

✓copy

Milligan
1997

In defence of andragogy. Part 2: an educational process consistent with modern nursing's aims

Frank Milligan

In 1987 the English National Board (1987) made it clear that it supported a move towards an andragogical approach to nurse education. Recently such moves have been questioned as has the validity of andragogy (Darbyshire 1993). In response to such challenges this paper extends some of the arguments made in the article 'In defence of andragogy' (Milligan 1995). It is argued that andragogy provides a framework within which care and other crucial aspects of the nurse-patient/client relationship can be mirrored and thereby facilitated in future practitioners.

In the socialization processes inherent in nurse education, care is surely difficult to teach or facilitate unless the philosophy and methods are consistent with such ends. Furthermore, it is frequently argued that as educationalists we need to be consistent in our approach to students with that which we hope to see in their future practice (Bevis & Murray 1990). Andragogy offers a medium through which this can be facilitated. It is essentially a humanistic educational process that values the individual. The power relationship between the educator and student is much more horizontal than is found in the historically common hierarchical educational relationship.

An educational process based upon andragogy therefore mirrors important

parts of the nurse-patient/client relationship. It offers a theory of education consistent with the aims of modern day nursing practice. We should seek to improve our understanding of andragogy and no longer conceptualize it as one end of a false dichotomy with pedagogy.

INTRODUCTION

There are some important questions that ought to be considered in relation to the concept of andragogy. Why is it so unpopular? (see Darbyshire 1993). Why does it not yet appear in the Oxford English Dictionary? And will nursing, and the contribution it makes to health and health care, benefit from the ongoing debate on the relevance and use of andragogy?

I will argue that andragogy, as a discrete field of adult education, exists in the sense of a useful educational process that is of increasing importance to nurse education. It offers an educational process consistent with modern nurse education's aims and should be valued for this. It will also be made clear that andragogy per se is not my main concern in terms of promoting a particular educational theory, but the emphasis on educational process that andragogy brings at this moment (as opposed to the historical institutionalized obsession with educational outcome) that is seen to be of fundamental value to nursing education.

I will start by outlining the concept of andragogy, followed by what I feel are some common misconceptions in relation to it. The importance of educational processes that are consistent with modern nursing's aims will then be highlighted, as will the notion that andragogy offers the most effective method available to ensure that nurse education facilitates effective practice in what is invariably an unpredictable future for nursing and the health service. The work of John Dewey is referred to in relation to this final point.

A BRIEF OUTLINE OF THE THEORY OF ANDRAGOGY

My own conception of andragogy has evolved primarily from the work of Malcolm Knowles (1985, 1990), the Nottingham Andragogy Group (1983) and other works cited here, and can be summarized thus: the facilitation of adult learning that can best be achieved through a student-centred approach that, in a developmental manner, enhances students' self-concept

This article is based on a paper originally given at the 'Nurse Education Tomorrow' conference, 7 September 1995, Durham, UK.

Frank Milligan
RN, BA(Hons) Nursing Education, RCT, Lecturer in Nursing Practice, Department of Community and Mental Health Care, Faculty of Health Care and Social Studies, University of Luton, Britannia Road, Bedford MK42 9DJ, UK

(Requests for offprints to FM)
Manuscript accepted
31 January 1996

and promotes autonomy, self-direction and critical thinking.

Although Knowles, an educationalist from the USA, is commonly seen as the main developer of andragogy (Jarvis 1984), it is in fact historically a European concept that has been studied and developed widely (Richardson & Lane 1993). It is clear that Knowles' work is only one interpretation of andragogy and European (Savicevic 1991), US (De La Haye et al 1994), and UK developments (Nottingham Andragogy Group 1983), amongst others, can be found. I will, however, briefly outline the five key assumptions upon which Knowles (1985) bases andragogy, and use them to develop some important arguments with regard to a clearer understanding of the concept and some of the common misconceptions made in relation to it. The assumptions are as follows:

1. *The concept of the learner.* That the adult learner is self-directed, although Knowles noted that people's experiences of education frequently lead to a more dependent stance being taken by them.

2. *The role of the learner's experience.* Adult learners are seen to have a greater volume, and different quality of experience than younger learners. This difference in quality is based upon their roles as workers, family members, being a parent, etc.

3. *Readiness to learn.* That adults '... become ready to learn when they experience a need to know or do something in order to perform more effectively in some aspect of their lives' (Knowles 1985, p 11). Adult students become ready to learn when they see a need in relation to being able to do particular things (Chandler 1992).

4. *Orientation to learning.* This tends to be task or problem centred, therefore learning should be organized around life, or what might be termed real situations. Knowles asserts that adults do not, for the most part, learn for the sake of learning.

5. *Motivation to learn.* Although the last two assumptions seem to imply a quite conservative, in other words work-based approach to motivation (Jarvis 1985), Knowles makes a point of identifying humanistic needs as being important motivators: '... that the more potent motivators are internal, self-esteem, recognition, better quality of life, greater self-confidence, self-actualisation, and the like' (Knowles 1985 p 12).

The examination of andragogy is now enhanced through analysis of some common misconceptions in relation to it.

COMMON MISCONCEPTIONS!

There has been recent debate on the value, or otherwise, of andragogy and more specifically

Knowles' conception of it (Darbyshire 1993, Milligan 1995). I will now extend this debate by highlighting what I feel are some common misconceptions made in relation to andragogy.

The first, and philosophically the most important misconception is that andragogy is the dichotomous opposite of pedagogy (De La Haye et al 1994). This presentation is quite common (McPherson & Lorenz 1985, Darbyshire 1993, Richardson & Lane 1993). Such a dichotomy can be found in the earlier writings of Knowles, but his conceptualization changed as he accepted that pedagogy and andragogy should be seen as parallel and not dichotomous opposites (Knowles 1985). It is perhaps more appropriate to conceptualize andragogy as a discrete field of adult education within the broad remit of pedagogy (the art and science of teaching (Oxford English Dictionary, 2nd edn 1989)) (Savicevic 1991, Milligan 1995).

The second common misconception is that it is frequently assumed that student centredness, and the goal of achieving self-directedness in students, means leaving students to it! Indeed, I am aware of courses philosophically based upon andragogy that did just that. Students from the very start of the course were left to get on with it with very little, if any guidance; they were, it might be said, left to 'sink or swim'. Andragogy is frequently seen, under such circumstances, to be an excuse for lecturers to reduce their effort and workload. The volume and quality of work available on facilitating student centredness strongly mitigates against such a simplistic view being taken. Good examples include the works of Grow (1991), Slevin & Lavery (1991), and Higgs (1993). Grow identifies four learner states (dependent learner, interested learner, involved learner, self-directed learner) and compares these with different teaching styles. The grid that is developed (Grow 1991) shows that different learning states require different teaching styles and that self-directedness is something that needs to be fostered and worked towards by both student and lecturer. In fact, Grow asserts that the learners state is more important in choosing the appropriate teaching methods than the subject matter! Higgs (1993) also makes it clear that learners need to learn how to learn independently, and this requires guidance from an educator skilled in such matters (Slevin & Lavery 1991).

Another important issue to consider when reservations about the viability of student centredness are raised is that of the educationalists' own educational (sic) experiences, and those of the students (Higgs 1993). Much of what both groups have experienced will simply not have involved student centredness, as Knowles

(1985), Heron (1989) and Higgs (1993) all note. Heron (1993), in a provocative chapter on educational assessment and the power relationship it frequently operates within, highlights the oppressive nature of much so-called educational activity. Control, all too often and frequently inappropriately, lies solely with the educator rather than shared with the student.

The third major misconception is that andragogy is not possible within the constraints of modern nurse education. Even those nurse educationalists I have met who have been positive and active in their use of andragogy have felt that it has its limits in pre-registration education due to the constraints of the need to meet the occupational criteria of the course. In a sense this illustrates the point just made, that because the process of pre-registration courses frequently operates within an unequal power relationship in favour of the educator, handing over a significant degree of responsibility to the student seems inappropriate.

The fourth major misconception is that andragogy is *The* art and science of teaching adults; that it encompasses the whole field of adult learning and the many various and diverse so-called educational activities that take place within this. Although such interpretations can be found (Savicevic 1991), albeit rarely, there are strong grounds upon which this can be challenged, namely that andragogy is an educational theory; it is primarily concerned with education and not training or vocationalization. The philosophical differences here are reasonably clear and explained within the works of Moore (1986) and Peters (1974), and as Quicke (1989) asserts, vocationalization is not education!

Moore (1986) claims that the educated person has intellectual abilities that have been developed so that they are sensitive to matters of moral and aesthetic concern. In examining the historical bonds between education and preparation for employment, Watts (1985) defines education as being concerned with: the development of the individual's full range of abilities and aptitudes; the cultivation of spiritual and moral values; the nurturing of imagination and sensibility, and the transmission and interpretation of culture. Within Watts' work this is then balanced against the need to prepare people for work-based roles, a vocational purpose that Watts notes sits uneasily with some educationalists.

The status of some subjects tends to be measured by how academic they are, and clear vocational links frequently carry little status for this reason (Watts 1985). Vocational, in this sense, refers to common work roles. It is the difference between more practical training for such work roles, for example National

Vocational Qualifications (NVQs) (Burke 1989), and the education that is commonly associated with, for example, professions such as medicine and law, that perhaps best illustrates the point being made here. The former may fail to meet these definitions of education (Moore 1986, Watts 1985) if they do not reflect pertinent controversies and arguments inherent in the subject, and relate these to the students own cultural meaning (Quicke 1989). Such a process is similar to that described by Mezirow (1983) as perspective transformation, in which individuals achieve new insights into their own position through actively questioning this position in relation to their understanding of the material being studied. I do not infer that law and medicine necessarily achieve this, but they are commonly considered to be 'an education'.

Within vocational work there is more concern with the practical achievement of tasks than questioning of the validity, cultural and historical place of those tasks. Therefore the narrower aims of training and vocationalization generally fail to meet the criteria given here to qualify them as education, and will consequently not be andragogical, as andragogy values the individual and that individual's personal growth and does meet the criteria given here.

Although, as Knowles makes clear, andragogy is very much concerned with work and the practicalities of preparation and development for work roles, implicit to this goal is enhancement of the individual's self-concept and understanding of the world. Such understanding involves an acknowledgement that the educational is political (Freire 1985), a notion not evident within vocational education today which reflects a 'new Right' move towards removing such sociopolitical challenges from a range of curricula (Dale 1985, Quicke 1989, Milligan 1995, Crawford 1995). Indeed, Crawford (1995) notes, in reviewing conflicts around the history content of the National Curriculum, that arguments put forward by the Right have an ideological emphasis that far outweighs their educational substance. Furthermore, he asserts that critiques of the Right and education have been sacrificed for a conception of cultural cohesion that is based upon false assumptions. It seems then that 'the educational is political', and political enough to draw significant political attention!

To over-simplify what is a complex argument, vocationalization and training endeavour to fit people to particular tasks and jobs. Education is a means through which an *improved* person is assisted in their preparation for life and the roles it entails (admittedly work-related on many occasions). Therefore, it can be argued that andragogy does not logically encompass all activities that go under the ban-

ner of adult education, simply because some of these are not education! They are training and vocationalization. Andragogy is a particular educational approach to facilitating adult learning. I leave it to the reader to consider the implications of a growing trained, vocational workforce within nursing that does not have the sociopolitical awareness fostered through more critical educational methods, such as those inherent in Project 2000 (UKCC 1987) curricula.

EDUCATIONAL PROCESS AND THE PROBLEM OF OUR OWN EDUCATIONAL HISTORIES

The importance of an educational process that is consistent with the aims of nurse education will be made clear through the example of our own educational histories. Process, for the purposes of this paper, is defined as the activities that take place within a curriculum in terms of the manner in which the content is defined, delivered and worked on and through by the students and teaching staff. It refers to the broad range of methods through which a particular course is operationalized. What educational histories are also requires some explanation. By this I mean the previous experiences that people have gone through (including the socioeducational milieu within which they operate), under the heading of education, that affect their current performance and perceptions of what might happen in educational settings.

Quite a lot of my work as a nurse educator has involved introducing people to teaching/facilitating learning for what is often the first time. It is common for these individuals to state that what stresses them is 'standing up in front of students'; 'having to be up the front'. Similarly they are worried about being asked questions; 'what if I don't know the answer'. It is also interesting that when people enter a lecture theatre for a lecturer or paper, many will invariably sit at the back.

All these, I suggest, are symptomatic of traditional, didactic educational experiences; someone stood up at the front and talked at you. You expected them to know the answers because they were knowledgeable about their field and you sat far enough back to ensure it was unlikely you would be asked a question. That distance, so evident when you speak in a lecture theatre, is symbolic of the distance that existed between the teacher and the student. There was no need for proximity, in either a physical or more educational sense; involvement was not important. Dennison & Kirk (1990) challenge that such methods must have

held some attraction for those that subsequently moved into education, otherwise why did they make the move? In terms of process, very little interaction is involved and it is inherently passive for the student. In terms of power, it most obviously lies with the lecturer (Heron 1993).

ANDRAGOGY AND THE PROCESS OF NURSE EDUCATION

Substantial arguments have been made elsewhere to support the use of andragogy in nurse education (for example, ENB 1987, Richardson 1988, Burnard 1991). Here I will concentrate on some issues related to the assumptions, mentioned earlier, that Knowles (1985) based his conception of andragogy on, and reflect further upon what has been noted with regard to educational histories.

The process of achieving a self-directed learner seems entirely consistent with what is required of current nurse practitioners. They are now expected to record and monitor their own occupational development (UKCC 1995). Furthermore, due to the quickly changing nature of health practice, its organization, management and the treatment and methods used within it, constant revision of what is relevant knowledge is necessary. The pace of these changes will inevitably continue to increase due to the information technology explosion. Also, self-directedness in learners clearly mirrors independence on the part of the patient in the nurse/patient relationship. In particular situations patients/clients will become most dependent, but the goal of independence, of establishing a flattened power relationship through which the patient establishes some control over their destiny remains.

Knowles' second assumption with regard to the quantity and quality of life experience appears consistent with a great deal of modern nurse education. There has been an increasing emphasis on the value of experiential work in the education of nurses (Richardson 1988, Burnard 1991) culminating in the move towards reflective practice (Boud et al 1988, Johns 1995). Furthermore, the personal element of knowledge, which is very much derived from an individual's previous and ongoing experience, is highlighted by Barbara Carper (1978). Her work is used with some success with all levels of student nurse, pre and post registration, in my own department.

The third assumption, readiness to learn, indicates that motivation is initiated through a need to know about something. Students usually come into nursing in a highly motivated state. They are keen and frequently want to 'get

on with it'. However, I wonder if there is sometimes a failure to indicate clearly to students what is required of nurses in practice. With the move towards more student time being spent on theory in the early part of Project 2000 courses, as opposed to practice, there is a risk that motivation can be adversely affected. More subtly, do we know what nursing is? Are we confident about this so that we can, through theory, explain nursing?

Again, reflective practice offers a medium through which practice can be emphasized, and the use of narrative (Darbyshire 1994) offers a means through which the everyday, yet special work of nursing can be illustrated and valued. Such approaches should enhance students' readiness to learn and are again an integral part of the work with students in the department.

There are few problems with accepting Knowles' fourth assumption, that learning ought to be problem, and what I will term practice related. Again, reflective practice (Schon 1988) including diary and/or journal writing, the use of case studies and critical incident analysis all offer methods which will try to integrate theory and practice; seek to elucidate learning from experience.

In the fifth assumption, by taking such a humanistic stance Knowles offers a challenge; trust students to study what they see as relevant. If, as in assumption 3, the roles of the nurse are made clear and, as in assumption 4, the problems inherent in nursing practice are evident, then the motivation to achieve a satisfying level of practice should be generated within the individual undertaking study.

In terms of trying to relate andragogy to the concept of care, this seems possible at two levels. Firstly, in terms of mirroring the qualities or values inherent within care, and more simply, in an effort to be consistent with what is commonly required of nursing practice. Elsewhere I have shown similarities between the work of the Nottingham Andragogy Group (1983) and Boykin & Schoenhofer's (1990) work on caring in nursing (Milligan 1995). Mayerhoff (cited in Dunlop 1986) saw trust as an important issue in care, and it has been shown here to be an element within the process of andragogy. More broadly, it is evident that the relationship between the student and the educator should be based upon sharing responsibility, and this includes the negotiation of aims and methods of achieving those aims. Again, these mirror important aspects of nursing practice.

JOHN DEWEY AND THE TASK THAT FACES NURSE EDUCATION

Having claimed that nurse educationalists need

to be able to clarify for students the purposes and future of nursing, and having hinted that some may not be best placed to do this, I will now explain, using the work of John Dewey, why this is perhaps a difficult task.

John Dewey was a US philosopher and educationalist in the early part of this century, who was very much interested in the democratic conception of education and also wrote of the central value of reflection in education. I would like briefly to transpose some of his ideas onto nurse education.

Education, when undertaken as Dewey saw fit, was consistent with democracy, a concept at least superficially compatible with good nursing practice. For a society to be considered a democracy it must support effective education. However, there was a tension for the democracy in the educational processes used in that Dewey felt that these methods could not simply pass on directly the values/knowledge, etc. that were common and thought to be of worth to that democratic society. This was due both to the transient nature of knowledge, a problem more recently highlighted by the likes of Knowles (1985), Rogers (1983), and Schon (1988), and the problem of simply repeating what is, or has been, common and found within the society. Just because it is common does not mean that in the longer term it will remain the best or most effective knowledge or value(s). Dewey saw such an attitude as being important in that education risked becoming indoctrination.

Change was seen as an important element of democratic societies. To quote Dewey: 'Particularly it is true that a society which not only changes but which has the ideal of such change as will improve it, will have different standards and methods of education from one which aims simply at the perpetuation of its own customs' (Dewey, cited in Sidorsky 1977). It was seen as essential, therefore, that education prepared people for change.

Dewey also broadly argued that the democratic spirit, which in essence would be an important element of the educational process, be exhibited in the classroom: 'Any education given by a group tends to socialise its members, but the quality and value of the socialisation depends upon the habits and aims of the group' (Dewey, cited in Sidorsky 1977 p 220), supporting the arguments made here that nurse education processes need to be consistent with practice.

It is important to ponder the potential depth of the educational problem clarified by Dewey. It is implied that the educational process needs to contain qualities that will enable the student to operate within a system that may be very different to that known by the educationalist.

Educationalists in Dewey's view cannot simply repeat what has been common and of relevance to them. With this argument in mind the importance of any substantial emphasis on educational outcome fades. Outcomes for Dewey seem to be acknowledged as anything but fixed. Process, and the flexibility and honesty of this process, seem to surface clearly. To overstate the point, Dewey simply seemed to be saying that a democracy is frequently not clear about where it is going, but the honesty of such an admission was more important than the admission itself.

Taking this in the light of the comments made with regard to Dewey's perceived need for education to facilitate change, not perpetuate what has been common, a challenge of some substance for nurse education becomes clear, namely that educationalists are required to facilitate the preparation of practitioners who will be (to be realistic already frequently are) radically different to themselves. I suggest that Dewey's work, as described here, has a resonance nurse education today; that Project 2000 (UKCC 1987) marks a significant move away from the 'perpetuation of customs' that has historically been common in nursing education. That Project 2000 is symptomatic of a more questioning, more critical stance in nurse education and nursing practice and that nursing is undergoing a significant period of change (as is health care generally), perhaps even a paradigm shift in change in which an adherence to the value of educational process, as opposed to outcomes, is desirable if not essential.

Furthermore, the arguments made earlier in relation to the influence of the 'new Right' in education are inconsistent with Dewey's emphasis on the significance of change and democratic spirit within education. This leads to the question of whether nursing can continue to support the dichotomy created between the vocational NVQ system and education for practitioners who will register?

There are quite clear outcomes required of nurse education, the most important of which are those defined by statute (Nurse, Midwives and Health Visitors approval order 1989). In addition, it is apparent from curricular documents for Project 2000 courses that outcomes can clearly be defined for pre-registration nurse education. However, it is also evident from such documents, especially when looked at historically, that what is required of both students and nurse educators very quickly changes, and there is no reason to suppose that the pace of the change will slow, in fact it will almost certainly increase. Using andragogical methods will facilitate self-directedness and the confidence that goes with this in students, allowing them to adapt more effectively to

changes that will occur in nursing and health care practice. The importance of outcomes is therefore acknowledged, but it is the methods through which they are achieved that is seen to be of real importance.

CONCLUSION

One of the tasks of this paper has been to substantiate the continuing and perhaps even the growing use of the theory of andragogy. I have clarified here what I feel are clear misconceptions behind some of the arguments used to diminish the value of the theory of andragogy. Some of the underlying assumptions of andragogy have been outlined and clearly linked to some important aspects of nurse education and nursing practice. Furthermore, the influence of our own educational experiences has been briefly explored, and the common association that is found, one of distance and a power relationship in favour of the educator, was shown to be inconsistent with that which is required of modern nursing.

Reluctance on the part of some educators to move towards a considered student-centred approach (by this I mean a stance supported by relevant educational literature and research) is in part due to their own educational histories and their reluctance to see power in the educational relationship move towards the student. They also perhaps, through the students, reflect the subservience historically found in the doctor/nurse relationship. Slevin & Lavery (1991 p 376) concluded that, 'Teachers will have to be more willing to take risks in allowing students greater responsibility for their own learning', when arguing for a more student-centred approach to nurse education. I suggest that such risks are proportional to the understanding, or lack of understanding that is conveyed to students in making clear to them what is relevant to nursing and nursing practice.

Andragogy is consistent with nursing care and nursing work, the relationship and actions commonly undertaken between nurses and patient/clients, because: it places more power in the hands of students; it asks students to take responsibility for a good deal of their learning; it involves them; and, perhaps most importantly, it encourages educators to trust them. To be brief, it treats them like adults.

Perhaps the real value of the theory of andragogy is that it simply offers another perspective on education. It offers one more lens through which to view pedagogy; *the art and science of teaching*. It values the process of educational activity above that of outcome although the latter remains a practical necessity. Some of

the resistance to andragogy in pre-registration nurse education has been on the grounds of the need to dictate an outcome – the registered nurse. It has been argued here, substantiated by the work of Dewey, that we, nursing and nurse education, have a very difficult task in trying to predict accurately what will be required of tomorrow's nurse. Therefore, an emphasis on educational process is not only desirable and adaptive, it is necessary and the most potent means of achieving effective nursing in the future. It is through an adaptive educational process that we will be able to effectively meet the outcomes of tomorrow.

REFERENCES

- Bevis E O, Murray J P 1990 The essence of the curriculum revolution: emancipatory teaching. *Journal of Nurse Education* 29 (7): 326–331
- Boud D, Keogh R, Walker D (eds) 1988 *Reflection: turning experience into learning*. Kogan Page, London
- Boykin A, Schoenhofer S 1990 Caring in nursing: analysis of extant theory. *Nursing Science Quarterly* 3 (4): 149–155
- Burke J (ed) 1989 *Competency based education and training*. Falmer Press, London
- Burnard P 1991 *Learning human skills*, 2nd edn. Butterworth Heinemann, Guildford
- Carper B 1978 Fundamental patterns of knowing in nursing. *Advances in Nursing Science* 1(1): 13–23
- Chandler T 1992 Planning for teaching. In: Hinchliff S M (ed) *The practitioner as teacher*. Scutari Press, Oxford
- Crawford K 1995 A history of the Right: the battle for control of National Curriculum history 1989–1994. *British Journal of Educational Studies* 43(4): 433–456
- Dale R 1985 The background and inception of the technical and vocational education initiative. In: Dale R (ed) *Education, training and employment: towards a new vocationalism*. Open University/Pergamon Press, Oxford
- Darbyshire P 1993 In defence of pedagogy: a critique of the notion of andragogy. *Nurse Education Today* 13: 328–335
- Darbyshire P 1994 Reality bites. *Nursing Times* 90(40): 31–33
- De La Haye B L, Limerick D C, Hearn G 1994 The relationship between andragogical and pedagogical orientations and the implications for adult learning. *Adult Education Quarterly* 44(4): 187–200
- Dennison B, Kirk R 1990 *Do, review, learn, apply: a simple guide to experiential learning*. Blackwell Education, Wiltshire
- Dunlop M J 1986 Is a science of caring possible? *Journal of Advanced Nursing* 11(6): 661–670
- ENB 1987 *Managing change in nurse education*. ENB, Milton Keynes
- Grow G O 1991 Teaching learners to be self-directed. *Adult Education Quarterly* 41 (3): 125–149
- Freire P 1985 *Pedagogy of the oppressed*. Pelican, Suffolk
- Heron J 1989 *The facilitators' handbook*. Kogan Page, Guildford
- Heron J 1993 *Assessment revisited*. In: Boud D (ed) *Developing student autonomy in learning*, 2nd edn. Kogan Page, Chippenham
- Higgs J 1993 *Planning learning experiences to promote autonomous learning*. In: Boud D (ed) *Developing student autonomy in learning*, 2nd edn. Kogan Page, Chippenham
- Jarvis P 1984 *Andragogy – a sign of the times*. *Studies in the Education of Adults* 4: 32–39
- Jarvis P 1985 *The sociology of adult and continuing education*. Croom Helm, London
- Johns C 1995 Framing learning through reflection within Carper's fundamental ways of knowing in nursing. *Journal of Advanced Nursing* 22: 226–234
- Knowles M 1985 *Andragogy in action*. Jossey-Bass, USA
- Knowles M 1990 *The adult learner: a neglected species*, 4th edn. Gulf, USA
- McPherson R B, Lorenz J A 1985 The pedagogical and andragogical principle – the consummate teacher. *NASSP Bulletin*: 55–60
- Mezirow J 1983 A critical theory of adult learning and education. In: Tight M (ed) *Education for adults; adult learning and education*. Croom Helm, London
- Milligan F J 1995 In defence of andragogy. *Nurse Education Today* 15: 22–27
- Moore T W 1986 *Philosophy of education: an introduction*. Routledge and Kegan Paul, London
- Nottingham Andragogy Group 1983 *Towards a developmental theory of andragogy*. Department of Adult Education, University of Nottingham
- Nurses, Midwives and Health Visitors Approval Order Statutory Instruments 1989 *The nurses midwives and health visitors (Registered fever nurses amendment rules and training amendment rules) approval order 1989*. Statutory Instruments No. 1456. HMSO, London
- Peters R S 1974 *Ethics and education*. Unwin, London
- Quicke J 1989 The 'new Right' and education. In: Moon B, Murphy P, Raynor J (eds) *Policies for the curriculum*. Hodder and Stoughton, Suffolk
- Richardson M 1988 *Innovating andragogy in a basic nursing course: an evaluation of the self directed independent study contract with basic nursing students*. *Nurse Education Today* 8: 315–324
- Richardson M, Lane K 1993 *Andragogical concepts for teachers of adults*. *Catalyst for Change* 22: 16–18
- Rogers C 1983 *Freedom to learn for the 80s*. Charles Merrill, USA
- Savicevic D M 1991 *Modern conceptions of andragogy: a European framework*. *Studies in the Education of Adults* 23(2): 179–201
- Schon D A 1988 *Educating the reflective practitioner*. Jossey Bass, San Francisco
- Sidosky D 1977 *John Dewey: the essential writings*. Harper and Row, New York
- Slevin O D'A, Lavery M C 1991 *Self-directed learning and student supervision*. *Nurse Education Today* 11: 368–377
- United Kingdom Central Council for Nursing, Midwifery and Health Visiting 1987 *Project 2000: the final proposals: project paper 9*. UKCC, London
- United Kingdom Central Council for Nursing, Midwifery and Health Visiting 1995 *PREP and you: maintaining your registration. Standards for education following registration*. UKCC, London
- Watts A G 1985 *Education and employment: the traditional bonds*. In: Dale R (ed) *Education, training and employment: towards a new vocationalism*. Open University/Pergamon Press, Oxford