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A Training Technique for Intramuscular Injection Psychomotor Change in Clinical Nurses; Interactive Workshop, E-Learning and Implementation: Sharing an Experience

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Abstract: **Injection applications are the subject of many new researchers in developing countries. Intramuscular injection is a method that is used to deliver drugs to large muscle masses. The dorsogluteal region is a commonly used site for intramuscular injection. Since injection of dorsogluteal region can lead to many complications, especially sciatic injuries, use of the ventrogluteal region as an alternative to this region is recommended. However, it is known that they are not used by the nurses in the clinic because they can not give up the habits of the ventrogluteal region. This review was organized to share the preferred method of training of the ventrogluteal region, one of the intramuscular injection sites, with the training method for updating information using interactive workshop and practice in both blood-based and experienced nurses using e-learning method**

Keywords: **Ventrogluteal area; Nursing; E-öğrenme; Workshop.**

1. INTRODUCTİON

Intramuscular injections, one of the injection injection methods, are one of the invasive procedures performed by the nurses. A large amount of intensive and irritating drugs to be quickly absorbed in muscle groups to apply the process; Deltoid, vastus lateralis, rectus femoris, ventrogluteal and most commonly preferred dorsagluteal regions [1,2,3,].

The most preferred dorsagluteal region by nurses is the dorsagluteal region where the drug is applied to the gluteus maximus and minus muscles. However, the presence of the longest nerve of the body in the region and the presence of arterial and venous muscle, the presence of an endothelium of the muscle structure, the influence of the antigravity muscle group, abscess, necrosis, hematoma, ecchymosis, infection, periostitis and subcutaneous tissue Complications such as difficulty in reaching, pain due to it are common [4,5,6,7]. Recent studies have demonstrated the incidence and severity of complications, especially in cases of sciatic nerve injury [8,9,10,11]. In Ahuja's study, 36% of 50 sciatic nerve injuries after IM injection from the dorsagluteal region reported complete healing, 24% partial healing and 40% no healing [12].

Although the intramuscular drug administration area defined as the safest region is designated as the ventrogluteal region, unfortunately the use of this region is not yet common. Despite emphasizing that the VG region should be the first choice in the selection of the injection site as a blood-based practice in undergraduate education, students have rarely been able

to observe this technique in clinical practice and after graduation [13,14,15]. Floyd and Meyer [5] found that 99% of the nurses preferred the dorsagluteal region, and only 9% used the ventrogluteal region. Similarly, Walsh and Brophy [16] stated that 71% of nurses prefer dorsagluteal site for intramuscular injection. With similar studies in the literature [6,15,17,18,19], nurses have been cited as the reason for choosing the ventrogluteal region; This area is anatomically small and it is difficult to determine this region, the fear of not detecting the region correctly, the fact that they do not have sufficient information or have never applied to the clinic area despite their training, they can not give up their habits, they do not believe the region is safe,different methods are more common in identifying this area ("G" or "V" method) and these methods are confusing, the patient is overweight , and that the muscles in the region are inadequate for application [1,6 , 15,20].

2. TRAİNİNG TECHNİQUE FOR CLİNİCAL NURSES

Nursing education has the teaching theory aimed at combining the cognitive, psychomotor and attitude behaviors for effective learning with theoretical theory and application content. However, it has been reported that education in clinical studies conducted for clinical nurses is usually carried out with theory. In these studies; Experimental methods such as descriptive or pre-instructional knowledge of the knowledge status of the nurses working in the clinic and evaluation of post-training knowledge status have been followed [6,15]. However, although Floyd and Meyer [5] and Wynaden et al. [19] found that nurses were not accustomed to using a method other than the one they used consistently, despite the fact that the evidence on the subject was not unknown, but that the theoretical knowledge was not sufficient to change psychomotor skills of the nurses. It is necessary to carry out theoretical and practical education in order to improve the attitude behaviors in the adult and to provide continuity and awareness in the education with the support of the technology. In this respect, it can be suggested that in the clinical education, theoretical basic theoretical training similar to the undergraduate education and the application training for the psychomotor skill should be done, and a training integrated with e-learning to create continuity in behavior and awareness can be proposed.

Clinical nurses participated in interactive workshop training in small groups. Interactive workshop is a training model based on the active participation of the learners and different from the classical training method in the form of directed questions and answers based on the negative aspects of the dorsagluteal region which is the usual practice (Figure 1). After the theoretical dimension of the information was transferred, reminiscence and emphasizing messages were sent with e-learning in order to contribute to the change of the behavior and to raise awareness by using the "demonstration" method and the individual application in the clinic with the nurses for psychomotor change (Figure 2). When nurses open the hospital information management system with their own passwords for the patients in the hospital, electronic reminders and visual warning messages including intramuscular injection and application technique in the ventrogluteal region were sent to facilitate the learning and reinforcement training methods (Figure 3).

3. CONCLUSİON

Nursing education should cover cognitive, emotional and psychomotor learning areas. For this reason, in addition to theory education in clinical nurses' education, it is thought that application and computer support and e-learning as educational method are important and increase the efficiency of education.

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APPENDIX - A

Figure 1. Ventrogluteal Site İnteraktif-Workshop Education

Figure 2. Ventrogluteal Site Education of Nursing Practices

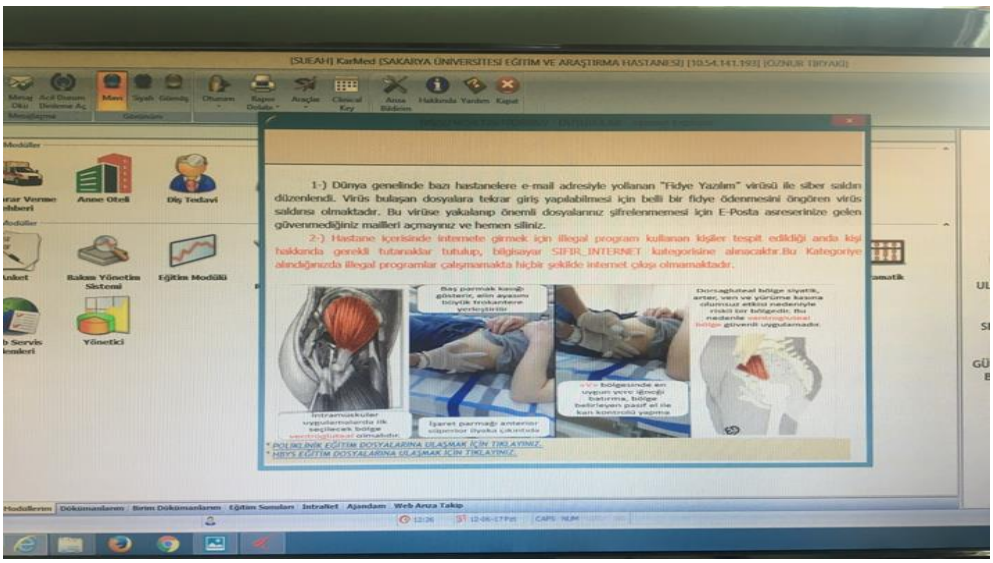

Figure 3. Ventrogluteal Site E-öğrenme ekran görüntüsü