

# Restraint use in somatic acute care hospitals

Citation for published version (APA):

Thomann, S. (2023). *Restraint use in somatic acute care hospitals: do we need to care?* [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20230309st>

## Document status and date:

Published: 01/01/2023

## DOI:

[10.26481/dis.20230309st](https://doi.org/10.26481/dis.20230309st)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

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# IMPACT

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In health care, the use of measures restricting personal freedom, so-called restraints, is increasingly viewed critically as a potential violation of human rights. Their use in almost all circumstances is unacceptable from scientific, societal and patient points of view – on the one hand, because the effectiveness for most of the reasons restraints are used (like patient safety) has not been proved [1-5], and on the other hand, because the negative consequences for both patients and health professionals are evident [1-4, 6-8]. While this critical view and corresponding strategies to reduce restraint use, or even to provide restraint-free care, have received attention for decades in mental health and long-term care, restraint use in hospitals has remained a side issue. A limited amount of research has been done in hospitals, most often with a focus on belt restraint and partly also pharmacological restraint in intensive care units and emergency departments. Little information had been available on the other disciplines (ward types) of the hospital setting and other forms of restraining. This thesis has provided new and comprehensive insights into restraint use in hospitals, independent of subpopulations and specific restraint types. Moreover, influencing conditions on restraint use within direct clinical practice as well as on a hospital and health care system levels have been identified. The main finding is that about 1 in 11 patients in somatic acute care hospitals is restrained. These patients are most often vulnerable. There are large differences among hospitals and among health professionals as to whether restraints are used in similar patient situations. Such differences should not exist from ethical and legal points of view, and also from professional and social perspectives. The findings facilitated the identification of approaches that could improve practice and thus reduce restraint use. The findings of this thesis had an impact on both society and science, as demonstrated below.

## **SOCIETAL IMPACT**

This thesis provides a basis for the various players across the health care system to recognise their responsibility for ethically and legally appropriate restraint management and to take corresponding initiative to contribute to restraint reduction in hospitals. Based on this thesis, restraint use occurs in the entire range of hospital care and vulnerable patients are most affected. Thus, people who can hardly advocate for their own rights and interests are most affected. Hence, it is crucial that the various players in the health care system do everything within their control to protect this group of patients. This thesis highlights that it is not sufficient

to question only mechanical restraints in intensive care or emergency care. Rather, a critical discourse across disciplines as well as regarding any form of restriction of freedom is needed to protect the human rights of vulnerable patients in hospitals. The demographic trend, which is likely to increase the number of patients in hospitals who may be affected by restraint use, reinforces the urgency. On the one hand, the findings of this thesis provide society with a source to critically review restraint use as well as reduction initiatives (not) taken in hospitals. On the other hand, the various players in the health care system are informed regarding how they could help to ensure that restraints are only used as a last resort in the future. The impact of the findings of this thesis for regulatory bodies, professional bodies, management in hospitals, nurses in direct hospital patient care, patients and relatives and nursing education as well as the ways to reach these target groups are described below.

For the regulatory bodies in the health care sector, the findings of this thesis point to their possibilities to initiate a reduction in restraint use in hospitals at a system level. Specifically, this thesis indicates that restraint use in hospitals should be monitored at a national level to identify differences in restraint practice among hospitals. This monitoring could detect when a hospital uses more restraint than others, and thus encourage it to change its restraint practices. In the longer term, the findings of this thesis may also influence the improvement of legislation on restraint use. In some countries, such as Switzerland, legislation is focussed on mechanical restraint use in mental health and long-term care [9]. However, this thesis shows that restraint is also frequently used in hospitals and that a relevant proportion of restraint occurs via electronic monitoring and pharmacological restraint. Thus, the findings of this thesis advise the regulatory bodies as to the direction in which legislation should be revised.

For the professional bodies, these findings have an impact in that they have to take a clear position against the use of restraint in hospitals and formulate corresponding recommendations. The findings show that restraint use is considered a routine intervention. Here, professional organisations have the opportunity to draw attention to this critical practice and to recommend a change in practice to their members.

This thesis emphasises that management of hospitals is not merely responsible for creating structures and processes for the most restraint-free care possible. Much more importantly, management is responsible for transforming the restraint culture and providing employees with the confidence not to use restraint. This is a challenging

but – based on the findings in this thesis – fundamental task for management to improve restraint practice. Without changing culture, it is likely that any improvements in structures and processes will have little impact on restraint use.

For nurses in direct clinical practice, this thesis provides a database to reflect on their own restraint practice in terms of their own routines, their own implementation of ethical and legal processes, and especially the influence of their own attitudes on their decisions about restraint use. The thesis also underlines the relevance for nurses to consider the patient's perspective to prevent restraint use as effectively as possible. In addition, the responsibility of nurses towards patients in terms of respecting human rights is emphasised. The thesis stresses that the nursing profession must increasingly make use of its scope of action and advocate on behalf of patients in an interprofessional environment. With the academisation and professionalisation of the nursing profession, many nurses in practice are now also formally qualified; hence, they have an ethical and legal obligation to recognise potential human rights violations and to counteract them.

This thesis also impacts patients and relatives, as the findings indicate that their active involvement is relevant to change restraint practice. In the longer term, this will strengthen their position in the entire process of (not) using restraint. In addition, this thesis can contribute to a future reduction in the use of restraints, thereby improving patient safety and autonomy. An important finding that has emerged from this thesis is that differences in restraint use among hospitals are not dependent on the patient groups receiving care. This factor, combined with the lack of evidence for the benefits of restraint, gives patients even more of a right to advocate for human rights in hospitals and to demand a reduction in restraint use or – even better – restraint-free care.

The findings of this thesis emphasise that education has great responsibility in the socialisation of nurses. Education must define restraint broadly from the beginning and enable nurses to think critically and act appropriately within the interprofessional team, even on ethically and legally sensitive issues. Specifically, the findings of this thesis call for education to sensitize nurses to human rights and the evidence and prevention of restraints. However, this thesis could also have an impact on education provided to management, because this group has great influence on promoting restraint-free care. Education is responsible for equipping management with the leadership skills needed for cultural change.

To ensure that these findings also reach this wider audience, they have been disseminated through various channels. The findings concerning the political

level were presented at the Q-Day presented by the Swiss National Association for Quality Development in Hospitals and Clinics (ANQ). This event promotes an active dialogue on quality measurement and quality development in Switzerland and addresses policymakers as well as (quality) managers and (nursing) experts in health care institutions. Furthermore, the findings were presented to the participating practice partners in two presentations: once in an interprofessional exchange at a participating site and once at a training session on restraint use for all nursing experts of the practice partners. This dissemination could allow the results to be applied in direct clinical practice. In addition, some of the results could be integrated into a presentation at a symposium of the regional association of nurses on the topic of aggression and thus reached clinically active nurses from various settings in the Bern region. Regarding education, the findings of this thesis could be incorporated into a module of a Certificate of Advanced Studies (CAS) course on quality in medicine, whereby a broader field of clinically active health professionals could be reached. Moreover, several exchanges have taken place with the responsible lecturer, who teaches restraint in the bachelor programme for nurses at the Bern University of Applied Sciences. All results and publications have been shared with her so that the findings could be integrated into the basic training of nurses. Finally, (parts of) the findings were presented at a public online event, which was open to all interested parties free of charge. The invitation was distributed via the network of the School of Health Professions of the Bern University of Applied Sciences as well as via the professional and personal networks of the involved researchers. Participants included people from direct clinical practice, education as well as privately interested people. Furthermore, the first findings of this thesis were represented at the “Rendez-vous Forschende im Gespräch” 2019. This event takes place regularly in the Bern city centre: people passing by are invited to talk with researchers. In this way, the wider community was invited to talk about restraint use in hospitals.

## SCIENTIFIC IMPACT

The scientific impact of this thesis includes 1) the relevance of recognising restraint use as a phenomenon influenced by conditions throughout the health care system and 2) the need to investigate restraint by using a broad definition of restraint and across disciplines.

For the first aspect, the findings of this thesis add knowledge that interventions to change restraint practice in hospitals must be conceptualised by

considering influences outside of the nurse-patient interaction. Previous restraint reduction interventions in hospital settings have had limited effectiveness [7, 10, 11]. One possible reason for this might be that too little attention has been paid to the influence of conditions at different levels. However, the findings of this thesis clearly highlight the relevance of conditions at the hospital level such as prevailing routines or cultures. Thus, the findings of this thesis provide a basis for developing effective restraint reduction strategies for the hospital setting in the future. In addition, these findings show parallels to results obtained from long-term care as well as the mental health field. Thus, if these indications are confirmed, synergy in the development of restraint reduction interventions could be exploited in the future. For example, concepts from one of the other settings could be adapted to the hospital setting instead of having to develop completely new concepts. It would also be possible to develop and validate training programmes that can be offered across settings.

For the second aspect, it is evident from this thesis how important it is to study restraint in all its forms and in all disciplines in hospitals to ensure restraint is used as a last resort. Previous research on restraint use in hospitals has focussed on mechanical restraints (in subpopulations). However, the findings of this thesis have clearly shown that a relevant proportion of restraint use is attributable to forms other than mechanical restraint. In addition, this thesis has demonstrated that restraint use is a relevant topic in the entire hospital sector. Hence, all disciplines in hospitals and all forms of restraints have to be considered to reduce the use of restraint in the hospital setting and to avoid a shift in the type of restraint. Overall, these findings impact research in that it is imperative to apply the newer definitions of restraint, which encompass all forms of restrictions on freedom.

In general, this thesis indicates the necessity to investigate restraint use in hospitals further and in a differentiated way. For this purpose, this thesis impacts the possibilities of future research by having the Maastricht Attitude Questionnaire (MAQ) to assess the attitude of nurses towards restraint reviewed for its use in the hospital setting. In addition, this thesis adds knowledge regarding future investigation into restraint use and possibilities for changing practice, in particular to better understand the role of patients, their relatives and other involved health professionals.

Different dissemination strategies have been chosen to have an immediate impact on science. First, all articles have been published as open access. Two articles were published in nursing-specific journals (*International Journal of Nursing Studies* and *Journal of Clinical Nursing*) and three articles were published in



interdisciplinary journals (*Swiss Medical Weekly*, *BMC Health Services Research* and *International Journal of Environmental Research and Public Health*). Publication in both profession-specific and interdisciplinary journals means that this research has reached a wide audience including nurses, other health care professionals, policymakers, etc. In addition, one of these articles was part of a special issue on "The Use of Physical Restraints in Clinical Practice". This has increased the visibility of the work in the interested community. Second, (parts of) the findings have been presented at four conferences with different target audiences: 1) the International Society for Quality in Health Care (ISQua) 37<sup>th</sup> international conference target at an international community for quality development in health care; 2) the high-noon?! 2021 target at health care professionals and researcher in German-speaking countries focussing on aggression and restraint use in health care; and 3) the European Doctoral Conference in Nursing Sciences (EDCNS) 2019 and EDCNS 2022 target for PhD students in health and nursing sciences, thus addressing especially the scholars of the future. In addition, the publications have been distributed via ResearchGate and linked to the personal profile on the website of the Bern University of Applied Sciences. The strategies have already had an impact. For example, even though the articles have not been published for very long, they have already been cited by other researchers, including in the introduction to a Cochrane Review on the reduction of restraint use in hospitals [10]. In addition, a proposal for an intervention study on the reduction of restraint use through the preventive involvement of patients was developed, among others, based on the findings of this thesis. The proposal is still under review for acquisition; however, the first half of the necessary financial resources for this intervention study have already been approved by a foundation.



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