ErgocareBank – Good Ergonomic solutions for both Nursing Home and Home Care work

Tamminen-Peter[1] Leena, Lähdesmäki[2] Leena, Tikkanen[2] Soile
[1]Ergosolutions BC Oy Ab, Finland [2]Oulainen Vocational Collage, Finland
letampe@gmail.com

The aim of the ErgocareBank -project was to support carer's wellbeing and safety in their nursing home & home care -work and to ensure client's quality of care and safety. The project team consisting of partners from the educational, research and social & health care field from 4 countries defined the problems of the nursing home- and home care- work methods used when assisting clients with their ADL and to find the best practice solutions based on the research evidence. Proposed solutions were tested, filmed and published for both educational facilities and workplaces on ergocarebank.com/ergonomic-solutions

Keywords: Ergonomics, Safe Patient Handling Movement, nursing, home care, good practice

1. Introduction

Health care staff is subjected to significant risks of musculoskeletal disorders, likely to induce both human and economic costs. The work in elderly care is physically and psychologically demanding. The physical demand in aged care is even more strenuous than in other social and health care sectors (Laine et.al 2011). In most EU countries' the policy is to support old people, assisted by relatives or municipal home help services, to live at home for as long as possible, and this albeit timely institutionalising would allow a strain-reduction on carers. The ErgocareBank -project, funded by the EU, under the Transfer of Innovation programme, with partners from Finland, Greece, Sweden, and Estonia, responded to the challenge. The project consortium consisted of multi-professional partners from the educational, research and social & health care sector.

2. Objectives

Supporting carer's wellbeing and safety in nursing home- and home care- work and ensuring client's quality of care and safety by

- developing ergonomics of social and health care work, assessing physical risks and creating ergonomic solutions for assisting the clients in ADL, moving & transferring
- testing, evaluating and disseminating the developed ergonomic solutions
- acquainting students with ergonomic patient handling principles as part of rehabilitative nursing.

3. Methods

Three risk assessment methods the Patient Transfer Assessment Instrument (PTAI, Karhula et al. 2009), the Care Thermometer (Knibbe and Knibbe. 2012) and the Dortmund Approach (Jäger et al. 2010) were tested to ascertain both the

- most suitable methods for and
- most hazardous work tasks in,

nursing home and home care -work in Oulainen, Tarto and Patras. The results were given to the nursing homes and home care with instructions to plan their own risk management policy applying physical risk management model (Tamminen-Peter et al. 2011). It is based on the Occupational Health and Safety Assessment System (OHSAS 18001:fi)

Multidisciplinary partners from the research, educational and social & health care field collaborated to develop ergonomic solutions for the encountered risks. The work tasks from a risk perspective were discussed and the manual handling experts in the project made a short list of tasks to be exercised and filmed. The principles of best practice in manual handling, the work process of the task and the appropriate assistive equipment used were defined for each of the tasks. The different work tasks of the shortlist were filmed on location by the participating partners. In all, 29 different film sequences were recorded in care facilities and at patients' home in Greece, Estonia, Finland and Sweden. The films were evaluated based on the existing evidence of safe manual handling (Tamminen-Peter 2005, Waters 2007) by the manual handling experts and some of the sequences were re-filmed while others were abandoned. A total of 19 film sequences were chosen for the final production; introductions, logos and voice-over narratives were added.

4. Results

4.1. Risk assessment and management

The PTAI and Dortmund Approach methods worked well for nursing home- and home care- work, they were relatively fast to use and gave reliable result**s**. The Care Thermometer –method was only used for classification of clients. Both in the home care and nursing homes the problems were a lack of space, low beds, hygiene care in the toilet and dressing clients. The physically heaviest tasks were assisting clients: from lying to sitting, with hygiene care in the toilet and up from the floor after a fall. Risk assessments revealed the need to improve nurse's patient handling skill. Physical risk management model (Figure 1) was used as a guide to planning the safe handling policy for home care and nursing homes. Home care in Finland informed the clients about its legal obligations, ergonomics and work safety and that it was their intention to redraft the treatment and management plans in such a way that the ergonomic working conditions of nurses are better considered. In Tarto and Patras, the need of more assistive devices and training of patient handling skills became evident.

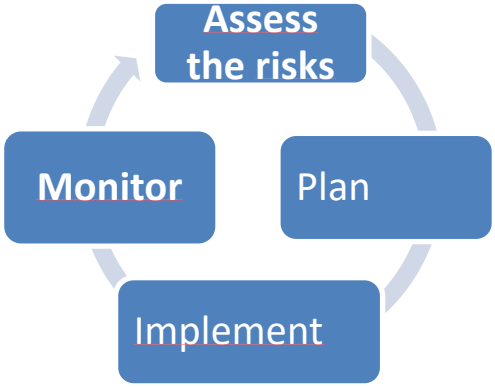

Figure 1: The management model for physical risks is a process

4.2. Testing and filming solutions

The ergonomic solutions were developed for hazardous situations, based on the evidence of manual handling of patients and the test results. The accepted solutions consist of 19 video-clips: assisting a client up from the floor, lying to sitting (Fig ure 2), sitting to sitting (Figure 3), sitting to standing to sitting (Figure 4).

Fig. 2. B-level client from lying to sitting

Fig. 3. C-Level client from sitting to sitting

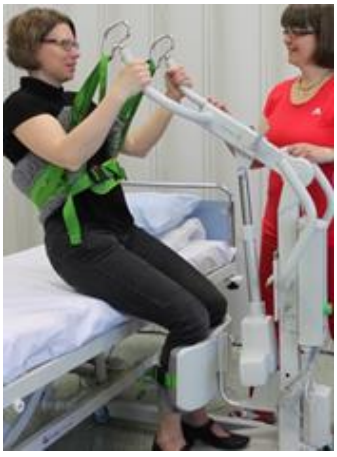

Fig.4. D-level client from sitting to standing to sitting

The web-site ergocarebank.com comprises of guidelines for safe patient handling; practical solutions to avoid physical risks; required competence of the Nursing Homes & Home Care work; descriptions of the assistive devices ; adequate equipment for different client´s needs and requirement descriptions for the safe working environment. The solutions were published on in all partners' languages English, Estonian, Finnish, Greek, Swedish and some other languages.

5. Discussion/perspectives

Ergonomics knowledge and skills constitute a crucial part of carers' competencies which render the work less strenuous. All over Europe many carers are working in different institutions and environments, with insufficient qualifications, training and basic knowledge of rehabilitative ergonomic nursing. Most colleges can neither

provide adequate education in patient handling skills to fulfil the requirements of the EU directive (1409/93) nor tuition regarding both, the national legislations or the professional competencies as for example set forth by the Ministry of Education. The ErgocareBank web-site is meant to help the teacher to find evidence –based material and to guide students and all carers in handling their clients in an ergonomic safe way.

As safe & rehabilitative manual handling requires versatile knowledge & skills and is, therefore, demanding to teach and learn. The Ergonomic Databank for Social & Health Care -portal together with the Finnish Ergonomic patient handling card® -scheme, will constitute a good starting point to develop learning paths with different starting levels depending on whether the starter is a teacher, student or carer.

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