

Suggestions for Increasing Awareness of Nurses by Using Pender's Health Promotion Model and Slavin's Effective Teaching Model in the COVID-19 Pandemic Process

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Abstract

COVID-19 is a new kind of causing respiratory tract disease that affects the lives of over 280 million people worldwide. Even though conditions dramatically impact people with chronic diseases and older ones, it is assumed that 90% of the cases might be avoided thanks to the appropriate use of personal equipment. Nurses are the riskiest group in the contagion and spread of the disease. Increasing nurses' awareness during the pandemic plays a crucial role in protecting themselves and preventing the spread of the disease in the community. This paper aims to increase the level of awareness of nurses providing care to COVID-19 patients using Pender's Health Promotion Model and Slavin's Effective Teaching Model. Therefore, it was considered that by increasing their awareness, the process of changing their behaviors would be accelerated and permanent.

Keywords: COVID-19, health promotion model, effective teaching model, nurse, awareness

Introduction

COVID-19 diseases, impacting over 280 million people and causing more than 5 million deaths, are defined as the most effective pandemic after the Spanish flu that humanity has struggled with so far.¹ The disease appeared on December 31, 2019, with a report of the World Health Organization from China about unexplained cases of pneumonia in Wuhan. It has lasted till today with an increasing speed. As the result of studies on the identifying agent of the disease, the virus identified was named "SARS CoV-2" due to similarity to coronavirus of Severe Acute Respiratory Syndrome-SARS.² Even though the transmission of the disease is relatively fast, it was reported that 90% of the new cases might be avoided by taking practical measurements for spreading ways of the infection.³ Keeping at least 1.5 m social distance is essential, using standard masks when the social space is impossible and paying attention to personal hygiene, especially hand sanitization. Besides preventing the spreading of the disease within the community, it is crucial to prevent its spread among health care centers to stop and control the spreading of the disease.

Health care providers, especially nurses, are the front line fighters in the COVID-19 pandemic; however, they risk transmitting SARS Cov-2 from health centers to community.⁴ Thus, it is rather crucial to provide education to health care employees about COVID-19, plan effective interventions to reduce their stress levels, realizing SARS CoV-2 screening tests with regular intervals and provide them sufficient amount of personal protective equipment.⁵⁻⁷

Even though the number of health care professionals infected with SARS CoV-2 differs among countries, the rate of COVID-19 positive among health care providers to positive cases in the whole community is around 10%. Italian National Institute of Health, ISS reported as the result of their surveillance study that health care providers constituted 10.7% of the positive cases within the community and 43,2% (n=6988) of them consisted of nurses and midwives held.^{8,9} It was estimated that in Spain 26% of the health care providers infected with COVID-19,¹⁰ in England, it was ranged between 14% and 18%.^{11,12} It

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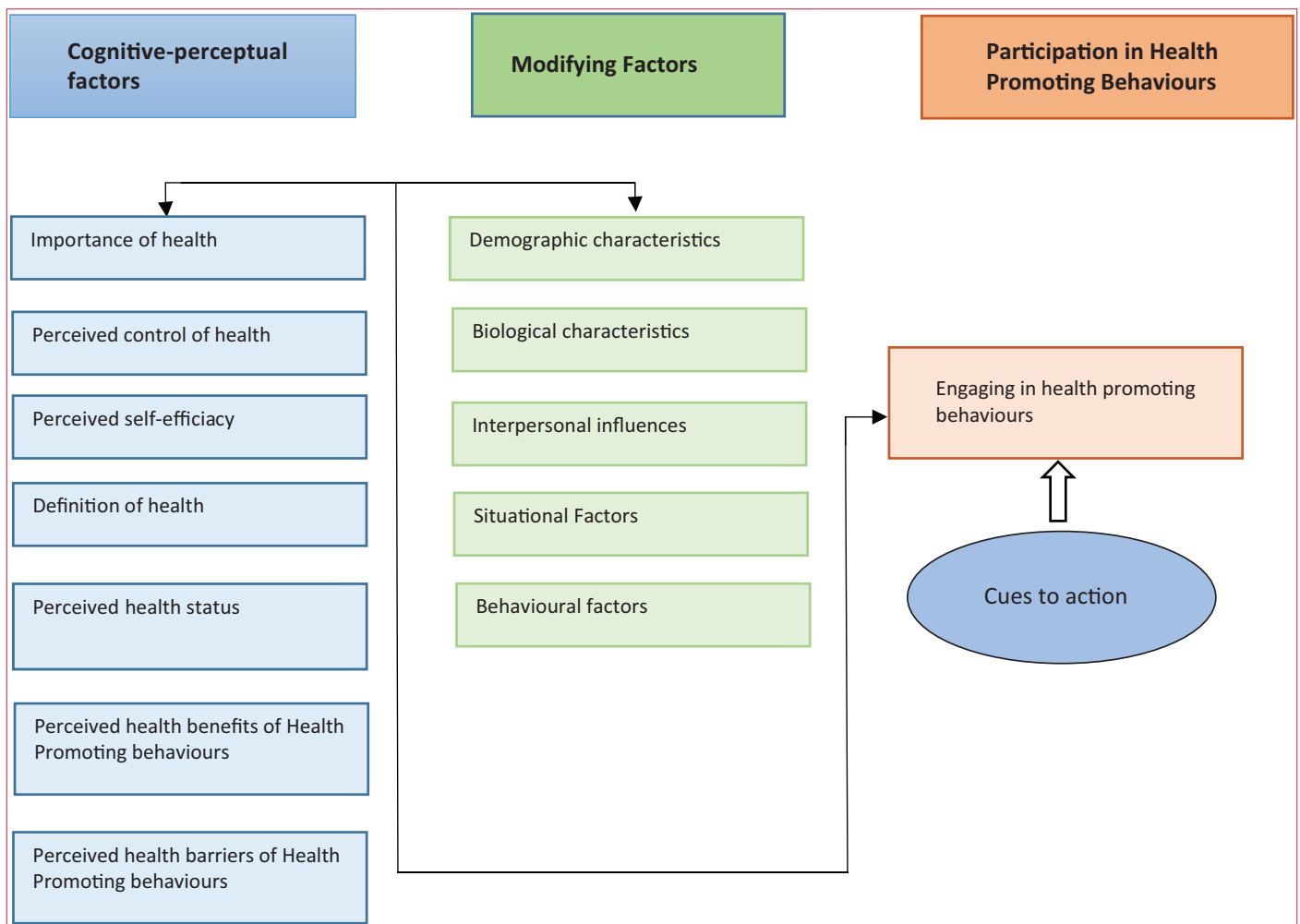


Figure 1. Pender's Health Promotion Model.²¹

was 6.4% in the Netherlands.¹³ Mortality rates among nurses are relatively high. International Council of Nurses-ICN stated that over 90 000 nurses were infected with COVID-19, and at least 260 of them died due to the disease.¹⁴ According to the report prepared by Italian ISS, within 2 months following the first case in Italia on February 21, 2020, 206 health care professionals passed away due to COVID-19, and 24.8% (n=51) of them were nurses.⁸ As the result of the study conducted by the Italian Professional Nurses Association in health care centers where the deaths occurred, it was reported that most nurses did not have suitable protective equipment such as masks, glasses, and gloves.¹⁵

This paper aims to increase the level of awareness of nurses providing care to COVID-19 patients using Pender's Health Promotion Model and Slavin's Effective Teaching Model. Therefore, it was considered that by increasing their awareness, the process of changing their behaviors would be accelerated and permanent.

Health Promotion Model

The Health Promotion Model, developed by Nola J. Pender in 1980 and updated in 1987 and 1996, aims to improve one's well-being and health rather than dealing with any diseases or illnesses.¹⁶⁻¹⁸ The model emphasizes the importance of raising awareness about

health-promoting behaviors and counseling on the issue.^{19,20} The significant concepts of the Health Promotion Model are individual characteristics and experiences, prior behavior, and the frequency of similar behavior in the past. Direct and indirect effects on the likelihood of engaging in health-promoting behaviors (Figure 1).²¹

Effective Teaching Model

Slavin developed the model in 1984.²²

General Characteristics of the Model

Slavin was inspired by Carrol's "Learning at School" model. The model is highly suitable for group teaching and assumes that learning can be enhanced by analyzing variables affecting learning levels. It focused on providing 4 essential variables together to ensure effective learning. The components of this model are as follows^{22,23};

Quality of Instructions

It was associated with contents' attracting participants' attention, being easy to learn, and contents' making sense by the participants. The information should be presented in an organized way, and the knowledge presented should be related to former knowledge given during the pre-learning phase. The education can become more alive

and concrete by utilizing media or visual materials. When instruction is high in quality, the presented information makes sense to students, is attractive to them, is easy to remember and apply. It is possible only if the instructor provides concrete examples in an organized way and presents immediate feedback to students.

Appropriate Levels of Instruction

This principle refers to keeping the level of instruction in a suitable stage for participants who differ in skills, attitudes, the pace of learning, and motivation. Individualization of teaching, especially in group teaching, might lead to various problems, so the instructor has to seek the most suitable way. Shortly, individual differences should be taken into consideration during the teaching process.

Incentive

It is related to the degree to which the teacher makes sure that students are motivated to work on instructional tasks and learn the presented material. Explaining how they can apply the knowledge in their daily lives might enhance their attention levels.

Time

According to the model, time does not affect achievement on its own. More time spent teaching a subject does not always translate into additional learning. Still, if instructional quality, appropriateness of instruction, and incentives for education are all high, then more time on instruction is likely to pay off in more significant learning.

The amount of time available for learning depends mainly on allocated time and engaged time. Allocated time is the time scheduled by the teacher for a particular lesson or subject and then used for instructional activities. Allocated time is mainly under the direct control of the school and teacher.²³⁻²⁵

Increasing Awareness of Nurses by Using Pender's Health Promotion Model and Slavin's Effective Teaching Model in the COVID-19 Pandemic Process

Pender's Health Promoting Model presents a holistic approach to an individual by evaluating their background and perception of self.²⁶ The model aims not to avoid the disease but to improve health-promoting behaviors and ensure they are permanent.¹⁸ Applying this model, it is desired to establish a nurse group having a high level of awareness about the disease, developing health-promoting behaviors (use of personal protective equipment, social distance rules, appropriate use of public areas), feeling safe and strong both physically and mentally, having low-level of stress and having less risk of being infected instead of avoiding COVID-19 disease. During the implementation of the model, it is recommended to use the Effective Teaching Model to provide an effective and permanent level of awareness.

By considering all the model characteristics, nurses' awareness of the COVID-19 pandemic and its adaptation to Pender's model were presented in Figure 2.

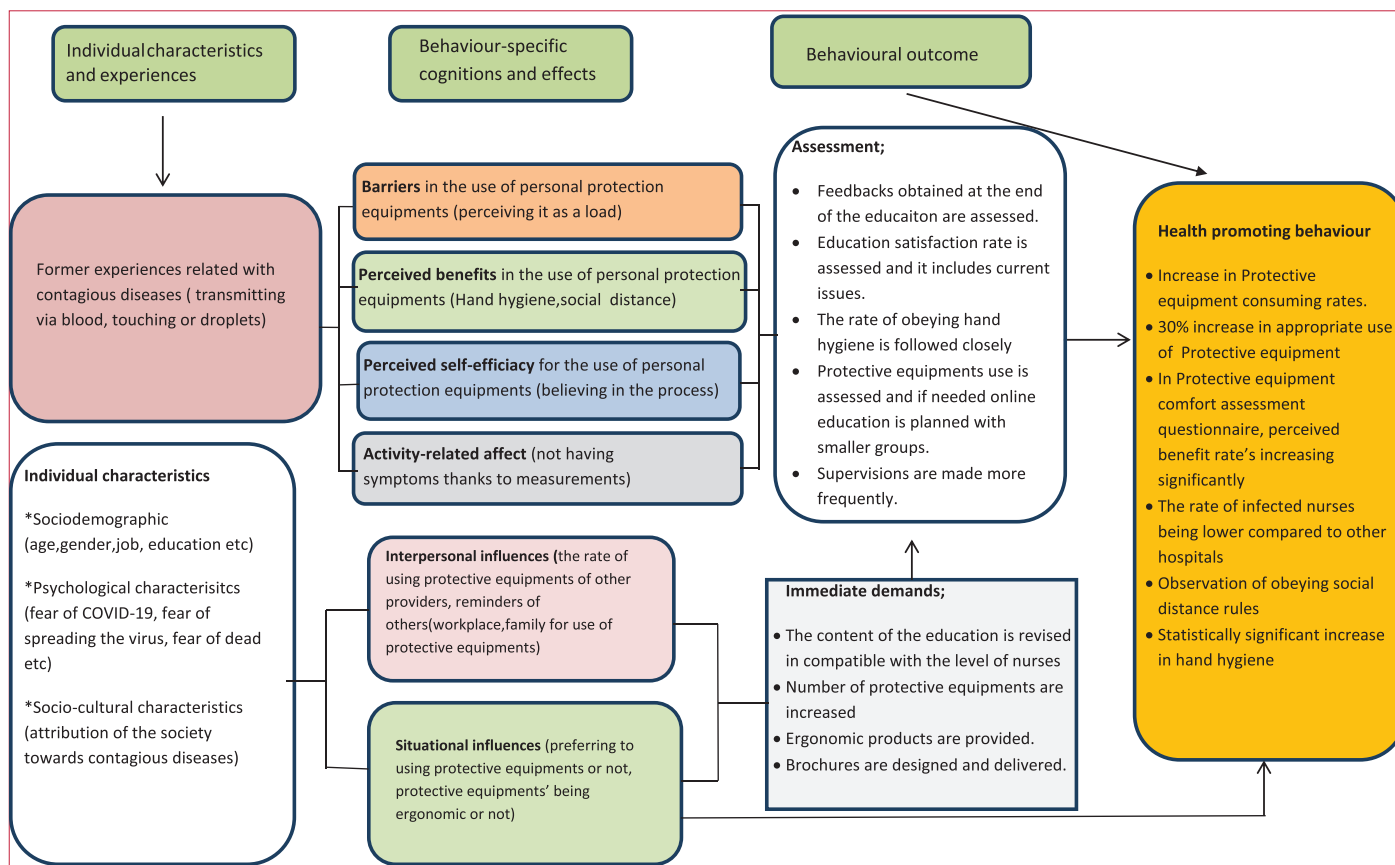


Figure 2. Suggestion for increasing awareness of nurses by using Pender's Health Promotion Model and Slavin's Effective Teaching Model.

Components of the Model

Experience and Personal Characteristics

It refers to prior experiences of the nurse on contagious diseases, overcoming methods during the pandemic, and personal characteristics of the nurse. Such factors as nurse's providing active care to a patient with a contagious virus, age of the patient, having a chronic disease in herself or relatives, psychological and sociocultural factors felt during the pandemic might affect behavioral change is health-promoting.^{17,18,27}

Behavior-based Perceptions

Behavior-based perceptions are as follows;

Perceived Benefits

Perceiving a behavior as positive accelerates acquiring the behavior.^{17,18,27} For example, health care providers' belief that protective equipment being used appropriately provides a full-protection accelerates the change in behaviors. Thus, nurses should be informed about the benefits of personal protection equipment during the pandemic.

Perceived Barriers

Negative emotions about the behavior affect the development of the behavior negative yield.^{17,18,27} For instance, the nurse might think she will be infected even if she uses the protective equipment appropriately or might not comprehend social distance rules' importance. Thus, the reason-based examination should be organized to change negative emotions or thoughts. Sharing the results of former studies on protective equipment might help the nurse overcome her negative thoughts and change them.

Perceived Self-efficacy

When the nurse has explained the effect of behavior change on her health and helped her overcome the negative emotions, it would be easier to make behavior change permanent.^{17,18,27} Following the education and counseling processes, developing self-protecting behavior and coping strategies in the pandemic process would be possible. During this process, the training group providing support to nurses should be listened to and guided according to the individual characteristics of nurses.

Activity-related affect

Those are the emotions occurring pre-during and post stages of the behavior. They provide the continuity of self-efficacy and health promotion behaviors.^{17,18,27} The nurse might be eager to change her behaviors at the very beginning of the pandemic, but her eagerness might reduce due to observations she realized or experienced. In addition, observing an infected colleague using protective equipment appropriately might reduce her motivation on the issue. Thus, the education programs should be repeated frequently, and if needed, online education opportunities should be provided either as individual or group sessions.

Interpersonal Influences (family, peers, and providers)

It refers to behavior-related support provided to the person.^{17,18,27} For instance, the health center's applying the measurements on hospital administration staff is rather crucial in setting an example to other staff members. Therefore, nurses caring for COVID-19 patients and the whole health care staff should also be supported to participate in protective activities. In addition, having a counseling team that

the nurses can demand help when facing specific problems is highly significant to maintain communication.

Situational Influences

Such factors as perceived preferences, state of eagerness, and aesthetics affect the performing of a particular behavior positively or negatively. Significantly, the nurses applying isolation measurement for the first time might complain about protective equipment slowing their caring process or reducing their comfort, which is among the situational influences.²⁷

Behavioural Outcome (Performing the Desired Behavior)

refers to a commitment to a plan of action, immediate competing demands and preferences, and health-promoting behavior.^{17,18} For instance, a nurse's experiencing a dermatologic problem hindering her use of protective equipment will reduce the equipment use rate. In addition, someone's being infected in a nurse's family might prioritize protecting herself.

In the current study, Slavin's Effective Teaching Model was implemented and Pender's Health Promotion Model to ensure an efficient and permanent learning process. The interventions applied in our study can be summarized as follows:

Quality of Instruction

- The presentation delivered by the General Directorate of Public Health can be utilized during the training process about COVID-19.
- Contents of current articles or studies can be added to the presentation to attract listeners' attention.
- Real-life examples can be utilized to ensure listeners' permanent learning and internalization.

The Appropriate Level of Instruction

- Education programs can be planned separately for each of the professions. The contents of education programs provided to nurses and physicians and porter and cleaning staff should be different. The range and level of the education should be revised compatible with job descriptions of each profession.
- The education program should not bore the listeners.

Incentive

- Questions to be asked at the end of the education can be prepared, and some gifts can be given for accurate answers.
- To increase the motivation of the staff, 5-10 minutes of morning exercises can be planned.

Time

- Education preparation works should be completed before reporting the first case.
- The education process should be completed to control nurses' anxiety levels before admission of the first case to the hospital.
- Education hours should be planned before the shifts to ensure active participation.
- Education sessions should be repeated regularly, especially for those who did not participate in education programs.

Conclusion

To conclude, education programs provided to nurses caring for COVID-19 diagnosed patients, based on Pender's Health Promotion

Model and Slavin's Effective Teaching Model, are highly significant in maintaining nurses' health and increasing their awareness levels. It is recommended in the light of vision that models-based education programs contribute to the protection of health and raise awareness. A professional team should be assigned on the issue and guide nurses and all healthcare providers.

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