Experience and experiential learning : perceptions of the diabetes educator role

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Experience and experiential leaning: Perceptions of the diabetes educator role

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Article points

1. Diabetes educators use skills learned both experientially and formally when providing education and care for people with diabetes.
2. Respondents felt that length of time in the role and formal accreditation were the best indicators of an experienced diabetes educator.
3. Being regularly involved in the delivery of clinical care was seen as essential in an experienced diabetes educator.

Key words

- Diabetes educators
- Experiential learning
- Reflection
- Credentialling
- Experience

A great deal of learning associated with specialty nursing roles occurs informally and experientially. Here, the authors explore experience and experiential learning in the professional development of nurse diabetes educators. The role of experiential learning in the acquisition of diabetes education and management skills, and the ways in which experiential learning can be quantified for the purposes of demonstrating professional competency, are discussed in the light of data collected from two questionnaires distributed to diabetes educators and endocrinologists, and a series of focus groups.

Specialty nursing roles are often implemented in clinical settings before formal education programmes are available. Thus, experiential learning (EL) acquired through work and life experiences, underpins specialty nurse roles (Whyte et al, 2000). The concept of EL is embedded in adult education theories such as those of Dewey, Piaget and Knowles (Kolb, 1984). Kolb (1984) defined EL as: "The process whereby knowledge is created through the transformation of experience".

EL is a continuous, cyclic process consisting of experience, reflection and action that enables new information to be integrated into an individual's existing knowledge base and competency frameworks (i.e. knowledge in store), and with the ability to recall and apply the information in future situations (Eraut, 2004). However, EL often remains hidden. Reflective processes, such as concept mapping, critical incident reviews, professional portfolios, case study vignettes, and oral and written examinations, help make EL visible (i.e. they reveal hidden knowledge; Moon, 1999).

EL from many life experiences can be applied to diabetes education and management. These include work, homemaking, volunteer activities, informal courses, travel, recreational activities and discussions with experts (the Alliance and the American Council on Education, 1995). For example, EL derived from membership of school committees includes communication, programme management and group processes. Thus, EL is part of nurses' professional identity but individual nurses have different experiences, which makes it difficult to devise "blanket rules" about what EL is relevant to diabetes education.

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Aims of the study

The aims of the present study were to explore:

1. Diabetes educators' (DEs'), endocrinologists' and academics' perceptions of experience and EL relevant to the DE role.
2. The processes DEs use to document their EL.

Endocrinologists were included in the study because they work closely with DEs and provide a great deal of formal and informal diabetes eduction.

Methods

Data were collected using two one-shot cross-sectional anonymous questionnaires (one sent to DEs, the other to endocrinologists), and three focus groups attended by DEs and nurse academics.

Questionnaires

Questions were derived from a comprehensive literature review and were pilot-tested for face and content validity, clarity and comprehension. They performed well and elicited relevant data. No questionnaires were unanswered and no respondents reported any difficulty understanding the questions. The questionnaires consisted of three domains:

- nine standard demographic data questions using tick boxes and lists of relevant options.
- 10 questions concerning experience and EL (most of which were open-ended).
- 17 true/false attitude questions.

Responders were asked to describe the factors that indicate a DE is experienced, the types of EL that could be applied to diabetes education and management, and to comment on how EL could be demonstrated and measured.

The population surveyed comprised nurse DEs (225) on the membership list of the Australian Diabetes Educator Association (ADEA, Victorian branch, Australia) and endocrinologists (45) randomly selected from major Victorian hospitals and private practices. DEs and endocrinologists were from a range of practice settings and geographical areas. Return of the questionnaire was taken as consent to participate.

Focus groups

Three focus groups were held to explore issues arising from the responses to the questionnaires and to ensure that other professionals with a stake in diabetes education agreed with the researchers' interpretation of the data.

Group A comprised 12 DEs regarded as experienced by their peers. Group B comprised 10 nurse academics and one participant from a private education provider that offers a Graduate Certificate in Diabetes Education, all recruited via letters sent to the heads of the nursing departments at relevant universities and private education providers. Group C was a mixed group that comprised nine DEs, two nurse academics randomly selected and a representative from the Nurses Board of Victoria (the body that registers nurses for practice in Victoria).

An independent facilitator conducted the focus groups to limit researcher bias. The group discussions were audio-taped, transcribed verbatim and analysed for recurring themes and group similarities and differences.

Data analysis

Descriptive statistics, frequencies and percentages were used to analyse closed-ended questions from the questionnaire. The researchers independently undertook content analysis of the focus group transcripts and open-ended questions on the questionnaires using the Framework Method (Ritchie and Spencer, 1994) and then met to discuss and confirm their interpretation of the data. The Framework Method is a five-stage deductive process that involves becoming familiar with the data by listening to the audio tapes to recognise recurring words and topics.

Results

DE questionnaire findings

Completed questionnaires were returned by 108 DEs, giving a response rate of 48.0% (a higher response rate than achieved in other surveys of this population; Dunning, 2004). Seven per cent of respondents were males and 87.9% were females (5.1% did not provide gender information), which is proportionally representative of the ADEA membership.

Page points

1. The present study aimed to explore perceptions of experience and experiential leaning relevant to the diabetes educator role.
2. Data were collected using questionnaires and focus groups. Participants comprised diabetes educators, nurse academics and endocrinologists.
3. Responders were asked to describe the factors that indicate a diabetes educator is experienced, the types of experiential leaning that could be applied to diabetes education and management, and to comment on how experiential leaning could be demonstrated and measured.

Page points

1. Nursing was seen as the foundation of the diabetes educator role and nursing and diabetes educator roles were seen as continuous.
2. The predominant theme relating to experience and experiential leaning that emerged was the time–experience dyad.
3. Most respondents indicated that time was an important indicator of experience and suggested that 5–10 years in the diabetes educator role were necessary before a DE could be regarded as "experienced".
4. The ability to recognise recurring patterns was seen as an essential component of the diabetes educator's ability to provide quality clinical care.

Participants were most commonly 45–59 years of age (range 26–70 years). Thirty-three per cent were ADEA credentialled. Most participants (45.3%) worked in public hospitals (4.8% in metropolitan Melbourne), 33.0% in community health centres, 11.0% in private practice and 5.5% GP practices. The remaining 5.2% of participants worked in a combination of hospitals and private and community practices (part-time in each area). Regional and rural practitioners were equally represented (26% and 25%, respectively).

Nursing was seen as the foundation of the DE role and nursing and DE roles were seen as continuous, although respondents acknowledged that the specific application of the roles in various practice settings differed. Respondents indicated that experience encompasses both formal and informal learning, and although both can be measured, EL is subjective. They also indicated that EL incorporates learning from life events, is continuous, and is demonstrated when the learned information is used in practice.

Five closely linked themes relating to experience and EL emerged. The predominant theme was termed the time–experience dyad. Other themes were extra-clinical experiences, pattern recognition, "hands-on" work, and the credentialling–experience dyad.

1. Time–experience dyad

Most respondents indicated that time was an important indicator of experience, and suggested that 5–10 years in the DE role were necessary before a DE could be regarded as "experienced". Respondents indicated spending time with people with diabetes enabled DEs to acquire a range of skills and knowledge that enhanced their clinical competence and helped them understand "the consequences of their decisions". Only a minority of respondents stated that time in a role did not necessarily ensure the DE was "experienced." Others felt experience and learning were more complex. For example:

"While it [experience] can be measured by the time someone has spent performing diabetes care or education, it is also about the depth and intensity of this association/partnership with patients."

2. Extra-clinical experience

Other activities considered relevant to DE practice where EL could occur were committee work, membership of relevant nursing and diabetes professional organisations (especially the ADEA), and research. A small number of participants felt "life experiences in general" were relevant to DE practice. For example:

"It [experience] is also linked to life in general, which affects the DE's attitudes, and the way they approach patients and the manner in which a person executes their work."

3. Pattern recognition

The ability to recognise recurring patterns was seen as an essential component of the DE's ability to provide "quality clinical care", an ability that was linked to time spent in the role. For example:

"It takes time to articulate theory into practice. It is 2–3 years before people start to gain experience and recognise similar things in other patients, to see the patterns emerging ..."

Some respondents indicted learning was finite and that after a long time in the role no new patterns emerged. For example:

"Over time nothing new occurs. You have done and seen enough so that nothing much is new to you. The problems are the same. Some you can solve, others just are [unsolvable] no matter how experienced you are or what you learned where."

4. Hands-on work

Providing clinical care (hands-on work) was seen as the major component of the DE role. Respondents felt DEs who did not provide clinical care quickly lost the ability to apply their knowledge, and that their knowledge

quickly became outdated. Thus, a DE's ability to provide clinical care and recognise patterns diminished, regardless of the time they had spent in the role. For example:

"It's the hands-on work that's important. After all, that is what diabetes education is all about, being hands on. You get better at that the more time you work in diabetes but if you go into management you quickly lose your clinical skills – I mean those educators who manage diabetes centres and don't do much hands-on work anymore."

5. Credentialling–experience dyad

Being credentialled by a recognised diabetes education body (in this case the ADEA; ADEA, 2008) was considered to be important and 47% of respondents agreed that credentialled status indicated an experience DE, but that it did not necessarily indicate EL. It was also associated with time in the DE role, which is a criterion of accreditation. Most felt the credentialling process would be inadequate if it did not distinguish between experienced, competent DEs and those that were inexperienced. For example:

"If the process of credentialling does not discriminate between experienced and qualified DEs and those who are not competent, then the process is flawed."

However, most respondents regarded themselves as experienced clinicians regardless of their credentialled status and 12% felt that credentialling was not a measure of competence or experience; rather, it indicated the ability to meet specific criteria. For example:

"Some credentialled educators are competent, some aren't – it depends whether the person has the ability to apply the knowledge obtained from anywhere, from attending lectures, etc. It is easy for some to meet the criteria and difficult for others: it depends where you work."

These respondents felt the credentialling process was too narrow. One said: "DEs can be experienced clinically but not credentialled." In particular, rural DEs and DEs working part-time found it difficult to meet the credentialling criteria and said that the credentialling process might disadvantage some DEs.

Methods of demonstrating experience

Respondents suggested a number of ways that formal learning and EL could be demonstrated (*Table 1a*). The factors they considered to be core aspects of experienced diabetes education practice are shown in *Table 2*.

Page point

1. Being credentialled by a recognised diabetes education body was considered to be important and 47% of responders agreed that credentialled status indicated an experienced diabetes educator.

Table 1. Methods, suggested by (a) diabetes educators and (b) endocrinologists, by which diabetes educators could demonstrate their formal and experiential learning.†

(a)
- Work history, for example a curriculum vitae or professional portfolio.
- Professional qualifications.
- Position description from former and current places of work.
- Referee support, especially from knowledgeable peers.
- Evidence of being credentialled by the ADEA.
- Client testimonials.
- Being assessed against specific criteria such as standards and guidelines, the ADEA credentialling process, and nursing competencies. However, the ADEA competencies were not developed for nurse practitioner level of practice and may not reflect how experiential learning applies in that context.
- Sharing knowledge and mentoring.
- Being able to articulate how experiential learning enables the diabetes educator to achieve outcomes in interviews and clinical vivas and through documented patient outcomes, for example metabolic control and empowerment.

(b)
- Evidence of clinical education and management in diabetes, such as clinical vivas.
- Referee reports.
- Curriculum vitae.
- Evidence of continuing professional development such as the ADEA credentialled status.
- ADEA credentialled status.
- Membership of diabetes associations such as the ADEA.

†Points are listed from most frequently cited to least frequently cited.
ADEA, Australian Diabetes Educators Association.

Page points

1. Half of diabetes educator respondents indicated an employer or the endocrinologist they work with are in the best position to make an assessment of a diabetes educator's experience and competency because they had insider knowledge.
2. Most endocrinologists suggested that a number of different professionals and professional and academic bodies should assess a diabetes educator's knowledge, competence and level of experience.
3. Focus group members saw a need for diabetes educators to demonstrate the multifactorial nature of diabetes education including leadership and management, as well as the clinical aspects of the role, in order to be considered experienced.

Respondents were asked to indicate the most appropriate individual or entity to determine whether a DE was experienced. The majority indicated that the ADEA was the most appropriate body. They regarded peer assessment as important because "peers know very well what the role involves and the knowledge and skills you need to have."

A minority were concerned that peer bias or conflict of interest could arise unless the process was anonymous, which is not currently the case. Less than half indicated that the Nurses Board of Australia or universities should undertake the assessment. Most felt these bodies did not understand what constitutes relevant DE experience or how to assess it appropriately. Just under half indicated that a DE's employer or the endocrinologist they work with are in the best position to make an assessment because they have "insider knowledge." A few participants felt that the fairest method of assessment would be a combination of both feedback from fellow professionals and standardised tests.

Endocrinologist questionnaire findings

Twenty endocrinologists returned questionnaires giving a response rate of 44%. Demographic data were not collected from the endocrinologists because prior experience indicated they are reluctant to provide such details as the information could enable identification of individual participants, even when it is deidentified. Nine endocrinologists indicated they found it very difficult to complete the questionnaire because they were not accustomed to considering such concepts, even though most responders provided sessional lectures for DEs and medical students.

Three main themes emerged: (i) DEs accumulate experience through practical exposure to a variety of life and work experiences and being in the role for a long time, (ii) experience is evident when the DE progressively applies old knowledge to new situations and (iii) experienced DEs can analyse, interpret and integrate new knowledge into existing knowledge and use it in new situations (i.e. problem solve).

These themes, although worded differently, are consistent with the DEs' perspectives and with the literature. Like the DEs surveyed, the endocrinologists suggested that between 5 and 10 years of continuous practice in the specialty were necessary before a DE could be regarded as "experienced". Endocrinologists suggested similar methods of demonstrating experience to DEs (*Table 1b*).

Most endocrinologists (95%) suggested that a number of different professionals and professional and academic bodies should assess a DE's knowledge, competence and level of experience and these included DE peers, the ADEA, endocrinologists and 10 suggested universities.

Table 2. The core aspects of experienced diabetes educator (DE) practice described by respondents.

- Time spent working as a DE, including years in diabetes education, regardless of whether the individual worked full or part-time.
- Direct patient care involving a range of patients so the DE could recognise patterns and actively problem-solve using both theoretical and experiential knowledge (i.e. the ability to adapt diabetes education and management to individual clients' needs).
- Medicines managing (e.g. adjusting insulin).
- Advanced assessment skills.
- Using evidence and quality management in DE practice.
- Health promotion.
- Meeting Australian Diabetes Educator Association standards and competencies.
- Being credentialled by recognised diabetes education bodies (e.g. the Australian Diabetes Educator Association or the American Association of Diabetes Educators).

Focus group findings

Participants from the three focus groups came to very similar conclusions. It was generally agreed that the ADEA credentialling process was contemporary, rigorous and incorporated the academic and leadership aspects of the role. However, they saw a need to consider DE practice on a broader level that incorporates academic maturity (e.g. being able to write well, articulate how "it [the DE role] all goes together"), being able to coordinate care (i.e.

demonstrating the multifactorial nature of diabetes education including leadership and management), as well as providing the clinical care required by the role.

There was agreement that objective measures of EL are needed and that a combination of processes was more likely to provide an accurate assessment than any single process. There was an expectation that after 5 years a DE should be able to "do it all," which was consistent with the time–experience dyad identified in the questionnaire responses.

Participants indicated there was a need to continually refine their clinical practice because of emerging research and technological change, and that without continual clinical practice a DE's knowledge could quickly become outdated.

Discussion

There was a strong emphasis on time as an indicator of experience in the current study. This was expected and is common in the literature because it takes time to accumulate knowledge and develop the ability to apply it to new situations (Eraut, 2004). In addition, a specific period of time working full-time in the DE role is one criterion of the ADEA credentialling process. However, the literature suggests that longer periods of time in a role are also associated with reduced knowledge and competence, at least for physicians (Choudhry and Fletcher, 2005). There is a need to determine whether the same is true of DEs who have been in the job for a long time, especially those who are not credentialled and may not keep up-to-date. It is difficult to determine the exact time needed to become experienced because people learn in different ways, derive different insights from their experiences and reflect on them differently (Moon, 1999).

The current study suggests that DEs and endocrinologists felt they were the most suitable people to evaluate DEs' level of experience and competence because they had insider knowledge of the role. EL emerged as an important aspect of DEs' experience and professional identity but needed to be assessed on an individual basis because such learning is highly individual. A variety of methods of demonstrating how EL is applied to diabetes education and management were suggested and included professional portfolios, credentialled status with a recognised diabetes education body, standardised tests and clinical vivas. These methods are consistent with those suggested in the literature (Challis, 1993; Fahy et al, 1999).

Professional portfolios are an essential aspect of the ADEA credentialling process. However, it could be argued that most current portfolios represent attendance at various education forums but do not indicate whether any learning actually took place, whether it is subsequently incorporated into practice or how it relates to clinical practice. Interestingly, reflection – an essential aspect of EL – did not emerge as a major theme in the current study, which could indicate DEs are not reflective practitioners. Alternatively, it could indicate that they view reflection and learning as separate entities. Reflective practice could be a valuable addition to the ADEA credentialling process and could show where and how formal learning and EL were used in practice (i.e. to make invisible learning visible).

Fahy et al (1999) argued that EL cannot be assumed and must be assessed "in an academically defensible manner". DEs and endocrinologists suggested peers or employers could provide written documentation to support DEs' clinical competence and indicate how they used formal learning and EL in their practice, which has been described as "witness testimony" (Trowler, 1996). This finding is consistent with Fahy et al (1999), who argued that the objectives of education courses could be used as a basis against which to compare and substantiate an individual's claim about their learning. Fahy et al (1999) defined 10 key learning criteria, four of which were essential: (i) writing, (ii) technology and computer skills, (iii) demonstrated knowledge and (iv) competence in the area of practice. These criteria reflect academic "book learning" as well as "practical knowledge" (Jarvis, 1992).

Page points

1. There was a strong emphasis on time as an indicator of experience in the current study.
2. The current study suggests that diabetes educators and endocrinologists felt they were the most suitable people to evaluate diabetes eduactors' level of experience and competence because they had insider knowledge of the role.
3. Methods of demonstrating how experiential leaning is applied to diabetes education and management were suggested and included professional portfolios, credentialed status with a recognised diabetes education body, standardised tests, and clinical vivas.

Page points

1. Nursing academics felt that experiential leaning could represent important learning experiences provided that diabetes educators subsequently had an opportunity to integrate the learning into theory and practice.
2. There are strong similarities between the results and the literature, suggesting that many of the themes and issues are relevant to diabetes educator practice generally and may also be relevant to other nursing specialties.
3. Perceptions of the value of experiential leaning, and how it could be measurably demonstrated, were remarkably similar among the diabetes educators, nursing academics and endocrinologists who participated in the study.

The need for DEs to have academic as well as clinical skills also emerged in the focus group that included nurse academics; this was described as "academic maturity". However, it did not arise in the DE focus group or in the endocrinologist survey. The academics also indicated socialising with peers is an essential part of learning, and on that basis, felt EL could represent important learning experiences provided that DEs subsequently had an opportunity to integrate the learning into theory and practice (i.e. knowledge in store).

A limitation of the study was that the nursing academic and endocrinologist sample sizes were small. Therefore, the results may not be applicable outside the study. In addition, only one male DE participated in the focus group, which could represent a gender bias. However, there are strong similarities between the results and the literature, which suggests many of the themes and issues are relevant to DE practice generally and may also be relevant to other nursing specialties.

Conclusions

Time in the DE role, the ability to recognise patterns to provide competent clinical care, and being credentialled by a recognised diabetes education body were regarded as indicators of experience. Perceptions of the value of EL, and how it could be measurably demonstrated, were remarkably similar among the DEs, nursing academics and endocrinologists who participated in the study. There were many commonalities between the findings of this study and the literature.

EL can be assessed using a range of existing methods including professional portfolios, standardised tests and peer review. However, it is difficult to judge whether EL is equivalent to formal education courses. ■

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