

Linking nursing theory and practice using the Chapelhow Framework: A Case Study

Karen Jackson

Faculty of Education, Health and Community
School of Nursing and Allied Health
Liverpool John Moores University

Abstract

This article will explore how two Chapelhow enablers were used in the delivery of care with a patient who was at risk of developing pressure ulcers and malnutrition. The enablers chosen were assessment and risk management. It will explore the evidence available to support the efficacy of the tools used during assessment in addition to the nursing skills used and clinical judgement. Consideration will be given to record keeping in relation to the completion and updating of care plans tailored for the patient's specific needs, used as part of the risk management of the patient's current condition, and to prevent further deterioration and improve life expectancy. This is where the abstract would appear.

Keywords

Chapelhow, Assessment, Risk Management, Pressure Ulcer, Malnutrition,

Please cite this article as:

Jackson, K. (2018) Linking nursing theory and practice using the Chapelhow Framework: A Case study. *Links to Health and Social Care* Vol 3 (1), pp.



This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 Licence](https://creativecommons.org/licenses/by-nc-nd/4.0/). As an open access journal, articles are free to use, with proper attribution, in educational and other non-commercial settings.

Introduction

Chapelhow et al. (2005) describe a skill development model for students to use during their clinical training to enable them to approach their future nursing role holistically as delivering effective, individualised care. The model includes a framework of six components, described as enablers: assessment, communication, professional judgement and decision making, risk management, record keeping and documentation, and managing uncertainty. These are considered fundamental skills that can be used by the nurse across a range of care settings (Chapelhow et al. 2005). For the purposes of this article I will discuss two of these enablers, assessment and risk management showing how the tools were applied to a patient at risk of developing problems with skin integrity.

During the course of a 4-week placement in a nursing home for the elderly, I observed and participated in the delivery of health care for a resident (who shall be called Michael throughout this article). Permission was granted by Michael's advocate to use his case, in accordance with the Mental Capacity Act (2005) Code of Practice and with appropriate ethical consideration, personal information will not be disclosed. The setting will not be identified. The protection of Michael's privacy and confidentiality is a fundamental part of the Nursing and Midwifery Council (NMC) Code of Conduct (2015).

Assessment

Soon after Michael's arrival, I was involved in assisting in his care delivery in accordance with an individualised care plan. Michael previously had a pressure ulcer which successfully healed. Nevertheless, he needed assistance with all personal care and

continence needs, administration of medication, diet and fluids. He had recently been discharged from hospital following a deterioration in his appetite, general health, and significant weight loss. All of these factors are strong predictors of future susceptibility of pressure ulcers, malnutrition and perpetuation of health deterioration, according to the National Institute of Clinical Excellence (NICE 2014a).

Michael was suffering with advanced dementia, and had a pressure ulcer that was assessed as grade 2 according to the National Pressure Ulcer Advisory Panel, the European Pressure Ulcer Advisory Panel and the Pan Pacific Pressure Injury Alliance (NPUAP/EPUAP/PPPIA 2014) pressure ulcer assessment guidelines. Michael was weighed upon hospital admission and was found to have a body mass index (BMI) of 17. This score was an indication of malnutrition according to the British Association for Parental and Enteral Nutrition (BAPEN 2017a). Prior to his hospital stay, Michael was cared for at home by an elderly relative who then suffered a fall. This injury impacted on her mobility, which further impacted her ability to care for Michael, who was subsequently cared for by his local authority's care services whilst awaiting a place at the nursing home.

According to Chapelhow et al. (2005), an assessment identifies potential risks to health. Identification of risk factors, leads to an appropriate management plan; thus avoiding further decline in function. In Michael's case, these plans included the use of an accepted pressure ulcer and nutritional risk assessment tools. The care plan also facilitated the documentation of clinical observations and evaluation of care provided. The priority being to promote healing of the existing pressure injury and to determine future risk. The further

desired outcome was to enable Michael to gain weight and therefore avoid further malnutrition.

The assessment tools used included a validated pressure ulcer risk assessment scale. On this occasion the Waterlow Score was applied this being the tool used by both the hospital trust and the nursing home. NICE (2014a) recommend using one of a range of tools to support clinical judgement, immediately from diagnosis and grading of the pressure ulcer. This is supported by the European Pressure Ulcer Advisory Panel (EPUAP 2014), and organisational policies in the clinical setting. This was the tool recommended to use within the clinical setting and referred to in the local policy.

It should be noted that, during Michael's hospitalisation his care plan recorded a Waterlow assessment score of 12. On admission to the nursing home, Michael now scored between 10-19 and so at risk of further pressure ulcers (NICE 2014b). A Malnutrition Universal Screening Tool (MUST) recommended by BAPEN (2017a) was used by nursing staff, using his BMI score of 17. This score is one of the criteria used in generating an overall MUST score (BAPEN 2017a). In using the tool for Michael a score of 10 was calculated, indicating that Michael's nutrition should be managed by the dietetic service or by the nursing home following discharge. Michael's care plan had been adapted to continue the hospital-prescribed regime, following discharge from the dietetic service. On admission, Michael's relative was able to supply some details of his medical history (including current medication), and food preferences, although it was unknown how much weight Michael

had lost in previous months whilst at home. His relative was not aware of his accurate weight loss, but had noticed that his clothes no longer fitted.

Strength and weaknesses of the tools

Anthony et al. (2009) state that assessment scales can over complicate, containing important criteria that are not correctly supported by their value range. Also, in the case of adults, components in the Waterlow tool may be weighted by the number of questions, such as age being given more importance appetite and continence components. Moreover, Anthony et al. (2009) suggest that there are components which are unnecessary on the Waterlow scale, for example the biological sex enquiry scoring women higher; this aspect of presentation has not been found to be a determining factor.

Webster et al. (2010) state that the predictive rates of the Waterlow tool are so poor they are an unreliable predictor. The rationale for this included the lack of correct height and body weight to successfully calculate body mass index (BMI) scores owing to a lack of weighing scales on the wards, or patients being unable to be moved from their hospital bed - indeed, 27% of prospective subjects were discounted due to the lack of an accurate BMI calculation (Webster et al. 2010). Both BAPEN (2017b) and NICE (2017) suggest a calculation of BMI can be estimated by measurement of the ulna in the forearm and the circumference of the upper arm to estimate height. Furthermore, since other components of the tool, i.e. the degree of mobility and nutrition fluctuate on a daily basis, this evidence could render the tool worthless in some cases (Webster et al. 2010); O'Tuathail and Taqi (2011) in their study concur believing that the Waterlow tool's predictive ability is poor and limited resources could be used better.

Clinical Judgement

During my discussions with colleagues about the use of assessment tools versus clinical judgement, I became interested in the rationale behind the use of these tools. Upon researching these tools in comparison with clinical judgement, I began to see greater relevance and importance of clinical judgement when undertaking a skilled assessment. Skilled nurses use clinical judgement to arrive at decisions that promote good health and improved patient care, by observation skills, logic and deductive reasoning, knowledge and experience that develop over time, and best practice; to arrive at a course of action that achieves the desired outcomes for the patient (Chapelhow et al. 2005; Thompson et al. 2013).

Clinical judgement was involved in Michael's initial assessment by the nurses when Michael was first admitted to the ward. This included skin inspection and referral to a NICE guideline (NICE, 2014b) recommendation such as the European Pressure Ulcer Advisory Panel classification system (EPUAP, 2014) The ulcer was categorised as grade 2 and Michael was then referred to the tissue viability specialist nurse. Continued management of the pressure ulcer then passed to the nurses at the nursing home, with input from a district nurse where necessary. With regards to nutrition, clinical judgement was also applied by the in-trust dietician and Michael's GP in his on-going care. Anthony et al. (2009) consider clinical judgement to be an equally valid tool in risk assessment, whilst Pancorbo-Hidalgo et al. (2006) stress the importance of assessment tools to support nursing clinical judgment.

Treatment

The processes of assessment and risk management are more than just identifying the risks, but also how staff manage the risks, and avert undesired outcomes (Chapelhow et al. 2005). In Michael's case these were the lack of healing or deterioration of his existing pressure ulcer, and potentially developing others, and malnutrition. Michael had pressure relief every two hours, to review vulnerable pressure points and erythema (redness) consistent with NICE ulcer prevention and management guidelines (NICE 2014b); any other concerns were reported. Michael also had a higher specification foam mattress on his bed as recommended by National Pressure Ulcer Advisory Panel & European Pressure Ulcer Advisory Panel (2009). Special sheepskin boots were worn at all times to support his foot, as bony prominences including heels are prone to friction leading to pressure ulcers in people of low mobility like Michael NPUAP/EPUAP/PPPIA (2014). Rajpaul and Acton (2016) note a reduction of 43% in pressure ulcers to heels when heel protection devices are in place. Hydrocolloid dressings suitable for grade 2 ulcers were used to reduce the number of changes and the likelihood of pain and promote healing (Wounds International 2011; NPUAP/EPUAP/PPPIA 2014). These strategies had been in place for some time.

I was able to observe and assist in two dressing changes a week apart, and note the changes to the condition of the ulcer over that period, and compare them to photographs of the ulcer at diagnosis. In the second dressing change it was possible to identify an improvement in the size and condition of the pressure ulcer. It was during one dressing change that the nurse noticed soiling due to urinary incontinence following displacement of a continence pad on re-positioning to reduce contraction of limbs (Hickey and Powers

2009). The nurse highlighted the need for the carers responsible for providing pressure relief to ensure that this was not repeated as the risk of future pressure ulcers was increased owing to the presence of moisture (NPUAP/EPUAP/PPPIA 2014).

Risk Management

Michael's care plan also included a risk assessment for diet and fluid consumption, as he was deemed at risk of malnutrition and dehydration. The decision was taken to continue using food and supplements rather than tube feeding due to increased discomfort and agitation in patients with advanced dementia (Lam and Lam 2014). Smith (2008) state that adequate intake of diet and fluids is essential for maintaining health and preventing unintended weight loss. As Michael's appetite had decreased, he continued to receive support from the discharging local hospital trust's speech, language and therapy (SALT) team, dietician, and his GP. Dietary supplements were also provided as recommended in the NICE guidelines (2017) for delivering effective patient-centred care.

Following assessment from the SALT team, a pureed diet was decided upon, due to his problems with swallowing (dysphagia). Unfortunately, Michael did not like it, and he was given a normal diet with softer options. Fortunately, Michael's dysphagia improved with the soft food diet when he returned to the nursing home. Other recommendations included regular weight monitoring, a diet rich in fruit and vegetables and a daily fluid intake of 1500 - 2000mls. The dietician supplied a list of suggested foods such as porridge, thick soups, full-fat desserts and scrambled eggs. Ideally, providing foods tailored to Michael's preferences would help to optimise eating (Dunne 2010), however, Michael was unable

to express his preferences to staff due to his deteriorating cognitive functioning. It was therefore necessary to rely on family to inform staff of Michael's taste.

Other nutritional issues included Michael's expressed dislike of the dietary supplement drinks, and his preference for sugary drinks or tea. The staff were challenged at times to ensure Michael took on enough fluids, and adequate amounts of food; particularly during busy mealtimes when there are other residents with similar needs. To assist with this, staff documented his intake on diet and fluid charts, which were monitored by the nurse in charge. I was involved in assisting Michael with his diet and fluid consumption, and understood these challenges. Trying at quieter times rather than meal times, often produced success. Noisy environments can be distracting and discouraging for dementia patients and inhibit successful feeding (Chang and Roberts 2011). At other times Michael seemed to lose interest part way through feeding. It is recommended that a 'little and often' approach be taken however this depends upon the context in which care is given (Dunne 2010, p.116). It is not always possible in a nursing home or hospital setting where there may be staff shortages and busy environments, and as such there are negative impacts on person-centred nutritional care (Murphy, Holmes and Brookes 2014). Despite these challenges, since leaving the hospital Michael gained a little weight, giving a positive evaluation of the implementation of the care plans.

Conclusion

During my experience on this placement, I gained some insight into how nursing practice occurs in the community, and how to relate this to nursing theory. I have looked at the

tools and skill used during assessment. There is a wealth of evidence of the strengths and weaknesses of pressure ulcer risk assessment tools; focusing particularly on the Waterlow assessment tool (Anthony et al. 2009; Webster et al. 2010). I also looked at the use of a malnutrition screening tool in determining Michael's malnutrition (BAPEN 2017a) and therefore the hospital dietitian's responsibility for his nutritional needs. In addition, I considered the skill of clinical judgement, where practitioners of different specialties provided a range of informed, specialist experience and knowledge in providing effective, person-centred care to achieve desired outcomes (Chapelhow et al. 2005).

The evidence of the efficacy of structured screening tools in supporting clinical judgement was called into debate in my discussion, concluding that clinical judgement plays an equally valuable role in risk management in nursing – than the tools alone (Anthony et al. 2009). In Michael's case, the process of nursing care, using accepted guidelines and good clinical judgement, produced good outcomes in the short time I was involved in his care. I observed improvements to Michael's health due to the planning and implementation of his care plan, despite some issues e.g determining foods that Michael likes to aid adequate intake of diet and fluids. I also witnessed improvement in his pressure ulcer in appearance and experienced the role of nursing expertise in recognising where the care plan was not implemented correctly, and is an example of best practice intervention (Chapelhow et al. 2005; Thompson et al. 2013).

Overall, my experience demonstrated the role of nursing theory in practice, where, following assessment and risk management, patient-centred care could be adapted in

accordance with the patient's individual needs; critical in achieving the desired health outcomes (Chapelhow et al. 2005; Thompson et al. 2013).

References

Anthony, D., Papanikolaou, P., Parboteeah, S. and Saleh, M. (2009). Do risk assessment scales for pressure wounds work? *Journal of Tissue Viability* (19) pp.132-136. [Online] Available at: <https://www.magonlinelibrary.com/doi/10.12968/bjon.2013.22.Sup4.S4> [Accessed 25 November 2017]

BAPEN (2017a) 'MUST' Calculator. [Online] Available at: <http://www.bapen.org.uk/screening-and-must/must-calculator> [Accessed 1 November 2017].

BAPEN (2017b) *Alternative measurements: instructions and tables* [Online] Available at: http://www.bapen.org.uk/pdfs/must/must_page6.pdf [Accessed 26 November 2017].

Chang, C. and Roberts, L. (2011). Strategies for Feeding Patients with Dementia. *The American Journal of Nursing*. 111(4), pp 36-46. [Online] Available at: https://journals.lww.com/ajnonline/Abstract/2011/04000/Strategies_for_Feeding_Patients_with_Dementia.18.aspx [Accessed 1 December 2017]

Chapelhow, C., Crouch, S., Fisher, M., and Walsh, A. (2005). *Uncovering skills for practice*. Cheltenham: Nelson Thornes

Department for Constitutional Affairs (2007). *The Mental Capacity Act 2005 Code of Practice*. London: TSO

Dunne, A. (2010). Nutrition and dementia. *Nursing and Residential Care*. 12 (3), pp.112-116. [Online] Available at: <https://www.magonlinelibrary.com/doi/10.12968/nrec.2010.12.3.46668> [Accessed 5 December 2017]

EPUAP (2014) *Prevention and Treatment of Pressure Ulcers: Quick Reference Guide* [Online] Available at: <http://www.epuap.org/wp-content/uploads/2016/10/quick-reference-guide-digital-npuap-epuap-pppia-jan2016.pdf> [Accessed 5 December 2017].

Hickey, JV. and Powers, MB. (2009). Management of patients with a depressed state of consciousness. In: Dougherty, L., Lister, S. and West-Oram, A. (eds.) *The Royal Marsden Manual of Clinical Nursing Procedures*. 9th ed. London: Wiley Blackwell pp. 201-246

Lam, RE. and Lam, PJ. (2014). Nutrition in dementia. [Online] *Canadian Medical Association Journal*. 186 (17), pp 1319-1319. [Online] Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4234718/> [Accessed 5 December 2017]

Murphy, JL., Holmes, J. and Brooks, C. (2014). Nutrition and dementia care: developing an evidence-based model for nutritional care in nursing homes. *BMC Geriatrics*. 17 (55) pp.1-1. [Online] Available at:

<https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-017-0443-2> [Accessed 5 December 2017]

National Institute for Health and Care Excellence (2014a). *Patient-centred care* [Online] Available at: <https://www.nice.org.uk/guidance/cg32/chapter/Patient-centred-care> [Accessed 25 November 2017].

National Institute for Health and Care Excellence (2014b). *Pressure ulcers: prevention and management* [Online] Available at: <https://www.nice.org.uk/guidance/cg179/chapter/1-Recommendations#prevention-adults> [Accessed 25 November 2017].

National Institute for Health and Care Excellence (2017). *Screening for malnutrition and the risk of malnutrition in hospital and the community*. [Online] Available at: <https://www.nice.org.uk/guidance/cg32/chapter/1-Guidance> [Accessed 25 November 2017].

NMC (2015) *The Code: Professional standards of practice and behaviour for nurses and midwives*. London: NMC

NPUAP/EPUAP (2009) *International Guideline: Pressure Ulcer Treatment Technical Support* [Online] Available at: <http://www.npuap.org/wp-content/uploads/2012/03/Final-2009-Treatment-Technical-Report1.pdf> [Accessed 26 March 2018]

NPUAP/EPUAP/PPPIA (2014) *Prevention and treatment of pressure ulcers: Quick reference guide*. [Online] Available at: <http://www.epuap.org/wp-content/uploads/2016/10/quick-reference-guide-digital-npuap-epuap-pppia-jan2016.pdf> [Accessed 20 November 2017].

O'Tuathail, C., and Taqi, R., (2011) Evaluation of three commonly used pressure wound risk assessment scales. [Online] *British Journal of Nursing* (20) Issue Sup2 pp S27-S34 [Accessed 1 December 2017]

Pancorbo-Hidalgo, PL., Garcia-Fernandez, FP., Lopez-Medina, IM., and Alvarez-Nieto, C. (2006) Risk assessment scales for pressure wound prevention: a systematic review. [Online] *Journal of Advanced Nursing*, Vol. 54, (1) pp. 94–110 [Online] Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2648.2006.03794.x> [Accessed 5 December 2017]

Rajpaul, K. and Acton, C (2016) Using heel protectors for the prevention of hospital-acquired pressure ulcers. *British Journal of Nursing*. Vol. 25 (6) pp. S18-S26 [Online] Available at: <https://www.magonlinelibrary.com/doi/pdf/10.12968/bjon.2016.25.6.S18> [Accessed 28 March 2018]

Smith, A (2008). Nutrition in care homes: going back to basics *Nursing and Residential Care* Vol. 10 (2) pp, 68-72 [Online] Available at:

<https://www.magonlinelibrary.com/doi/abs/10.12968/nrec.2008.10.2.28122> [Accessed 25 March 2018]

Thompson, C., Aitken, L., Doran, D, and Dowding, D. (2013). An agenda for clinical decision making and judgement in nursing research and education. *International Journal of Nursing Studies*, 50 (12), pp.1720-1726. [Online] Available at: [http://www.journalofnursingstudies.com/article/S0020-7489\(13\)00144-2/fulltext](http://www.journalofnursingstudies.com/article/S0020-7489(13)00144-2/fulltext) [Accessed 5 December 2017] Page | 14

Waterlow, J. (2007) *The Waterlow Assessment Tool*. [Online] Available at: http://www.judy-waterlow.co.uk/waterlow_score.htm [Accessed 1 November 2017].

Webster, J., Gavin, N., Nicholas, C., Coleman, K., and Gardner, G. (2010). Validity of the Waterlow scale and risk of pressure injury in acute care. [Online] *British Journal of Nursing*. (Tissue viability supplement), 19 (6), S14-S22. Available at: <https://www.magonlinelibrary.com/doi/pdf/10.12968/bjon.2010.19.Sup2.47246> [Accessed 25 November 2017].

Wounds International (2011) Pressure ulcers and hydrocolloids made easy *Wounds International* Vol. 2 (4) pp 1-6 [Online] Available at: http://www.woundsinternational.com/media/issues/516/files/content_10143.pdf [Accessed 5 December 2017]