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Parallel Session E

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International approaches to reduce the usage of physical restraints in nursing homes

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The use of physical restraints is still common practice in the care for the elderly in various settings in Europe, Asia and the USA. Physical restraints can be defined as any limitation in an individual's freedom of movement by using measures or equipments such as belts, and chairs with a locked table. Prevalence estimates of restraint use range from 20% to more than 60% (including restrictive bedrails, belts, deep or overturned chairs, chairs with a table). In most cases physical restraints are used as safety measures, mainly for the prevention of falls. However, there is growing evidence that reducing the number of physical restraints does not lead to an increased number of falls or fall-related injuries. The use of restraints has negative physical, psychological and social consequences for nursing home residents. Therefore, effective restraint reduction approaches are urgently needed.

The current symposium focuses on the development, evaluation and dissemination of innovative approaches to reduce the usage of physical restraints in different countries. The first presenter addresses the effects of a Dutch programme aimed at reducing the use of belts in nursing homes. The second presenter focuses on the efficacy and safety of a complex intervention programme based on an evidence-based guidance developed to deliver restraint-free care in German nursing homes and to overcome practice variations. The third presenter addresses safety issues associated with the use of physical restraints in the elderly. Finally, the last presenter discusses contextual factors that have been employed in nursing homes in various countries that have effectively reduced restraint use. In conclusion, implications for practice regarding approaches to reduce restraint usage will be discussed.

Reducing the use of physical restraints in Dutch nursing homes: a pilot study

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Introduction: Several attempts have been made to reduce the use of physical restraints. Most studies used educational approaches and introduced a nurse specialist as a consultant. The success rate of these interventions has been inconsistent. Among restraints used in Dutch nursing homes, belts are the most restrictive measure. Therefore, we developed a multi-component intervention program, named EXBELT, which primarily focuses on belt use reduction. The EXBELT intervention includes four components: (1) promotion of institutional policy change that discourages belt restraint use, (2) education, (3) consultation by a nurse specialist, and (4) development and availability of alternative interventions.
Methods and Materials: EXBELT was piloted in one psychogeriatric ward (30 residents) with a high prevalence of belt use (40%). Data regarding the use of belts (primary outcome measure) and other physical restraints, number of falls, injuries, and alternative intervention were collected at baseline, and after one, three and 9 months follow-up.
Results: At baseline, 12 belts (in 30 residents) were used. After 1 month follow up, no belt was used, and after three and 9 months follow up 1 belt was used. This reduction in belt use did not result in either an increase in the number of falls and related injuries or the use of other restrictive measures. Belts were replaced with resident-centered interventions, such as balance training, lower beds, hip protectors, extra supervision and monitoring devices.
Conclusion: The results of this pilot study are very promising. A limitation is that this study has been conducted on only one ward. The recent expansion to other wards in the same nursing home has shown similar results. However, further testing of EXBELT is needed on wards in other nursing homes prior to widespread dissemination. We recently started a study investigating the effectiveness and feasibility of EXBELT on 26 wards in different regions in the Netherlands.

Evaluation of a guidance on the reduction of physical restraints in nursing homes: a cluster-RCT

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Introduction: An evidence-based guidance may be a powerful tool to deliver restraint-free care in German nursing homes and to overcome practice variations. We developed such a guidance and currently investigate the efficacy and safety of a complex intervention programme based on the guidance.
Methods and Materials: Cluster-randomized controlled trial with nursing homes randomized either to the intervention group or to the control group with standard information. The intervention comprises a structured information programme for nursing staff, information materials for legal guardians and residents' relatives and a 1-day training workshop for nominated nurses. A total of 36 nursing home clusters including approximately 3000 residents have been recruited. Each cluster had to fulfill the inclusion criteria of at least 20% prevalence of physical restraints at baseline. The primary endpoint has been defined as the number of residents with at least one physical restraint at 6 months. Secondary outcome measures are the number of falls and fall-related fractures.
Results: The intervention has been successfully implemented in all intervention clusters. None of the clusters has been dropped out so far. Data collection will be finished soon. The final data will be available for the symposium.
Conclusion: If successful, the intervention should be implemented throughout Germany. In case the intervention does not succeed, a 3-month pre-post-study with an optimized intervention programme within the control group will follow the randomized trial.

Safety problems associated with the use of physical restraints on the elderly

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Introduction: Physical restraints are considered by many professionals as an appropriate measure to increase the safety of older people, as can be evidenced by its high prevalence rate. However, this procedure also generates complications related to prolonged immobility as

well as other important adverse effects. In this study, the circumstances surrounding the accidents of six elderly people, restrained with different devices, are analysed.

Methods and Materials: Accidents happened both in geriatric institutions and in the family home of the elderly. The information was collected through a semi-structured interview with the carers. Also an electronic search of databases was carried out to compare the results with the findings of other investigators.

Results: While they were on restraints, patients suffered diverse injuries and even death in three cases, side rails and lap belts being the mechanisms involved. The problems rose mainly when they were trapped by the device, which caused external compression on chest or upper abdomen, creating suffocation as well as other complications. Findings indicate that the accidents present a common pattern, and a combination of complex factors could increase the likelihood of occurrence. These would include, among others, the patient's inability to recognize risks, poor supervision or improper placement of the devices.

Conclusion: In order to improve security, family carers and professionals must be aware of the risks associated with the application of these devices. Previous findings have revealed that, in Spain, there is a positive attitude of restraining and limited knowledge of alternatives. Researchers recommend the implementation of training programmes to help reduce the use of restraints and to improve the quality of care. It's also suggested that precise protocols and specific laws should be drawn up in order to prevent arbitrary application.

Contextual interventions to reduce variation in physical restraint use

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Introduction: Despite evidence documenting the negative sequelae of physically restraining nursing home residents, these devices continue to be employed to promote 'safety'. More than 20 years of legislative and research interventions have resulted in reduced usage of physical restraint overall, however, there is also considerable variation in use across countries, regional differences within each country, and inter-facility differences across institutions within regions. Nursing homes that have successfully eliminated or at least significantly reduced restraint usage are most often reported to be not-for-profit and less likely to be part of a multi-facility corporation or urban. These institutional factors, along with staffing and financial resources, do not capture the philosophical and organizational factors that drive adoption of non-restraint approaches to care. Interventions that aim to change the knowledge, attitudes and beliefs of nursing staff toward restraint have not been consistently successful in reducing usage.

Methods and Materials: An integrative review of relevant biostatistics, medical and nursing literature, case exemplars, and policy papers that describe the influence of contextual factors on restraint use in European, American, and Asian nursing homes.

Results: Staff motivation to seek and consistently utilize non-restraint interventions for nursing home residents at risk for falls and related injuries require more than individual enthusiasm. Rather, it is the strategic context that fosters evidence-based innovation by motivated staff that is needed to effectively reduce both restraints and falls.

Conclusion: Contextual factors such as legislative/regulatory incentives to reduce restraints, consumer endorsement of non-restraint care practices, administrative support (resources, safety culture) to minimize restraint usage, and an organizational culture that encourages individualized care are the critical determinants for restraint elimination.