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Clients' Physical Restraint Management: Nursing Approach

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Abstract

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Unpredictable, aggressive behaviours from clients occur and it is undeniable that there are difficulties regarding their physical restraint because professionals do not have a common understanding about the theme. The research question of this study is: What are the clients' physical restraint measures that nurses, in the surgery Department of the Unidade Local de Saúde de Matosinhos (ULSM), E.P.E, usually implement in their clinical practice? The purpose of this exploratory-descriptive quantitative research was to develop a clients' physical restraint management. We have had a non-probabilistic convenience sample, constituted by 182 clients admitted in the Surgery Department of the ULSM, E.P.E. A questionnaire was applied. The results pointed out that there were numerous physical restraint measures usually implemented by nurses and the most significant were: to equip the bed with side rails that allow protection and client's safety (98.1%), to switch decubitus in order to prevent pressure ulcers (94.4%) and the client's status that determined the need for restraint (94.4%). Thus, we recommend a protocol proposal for the client's physical restraint that enables safety and quality in the nursing practice.

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Keywords: Nurses, physical restraint, security measures, patient care

1. Introduction

The physical restraint, which is also called, in the literature, physical restriction of mobility of clients in hospitals, persists in being a common practice. In daily practice, the use of restraint techniques is common to prevent falls, to avoid the exteriorization of medical devices and to protect



clients' safety and who surrounds them. However, and despite the clients' physical restraint minimizes some risks, its adoption can lead to others, like to adverse events.

Hamers and Huizing (2005) and Demir (2007), in their studies define physical restraint as any restriction on the freedom of the person's movement.

Marques (2012) state that the use of the clients' physical restraint is common in acute clients care facilities, as well as the continuing care, being these measures used constantly in order to prevent damage and protect clients.

Studies conducted on the clients' physical restraint indicate that prevalence rates are between 7.4% and 17% in hospital services, and 3.4% to 21% of the clients are in the disease's acute phase (Costa, 2013). In Portugal, although today the research of this topic assumes particular importance, only one study was found in a central hospital (Faria et al., 2012) which had a population of 552 clients admitted in various services of the hospital institution; a sample of 110 clients were subjected to physical restraint (19.9%).

Portugal, when compared with other countries, has not invested in research in this area, assuming almost as unknown the Portuguese reality. Thus, the Portuguese study, mentioned above, to feature the theme, gives it a representation of 19.9%, which is similar to other international studies and we can conclude that physical restraint is a common practice in Portugal.

The clients' physical restraint is always disturbing and it is assumed with a discordant theme in nursing practice. The nurses face the dilemma of maintaining the client's security when they are dependent or managing the risks associated with measures of physical restraint (Costa, 2013).

The contention starts with the movements' restriction in a given space-environmental containment, leading the person to an isolated space, without exposure to others, unless health professionals involved (Ordem dos Enfermeiros (OE), 2006). Should, in a first approach, be implemented measures such as environmental containment and communication techniques, allowing the client to express feelings and emotions, with the purpose of establishing an interaction between nurse and client, allowing the client to release the tension experienced and be aware of the situation (Direção Geral da Saúde (DGS), normative document 08/DSPSM/DSPCS, 2007; OE, parecer No 226, 2009). The same sources report that the measures' adoption of physical restraint should be the last option of approach and after that ensuring that all other measures do not prove to be productive. It is also safeguarded in the DGS's directive (021/2011) that informed consent should be asked to the client, when he/she is in the necessary conditions or, to his/her legal representative, if possible.

The DGS's directive No. 021 of the 2011 points out that those measures of physical restraint shall be carried out under medical prescription and must be in the client's clinical process. However, in emergency situations, nurses can carry out physical restraint, and this performance in accordance with the guidance referred above, with the Regulamento do Exercício Profissional dos Enfermeiros and with Código Deontológico do Enfermeiro (Regulation of the Professional Exercise of Nurses and the Code of Nurses' Ethics), and should these measures be reported to the doctor as soon as possible to evaluate the client's clinical situation.

The reasons and causes that result in the adoption of measures of physical restraint aid in understanding this phenomenon. Hamers and Huizing (2005) state that the motivation for the adoption

of certain containment measures is related to the falls' prevention, based on the studies of Werner (2002), Capezuti (2004) and Hamers (2004). According to the authors, the risk of falling is a determining factor to immobilize clients. They also assume that the protection of medical devices is also an important reason for the use of mobility restrictions.

The analysis of some studies have concluded that health professionals often justify the use of restrictive measures, focusing on the client, to behavioral control, agitation and aggression, with the ultimate goal to maintain security. With the purpose of organizing the shift, managing the time, and on the other hand, to prevent clients bother the other clients, and also, in most cases, to prevent clients to externalize the medical devices or removing clothes, restrictive measures are implemented (DGS, 2007; Costa, 2013). The same stated Choi et al., 2003 and Hamers and Huizing, 2005 in their studies.

The locations and types of physical restraint is for the restriction's purpose i.e., total or partial restriction of movement, being in bed, in the chair or in the wheelchair. The anatomical location of physical restraint acquires an important significance as it directly affects the client's ability to move, implying the ability to regulate their own control mechanisms.

Measures of physical restriction mainly in old people can cause negative effects in their health. Added up to the complications of the prolonged immobilization, the occurrence of other adverse events create the risk of suffocation, death and injuries for falls, even that these measures are implemented to prevent falls in clients with higher risk of fall (Costa, 2013).

On the other side, one of the consequences that has more impact are the ethical dilemmas that the nurses face, since restriction measures are used to guarantee the clients' security, they know that they take the risk of provoking, for example, lacerations, bruises and even strangulations. Other adverse events, thought as indirect, include the increase of the mortality tax, developing pressure ulcers, falls, strength reduction and extension of the hospital stay (Costa, 2013). The same author ended also with another consequence that connects with the sensory deprivation, tiny interaction and sensory stimulation that can cause or aggravate the client's confusion.

In terms of adverse events, which appear to be a consequence of the implementation of measures of physical restriction, they are always shown in the quality of life, leading to a reduction of it, by the changes in the activities of daily life and social participation of the clients.

2. Methodology and Study Design

The research question of this study was 'What are the Clients' physical restraint measures that nurses, in the surgery Department of the ULSM, E.P.E, usually implement in their clinical practice?'. So that, the aims were: to identify clients' physical restraint measures that nurses, in the surgery Department of the ULSM, E.P.E., usually implement in their clinical practice, to identify clients' physical restraint measures that nurses, in the surgery Department of the ULSM, E.P.E., usually implement in their clinical practice and to develop a protocol proposal for the clients' physical restraint.

Due to the question of this study and the aims defined we selected a convenience sample. The inclusion criteria to select the individuals were: the client should remain hospitalized for more than 24 hours, the client should not have readmissions in the unit during the data collection, the client should

not be transferred between the target research services and the client should not have participated in the pretest of the questionnaire.

We collected data, performed in the same day, through the application of a questionnaire to assess the clients' physical restraint measures that nurses, in the surgery Department, usually implement in their clinical practice.

The research took place in the surgery wards B, C and I of the ULSM, E.P.E.

We obtained permission from the institution to conduct this research and the questionnaire had an introductory part where we explained the study and the ethical issues. We outlined the voluntary nature of the individuals' participation.

3. Results

We selected a convenience sample constituted by 182 clients who fulfilled the inclusion criteria which were: the client should remain hospitalized for more than 24 hours, the client should not have readmissions in the unit during the data collection, the client should not be transferred between the target research services and the client should not have participated in the pretest of the questionnaire.

In order to meet the objective of the study, and for the purpose of obtaining data from the key players to the clients' care, to achieve a physical restraint management, it was requested to the nurses to indicate the measures of physical restraint that they usually implement (see table 1).

Table 1. Clients' physical restraint measures that nurses usually implement in their clinical practice

Clients' physical restraint measures that nurses usually implement in their clinical practice	%	
Use communicative techniques of interruption of the aggressiveness's escalation	36	66,7%
Use environmental containment techniques (modification of the context, appeal to changes that control customer mobility with clinical supervision, provide a safe and quiet environment)	37	68,5%
Inform and reassure client, family/significant person on the need for restraint measures	45	83,3%
Carry out the physical restraint of the client, after a clinical risk assessment	47	87,0%
Carry out physical restraint after joint decision of the therapeutic team	31	57,4%
Carry out physical restraint after medical prescription and record properly in the client's clinical process	35	64,8%
Carry out physical restraint, transmitting to the doctor later	28	51,9%
Carry out physical restraint, limiting it in time and with frequent reevaluation by the multidisciplinary team	41	75,9%
Ensure that there are no dangerous objects for the client	49	90,7%
Use tracks designed and appropriate, in compliance with the manufacturer's instructions in its application	44	81,5%
Equip the bed with side rails, allowing the protection, support and client's security	53	98,1%
Apply protective material to prevent injuries resulting from friction	38	70,4%
Watch at intervals of not more than 15/30 minutes, signs of circulatory changes and tissue perfusion that may result from compression due to containment tracks	36	66,7%
Position the client supine with the head slightly elevated and the upper limbs positioned to enable venous access. Whenever needed use an alternative placement, in particular, in lateral decubitus	40	74,1%
Make alternating decubitus for prevention of pressure ulcers	51	94,4%
Maintaining the communication with the client as part of its therapeutic process	45	83,3%
Watch often vital and analytic parameters of the client	34	63,0%
Do the periodic physical examination	35	64,8%

Moisturize the client in case of prolonged sedation	27	50,0%
Reassess the need for maintenance of physical restraint during a period of no more than 2 hours, repeating it with this frequency	38	70,4%
Remove the physical restraint according to the effectiveness of the medication and the assessment of the condition of the client or as soon as possible	47	87,0%
Register, mandatorily, in the clinical process:		
Client's state which determined the need of restraint	51	94,4%
Preventive measures and their impact	33	61,1%
Description of the different containment measures analyzed with the client or with whom he/she decides to	15	27,8%
Professionals involved in decision-making	21	38,9%
Evaluations after the placement of the countermeasure	27	50,0%
Evolution of the medical condition of the client	38	70,4%
Registration of consequential injuries	41	75,9%
Revision of the care plan, as a result of the measures of containment	48	88,9%

According to the table 1, we verified that a large majority of respondents, 98.1% (N= 53) outfits the bed with side rails, 94.4% (N= 51) makes alternating decubitus for prevention of pressure ulcers, 90.7% (N= 49) ensures that there are no dangerous objects to the client and 87.0% (N= 47) proceeds the physical restraint of the client, after a clinical risk assessment, as well as removes the physical restraint according to the medication's effectiveness and the assessment of the customer's condition or as soon as possible. 45 (83.3%) nurses referred to keep the communication with the client as part of the therapeutic process, as well as they inform and reassure the customer, family/significant person regarding the need for containment measures, 81.5% (N= 44) mentions using tracks designed and appropriated, ensuring to comply with the manufacturer's instructions on its application.

We consider relevant to point to some of the results that indicate us a less predominance of implementation, such as: 'Use of communicative techniques of interruption of the aggressiveness's escalation' is hardly applied by 66,7% (N= 36) of the nurses and that 68,5 % (N= 37) uses techniques of environmental restriction. We check that 64,8% (N=35) points 'Carry out physical restraint after medical prescription and record properly in the client's clinical process', 57,4% (N=31) of the nurses points 'Carry out physical restraint after joint decision of the therapeutic team' and only 51,9% (N= 28) of the nurses carries out physical restraint, transmitting to the doctor later.

In terms of compulsory registers, we check also some differences, for example, in 'Preventive measures and their impact' (61,1%, N= 33) and in 'Evaluations after the placement of the countermeasure' only 50% (N= 27) of the nurses points to proceed to this register, as well as, only 38,9 % (N= 21) of the nurses register the 'Professionals involved in decision-making' and only 27,8 % (N= 15) of the nurses proceed to the 'Description of the different containment measures analyzed with the client or with whom he decides to'. Nevertheless, we note that the nurses record, frequently, the client's clinical state evolution and the consequent injuries. The revision of the cares' plan was one of the measures more frequently adopted by the nurses (N= 48, 88,9%), as well as, the client's state record who determined the necessity of restriction (N= 51, 94,4%).

By the consideration of the measures adopted face to the physical restriction of clients, which they did not derive of a significant answers predominance, one is considered relevant, the inclusion of some of them in the management, being this: 'Obtain informed permission, by the legal representative of the

client, if feasibly, in case he/she does not join the necessary conditions' (14,8%, N=8) and 'Prevent thromboembolic accidents' (42,6%, N= 23).

4. Discussion and Conclusion

After the measures' analysis of restriction adopted by the nurses, we considered that our study is similar to others in the literature, since 45 nurses (83,3%) declare to maintain the communication with the client, in spite of only 66,7% (N= 36) 'Use communicative techniques of interruption of the aggressiveness's escalation' such as the DGS (2007) mentions in the circular normativa, as well as the OE (2009) in the parecer No. 226. The same entities point what, the communicative techniques and the measures of environmental restriction, must be the first ones to be implemented, in spite of this last one do not happen as much as it is desirable, in our sample.

It is safeguarded in the directive of the DGS (021/2011) that the informed permission will have to be asked to the client, since this one meets with the necessary conditions for such, or then, to his/her legal representative, if it is possible. The refined results do not go against this DGS's directive, nevertheless 83,3% (N= 45) of the nurses points that they inform and calm the client and/or family relatively to the adoption of restriction measures, what do not substitute getting the permission, but it declares that knowledge and support is given to a client and/or family.

In spite of the DGS's directive No. 021 points which measures of physical restriction must be carried out under medical prescription and that the record must be in the client's clinical process, it was checked that only 64,8% (N= 35) of the nurses do it. The same directive mentions that in urgency situations, the nurses can proceed to the physical restriction, acting in accordance with the Regulation of the Professional Exercise of the Nurses and the Code of Ethics of the Nurses (*Regulamento do Exercício Profissional dos Enfermeiros* and the *Código Deontológico do Enfermeiro*), owing these measures be informed to a doctor as soon as possible, so that this one evaluates the client's clinical situation. We consider relevant to point to some of the results that indicate a less predominance of implementation, such as 51,9% (N= 28) that they proceed to the physical restriction, communicating subsequently to the doctor, 57,4% (N=31) of the nurses whom it points 'Carry out physical restraint after joint decision of the therapeutic team'. These results constitute an unconformity face to what there is stated in the DGS's directive No. 021 of 2011.

In 98,1% (N= 53), such as Costa (2013), Faria et al. (2012), Hamers and Huizing (2005), Bredthauer et al. (2005) and Gallinagh et al. (2002), that the most used place for the physical restriction is the bed, using for such, the placing of side rails, to allow the protection, support and security of the client. The same authors tell also that the superior and inferior members' restriction is frequently used like a way of physical restriction. The study of Demir (2007), in which he questioned 254 nurses on the use of measures of physical restriction, showed that 96,1% (N= 244) of them, admitted the use of pulse immobilizers and 88,2% (N= 224) of inferior member (ankle). Nevertheless, we check that the nurses of our study, hardly proceed to these measures in 37,0% (N= 20), which goes against the results of Faria et al. (2012) where 29,6% of the clients' sample were subjected to restriction with fist immobilizers. Such as it Costa (2013) refers it is still less frequent the

implementation of physical restriction to the whole body, as we can note by the obtained results (37,0%, N= 20) relatively to the fifth belt's placing, chest, after the all members' immobilization. A significant percentage of the sample (81,5%, N=44) uses conceived and appropriated belts, guaranteeing the fulfillment of the manufacturer instructions in the use.

With an inferior frequency to the desirable (68,5%, N= 37) face to the extolled one in the directive No 021/2011 of the DGS, we check that nurses points to use techniques of environmental restriction, like the modification of the context and to provide a calm and safe environment, face to the adoption of measures of physical restriction. However, we note that only 24,1% (N=13) of the nurses, proceeds the physical restriction in an isolated room or in another place that guarantees the clients' privacy and that it is well ventilated and with the appropriate temperature, so in the surgery services in study, there are not sufficient physical spaces for such, in spite of they may act in what refers to the ventilation and to the wards' temperature.

Referring to the adverse events of measures of physical restriction, besides the long immobilization's complications and the incident of other events, it is important to except the indirect events, like the muscular force's reduction, in increasing the time of internment and the development of pressure ulcers, for example (Costa, 2013).

The pressure ulcers constitute a quality indicator of the nursing cares, because their prevention in cases of immobilization, rules in the managements of physical restriction of clients. Such as it points Costa (2013) and Gulpers et al. (2010) the appearance of pressure ulcers is one of the adverse events of the clients' restriction, because, the use of these measures must be the last option and when there is no alternative, the preventive measures must predominate. Nevertheless, we note that, only 66,7% (N= 36) of the nurses watch signs of circulatory changes and tissue perfusion with a periodicity not superior to 15-30 minutes and that 70,4% (N= 38) applies material of protection to prevent injuries resulting from the friction. The periodic physical examination also reveals tiny values (64,8%, N= 35), as well as the client's hydration in case of prolonged sedation (50,0%, N= 27). However, the decubitus crop rotation for the prevention of pressure ulcers shows up with a significant frequency, 94,4% (N= 51). In the clinical process, of consequent injuries, the compulsory register for example, of pressure ulcers, bruises and swellings (Azab and Negm, 2013; Demir, 2007) reveals inferior values to the wanted ones, translating a culture of sub increase in mistake value (Fragata and Martins, 2004).

In terms of compulsory registers in the client's clinical process, perhaps for the inherent difficulty in the measure, only 27,8% (N= 15) of the nurses proceeds to the 'Description of the different containment measures analyzed with the customer or with whom he decides to'. We check an elevated percentage (94,4%, N= 51) in the client state's register who caused the restriction and the revision of the cares' plan after the restriction measures. The evolution register of the client's clinical state (70,4%, N= 38) and of preventive measures and his impact (61,1%, N= 33) translate still, not much satisfactory results face to the desirable ones.

The following protocol proposal for clients' physical restrain was developed grounded in our study, in the DGS's directive No 021/2011 but also in the DGS (2007) and in the best available evidence (see figure 1).

PROTOCOL PROPOSAL FOR CLIENTS' PHYSICAL RESTRAINT
<p>On basis of the ethical beginnings, in the clinical situation and in the individual evaluation of each client, the recorded rules' fulfillment, it must be guaranteed. The recorded physical restraint's measures are the next ones:</p> <ol style="list-style-type: none"> 1. Use communicational techniques of aggressiveness's escalation interruption; 2. Use environmental containment techniques (modification of the context, appeal to changes that control customer mobility with clinical supervision, provide a safe and quiet environment); 3. Inform and reassure client, family/significant person on the need for restraint measures; 4. Obtain informed permission, by the legal representative of the client, if feasibly, in case he/she does not join the necessary conditions; 5. Carry out the physical restraint of the client, after a clinical risk assessment; 6. Carry out physical restraint after joint decision of the therapeutic team; 7. Carry out physical restraint after medical prescription and record properly in the client's clinical process; 8. Carry out physical restraint, transmitting to the doctor later; 9. Carry out physical restraint, limiting it in time and with frequent reevaluation by the multidisciplinary team; 10. Ensure that there are no dangerous objects for the client; 11. Use tracks designed and appropriate, in compliance with the manufacturer's instructions on its application; 12. Equip the bed with side rails, allowing the protection, support and client's security; 13. Apply protective material to prevent injuries resulting from friction; 14. Watch at intervals of not more than 15/30 minutes, signs of circulatory changes and tissue perfusion that may result from compression due to containment tracks; 15. Position the client supine with the head slightly elevated and the upper limbs positioned to enable venous access. Whenever needed use an alternative placement, in particular, in lateral decubitus; 16. Make alternating decubitus for prevention of pressure ulcers; 17. Maintaining the communication with the client as part of its therapeutic process; 18. Watch often vital and analytic parameters of the client; 19. Do the periodic physical examination; 20. Moisturize the client in case of prolonged sedation; 21. Reassess the need for maintenance of physical restraint during a period of no more than 2 hours, repeating it with this frequency; 22. Remove the physical restraint according to the effectiveness of the medication and the assessment of the condition of the client or as soon as possible; 23. Register, mandatorily, in the clinical process: <ul style="list-style-type: none"> - Client's state which determined the need of restraint; - Preventive measures and their impact; - Description of the different containment measures analyzed with the client or with whom he/she decides to; - Professionals involved in decision-making; - Evaluations after the placement of the countermeasure; - Evolution of the medical condition of the client; - Registration of consequential injuries; - Revision of the care plan, as a result of the measures of containment.
<p>Client's Physical Restraint Notification:</p> <p>--- The physical restraint's needs to be registered (the notification must be carried out immediately after the implementation of the measure);</p> <p>--- The notification must be carried out also in the anonymous national register of physical restraint's episodes, made available in the web page of the DGS's;</p> <p>--- Inform the Nurse Chief and Service's Director.</p>
<p>DEFINITION</p> <p>Physical restraint: situation in which one or more persons of the therapeutic team hold a client, they move or blockade his/her movement to obstruct the exhibition to a risk situation.</p>
<p>REFERENCES</p> <p>- Ordem dos Enfermeiros. (2009). <i>Parecer N.º 226 / 2009. Assunto: Elaboração de parecer sobre Circular Normativa da DGS nº 8 / DSPSM / DSPCS de 25 / 05 / 2007 referente a medidas preventivas de comportamentos agressivos / violentos de doentes – contenção física</i>. Retrieved from http://www.ordemenfermeiros.pt/documentos/Documents/Parecer-CE-226-2009.pdf;</p> <p>- Portugal. Ministério da Saúde (MS). (2011). <i>Orientação da Direção-Geral da Saúde número 021/2011, de 6 junho 2011. Prevenção de comportamentos dos doentes que põem em causa a sua segurança ou da sua envolvente</i>. Lisboa: DGS;</p> <p>- Portugal. Ministério da Saúde (MS). (2007). <i>Medidas preventivas de comportamentos agressivos/violentos de doentes - contenção física</i>. Circular normativa N.º: 08/DSPSM/DSPCS de 25 maio 2007. Lisboa: DGS.</p>

Figure 1. Protocol proposal for clients' physical restraint

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