

# [Clinical remit](https://assignbuster.com/clinical-remit/)

### Teaching and Nursing Practice 1 – A Learning Needs Assessment

### 1. Clinical Remit.

As a nurse working within a clinical specialty it is within the remit of my job to promote the stoma care service and maintain high standards of care. It is also the responsibility of the stoma care department to meet the training and educational needs of ward based nursing staff to ensure high quality care which is evidence based and kept updated.

Prior to coming into post my teaching experience had been limited to mentorship of students and informal ward based seminars. My only formal teaching experience had been as a student when attending lectures and courses.

My teaching remit includes patients, relatives, carers, colleagues and students. It provides me with the opportunity to pass on my clinical skills, knowledge and experience to junior staff. This not only allows them to develop their own practice but influence the surgical unit and their patients.

There is allocated placement time to the stoma team for students and we also teach students who have placements within the colorectal and general surgery unit.

Teaching is often done in an informal, ward based environment where learners are able to observe and study with patients. Patients are carefully chosen and their consent obtained before the introduction of the learner. These patients are vulnerable therefore it is important that the patient is comfortable with any change or addition of another person to teaching sessions. Patients and their stoma nurses develop a special bond and it is important that this relationship remains strong. It is through this unique relationship that the patient gains the skills and knowledge needed to equip them for life with a stoma.

The stoma care nurse is a facilitator, he/she empowers patients to optimise quality of life and adjust to their new circumstances.

My principle clinical role is in the teaching and support of patients who are about to have or have undergone surgery to create a stoma. Fulham (2008) acknowledged that nurses play an important role in helping patients adjust both physically and psychologically to a new stoma.

Research (O’Connor, 2003; Metcalf, 1999; White, 1998) has shown that early teaching of practical skills and coping strategies help new stoma patients have a more favourable outcome. Early education helps prepare them for surgery and allows patients to adapt more positively to the stoma (Burch, 2005).

I have chosen to focus on one particular aspect of teaching within stoma care, namely the changing of a one piece stoma pouch. The reason for my choice is that this is a fundamental part of the stoma care process. It is the focus of many patients’ anxieties and is key to many patients feeling of wellbeing; it is one area where they feel they still have some control. Bekkers et al (1996) saw self-efficiency as crucial to adjusting to a stoma and as a result saw fewer psychological problems post- operatively. Commonly, the assumption is that teaching stoma management is someone else’s responsibility (Turnbull, 2002).

The principles of a pouch change are simple to follow to achieve success, yet it is generally carried out poorly at ward level. This could be due to a number of reasons. Pouch changing is a practical skill not widely practiced at university; it is often passed on through experiential learning and reflective practice while on placement. This indicates that the current university curriculum does not adequately equip students with the skills needed to support these vulnerable patients (Simmons et al, 2007).

It is a specialised skill that has to be practiced to become proficient. Some nurses approach changing a stoma pouch merely as a task to be carried out rather than an integral part of individualised patient centred care (Mitchell, 1995) or a teaching opportunity. Lacking knowledge or confidence in stoma care my lead to a reluctance to become involved with patients with a stoma. Norris and Spelic (2002) reported that many nurses do not feel competent enough to support patients adapting to altered body image. Stoma care is not an integral part of all healthcare areas therefore many nurses lack the opportunity to practice learned skills which then become redundant.

Hollinworth et al (2004) highlighted the importance of enabling all practitioners who regularly care for patients with a stoma the opportunity to develop professionally. It is with this in mind I have chosen to carry out a learning needs assessment on a small group of nurses who work within the surgical directorate who regularly care for patients who have a stoma. The group consists of 3 nurses; 2 trained staff and 1 untrained. The rationale being that it is often untrained staff who carry out patient care due to time constraints and workload pressure on their trained colleagues. I thought it would be interesting to compare these groups; to establish strengths and weaknesses and where improvements can be made that is patient centred, individualised and of the highest standard.

### Learning Theories

Conducting a learning needs assessment is critical to the educational process. This can lead to change in practice and forms the cornerstone of continuing professional development (Grant & Stanton, cited in Grant, 2002). Evidence based practice has become the focus of NHS policy over recent years with emphasis on cost effectiveness. This ensures patients receive the most efficient care based on evidence from the most up to date research (Upton, 1999). Turnbull (2002) highlighted that ostomy teaching starts at the patient’s bedside often by non specialised staff; therefore it is important that staff have the necessary knowledge and skills to be able to support these patients. It is also important that patients receive the best possible care and advice no matter who is giving it.

Prashnig (2006) discussed the responses of teachers to the varying learning needs of students when the teachers are aware of their teaching styles. I use a combination of styles. My approach is initially pedagogy as particular skills and information is being taught as the learner is often a new stoma patient. It then develops into an andragogical approach as the teacher learner relationship changes to guide and empower the learner towards independence through discussion and problem-solving rather than just instruction (Jarvis, 1985 as cited in Smith 1996; 1999). This can be illustrated through many of the learning theories used in education today. Bandura’s (1977) social learning theory shows learning comes form observing and copying behaviour before adopting it and adopting his ‘ role model’ when teaching practical skills and giving advice. Skinner’s (1954) conditioning theory of positive reinforcement can be applied to stoma pouch changing. Reinforcement in the form of repeated practice helps to form a habitual pattern and the necessary skills to perform the task. The nursing process model of assess, plan, implement and evaluate can also be applied to this theory. Kolb’s experiential learning cycle (1984) has influenced nurse education for decades (Quinn, 2000). The learner moves around the cycle through the four adaptive abilities of concrete experience; reflective observation; generalisation and application from action to observation through the learning process. Ausubel’s (1978) assimilation theory enables the student to build on their existing knowledge. I teach in small, easily managed sections. Revising what was learned previously and ensuring it is understood before continuing with the next stage.

### Rational for carrying out a learning needs assessment.

Identifying a learning need is the first step in planning any education programme (Dyson et al, 2009). This ensures that the programme is appropriate for all, regardless of knowledge and experience and forms the basis of the objectives and content (DeSilets, 2007). In this case the assessment will be carried out on a small group of healthcare professionals but the principle can be used on a larger scale.

A learning needs assessment forms a baseline; it identifies what is already known and what is needed to fill in gaps in knowledge or experience. The need to carry out a learning needs assessment in this clinical area was identified through casual observation of interactions between ward staff and new stoma patients. The poor uptake of stoma patient education was highlighted by a disappointing lack of documentation within patient records and limited assessment of the stoma’s function, the local skin condition and the patient’s independent progress. This has an impact on the patient’s psychological adjustment and ultimately their satisfaction regarding quality of care. Nursing is based on holistic, individualised needs; if a fundamental part of a new stoma patient’s wellbeing is not being addressed it can increase length of hospital stay, delaying independent stoma management prior to discharge with evident associated financial implications. Employers too have expectations of their staff.

The NMC codes (2008) states knowledge and skills should be kept updated; and healthcare professionals should attend education which maintains and develops competence. A learning needs assessment enables the setting of goals benefit not only the learner (through improving practice) but also benefit the patients and ultimately the organisation.

There are however drawbacks with carrying out a learning needs assessment. Learners often concentrate on positive aspects of their practice and do not highlight areas that need refining or further work. Teachers may focus on the negative aspects and may not give the learner credit for what they do well.

### Identify an area of learning

A review of ward notes and patient questioning identified a poor uptake of patient teaching in stoma care. When questioned staff answers ranged from time constraints, lack of confidence when dealing with stomas and feeling that it was the responsibility of someone else to take charge. Some staff when questioned thought responsibility lay with the specialist stoma nurses. CNS’s were carrying out the majority of teaching and support in the minimum amount of time, with little support from other members of the multi-disciplinary team. This identified an area of learning and an opportunity to address some of the issues through an education programme. This would re-empower ward staff and give them the skills and confidence to work with new stoma patients. This will also have a positive impact on time management. An initial increase in time spent teaching and supporting patients to manage their stoma would be rewarded when the patient was independent and more confident in their own ability.

Staff are encouraged to observe, work and participate in teaching patients along with the Stoma Care CNS on the ward where she is available to answer any queries and offer assistance.

Discussion with ward staff has shown that although stoma care is carried out regularly in a general surgery unit there are staff members who a greater interest and subsequently are more confident when providing stoma care.

Nursing staff from the colorectal ward were informally approached and asked if they would participate in a stoma care education programme. Three members of staff expressed an interest and agreed to participate. It was decided that this would form a pilot study group. Like other forms of research a pilot study should be carried out to ensure validity and reliability (Burns and Grove, 2005). The group consisted of 2 qualified and 1 unqualified nurse. This was to attempt to determine the varying strengths and weaknesses of the grades of staff (Hesketh and Laidlaw, 2002).

In accordance with the Nursing and Midwifery Council Code – Standards of conduct, performance and ethics for nurses and midwives (2008), to maintain client confidentiality, all names have been changed and no reference has been made to vocation.

Kate- Qualified for 3 years. Worked initially as a bank nurse but recently joined the staff of the general surgical ward full time. She has been in post for 6 months.

Amy- Qualified for 5 years. Worked in a medical ward for 1 year but has worked in the general surgical ward for 4 years.

Janet- Worked as a health care assistant for 14 years, all within the general surgical ward. She had aspirations to train as a nurse but never pursued this after having a family and now feels she has missed the opportunity. She is a part-time member of staff.

It was decided that the teaching session should include other aspects of stoma care for which patients often need extra support e. g.; skin assessment and simple remedies, measuring a stoma and template cutting.

Some common but relatively simple problems such as sore skin can be improved or resolved by prompt and correct treatment (Burch and Sica, 2008). With this in mind it was decided that the education should contain a practical session; to revise and practice pouch changing, using stoma measuring tools, cutting out templates and dealing with simple problems.

### Methods of assessing the learning needs.

To assess learning needs it is first necessary to choose a method for gathering information. As learning needs are individual; based on knowledge, understanding, attitudes and self-assessment (McKimm, 2009; Norman et al, 2004; Grant, 2002). It was hoped the results would reveal the individual learning needs of each participant.

Vaughan (1992) discussed that a learners competency can be assessed through direct observation. It identifies the learner’s performance level and capability.

Bee and Bee (2003) also discussed the value of observation as a tool to determine strengths and weaknesses in learners practice. Quinn (2000) however identified that observation can be subjective, so to prevent observer bias a checklist or rating scale should be used.

Following the example of Bee and Bee (2003) Observation can be subdivided into Direct observation, Work samples and Simulations.

Direct Observation – Enables assessment in real time. It quickly identifies good practice and areas requiring work. This was carried out by the Stoma Care CNS. It was decided that as she was a familiar face in the wards the nursing staff would be relaxed in her presence and would not alter their practice when “ on show” and results would be accurate. It was seen as an efficient use of time/resources by ward staff and the CNS as she was available to advise and help patients and staff.

Work Samples- Assessing current work practice can be difficult to assess accurately, particularly as ward staff and the CNS have individual commitments and priorities. Assessing competed work does not give the assessor a true reflection. If the CNS is unavailable to offer advice on potential issues then a vulnerable patient can be put at unacceptable risk of stoma or skin complications. Therefore this method was excluded on moral and ethical issues.

Simulation- Allows the observation of the learners when dealing with different situations e. g. the availability of a simulator mannequin for practice. Interchangeable pieces replicate differing shapes and sizes of stoma’s which assess basic pouch changing skills but would not allow assessment of any complication or teaching of the patient. It does however, not encourage the learner to consider the psychological needs of the patient further and see that changing a stoma pouch and disposal of the pouch is more than merely completing a task (McKenzie et al, 2006; Rust, 2007).

Heskth and Laidlaw (2002) discuss other tools when assessing learning needs. These include:

Practice Testing- Routine review of notes and charts. This can give an indication of good practice and areas requiring improvement.

Informal Testing- Will establish the knowledge and current practice of the group by carrying out a simple test prior to the teaching session. This would enable the teacher to gear the education to the specific needs of the learner group.

Reflective Practice- Discussing a memorable situation or experience whether it was memorable for good or bad reasons. This allows the individual to recognize their own strengths and weaknesses and identify learning needs. This can be carried out on a one-to-one basis or within a group as in individual or group supervision. It gives an opportunity to share feelings, attitudes and knowledge with their peers and is itself a valuable learning experience.

The use of questionnaires and structure interviews are commonly used measuring tools used in needs assessment (Mailloux, 1998; Hopkins, 2002; Bee and Bee, 2002)

Using different types of questions within the questionnaire will gain the information required.

Classification questions check how representative the sample is. It enables respondents to be put into or ‘ classified’ in a group e. g. gender, race or age.

Coded/Structured questions measure knowledge and attitudes. Open questions allow respondents to expand on their answers; it gives the opportunity to express their views.

Semantic- differential questions also ask for opinion using a numerical scale.

Lickert-type questions ask the respondent to express their opinion against a specified rating scale.

Grant (2002) warns that reliance on formal needs assessments when planning education can restrict the learning process instead of encouraging it.

To ensure learning needs are appropriately measured a questionnaire using a combination of question types was used (Appendix 1). Time was assigned for simulated practice using the mannequin and direct supervision of 10 pouch changes by the Stoma Care CNS. This would be the starting point for teaching stoma care.

Learning needs assessment

To assess the learning needs of the chosen group the questionnaire was given out two weeks prior to the teaching session. It was hoped that an education programme would address some anxieties and encourage some deeper understanding of stoma care so the questionnaire include all aspects of stoma care including skin assessment and simple treatment, measuring a stoma and preparing patients for discharge. This required the participants to have a basic knowledge of stomas and the principles of changing a stoma pouch.

The questionnaire was made up of a combination of coded/structured; open and Lickert- type questions. This will gain information on the learner’s knowledge on the subject and an indication of knowledge on particular aspects which they may have limited or no experience. The Lickert-type question was used to identify knowledge and opinion on a specific skill used when caring for patients with a new stoma.

One week later a second needs assessment was carried out. This took the form of ward based direct supervision. Time within the teaching session was also allocated for simulated practice using the mannequin. This included template measuring and cutting and treating minor complications using stoma care accessories. Questions were encouraged and following the simulation the group reflected on what they had learned.

Due to close links with the nursing process model (Rolf, 1998; Masters, 2009) this needs assessment was based on Kolb’s experiential learning theory (1984).

Kolb’s Learning StylesKolb (1999)

The needs assessment is reflected within the learning cycle.

The questionnaire and simulated practice reflected the learner’s knowledge and identified their learning needs – Concrete experience.

Group reflection and simulation exercise – Reflective observation.

Identifying topics for inclusion in the education – Abstract conceptualisation.

The learner’s application of new knowledge to practice when performing and teaching stoma care- Active experimentation.

Williams (1998) advises a combination of three methods of assessing learning needs. A triangulation approach addresses the limitations and assumptions of each (Robson, 1993).

A Lickert-type assessment tool was developed as the third method of assessing learning needs when observing the learners during their supervised practice and using the mannequin (Appendix 2).

These methods provide valuable qualitative and quantitative date, as it provides both concrete knowledge and opinion from the learners (Moule and Goodman, 2009; Polit and Beck, 2008).

Analysis of the Results of the Learning Needs Assessment

To analyse the questionnaire and ward observation each participant’s results are examined in turn and a personalised learning need will form a conclusion.

### The questionnaire was divided into four parts:

1. The Stoma (5/5= 25%)

2. Pouch management (4/4= 10%)

3. Skin assessment and treatment (6/6= 40%)

4. Prep for home (5/5= 25%)

### Analysis of Kate’s result’s

Kate showed a good basic knowledge of what a stoma and the importance of assessment and treatment of the parastomal skin.

These results would indicate that the theoretical component of the education programme will re-enforce Kate’s good knowledge base.

The results do however show that Kate does need to improve her knowledge with management of the stoma, namely the draining and timing of pouch changing and in the teaching and support of patients as the aim for self care of the stoma.

### Analysis of Amy’s results

Amy’s results have shown that she has a sound knowledge of stoma’s; there management; skin assessment and treatment of common simple problems.

This would reflect the experience Amy has within the colorectal specialty. Her single wrong answer reflects only that there is still room to learn. Experience is important but as technology and approaches change it is important to keep up with current trends and techniques.

### Analysis of Janet’s results

Janet’s results were also impressive, particularly as she has had no formalised nurse training. She showed a good basic knowledge of the stoma, although was unable to identify specifics. She did know the picture was an ileostomy but not that it was a loop-ileostomy.

Janet’s assessment skills also reflect good practice. She can identify changes in the stoma and has the knowledge and skills to adjust treatment to minimise minor setbacks like sore skin.

She showed a patient centred approach to teaching and supporting patients towards stoma self care; this may reflect that as a healthcare assistant Janet has greater patient contact and therefore has more ‘ hands-on’ experience.

### Analysis of direct observation

The information obtained from the Lickert-type observation study carried out during direct observation by the teacher was transferred onto a bar chart. This was compiled while the learners were practicing stoma care skills on the mannequin.

It compares the learners’ practical skills and highlights areas of good practice and where further practice is required.

The Lickert-type scale used documents each learner’s current level of competence. The range 1-5 was used, 1 (very poor) – 5 (very good).

The bar chart illustrates the strengths and weaknesses of each learner and makes comparisons among the group.

The chart reflects that Amy’s knowledge on stoma’s and management is better than her practical management skills. Kate requires further practice with both theory and practice. Janet has shown consistency with theory and practice, scoring well in both.

It is hoped that Kate, as the least experienced nurse will improve in time as her knowledge and skills increase as reflected by Benner (2001).

### Reflection the learning needs assessment.

Learning needs assessment is a specific form of educational research (Williams, 1998) and conducting a learning needs assessment requires careful planning. It forms a vital element of teaching within continuing professional development (McKimm, 2009). It is important to address a need rather than a preference for learning that benefits the organisation and enhances the practice of health professionals. Grant (2002) reported only limited evidence of educational effectiveness as a result of needs assessment alone, therefore it should be used in context within a wider learning plan which must be relevant to practice.

Learning needs assessments focus on identified need and often fails to address needs not looked for, therefore it requires flexibility (Hicks and Taylor, 2002 as cited in Dyson et al, 2009).

It re-enforces that the needs of individuals are different.

No single needs assessment is effective. Using a variety of assessment methods provides a comprehensive picture of an individual’s performance (Hesketh and Laidlaw, 2002).

SWOT analysis is an auditing tool developed by a research team from the Stanford Research Institute in the 1960’s, led by Albert Humphrey. It is built on the use of four dimensions: Strengths, Weaknesses, Opportunities and Threats which enables pro-active thought.

Strengths and weaknesses are internal factors; Opportunities and threats are external.

### Strengths

\* LNA produced information required to address a gap in knowledge and practice.

\* Observation of small sample identified individualised needs.

### Weaknesses

\* Only small sample used, Is this representative?

\* Is practice under observation reflecting everyday practice?

\* Time consuming.

\* Limiting due to design and response subjectivity.

### Opportunities

\* Address the knowledge gap through education.

\* Identify individuals with skills to act a link nurses.

### Threats

\* Response to survey may be poor.

\* Time and financial barriers to effective education.

Needs assessments should be an ongoing process which facilitates learning to ensure practice and knowledge are kept up to date (Hicks and Hennesy as cited in Dyson et al, 2009). It would be useful to carry out the needs assessment on a larger scale, perhaps initially throughout wards to ascertain knowledge and skills of all nurses within the surgical area

### References

1. Ausubel, D. (1978)

2. Bandura, A. (1977) Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall.

3. Bee, F. and Bee, R. (2003) Learning Needs Analysis and Evaluation. 2nd Edn. London: Chartered Institute of Personnel and Development.

4. Bekkers, M. J. T. M., van Knippenberg, F. C. E., van den Borne, H. W. and van Berge-Henegouwen, G. P. (1996) Prospective evaluation of psychosocial adaptation to stoma surgery: The role of self-efficiency. Psychosomatic Medicine. Vol. 58(2), pp183-191.

5. Benner, P. (2001) From Novice to Expert. Commemorative Edn. New Jersey: Prentice-Hall.

6. Burch, J. (2005) Exploring the conditions leading to stoma forming surgery. British Journal of Nursing. Vol. 14(2), pp94-98.

7. Burch, J. and Sica, J. (2008) Common peristomal skin problems and potential treatment options. The British Journal of Nursing. Vol. 17(17 Stoma Care Supplement), ppS4-S11.

8. Burns, N. and Grove, S. (2005) The Practice of Nursing Research: Conduct, Critique and Utilization. 5th Edn. St Louis, MO: Elsevier/Saunders.

9. DeSilets, L. D. (2007) Needs Assessment: An array of possibilities. The Journal of Continuing Education in Nursing. Vol. 38(3), pp107-112.

10. Dyson, L., Hedgecock, B., Tomkins, S. and Cooke, G. (2009) Learning needs assessment for registered nurses in two large acute care hospitals in Urban New Zealand. Nurse Education Today. Vol. 29(8) November, pp821-828.

11. Fulham, J. (2008) A guide to caring for patients with a newly formed stoma in the acute hospital setting. Gastrointestinal nursing. Vol. 6(8), pp14-23.

12. Grant, J. (2002) Learning needs assessment: assessing the need. British Medical Journal. Vol. 324(7330), pp156-159.

13. Hesketh, E. A. and Laidlaw, J. M. (2002) Needs Assessment. [Online] Available URL: http://www. nes. scot. nhs. uk/Courses/ti/NeedsAssessment. pdf. (Accessed 18th November 2009).

14. Hollinworth, H. et al (2004) Professional holistic care of the person with a stoma: online learning. British Journal of Nursing. Vol. 13(21), pp1268-1275.

15. Kolb, D. A. (1984) Experiential Learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall.

16. Kolb, D. A (1999) Experiential Learning Cycle. In: Kolb’s Learning Styles and Experiential Learning Model. (2008) [Online] Washington: Donald Clark. Available from: http://www. nwlink. com/~donclark/hrd/styles/kolb. html. (Accessed 14th December 2009).

17. Masters, K. (ed.) (2009) Role Development in Professional Nursing Practice. Massachusetts: Jones and Bartlett Publishers.

18. McKenzie, F., White, C. A., Kendall, S., Finlayson, A., Urquhart, M. And Williams, I. (2006) Psychological impact of colostomy pouch change and disposal. British Journal of Nursing. Vol. 15(6), pp308-316.

19. Metcalf, C. (1999) Stoma Care: empowering patients through teaching practical skills. British Journal of Nursing. Vol. 8(9), pp593-600.

20. Mitchell, A. (1995) The therapeutic relationship in health care: towards a model of the process of treatment. Journal of Interprofessional Care. Vol. 9(1), pp15-20.

21. Mailloux, J. P. (1998) Learning Needs Assessment: Definitions, Techniques, and Self-Perceived Abilities of the Hospital-Based Nurse Educator. The Journal of Continuing Education in Nursing. Vol. 29(1) Jan/Feb, pp40-45.

22. Norman, G. R., Shannon, S. I. And Marrin, M. L. (2004) Learning in Practice. The need for needs assessment in continuing medical education. British Medical Journal. Vol. 328 April, pp 999-1001.

23. Norris, J. and Spelic, S, S. (2002) Supporting adapting to body image disruption. Rehabilitation Nursing. Vol. 27(1), pp8-13.

24. Nursing and Midwifery Council (2008) The Code. Standards of conduct, performance and ethics for nurses and midwives. London: NMC.

25. O’Connor, G. (2003) Discharge planning in rehabilitation following surgery for stoma. British Journal of Nursing. Vol. 12(13), pp800-807.

26. Polit, D. F. and Beck, C. T. (2008) Nursing Research: Generating and assessing evidence for nursing practice. 8th ed. Philadelphia: Lippincott Williams and Wilkins, pp206-209.

27. Prashnig, K. (2006) Learning Styles in Action. London: Network Continuum Education.

28. Quinn, F. M. (2000) Principles and Practice of Nurse Education. 4th Edn. Cheltenham: Nelson Thornes.

29. Robson, C. (1993) Real World Research: A Resource for Social Scientists and Practitioner-Researchers. Oxford: Blackwell Publishing.

30. Rolfe, G. (1998) Beyone Expertise: Reflective and Reflexive Nursing Practice. In: Johns, C. and Dreshwater, D. (eds.) Transforming Nursing through Reflective Practice. Oxford: Blackwell Science.

31. Rust, J. (2007) Care of patients with stomas: the pouch change procedure. Nursing Standard. Vol. 22(6) July, pp43-47.

32. Skinner, B, F. (1954) The science of learning and the art of teaching. Harvard Educational Review. Vol. 24(2), pp86-97.

33. Simmons, K. L., Smith, J. A., Bobb, K-A. and Liles, L. L. M. (2007) Adjustment to Colostomy: stoma acceptance, stoma care self-efficacy and interpersonal relationships. Journal of Advanced Nursing. Vol. 60(6), pp627-635.

34. Smith, M. K. (1996; 1999) ‘ Andragogy’, The Encyclopedia of informal education, http://www. infed. org/lifelonglearning/b-andra. htm. (Accessed 6th November 2008).

35. Turnbull, G. B. (2002) The importance of coordinating ostomy care and teaching across settings. Ostomy/Wound Manag