Conclusion

Name

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**Conclusion**

This paper is concerned with the extraction of conclusion after “dissection” of research articles and summarization of these parts as a distinctive whole in order to develop appropriate understanding of the subject matter. In the previous papers, selected pieces of literature were divided into various components such as author, title, year published, database searched, research type, AACN level of evidence and pertinent findings related to the PICOT in the tabular presentation. Moreover, a summary encapsulating the explanation of the literature to include: the quality of this evidence (critique of evidence), identification of gaps in the literature, and comparison of evidence to practice was also presented. In this section, meaningful conclusions will be drawn based on the PICOT and literature review.

 The PICOT analyzed the nurses’ knowledge and attitude towards pressure ulcer prevention and their possible barriers to practice and the effectiveness of training in the pressure ulcer prevention management of bed-bound patients. Five literature articles were selected to present adequate literature review concerning the above mentioned subject matter. After deliberate analysis, following conclusions were drawn from it:

**Possible differences**

Possible differences in the literature review articles were found in their sample selection technique, methodologies, data analysis techniques, findings and implications. These factors will be analyzed using separate headings as follows:

**Sample selection techniques:** most of the studies (3 out of five) utilized random sampling technique for sample selection. Random sampling allows the researcher to draw participants randomly that has equal chance of being selected, without any bias. Sample predominately consisted of female nursing practitioners working in the palliative care and geriatric fields. One of the studies used purposive sampling technique to draw sample from the nurse population i.e., sample was selected based on the objective of the study and associated characteristics of the population. Rest of the research study did not use any sampling technique as it was a systematic review. On the whole, sample selection technique was predominately random sampling which is the most reliable and widely- acknowledged technique by the subject matter experts (SMEs).

**Methodology:** After analyzing methodologies of the literature studies; it was found that most of the studies used quantitative methodology to explore the magnitude and association between variables. Quantitative methodology mainly encapsulated survey studies in which open and close-ended questions were specifically designed to explore the level of knowledge and nature of attitude of nurse towards pressure ulcer prevention and management. These questions ranged from simple yes/ no responses to rating scales having 3-6 options. One of the studies utilized systematic review (meta-analysis) including 7 research studies. Hence, literature studies were predominately quantitative in nature falling under the Level 2 of AACN rating of credibility.

**Culture specificity:** the selected literature belonged to various cultures worldwide; Ethiopia, Iran, South Korea, and United States; hence, we can assume that literature regarding nurses’ knowledge and attitude towards pressure ulcer prevention follows universally acceptable patterns and threats to reliability and validity due to which, culture specificity can be eliminated.

**Data analysis tools:** as mentioned earlier, most of the studies were quantitative in nature therefore their corresponding data analysis techniques comprised of appropriate statistical tools and software like Statistical Package for Social Sciences (SPSS) Version-21. Most of these studies used percentile, correlation and regression analysis for analyzing prevalence and prospective relationships between variables. Besides this, one meta-analysis used phenomenological analysis of included studies for deducing holistic inferences from it. Hence, effective quantitative and qualitative techniques of data analysis were used.

**Findings:** Nurses have adequate knowledge about pressure ulcer prevention. Financial and equipment barriers act as potential limitations to execute pressure ulcer prevention measures (Ebi et. al., 2019). Experienced nurses have *higher* *knowledge* of pressure ulcer prevention (PUP) than nursing students and assistant nurses. Overall, they had *inadequate knowledge* about prevention measures (Dalvand et. al., 2018). Nurses demonstrated *moderate* level of knowledge about PUP and positive attitude towards PUP, however, performance demonstrated a considerable decline due to environment barriers (Kim & Lee, 2019). More than half of the nurses had *adequate knowledge* and *positive attitude* towards PUP and their performance was dependent on knowledge, practice and communication barriers (Dilie & Mengistu, 2015). And 91% of nurses had adequate knowledge of PUP. However, device shortage, lack of practice, and training and mentorship acted as barriers to their performance (Groves et. al., 2014).

**Implications**: based on the above mentioned findings it can be said that it is very important to enable nurses to gain sufficient theoretical knowledge of pressure ulcer prevention and management measures and develop positive attitudes towards such patients because knowledge and attitude provide direction for further practice in the field; lack of knowledge will generate negative attitude for PUP on the part of nurses which in turn would hinder their ability to manage such patients effectively. Moreover, various environmental barriers were also identified which affect the performance of nurses regarding pressure ulcer prevention including device shortage, lack of practice and training. In a nutshell, these studies have various significant implications in policy making and guiding field practices. Moreover, in practice, numerous attempts have been made to train nurses to develop sufficient knowledge, skills, professional competence and positive attitude towards Pressure Ulcer Prevention and management. These attempts undoubtedly deem to have research foundations. Hence, this topic have various field implications in decision-making and policy development and implementation

**Conclusion and related themes of the studies**

After analyzing the literature articles critically, it can be deduced that following themes originated from preexisting literature regarding Pressure ulcer prevention and management.

**Importance of theoretical knowledge:** these studies found that in the beginning, what a nurse possesses is only theoretical knowledge that she attained during her degree programs. With this knowledge in hand, she enters the field and finds that theoretical knowledge is substantially different from what they actually learned. At that time, if a nurse is subjected to manage a patient with pressure ulcers, she might encounter difficulties due to lack of sufficient practice. As a result, she would perceive pressure ulcer prevention practice as something laborious and would develop negative attitudes towards it gradually. With the passing time, she would feel reluctant to manage patients having pressure ulcers and would disregard its significance. This is how insufficient knowledge and lack of practice will affect her thinking, emotions and behaviors concerning pressure ulcer patients. On the other hand, if she has enough knowledge about its management, she will certainly develop positive attitude towards such patients and would never feel reluctant to manage them in practice. Hence, knowledge and attitude both determine the performance of nurses in pressure ulcer prevention and management.

**How environmental barriers hinder performance:** besides nurses’ knowledge and attitudes, there are some other factors that affect the performance of nurses in this regard. These factors include lack of training, mentorship and sufficient equipment and tools for effective management. For example, a nurse is trained to apply SSKIN scheme to manage his patients with pressure ulcer i.e., **S**urface: making sure that patient has right support; **S**kin inspection: inspecting the skin of bed- bound patients regularly; **K**eeping patient moving; **I**ncontinence moisture: patient must be kept clean and dry and **N**utrition/ hydration: helping patients to have right diet at right time with plenty of fluids, she will undoubtedly feel an ease to prevent such patients from pressure ulcers. On the other hand, if nurses are not trained from the beginning and there is no mentor to guide them at the bed- side, they will lack essential prevention and management skills that would affect their personal perception regarding PUP, in the most negative way indeed. Additionally, management tools such as essential dietary components, sanitation equipment and other facilities will also affect their performance in the field and resultant disrupted practice will hinder the quality of healthcare for pressure ulcer patients. So, both personal and management intervention need to be executed for prevention the patients from pressure ulcers.

**Final word**

 The above mentioned section thoroughly analyzed the significance of knowledge, and attitude of nurses, training, mentorship and availability of sufficient resources orchestrated by the management to enhance the quality of life of the patients suffering from pressure ulcers. It is quite understandable that despite utmost efforts to eliminate the threats to validity and reliability, the achievement of perfection in terms of study results is something next to impossible. There are many gaps in terms of participant selection (sampling technique), methodology (qualitative or quantitative), ethics (consent and confidentiality concerns), cultural biasness, generalizability issues and the nature of relationship between variables (causal and correlational). In the above-mentioned literature, the most prominent gap identified was research methodology that was predominately quantitative in nature.

The other gap that was identified in the literature was the sampling technique, more than half of the studies selected their participants through random sampling. Purposive or convenient sampling techniques and other methods must also be used to draw desirable sample from the pool. Moreover, most of the studies embraced “questionnaires” as the tools of data collection and limited emphasis was laid on the utilization of qualitative techniques such as structured or semi structured interviews. These methods must be used in the future studies.

Likewise, all the research studies attempted to explore the level of knowledge and nature of attitude of nurses towards PUP but none of the studies explored the underlying reasons behind their level of knowledge and nature of attitude for example if a nurse has negative attitude towards PUP, how does she acquire such sort of attitude and why? If she has insufficient knowledge, what could be the underlying potential reasons behind this drawback? These questions must be answered by researchers in future.

**Practical implications in nursing and healthcare**

Sufficient knowledge and positive attitude of nurses towards patients is quite essential to ensure best practice in the field. Analyzing the above-mentioned textual activity, it can be concluded that it is highly mandatory for the nurses to not only attain adequate knowledge about pressure ulcer prevention but also develop positive attitude (thinking, feeling and behavior) towards such patients. The profession of nursing is based on the goals of holistic wellbeing in terms of physical, mental, emotional and social aspects. Therefore, nurses are responsible for uplifting the quality of life of their patients in every possible way. Patients develop pressure ulcers when they are bed bound and immotile and when they had poor diet and skin condition with plenty of moist surface. These etiologies indicate that it is the sole responsibility of nurses to prevent such patients from developing pressure ulcers. Lack of knowledge will generate negative attitude for PUP on the part of nurses which in turn would hinder their ability to manage such patients effectively. Moreover, various environmental barriers were also identified which affect the performance of nurses regarding pressure ulcer prevention including device shortage, lack of practice and training. In a nutshell, these studies have various significant implications in policy making and guiding field practices for nurses to improve the outcomes of patients suffering from pressure ulcers.

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