability is a set of skills, knowledge and personal attributes that enable a person to be suitable for the job market and make graduates more likely to obtain employment and be more successful in their chosen occupations. HEIs must work in partnership with

employers to introduce and create better learning environments, teaching methods, curriculum content to promote employability to provide placements and work-based learning opportunities. It is crucial that graduates, employers and HEIs work together to promote and sustain employability measures. Collaborative and partnership working between HEIs and employers is essential to promote work-related experience

Students value the feedback they receive to reflect on and to enhance their self-appraisal skills which enables them to better develop critical analysis, problem solving, communication skills and emotional resilience (Stewart et al., 2016; Grant & Kinman, 2014). It is important to support and facilitate graduating students in developing their competences in information, communication and technology (ICT) to cope with complex and challenging situations and to sustain their employability (Craig & Piškur 2012). This is important as Dray et al. (2011) report that newly qualified nurses encountered difficulties in gaining employment due to poor application and interview techniques. It is imperative that HEIs include interviewing and application writing skills in the curriculum along with helping students to communicate their skills and achievements to others including employers (Open University, 2007).

Employers are expecting skills from graduates that are beyond the subject specific knowledge and competences obtained in the HEIs. Employers and universities often mention the need to develop graduate entrepreneurship and enterprise skills (Pegg et al., 2012). More focus on development of graduate generic and social skills needs to be paid in order to meet the current competitive and rapidly changing healthcare industries due to advancement and impact of information technology (Sisodia & Agarwal, 2017). York (2001) asserts that universities need to

offer students opportunities to develop themselves through participation in clubs, societies and university life.

In order to meet the needs of the changing workplace 'soft skills' need to be embedded in the curriculum. It is crucial that graduates have the opportunity to practice these transferrable skills before entering employment (Sisodia & Agarwal, 2017). These basic skills need to be further developed to be fit for purpose once the graduates are in employment. Employers should ensure graduates' skills are further enhanced by providing appropriate learning opportunities during their employment. However, it is crucial graduates take responsibility for their own development and keep abreast with advancement in their own areas of practice. They need to be self-aware and to self-monitor and attend regular education and training programs. They should also reflect on the feedback they receive from different members of the healthcare team and patients. It is helpful for graduates to discuss their reflection with a senior team member (NMC, 2018 & HCPC, 2018b). This may help to refine their knowledge and competence essential for being 'fit for practice' enabling them to continually develop and refine their employability skills as a lifelong process. This is demonstrated in Figure 1. This illustration has been created by the authors.

(Figure 1: Framework for enhancing employability skills)

There is growing recognition that effective service users' involvement in planning and organising education programs and services will improve outcomes and increase people's satisfaction with the services (Warren, 2007). Service users play an important role in the

development of the future workforce and their involvement is being seen as a key indicator when examining the student journey from recruitment to successfully completing their program of learning (Garwood and Hassett, 2019). Their feedback is vital to identify graduates' competence and capability as they are the recipients of the care services. Their direct experiences of using services gives them a unique insight into what works, which is essential for improving services (NHS, England, 2015).

During the process of this review the authors have not found any literature on the perspective of service users. Thus, there is a lack of evidence about what service users think about graduates' employability skills. A gap in knowledge about the service users' views and perceptions of the key attributes of graduates in the effective and efficient delivery of their services in the ever-changing health and social care environment suggests for conducting future research.

This scoping review illustrates that developing graduate employability skills is a global issue. Educational institutions and employers across the world identify that the need for development of basic/generic skills is crucial along with subject specific skills and this can be achieved by effective work-based learning opportunities during the course and employment.

Study limitations

This scoping review explores graduates' employability skills as embedded only in health and social courses. Inclusion of employability related to other disciplines may yield a richer data applicable to health and social care.

Literature selected for this review included published papers from 1993 to 2018. Thus, relevant articles outside this time period on employability may have been missed.

Exclusion of foreign language publications and grey literature in this review may have potentially missed significant information regarding graduate employability.

Recommendations:

Further research is needed to identify service users' perceptions on graduates' employability skills and to determine if the HEIs and the employers are using the appropriate KPIs incorporating employability skills to improve service users' experience.

Conclusion

This review provides evidence that the landscape of higher education is changing in order to meet the constantly evolving expectations of health and social care environment. Graduates should be supported to acquire soft skills along with the subject specific knowledge and competencies in order to enhance their employability success. Undergraduate programs need to equip graduates with the required transferable lifelong learning skills demonstrating their self-efficacy and self-management skills in order to be successful in their careers and to contribute to society.

Employers appreciate soft transferable skills more than subject-specific skills in potential employees. The identifying and embedding of employability skills is essential in curriculum development conducted in partnership and collaboration with HEIs, employers, graduates and service users in order to meet the health and social care needs of society.

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Table 1: Database and search terms used

Denominator	Alternative search terms used	Database searched
Population	<ul style="list-style-type: none">• Graduates	<ol style="list-style-type: none">1. CINAHL Complete2. Medline3. Pub Med
Exposure	<ul style="list-style-type: none">• Undergraduate curriculum• Higher Education	
Outcomes	<ul style="list-style-type: none">• Competence• Graduate's attributes• Employability skills• Employment	

Table 2: Summary of findings

Author /Year/Country of origin	Title	Type of literature	Purpose	Key Findings
Belt, V., Drake, P., & Chapman, K. (2010) U.K.	Employability Skills: A Research and Policy Briefing.	Literature review	To stimulate discussion amongst the policy-making community on how best to further develop research and policy on employability skills.	<ul style="list-style-type: none"> • The skills vary during the individuals' careers, making employability a continual process. • Employers focus on soft skills and found the graduates were well prepared for work.
Bennett, N., Dunne, E., & Carré C. (1999) U.K.	Patterns of core and generic skill provision in higher education.	Qualitative research	To gain an enhanced understanding of the acquisition and development of core and generic skills, both in the education and the employment setting.	<ul style="list-style-type: none"> • Further analysis of teachers' conceptions and beliefs, and students' perceptions of skills outcomes is required for the development of the core and generic skills that can influence future policy development.
Bowers-Brown, T., & Harvey, L. (2004) U.K.	Are there too many graduates in the UK?	Literature review	To analyse graduates employability and increase participation and employability debate	<ul style="list-style-type: none"> • The government will continue to increase participation of those aged 18–30, mainly through two-year, work-focused 'foundation' degrees. • Employability involves a concerted holistic approach to developing students' study skills. • Both the foundation degree and Graduate Apprenticeship will enable the students to develop further into their career. • Widening participation should be promoted.

Brown, R.A., & Crookes, P.A. (2016) Australia	What are the 'necessary skills for a newly graduating RN? Results of an Australian survey.	Qualitative Research	To identify the necessary skills expected of newly registered nurses	<ul style="list-style-type: none"> • Top ranked skills identified are communication, professional behaviours, privacy dignity and managing medication administration.
Cole, D., & Tibby, M. (2013) U.K	Defining and developing your approach to employability: a framework for higher education institutions.	Conference paper	To develop a framework for HEI's – to reflect on employability in a systematic and holistic manner.	<ul style="list-style-type: none"> • Framework can be used at a range of levels from senior management to academic departments, course teams and the student union.
Collet, C., Damian Hine, D., & du Plessis, K. (2015) Australia	"Employability skills: perspectives from a knowledge-intensive industry",	Qualitative Research	To assess graduate skills requirements in a knowledge-intensive industry from a demand perspective as distinct from a curriculum.	<ul style="list-style-type: none"> • Ten broad constructs that represent cognitive, interpersonal and intrapersonal skills domains as applied in this industry. • Prominent skills are identified as knowledge, leadership and interprofessional collaboration. • Employers' perceptions of graduate skills specifically centre on organisational fit and organisational success.
Cotton, K. (1993) USA.	Developing Employability Skills	Literature review	To discuss the need for educational reform and restructuring typically include concern about the gap between the skills requirements for entry-level employment and the skill levels of entry-level job applicants.	<ul style="list-style-type: none"> • Employers want entry -level employees to possess an array of basic employability skills. • Employment and employability skills are not the same theme. • Employability skills are best learned when they are included among instructional goals and explicitly taught.

				<ul style="list-style-type: none"> Communications, problem solving, positive attitudes toward work and dependability/responsibility are required.
<p>Craig, C., & Piškur, B. (2012)</p> <p>U.K.</p>	<p>Student perspectives on the development and evaluation of a joint international education.</p>	<p>Qualitative Research</p>	<p>To explore student perceptions on the development and evaluation of a joint international education to promote employability in Europe.</p>	<ul style="list-style-type: none"> Overall students felt that their learning had facilitated competence across a range of areas. The breakdown of the themes identified: <ol style="list-style-type: none"> International dimension Information communications technology (ICT) Professional skills and understanding Professional identity Considerations for the future ICT is key to enhancing employability of disadvantage groups.
<p>Donik, B., Pajnikihar, M., & Bernik, M. (2015)</p> <p>Slovenia</p>	<p>Employability of Nursing Care Graduates.</p>	<p>Quantitative Research</p>	<p>To investigate the employability of nursing care graduates. Identify which competencies are expected by employers.</p>	<ul style="list-style-type: none"> Employers rated individual competence achievement higher.
<p>Draper, J., Beretta, R., Kenward, L., McDonagh, L., Messenger, J., & Rounce, J. (2014)</p> <p>U.K.</p>	<p>Ready to hit the ground running': Alumni and employer accounts of a unique part-time distance learning</p>	<p>Qualitative Research</p>	<p>To identify alumni and employer views of the perceived impact of the program (OU pre-reg nursing) on employability, career progression and workplace development.</p>	<p>Over-arching themes:</p> <ul style="list-style-type: none"> Preparation of students for the transition to qualified practice; reinforce the need for systematic preceptorship.

	pre-registration nurse education program		'practice readiness' and 'potential gaps'	<ul style="list-style-type: none"> • Pre-course information to alert students to the realistic demands of the course. • The crucial role of mentors in facilitating supportive learning environments in practice.
Dray, B., Burke, L., Hurst, H. M., Ferguson, A., & Marks-Maran, D. (2011) U.K.	Enhancing the employability of newly qualified nurses: a pilot study.	Qualitative Research	To examine the impact of the 'Enhanced Employability Event' on success in gaining employment as a qualified nurse	<ul style="list-style-type: none"> • Poor application and interview techniques. • Candidates felt they needed skills development in application-writing and interview techniques. • Six months later the post-event questionnaire evaluations were overwhelmingly positive.
Engelberg, E., & Limbach-Reich, A. (2012) Luxemborg	After the Bologna Reform: Employability of Bachelors in Social and Educational Work in Luxembourg.	Quantitative Research	To follow-up the success in gaining employment on the newly qualified Bachelors in Social and Educational work. To explore self-reports of practice proficiency as acquired in a university.	<ul style="list-style-type: none"> • BSSE graduates were hired sooner after graduation than EG group. • BSSE more interested working in disabled persons, children and adolescents respectively while EG were interested working in children, disabled and adolescents respectively • BSSE students perceived their chances on the labour market to be fairly good. • Graduating students tended to assess themselves as more competent.
Fallows, S., & Steven, C. (2000) U.K.	Building employability skills into the higher education curriculum: a university-wide initiative.	University – wide review	To establish an initiative to ensure that each of its students engages with employability skills and has embedded this within the academic curriculum for all disciplines.	<ul style="list-style-type: none"> • Adoption of innovative methodology which blend skills provision into academic content to create student interest in problem solving.

Finch, D., Hamilton, L.K., Baldwin, R., & Zehner, M. (2013). Canada	An exploratory study of factors affecting undergraduate employability.	Mixed methods Research	To increase our understanding of factors that influence the employability of university graduates	<ul style="list-style-type: none"> • Employers look for soft-skills when hiring new graduates i.e., problem-solving skills, critical thinking skills and reflective skills. • Employers placing the least importance on academic reputation when hiring new graduates. • Team work skills and information gathering skills were not included in this study.
Grant, L., & Kinman, G. (2014) U.K.	Emotional Resilience in the Helping Professions and how it can be enhanced.	Literature review	Impact of emotional resilience on wellbeing and employability of the healthcare professionals	<ul style="list-style-type: none"> • Emotional intelligence is important for development of resilience through reflection. It helps the healthcare professionals to prevent burnout, be optimistic and to develop accurate empathy to help the service users/ clients. • Emotional resilience can be developed through pre -reg education and work based learning.
Hadley, J. (2017) U.K	Employability Skills and Graduate Attributes.	Literature review	To assess the major role of the universities in providing students with employability and graduate attributes.	<ul style="list-style-type: none"> • Skills and attributes that employers expected did not match the skills and attributes from new graduates. • Universities must continually monitor their programs and assessment methods to ensure they are delivering the attributes required by local employers.
Harvey, L (2001) U.K	Defining and Measuring Employability.	Literature review	To examine the operationalisation of employability as a concept .	<ul style="list-style-type: none"> • Whatever measure of 'employability' is adopted within a higher education system, it is necessary to assess its impact.

Hillage, J., & Pollard, E. (1998) U.K.	Employability: developing a framework for policy analysis.	Literature Review	To review the relevant literature, supplemented by discussions with DfEE officials and others, to come up with a definition and framework for employability to help inform future policy developments.	<ul style="list-style-type: none"> • Employability is a two-sided equation and many individuals need various forms of support to overcome the physical and mental barriers to learning and development.
Hinchliffe, G. W., & Jolly, A. (2011) U.K.	Graduate identity and employability.	Quantitative Research	To develop the concept of graduate identity as a way of deepening the understanding of graduate employability.	<ul style="list-style-type: none"> • In constructing graduate identity one needs to consider: <ol style="list-style-type: none"> 1. Employer requirements. 2. Graduates need to demonstrate that they have held positions of trust 3. Demonstration of trust often requires a practical commitment
Holmes, L. (2013) U.K.	Competing perspectives on graduate employability: possession, position or process?	Literature review	To identify the distinction between employment and employability.	<ul style="list-style-type: none"> • Graduate employability: <ol style="list-style-type: none"> 1. To be conceptually and theoretically robust, to be empirically supported and to provide a basis for curriculum intervention. 2. Evidence provides a sound basis for curriculum and other forms of intervention to enhance graduate employability
Jackson, K., Lower, C.L., & Rudman, W. J. (2016)	The Crossroads between Workforce and Education.	Qualitative Research	To gain an understanding of the perceived disconnect between academic preparation and employer	<ul style="list-style-type: none"> • Academic programs should promote real-world experience and hands-on training, and the continued learning of recent graduates.

USA			needs in the skill sets of graduates entering the health information workforce.	<ul style="list-style-type: none"> • Academic curricula must be supported by key industry and business professionals. • A skills gap has been recognised by both employers and educators.
<p>Ju, S., Pacha, J., Moore, K., & Zhang, D. (2014)</p> <p>USA</p>	<p>Employability skills for entry-level employees with and without disabilities: A comparison between the perspectives of educators and employers</p>	Quantitative Research	To investigate both educators' and employers' perspectives on general employability skills for individuals with and without disabilities.	<ul style="list-style-type: none"> • Both employers and educators had higher expectations for individuals without disabilities. • Some employability skills are valued by both educators and employers for all entry-level employees, regardless of the type of disability; including the ability to be on time, the ability to show respect for others, demonstrating personal integrity/honesty in work, and the ability to follow instructions. • Safety was one of the major concerns. • Educators regarded social skills as most important, followed by personal traits, basic work skills, basic skills, and higher-order thinking skills, whereas employers ranked basic work skills and basic skills as the top two most important skill areas. • Educators should hold high expectations for all students and put more effort into preparing students with disabilities to meet employers' demands.
Lowden, K., Hall, S., Elliot, D., & Lewin, J. (2011).	Employers' perceptions of the employability	Qualitative Research	To explore the perceptions of employers and HEI staff concerning the skills,	<ul style="list-style-type: none"> • Employers expect graduates to have technical and discipline competences from their degrees, as well as a range

U.K	skills of new graduates.		knowledge and characteristics which help undergraduates /new graduates to be employable.	<p>of broader skills i.e., team-working, communication, leadership, critical thinking, problem solving and managerial abilities.</p> <ul style="list-style-type: none"> • Employers, students/graduates and HEI representatives value work-based learning and continue to promote and expand opportunities for students to access work-based learning. • HEIs and government to explore how careers services can be enhanced and resourced to promote employability activities by addressing issues and barriers between employers and expectations and priorities • Where partnerships are sustained employers can have an impact on employability approaches, particularly when involved in course design.
Macfarlane-Dick, D., & Roy, A. (2006) U.K.	Enhancing student employability: innovative projects from across the curriculum.	Literature review	To share best practices where demonstrated innovative practice works and can be adapted/ transferable to other disciplines.	<ul style="list-style-type: none"> • Employability needs to be embedded in the curriculum (through a variety of teaching methods, learning experiences and assessment techniques).
Nauta, A., van Vianen, A., van der Heijden, B., van Dam, K., & Willemsen, M. (2009)	Understanding the factors that promote employability orientation: The impact of	Quantitative Research	To investigate the relationships of organizations employability culture with workers' employability orientation	<ul style="list-style-type: none"> • Stimulating workers' employability orientation is advantageous for both organizational and employee outcomes. • Employees who are satisfied with their current career situation are less

Holland	employability culture, career satisfaction, and role breadth self-efficacy.		and turnover intention, in addition to relationships .	oriented towards their broader employability and less likely to make any career steps.
Parfitt, J., Probert, D., Simpson, R., Glennon, J., Rowan, S., & Sauvé. (2013) U.K	Employability Skills Matrix for Health.	Literature review	To identify a matrix which can be used by employers, human resource directors and commissioners of services. .	A matrix defines the employability skills which are: <ul style="list-style-type: none"> • Appropriate personal skills, qualities, values, attributes and behaviours, required by staff working at • Career Framework level 1 -9 and in different roles across the health sector which includes independent, voluntary, charitable and NHS services.
Pegg, A., Waldock, J., Hendy-Isaac, S., & Lawton, R. (2012) U.K.	Pedagogy for employability.	Report	A resource for teaching staff to review and develop their own understanding of employability, moving beyond the institutional employability strategy.	<ul style="list-style-type: none"> • Employers' expected employability skills include: <ol style="list-style-type: none"> 1. Business and customer awareness. 2. Problem solving 3. Communication and literacy 4. Application of numeracy 5. Application of information technology • Both employers and Universities frequently mentioned of entrepreneurship and enterprise skills.
Pool, L.D., & Sewell, P. (2007) U.K	The key to employability: developing a practical model of graduate employability	Literature review	To present a practical, coherent model, that is firmly based on existing research findings in employability and on the various individual elements	<ul style="list-style-type: none"> • A framework, Career EDGE was proposed in which career component stands for development learning while E stands for work and life experience. D stands for degree subject, the knowledge and skills, G

			that make up the framework.	stands for generic skills, skills which could be core skills, key skills or transferable skills while E stands for emotional intelligence.
Pusey-Murray, A., Daly, A., & Stewart, A. (2018) Jamaica	Nursing and Pharmacy Students' Perception of Employability Skills in a Selected University in Kingston, Jamaica	Quantitative Research	To identify the perceptions of employability skills of undergraduates at a university in Kingston, Jamaica.	<ul style="list-style-type: none"> • Nursing and pharmacy students' perceptions of employability skills that needed to meet present and future workforce were the same. • Recognised challenges that need to be addressed in order for the students to be marketable. • It is important that they are developed throughout their course of study.
Rake, M. (2009) U.K	The Employability Challenge: Full Report	Report	Development of employability skills which are beyond the traditional academic and vocational training provided by the various education providers in the country.	<p>Development of employability skills entails:</p> <ul style="list-style-type: none"> • Work experience, experiential action learning and reflection and integration. • Employer involvement. • Institutions need to transform practice and outcomes. • Employers from business sector also have similar expectations as the healthcare sector, such as self-management skills, problem solving, team working, literacy and numeracy skills.
Ranta, L., Sievers, A., & Guiland, A.(2017) Finland	Shared responsibility of higher education Institutes and their partners in	Qualitative Research	To determine the employers' expectancy of competences required of a nurse to work in the private, public and third sector.	The critical competences requested by employers of nurses in Southern Finland are:

	assuring nursing students' employability skills.			<ul style="list-style-type: none"> • Working with others; Mobilizing resources; Coping with uncertainty, ambiguity & risk; mobilizing others and taking the initiative
Saunders, V., & Zuzel, K. (2010) U.K.	Evaluating Employability Skills: Employer and Student Perceptions,	Quantitative Research	To evaluate student employability skills from the perspective of sandwich students, graduates in biomolecular science and their employers. To compile a skills inventory based on the needs of employers and incorporate into an employability skills profile.	<ul style="list-style-type: none"> • Employers ranked a number of the personal attributes and core skills more highly than technical and subject-specific skills. • There was strong convergence of student/graduate and employer perceptions of the relative importance of the different employability skills. Interestingly however, students rated technical skills more highly than the employers. • Aligning employability with academic values by making explicit links between the curriculum and employability.
Sisodia, S., & Agarwal, N. (2017) India	Employability Skills Essential for Healthcare Industry.	Literature review	To identify the employability skills required in India's healthcare industry.	<p>The essential employability skills for health industry:</p> <ul style="list-style-type: none"> • Communication skills, ICT skills, Work Psychology skills, Teamwork skills, Interpersonal skills, Critical Thinking and Problem-Solving skills, Self-management skills, Planning and Organizing skills and Conceptual and Analytical skills.
Stewart, J., Shanmugam, S., & Seenan, C. (2016) U.K.	Developing 21st century graduate attributes: incorporating novel teaching	Qualitative Research	To explore the perceptions of learning in students' first year in higher education	<p>Benefits of feedback</p> <ul style="list-style-type: none"> • I don't know if I'm doing the right thing • It all comes down to confidence.

	strategies in a physiotherapy curriculum.			<ul style="list-style-type: none"> It is important to provide opportunities for feedback in class, including peer feedback and the opportunity to lead in group work.
<p>The Open University (2007)</p> <p>U.K</p>	Enhancing Employability	Literature review	To encourage thinking and promote action to embed employability in the curriculum.	<ul style="list-style-type: none"> Employability can be enhanced in curriculum development, design or delivery by: <ol style="list-style-type: none"> Explaining where course or award learning outcomes are also relevant to career development. Helping students identify and record evidence of their achievements; Helping students to communicate their skills and achievements to others, including employers. Helping students recognise that employability, like building self-confidence and a sense of achievement.
<p>Tibby, M. (2015)</p> <p>U.K.</p>	Embedding employability in your institution: What works?	Conference presentation	To define employability skills; what it is, what it is not, and the key elements to consider.	<ul style="list-style-type: none"> Employability is relevant to all students, and at all levels of study and so includes both undergraduate and postgraduate provision.
<p>Tomlinson, M. (2012)</p> <p>U.K.</p>	Graduate Employability: A Review of Conceptual and Empirical Themes.	Literature review	To provide an overview of some of the dominant empirical and conceptual themes in the area of graduate employment and employability over the past decade.	<ul style="list-style-type: none"> Different labour market perceptions, experiences and outcomes of graduates in the United Kingdom and other national contexts. The ways in which students and graduates construct their employability and begin to manage the transition from HE to work.

				<ul style="list-style-type: none"> • The extent to which future work forms a significant part of their future life goals is likely to determine how they approach the labour market, as well as their own future employability. • A broader understanding of employability than that offered by policymakers.
Trad, M. (2011). USA	Increasing Radiation Therapy Graduates' Employability Through Service Learning.	Quantitative Research	To determine whether the implementation of a service learning project would increase the employability of new radiation therapy graduates.	<ul style="list-style-type: none"> • The level of education and experience are the most important qualities of Radiation Therapists when hiring new employees. • Participating in service learning projects promotes civic mindedness. • Students who have participated in service learning projects as part of their radiation therapy curriculum could stand out among other applicants.
van Sheppingen, A. R., de Vroome, E. M. M., ten Have, K. C. J. M., Zwetsloot, G. I. J. M., Wiezer, N., & van Mechelen, W.(2015) Holland	Vitality at work and its associations with lifestyle, self-determination, organizational culture, and with employees' performance and sustainable employability.	Quantitative Research	To contribute to knowledge on how to promote vitality at work.	<ul style="list-style-type: none"> • Organizational culture support self-determination, and cultural aspects themselves are positively associated with vitality, organizational culture seems particular important in promoting vitality at work. • The associations between vitality at work and effective personal functioning and sustainable employability endorse the combined health-based, business-related and societal importance of vitality at work.

				<ul style="list-style-type: none"> • Vitality at work is also associated with effective personal functioning and with sustainable employability.
<p>Weligamage, S. S. (2009)</p> <p>Sri Lanka</p>	<p>Graduates' Employability Skills: Evidence from Literature Review.</p>	<p>Literature review</p>	<p>To identify the employer skills needs in different countries</p>	<ul style="list-style-type: none"> • Employability is a core set of desirable attributes, such as communication skills, interpersonal skills and team working, problem solving, analytic, critical and reflective ability, willingness to learn and continue learning, flexibility and adaptability, risk-taking and self-skills and these attributes are often independent of the degree subject. • Skills definitions, employer expectation and requirement differ according to different countries
<p>Wiley, M (2014)</p> <p>U.K.</p>	<p>A review of literature on current practice in the development of employability skills.</p>	<p>Literature review</p>	<p>To collate and review the literature on current practice in the development of employability skills.</p>	<ul style="list-style-type: none"> • Libraries can provide a strong contribution to employers' requirements for students to develop work-relevant skills. • Collaborative working between libraries and other student services – particularly careers – benefits all parties and can lead to successful library involvement in employability skills development programs. • Library's information are valuable in order to demonstrate the relevance of the library's offerings. Linked with this is a need to ensure Library web pages (and staff) clearly outline the

				relevance of their training offer for employability skills development.
Yorke, M., & Knight, P.T. (2006) U.K	Embedding employability into the curriculum.	A guide / reader for HE lecturers (Higher Education Academy	To discuss employability, how to embed it into the curriculum, and the related pedagogy.	<ul style="list-style-type: none"> • Employability is a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy. • Employability can be enhanced through personal development planning, but success will depend upon the extent to which students see a ‘pay-off’ for the effort that they put in.

Table 3: Literature types and the origin of study

Literature types	Number of studies
Case Conference	1
Case studies	2
HEA Conference presentation	1
Higher Education Academy publications	2
Literature review	11
Mixed methods	1
Qualitative	9
Quantitative	9
Report	4
Research brief	1
University wide review	1
Origin of study	Number of studies
Australia	2
Canada	1
Finland	1
India	1
Luxembourg	1
Holland	2
Jamaica	1
Slovenia	1
Sri Lanka	1
United Kingdom	27
United States of America	4

Figure 1: Framework for enhancing employability skills

