Nursing Interventions for Smoking Cessation

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The purpose of this entry is to synthesize the factors that are associated with smoking cessation intervention among nurses. We conducted a systematic search of the literature published from database inception through to 22 April 2020, in five electronic databases including Pubmed, CINAHL Plus, Scopus, Web of science, and ProQuest.

Keywords: factors; nursing interventions; smoking cessation

1. Introduction

The tobacco epidemic is one of the biggest public health threats the world has ever faced, resulting in more than eight million deaths a year around the world. More than seven million of those deaths are the result of direct tobacco use, while around 1.2 million are the result of non-smokers being exposed to secondhand smoke $^{[1]}$. In light of this troubling fact, the international council of nurses (ICN) encourages member associations to co-ordinate their efforts with other national groups to bring government and public attention to the harmful health effects of tobacco and to encourage governments to reduce, discourage, and eliminate tobacco use, including providing access to cessation programs $^{[2]}$. Nurses, representing the largest number of healthcare providers worldwide, are involved in most of these visits, and therefore have the potential for a profound effect on the reduction of tobacco use $^{[3]}$. Additionally, a previous literature review reported that nurses and professional nursing organizations can make a significant difference in minimizing the disease burden caused by tobacco through nursing research, policy, practice, and education $^{[4]}$.

Nursing interventions for smoking cessation include various methods such as behavioral counseling for helping smokers to successfully quit smoking $^{[5]}$. Regarding the effectiveness of nursing interventions for smoking cessation, the Agency for Health Care Research and Quality Clinical Practice Guideline (AHRQ) has reported that advice to stop smoking from nurses, as one of the many providers, could increase the rates of cessation $^{[6]}$. The meta-analyses by Cochrane Collaboration reported that advice and support from nurses could increase people's success to quit smoking, whether in hospitals or in community settings $^{[7][8]}$. Additionally, a previous cohort study, in Japan, reported the importance of nurses' counseling for assisting patients to achieve smoking cessation by maintaining patients' self-efficacy of smoking cessation $^{[9]}$. Overall, nursing interventions for smoking cessation play an important role to help patients quit smoking successfully.

Nurses can be more effective as the first line of treatment due to the length of time they spend with patients [10]. In addition, there are many previous studies that have reported a variety of factors associated with nursing interventions for smoking cessation; however, there is no narrative review to synthesize the factors.

2. Discussion

In the results, we narratively synthesized the factors that were associated with nursing interventions for smoking cessation. There are five important points that need to be discussed. First, our results indicated that nurses who were current smokers were less likely to implement smoking cessation interventions [15][16][17]. A previous study, in Northern Ireland, reported that qualified nurses who smoked were less motivated to provide cessation support for patients, had fewer positive attitudes about the value of smoking cessation, were less likely to have received smoking cessation training, and were less likely to want further training [18]. Another previous study reported that nonsmokers and ex-smokers showed a more positive attitude toward their roles as exemplars and in counseling the public about the health hazards of smoking than smokers among oncology nurses in Texas, USA [19]. Additionally, a systematic review with meta-analysis reported that nurses' personal smoking status was not significantly associated with nurses always asking patients about their smoking, assessing motivation and assisting patients to quit smoking, but nurses who smoked were 13% less likely to advise their patients to quit and 25% were less likely to arrange smoking cessation follow-up [20]. Overall, support and assistance for nurses to quit smoking are needed to strengthen nursing interventions for smoking cessation.

Secondly, our results indicate that nurses with prior smoking cessation training were more likely to implement smoking cessation interventions. A previous study, in the Czech Republic, reported that nurses' brief intervention skills including asking patients about smoking, recommendations to stop smoking, assessing willingness to quit, assisting with cessation, and recommending a smoke-free home were significantly improved after the completion of an e-learning program [21]. Additionally, two previous studies reported that nurses receiving web-based smoking cessation education significantly increased self-reports of frequency of providing interventions to patients who smoked, including recommending smoke-free home environments to support attempts to quit [22][23]. The meta-analyses by Cochrane Collaboration reported that healthcare professionals who had received training were more likely to perform tasks of smoking cessation [24]. Therefore, providing smoking cessation training can improve smoking cessation intervention skills, and then implement nursing interventions for smoking cessation.

Thirdly, our results indicate that nurses with positive attitudes and social influence for smoking cessation intervention were more likely to implement smoking cessation interventions. A previous focus group study reported that there is a need to build upon nurses' positive attitudes about engaging in smoking cessation interventions with patients to ensure that cessation interventions are standard nursing practice [25]. Additionally, previous studies reported that social influence towards smoking cessation intervention had a significant positive influence on determining the intention to implement smoking cessation intervention. Overall, positive attitudes and social influence regarding smoking cessation interventions can promote nursing interventions for smoking cessation.

Fourthly, our results indicate that nurses with higher self-efficacy and outcome expectations were more likely to implement smoking cessation interventions. A previous integrative review of the literature reported that attitude, innovation, perceived social influence, and self-efficacy were factors for occupational health nurses' intention to implement smoking cessation interventions; therefore, improving occupational health nurses' self-efficacy could guide changes in clinical practice for motivating smokers to quit [26]. Regarding the strategies to improve nurses' attitudes and self-efficacy, a previous study, in India, reported that adequate experience in a center for addiction medicine improved nurses' positive attitude and self-efficacy, and therefore helped to provider substantial care to patients with addiction problem [27]. Therefore, improving nurses' self-efficacy is needed to strengthen nursing interventions for smoking cessation.

Finally, our results also indicate that nurses with higher self-efficacy to engage in smoking counseling were more likely to implement smoking cessation interventions [19,22,25]. A previous study, in Japan, reported that research utilization competency was positively associated with self-efficacy and prenatal smoking cessation interventions among public health nurses [28]. Additionally, another study including 1054 primary healthcare nurses, in Sweden, reported that the ability and use of research were significant determinants of attitudes towards research and use of research findings [29]. Overall, nurses with higher research utilization ability were more likely to implement smoking cessation interventions.

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