

Materials in supporting client education nursing essay

[Health & Medicine](#), [Nursing](#)



Topic: Discuss the usefulness of using computer-assisted learning materials in supporting client education and the role of nurses in relation to this area.

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Introduction

In the century of 21, it is an electronic dominant century. People are often possessing more than one electronic devices, the increasing of accessibility of electronic devices is greatly influence the mode of client education from a passive institutional learning into an interactive electronic computer-assisted learning. However, there are also constraint and barriers of using computer-assisted learning (CAL) materials. This paper will discuss about the usefulness of using CAL materials to achieve the aims of client education, how nurses could maximize the use of CAL in client education and will consider how to minimize constrains or barriers of using CAL materials. Lastly, it suggests how to re-designing, selecting and implementing effective CAL education programs.

Patient Education

The definition of patient education was found In (Borne, 1998), it stated that it includes the provision of information, advices and behaviors modification techniques which aims at influencing clients' experience of illness; knowledge and health behavior; improving and maintaining health; emotion and attitude, lastly learn to cope with disease, mostly chronic illness.

According to a featured article about computer and informatics nursing (Deborah, 2003) stated that,

Usefulness of computer-assisted learning (CAL) in patient education

" Patient education involves the transfer of health-related knowledge from various healthcare sources to the patients themselves as well as the development of the necessary skills for integrating this knowledge into their lives." It also evaluated the usefulness of CAL modules by several aspects including knowledge acquisition; self-care behaviors; improved social support and health outlook; adherence, confidence, and satisfaction and better clinical outcomes. By using CAL modules, patient education level is found improved and will be discussed in the following paragraphs.

Knowledge acquisition:

According to a systemic review produced by (DEBORAH, 2003), it concluded that, there is a significance increase in knowledge score, medical knowledge about illness in most of the CAL module reviewed research studies. However it also found that two of the reviewed research studies results in no difference in knowledge score between CAL modules and traditional patient learning modules for diabetes children and teenagers. CAL modules are useful for improving clients' knowledge in risk factors and early signs of disease therefore decreasing the risk factor of developing diseases. In a research study of using CAL modules in a pigmented lesion clinic in U. K. produced by (SEFTON, 2000), 227 patients were recruited for a true experimental design with pretest and posttest and follow-up of the

knowledge score after intervene of CAL modules teaching about skin protection and signs of melanoma, it found a significant increase in patients intervened by CAL modules and it has a higher knowledge score in compare with the non-interactive traditional education control. In addition, patients were observed has a knowledge gain in a 1 week follow-up. By using CAL modules, some sensitive topic such as contraception knowledge can be provided effectively and hence empower their decision making in preventive methods and treatment choices. In a research study of using CAL modules in family planning center in New York City produced by (Garbers et. al. 2012), 2231 clients were included, 50% of the participants received the CAL module with an algorithm records clients' preferences medical, obstetric, gynecologic and contraceptive history; and sexual health risk factors. It concluded that clients who used the CAL module were more significantly more likely to choose an effective contraceptive method than those who received printed tailored educational materials or received a generic educational handout listing contraceptive methods.

Self-care behaviors:

According to (SHEGOG, 2001), he stated that, Self-efficacy is the belief that one has the skill and ability necessary to perform a behavior in a variety of circumstances and in the face of various obstacles. By using CAL module, it can improve the self-care management and self-care behaviors for patients with chronic disease. (Deborah, 2003) In a study of diabetes patients using CAL module (SIGURÐARDOTTIR, 2005), it found that there is a significantly improvement in patients' knowledge and their self-care ability. As a well self-

care in diabetes is critical to keep the illness under manage, it also helps to increase the patient satisfaction in managing diabetes. In which the self-care level of diabetes patient was evaluated in four aspects including:(i) Self-monitoring of blood glucose, (ii) variation of nutrition to daily needs, (iii) insulin dose adjustments to actual needs and (iv) taking exercise regularly. Also in a study of pediatric asthma patients using CAL module (SHEGOG, 2001), it reflected that CAL module is effectively in motivates asthma patients, their self-management behaviors and enhancing patient outcomes in clinical setting. It reported that, an improved self-efficacy will results in a greater tendency of the child motivation in self-manage of asthma at home and with a maintenance in a period of duration. It also discussed how a CAL module can reinforce a good self-management, which is provides a number of methods to elicit self-efficacy change in learners, including persuasion related to self-management actions, guided practice with corrective feedback, and social and symptom reinforcement. In addition, through using CAL education, patient self-care behaviors were found more internal, controllable and stable which results in a greater autonomy and to be active self-care manager. Children using CAL education reported that the self-care behaviors is (" something I do myself"); (" something I can control") and (" something I always do") which shows an improvement in self-care.

Social support and health outlook

A social support network can be formed by CAL module through the internet forum system. Patient with a well designed web-based intervention can increase their level of social support and a perceived health outlook by

(Deborah, 2003).(Fogel, 2002) stated that in white, American women with breast cancer population. After the intervention of an internet based CAL module, patients have a significantly increase in social support level by measured by (The Interpersonal Support Evaluation List ISEL) and a significantly decrease of loneliness level by measured by (The UCLA Loneliness Scale). A well developed CAL internet social network can help the patients feeling supported and connected.

Adherence, Confidence, and Satisfaction

The use of CAL module intended to patient's learning and empower the patient to improve their self-care, responsibility and accountability on their illness. Several studies showed that an empowered patient after the intervention of CAL module, their medication adherence, confidence in managing their illness and overall satisfaction was also a significantly increase (Deborah, 2003). Apart from the general illness patient, CAL module was found an effective tool to deal with the medication non-compliance on patients suffering from depression as a psychotherapy and psycho-educational system. It also reported that the combination of the CAL module and a nurse consulting clinic will assist patients to achieve and maintain better medication compliance in addition to improving their knowledge of depression (Lin et. al., 2006). However, (Deborah, 2003) also found two studies using computer-based education results no more effective than traditional education in improving adherence in patients having rheumatoid arthritis and acute psychotic condition.

Clinical Outcomes