

Reflection on the understanding of wound aetiology



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Whilst on Community placement, an event occurred which enabled me to reflect on how important it is to understand the aetiology of wound care in order to practice holistically when delivering care to patients. In order to assist the reflection process the Gibbs (1988) Reflective Cycle will be used which encompasses 6 stages; description, thoughts and feelings, evaluation, analysis, conclusion and action plan which will help me to continually develop and improve my nursing skills and knowledge through evidence based learning whilst developing my self confidence in relation to caring for others (Siviter 2008). To maintain confidentiality and comply with the NMC Code of Conduct (2008) all names have been changed.

Description

My mentor and I had visited a patient, who will be known as Mary (NMC 2008) in her own home. Mary is an elderly lady, who lives alone and had been suffering with chronic leg ulcers for a number of months which had not shown any signs of improvements for a number of months. The purpose of the visit was to take down the existing dressings, assess any improvement or deterioration in the wounds and to treat and redress the wounds in accordance with the current care plan. As predicted there was no significant improvement in the wound. Therefore I debrided the wounds, applied an emolument and redressed with NA dressings, gauze and applied a 4 layer bandage which is recommended in the study by () under the supervision of my mentor.

After leaving a patient's house my mentor and I discussed the visit and talked about the importance of not just treating the obvious problems but

taking an holistic approach. During this discussion my mentor asked me to assess Mary's nutritional status and if required talk to her about the importance of healthy eating and the positive implication it may have on wound healing during our next visit.

Thoughts and feelings

I have always been interested in the importance of nutrition in respect of health and was had a vague aware that it had an effect on wound healing. (DH 2010). As we visit a number of patients with chronic leg ulcers I thought it would be a great advantage if I understood the aetiology of wound healing and what effect nutrition had on the process, I also felt that if people could be empowered to improve their nutritional status and maximise to maximise their healthy outcomes then this would be a very powerful tool. Although there are many factors wound fail to heal and a holistic approach should be taken. This assignment will focus on wound healing and nutrition.

Evaluation

I felt empowered that I could affect people's health in providing quite simplistic knowledge in terms of health promotion to people and was able to deliver holistic care to mary in accordance with the NMC code of professional conduct (2008).

If Mary had been given information sooner on the effect good nutrition may have on her wound healing then she may be in a position where her legs would have been improved sooner.

Analysis

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There are many definitions of a chronic wound with one of the simplest perhaps being described by as a “ skin defect persisting longer than 6 weeks or frequent recurrence of the defect”.

Wounds, especially chronic wounds are amongst the major unresolved medical problems which can affect quality of life and are a significant burden on health care costs (Thomas 2006). In the UK, there are around two hundred thousand suffering from chronic wounds at any one time. The healthcare cost for these patients is estimated to be £2. 3-£3. 1 billion per year (Posnett and Franks 2008).

Infection, poor nutrition and impaired organ function are the main reasons many wounds fail to heal (Johnson et al 2005). However to optimise effective wound healing a holistic approach should be taken and therefore these reasons should not be reviewed in isolation.

The process of wound healing is a series of cellular and biochemical events which can be categorised into three stages of inflammatory, proliferative and maturation. The healing process is complex; these stages can often overlap and result in the healing process moving forwards and backwards in response to various factors (1). Whilst a wound is healing there is a significant increase in cell proliferation, protein synthesis and enzyme activity which demands energy which would normally be released from protein reserves and energy stores (1). The body mainly uses glucose to provide this energy during cellular activity such as protein synthesis, cell division and secretion (Bray et al 1999).

When body tissue is damaged the hypothalamous responds by releasing the stress hormone catecholamines which in turn increases the bodies glucose levels (Morrison et al 1999). Evidence suggest that wounds can increase the body's metabolism which, if not addressed will result in weight loss, a particular problem with elderly people (Lal et al 200- and DeSanti 2000). Clark 2002 also states that a lack of sufficient energy sources can inhibit wound healing resulting in body fat being broken down and used as a substitute for glucose to assist the healing process. Morrison et al (1999) also confirms that inadequate nutrition can reduce the effect of the systemic response and consequently delay the wound healing process. (1).

Landsdown (2004) says that although wound healing is an individual process which varies from patient to patient due to factors such as age, sex, health status, socioeconomic, racial and geographical influences, correct identification and treatment of chronic wounds is paramount to successful wound healing. What is agreed is by many that to promote the best possible wound healing opportunities the body will demand energy and requires nutrients for proliferation and maintenance (sev references).

Nutrition is recognised as the cornerstone of good health by the World Health Organization (WHO) and The National Service Framework for Older People highlight nutrition as an important area for nurses to assess properly, observe for malnutrition and taking action, such as advice and support if nutritional requirements are inadequate (DH 2001).

There are many studies which have concluded that nutrition plays an important part in the process of wound healing. In particular many

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acknowledge the link between the inflammatory stage and nutrition (Sobotka and Meguid 2010). Many chronic wounds remain in the inflammatory stage. Casey (2003), states that the healing process can be prevented or significantly delayed when patient's diet does not contain essential nutrients. Brown et al (2010) agrees with this and suggests that whilst nutritional requirements vary between patients a lack of adequate nutrients cause delayed wound healing.

However, there is much research to show that nutrition is crucial in a holistic approach to wound healing (Todorovic 2002). According to Bryant (2000) the importance of adequate nutrition for good wound healing should not be underestimated. Williams and Leaper (2000) concur stating that whereas good nutrition facilitates healing, malnutrition delays, inhibits and complicates the process. If a patient's nutritional status is compromised, and they are unlikely to meet their requirements for recovery (Collier, J., 2006)

However Sobotka and Meguid (2010) point out there is still a lack of sound wound healing studies due to a number of reasons such as design and execution, and lack of full understanding of the pathophysiology of wound aetiology and understanding of the more complex wound healing issues. They also suggest there are many rituals and myths surrounding wound healing which delays the process and affects the advances and progress of wound healing therapies.

Nutrition deficiencies have been found in some patients with wounds.

However, evidence suggests nutrition is not an exact science in relation to wound healing and is relatively unexplored

Protein, vitamins and some amino acids are all important factors in the effectiveness of wound healing. Proteins are the mainstay for tissue growth, cell renewal and repair. They have a significant impact many stages of the wound healing process. Continuous protein malnutrition compromises the immunity system and has a detrimental effect on the skin which becomes thinner and wrinkled (Brown et al 2010).

In particular Vitamin B is found in meat, dairy, vegetables and fish and cereals. Vitamin b helps to promote cell proliferation, maintain health skin and muscle tone, support and increase metabolic rate and enhance immune and nervous system functions and therefore deficiencies in this vitamin can hinder wound healing (Landsdown 2004). Studies have shown that elderly patients with chronic wounds have consumed less than two-thirds of the recommended daily allowance for vitamin B.

Paragraph on amino acids

The elderly in particular can become nutritionally vulnerable. 30% are at a high risk of being malnourished in the UK and a further 70% at moderate risk. Malnutrition is a major cause for concern in elderly people, whether they are hospitalised or live in the community. It is important for nurses to be aware that sub-optimal nutrition has a detrimental effect on the body's ability to heal wounds. Nutritional deficiency also impact's on a person's well being such as muscle function, immune response, respiratory function, rehabilitation and mental status (Kirshbaum 2009).

There are many reasons older people suffer with malnutrition which include decreases appetite, psychosocial factors such as isolation and depression, <https://assignbuster.com/reflection-on-the-understanding-of-wound-aetiology/>

impaired cognition, teeth and chewing problems, help with eating, poor positioning and acute illnesses which effect gastrointestinal absorption and requires higher nutritional input (Harris 2004). During short periods of starvation the body can lose 60-70 grams of protein. However severe trauma or sepsis can increase this loss to 150-250 grams per day (Wild et al 2010).

To compensate for this loss, in addition to regular food intake, nutritional supplements containing protein and energy are often prescribed which would seem a logical way to replenish nutrients and supply additional nutrients to aid wound repair(Wild et al 2010) (Schols J et al 2009). However Brown et al (2010) states nutritional supplements in the context of wound healing is a relatively unexplored area suggesting this may be because nutrition is not an exact science. To further add to this argument Krishbaum (2009) says that detailed information on supplements and their ability to help with wound healing is not available. Williams and Barbul (2003) confirms that controversy surrounds the area of wound care and nutritional supplements.

A patient's nutritional requirements are a fundamental aspect in the provision of holistic care and it is important for nurses to consider this when carrying out a nursing assessment to formulate a wound management plan. Together with other health professionals it is the nurse's responsibility to gain knowledge in nutritional support to be able to offer help and advice and if necessary counsel undernourished patients in ways to improve their diet (Johnstone et al, 2005)..

According to (Hopkins, 2001) nursing assessments, particularly of wounds, can be inclined to concentrate on physical aspects of wound management,

for example the use of appropriate dressing and infection control. This was also evident from observation and participation of practice nursing work experience. There is evidence that poor nutritional status adversely effects wound healing (Haydock and Hill, 1986), delays healing and increases the risk of wound dehiscence (Ruberg, 1984), and that dietary intervention can improve or accelerate wound healing.

Conclusion

Nutrition is important in wound healing although it is impractical to consider nutrients in isolation, several nutrients appear particularly important for wound healing. Proteins and amino acids are vital for tissue growth, renewal and repair after injury.

Several studies have found deficiencies in various wound patients. Most studies have been small in size and of short duration.

From the research many of the info has come from America and not so much been done in the UK. However, I still think that the importance of nutrition is still a vastly underestimated and ignored issue in primary care, not just my general practice. I at the beginning of this module knew little about nutrition and healing and feel that perhaps other health professionals could become better informed. On reflection incorporating teaching sessions for other healthcare staff may have addressed this concern. I intend to now keep myself informed of advances in nutrition and healing and continue to assist patients and colleagues understanding.

From the perspective of a General Practice Nurse (GPN) it was considered that they may be ideally suited to act as facilitator to aid nutritional assessment and education of those in the practice population with wounds.

Assessment

Action Plan

I am still going to visit this lady twice a week and am going to ask at each visit if she is still eating healthily and what she has had to eat and offer simple suggestions in ways to eat food which will promote her wound healing, which in turn should improve her lifestyle. And I am going to look for other opportunities to teach and promote health whilst clinically treating patients.