

# DIGITAL OPPORTUNITIES IN THE BURN PATIENTS REHABILITATION

The rehabilitation process of burn injury patients is long and demanding. Digital services could be utilized in the future rehabilitation of the patients.

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## Background

The treatment of burn injury patients has been centralized in the Burn Center of Finland, which means that the treatment of many patients is located far from their hometown. <sup>1</sup> In the hometowns of the patients where continuous rehabilitation is given, physiotherapists and occupational therapists often have little experience of burn injuries. Digital services could be utilized in the future rehabilitation of the patients <sup>2</sup>

## Purpose

The purpose of this study was to find out how digital services could be utilized in the continuing rehabilitation of burn patients, from a staff perspective. The idea was also to research what kind of instructions, guidance and support therapists find to be useful.

## Benefits of digital services for burn patients

- Virtual rehabilitation enables guidance of staff in units with less experience of burn patients.
- It was also noted that virtual follow-up improves support during the long rehabilitation process after the patient has returned to his / her home town.
- Outpatient long-term follow-ups where virtual consultation with digital image processing is provided, is cost-effective.
- The physiotherapists and occupational therapists in the hometowns felt that digital services could be useful during different stages of the burn patients' rehabilitation process.
- Smooth communication between the different care institutions was mentioned as a prerequisite for a successful rehabilitation process in many informants' answers.
- The need is big for this patient group as the special care is centered in a national burn center, and the patients come from all over the country.
- With the help of virtual services equal care can be provided regardless of domicile.

## Materials and methods

Data was collected using internet based questionnaire. The participants of the study were physiotherapists and occupational therapists who during the years 2016-2017 have been giving rehabilitation to a burn patient, after being treated at the Burn Center of Finland. In total, the survey was sent to 41 therapists, of which 15 answered.

## Results

The results of the study showed that digital services could be useful during different stages of the rehabilitation process of burn patients. Fluent communication between the various healthcare institutions is the key to successful rehabilitation. Respondents felt that digital services would be useful in the future. Some themes could clearly be highlighted from the answers. The issues that came up from the responses were instructions for professionals, real-time remote meetings, and personalized digital services for the patients.

## Conclusions

The demand of digital services for burn patients is clear, and the requirement is high for this patient group. According to the results of the study, there is also interest and motivation among the staff.

## Implications

The results of this study can be utilized when developing digital services for burn patients in Rehabilitation hub. Rehabilitation hub is a part of the Virtual Hospital 2.0 project.

## Acknowledgments

Please state the reasons why ethics approval was not required. Ethics approval was not needed, since the study did not include patients.. Research permit was received from 16 authorities.

## References

- <sup>1</sup> Vuola, Jyrki, 2016, Kansallinen Palovammakeskus. *Haavalehti*. Tidskriften utgiven av Suomen Haavanhoitoyhdistyksen ammattijulkaisu, nr.3 s. 5-6. <sup>2</sup> Atiyeh, B.; Dibo, S. A.; & Janom, H. H. 2014. Telemedicine and burns: an over-view. *Annals of Burns and Fire Disasters*, nr.27 s. 87-93.

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Positioning of burn patients



Burn scar stretching

## Material bank

### • VIDEOS, PICTURES AND INSTRUKTIONS

- scar treatment
- orthoses
- manual treatment

## Real time remote meetings

### • REMOTE CONSULTATION AND OUTPATIENT APPOINTMENTS

- when the patient changes the place of care
- co-appointments and coworking whit the home town physiotherapist

## Patients' own web sites

- individual exercises
- individual instructions
- situation follow-up
- possibility to contact the burn center "chat"