



Importance of Pain Management in Wound Care (Literature Review)

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Importance of Pain Management in Wound Care

Physiologically, wounds play a significant role in the body. The healing of a wound draws from several systems of the body and increased and decreased healing impacts other systems. It is foolish to ignore the ramifications wounds present to patients, the medical professional treating the patient, and the fiscal impact to the health care facility. A common wound is a pressure ulcer, which may be present in one or multiple parts of the body. These ulcers have different etiologies, may be large or small, deep or shallow. Different parts of the body function in different ways and skin quality differs depending on physical location, age and health. The level of healing differs not only from person to person, but from wound to wound, however the care of wounds has only evolved slightly.

The only common denominator of any wound is pain, and pain is phenomenological. Therefore, it would be prudent to understand how to manage the pain in conjunction with management of the wound to achieve the best possible results for the patient, healthcare worker, and the facility. Viewing wounds as one topic becomes too broad, and the need to narrow the investigation is a priority in order to guard against bias and bracketing. For that reason, the literature review for this paper was centered upon one question: In adult patients with pressure ulcers how does pain management in collaboration with wound care influence better adult patient outcomes compared with patients who don't receive pain management in addition to wound care?

The theoretical framework used in this study was to gather information pertinent to pressure ulcers involving multiple disciplines, products and analgesics. In order to avoid duplicity and wanting to view the research through multiple viewpoints, different types of studies using different modes of information gathering were used. Choices were made to include

articles that offered more of a worldwide perspective. Only one of the eight articles reviewed specifically used a theoretical framework. The other articles used included: pre-post test, controlled trial without randomization, a systematic review of qualitative or quantitative information, descriptive study, hermeneutic phenomenology, interview based questionnaire, and a convenience sample. The articles had a level of evidence ranging from an II to an IV, three having a level II, three having a level III and two having a level IV. Multiple databases were explored, but *CINAHL* and *Ostomy Wound Management* were used. The key words and limiters were Pain Management AND Chronic wounds (65+ years), Dressing Changes AND Pain AND Wounds (65+ years), Pain AND Pressure Ulcers (65+ years), Pain Management AND Pressure Ulcers AND Nursing (65+ years), Wound AND Pain Management AND Nursing (65+ years), Pain Management AND Elderly Patients AND Acute Settings (65+ years), Pressure Ulcer Pain (no limiters), Reducing Pain (no limiters). A total of sixty-eight articles were reviewed and of those eight were chosen for inclusion. The order in which the article were reviewed and used ranged from the least credible to the most creditable.

The first article, by Hollinworth, H. (2009) was the least credible, basing its research on the need for furthering the education of nurses about wound related pain, inclusive of products used and reasons for pain. The study identified that education does not necessarily change the way a nurse practices, as well as identifying that there are deskilled healthcare workers present (Hollinworth, 2009, p. 8). This was a correlation study lasting four months, which used an audit questionnaire with a pre-post test. Management of wound related pain, prior to and after education was the focus. This literature revealed that many of the nurses participating in the education did not change their focus, patient care technique or products used (Hollinworth, 2009, p. 8). The reason for using this literature was to prove that although nurses should be life long learners, the mode and level of education needs to be modernized, different venues and tools

need to be explored, and education, in of itself, should be prioritized in order to avoid deskilled personal.

An article by Upton, D., Solowiej, K., Hender, C., & Woo, K.Y. (2012) addressed the stress and pain associated with dressing changes in patients with chronic wounds. This was a non-randomized study with an experimental design. The opportunity sample of patients with chronic wounds, included venous leg ulcers, diabetic foot ulcers, pressure ulcers and a category of “other” chronic wounds. Forty-three patients with a means age of seventy-one, +/- fourteen years, of which forty-two percent were male and fifty-eight percent were female. This study focused on monitoring the heart rate of patients at dressing change. It proved that there was an increase in heart rate, blood pressure, respiration rate, numerical stress ratings and state anxiety scores at dressing change (Upton et al., 2013, p. 56-58). This study did not limit itself to nurses, but encompassed all health professionals involved in dressing changes. This is a study that focused on evaluating non-invasive procedures and how the body naturally reacts when faced with a dressing change. Both this and the aforementioned study took place in the United Kingdom.

Price, P.E., Fagervik-Morton, H., Mudge, E.J., Beele, H., Ruiz, J. C., Nystrom, T. H., Lindholm, C., & Maume, S. (2009) conducted a study that focused on how chronic pain impacts the quality of life. Research was gathered from fifteen countries using a qualitative, cross-section questionnaire design study. Two thousand and eighteen patients participated in the study, involving fifty-seven percent female and forty-three percent male, suffering from leg ulcers and ulcers of unknown etiology. The patients were monitored for pain levels, pain relief, dressings and dressing products. The patients reported the impact to their lives when dealing with wounds, in order of being most problematic is: pain, impaired mobility, difficulties in bathing, leakage, odor and dressing/bandage slippage. The study also revealed that patients reported their level of

pain during dressing change, in order of being most painful: touching/handling, cleansing, dressing removal, time after application of new dressing, and time waiting for dressing change (Price et al., 2009, p. 162).

The next study used was the turning point mechanism of the review of articles. It combined the monitoring and measuring of the level of awareness and assessment of pain caused by pressure ulcers, as well as treatment options. This study by Gunes, U. (2008) used a descriptive, qualitative and quantitative mechanism. The study was conducted in Turkey and focused on pressure ulcer pain. The qualitative method was applied to the phenomenon of pressure ulcer pain and the quantitative method was applied to a cross-sectional descriptive questionnaire design, using the McGill Pain Questionnaire and Faces Rating Scale-Revised. Forty-seven hospitalized patients were used, sixty-one percent were men and thirty-eight were women ranging from thirty-eight to seventy-two years old (Gunes, 2008, p.61). The study proved that caregivers should be better informed, more attentive and sensitive when dealing with pressure ulcer related pain, pain-reducing measures should be incorporated into the initial plan of care and how dressing type, pain medication and complimentary alternative medical techniques should be further investigated and the results applied to combat pain and increase the quality of life within the population of these patients.

McLiesh, P., Mungall, D., & Wiechula, R. (2009) asked the question: Are we providing the best possible pain management for our elderly patient in the acute care setting? This study focused on the need to address pain, which was a four-phase project, including seven teams, titled: *Older Person and Improving Care Project*, dubbed (TOPIC 7), conducted in Australia. The phases were broken out as: describing, measuring, and taking action and review and share. There was an initial and follow-up audit over a period of two months in one vascular and three

orthopedic wards. The participants were sixty-five years of age or older with issues communicating. The study identified that sixty-two percent of the patients were not given analgesics prior to mobilization or dressing changes, which impacted their quality of life, healing time and level of healing. It also identified the need for development of a new pain scale and further education. A new pain scale was developed which was named the “Abbey Pain Scale,” and when further education was utilized, awareness was increased, positively impacting the patient and the facility’s budget (McLiesh et al., 2009. p.174-175).

Kohr, R., & Gibson, M. (2008) conducted a hermeneutic phenomenological study focusing on the relationship between caregiver and patient, and this relationship would impact pain management. The study was conducted in Canada, and focused on eighteen nurses performing wound care in long-term, acute-care and community-care settings. This study used an interview format to elucidate the meaning of their experiences. The findings addressed the complications associated with skin ulcers, which included: depression, decreased mobility, nutritional deficits, sleep disturbance, and passivity. A survey was conducted of three thousand, nine hundred and eighteen nurses throughout the United States and Europe, which revealed that fifty percent were unfamiliar with: products that decreased wound pain/trauma, pain management mechanisms that should be included in care plans and the impact of culture and/or age when dealing with people with pain. (Kohr et al., 2008, p. 55-56) The results offered that there is a need for: a verbal and non-verbal communication tool during dressing changes, an awareness between caregiver and patient of trust and empathy because dependent people passively accept pain, more education about dressing products, the importance of bedside nurse rapport, modernization of education, alternative pain management, pain indicators and documentation, opioid use, and medication misinformation. The initiative created by the nurses involved in this study was dubbed, “Hearts, Hands and Minds.”

In France a study was conducted by Meaume, S., Teot, I., Lazareth, I., Martini, J. & Bohbot, S. (2008) which focused on the importance of dressing selection, awareness of pain and the impact it had during dressing change, the increased population in need of wound care and the need for further education. This was a prospective cohort study by the *Ambulatory Medicine Wounds and Dressing Organization (MAPP)*. It included two thousand, nine hundred and thirty-six patients with chronic wounds and two thousand, nine hundred and fourteen patients with acute wounds. All of the patients experienced moderate to severe pain during dressing change. Original dressings were replaced with Urgotul (non-adherent, non-occlusive polyester net impregnated with hydrocolloid in a petroleum jelly matrix). Out of the more than six thousand wounds treated with the above mentioned product, approximately ninety-three percent of the wounds either healed or improved more rapidly than expected, and approximately eighteen percent reported a significant reduction in pain (Meaume et al., 2008, p. 11-12). The study proved that pain is often underestimated, dressing selections should be more rigorous and educational programs should include selection of dressing change options.

The final article reviewed was based on a convenience sample, which took place at practitioner's educational wound expo, attended by six hundred health-care professionals in the United Kingdom. Jones, M.L., Greenwood, M., & Bielby, A. (2010) focused on wound pain assessment, the multidimensional nature of pain, practitioners attitude to pain complaints, and the recognition, assessment and documentation of pain; the definition for pain was established by the *International Association for the Study of Pain (IASO)*. This study revealed that forty-three percent of practitioners only documented pain when it was reported by patient, sixty-nine percent never referred the patient complaining of pain to the pain management team, however half of the practitioners responded that the patient's pain was addressed sufficiently (Jones et al., 2010, p. 341-345). The study demonstrated that: practitioners are often ignoring patient pain, as well as

pain during dressing changes, although it is well documented, researched and proven; patient pain was broken out into three categories: nociceptive, neuropathic and psychological; pain free or reduction in painful experiences should be the ultimate goal; there is a need for consistent identification, documentation and assessment of wound pain. This research focused on the need to address pain, wound or otherwise. How health-care professionals from multiple fields are not educated enough about the subject even though there is emerging education. It also demonstrates the overwhelming need for communication within the health-care community as well as between health-care professional and patient. Mechanisms, tools and empathy should be established or further developed to assist the verbal or non-verbal patient.

Wound related pain comes with a very high cost; the fiscal impact to health-care is significant. However, there are other costs, which are just as significant. The frustration felt by health care professionals is noteworthy, however minor when compared to the challenges and life style changes faced by someone suffering from wound related pain. The information gathered proves that wound related pain is far more reaching than the pain brought on by the wound itself. Health-care professionals may be participants in the causation of pain when: interacting with patients, choosing dressings, the practice of dressing changes, the misuse or non use of pain medications, the lack of documentation and proper assessment and the need to be committed to modernized life-long learning.

Wounds, wound care and wound related pain is a worldwide issue that is growing due to population longevity and unhealthy life style choices. The fiscal impact alone should prompt the medical community to implement changes. The recommendations are to modernize education for the health care professional, implement more venues and broader educational tools concerning wound care and associated pain. Everyone from administration to healthcare technicians should continually be educated about this high volume, high cost, high impact issue.

Our view of pain, thus far, has been extremely narrow, disregarding the impact of decreased mobility, depression, complications, infection, patient compliance, dressing choices, patient and family empowerment, age, culture, use of analgesics, care plans, sleep disturbances and stress. However, we must broaden our lens to include alternative pain management techniques, dressing care practices and dressing choices. When dealing with this issue our approach to our patients must be more holistic. The research unanimously concurs that as a health-care community we must become more educated, ensure more complete documentation, use and/or develop assessment tools, and increase intra-professional and caregiver-patient communication. These things are imperative when trying to provide more positive outcomes to our patients, avoid professional frustration and promote cost-effectiveness. Therefore, pain management in collaboration with wound care, in adult patients, does influence better adult patient outcomes compared with patients who don't receive pain management in addition to wound care.

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