# KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES Master's Degree Program in Health Promotion Nina Baez

EMPIRICAL STUDY OF THE USE AND EXPLOITATION OF TAPE- ACCIDENT

REPORTING AND MONITORING PROGRAM IN ELDER CARE IN KOUVOLA

(ACCIDENT PROJECT)

Master's Thesis 2013

### **ABSTRACT**

### KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

Master's Degree Program in Health Promotion

BAEZ, NINA Empirical Study of the Use and Exploitation of TAPE-

Accident Reporting and Monitoring Program in Elder Care

in Kouvola (Accident Project)

Master's Thesis 57 pages + 12 pages of appendices

Supervisor Hilkka Dufva PhD, Principal Lecturer

Commissioned by Ilona Nurmi-Lüthje PhD, Docent, Head of the Centre

Centre for Injury and Violence Prevention (Start)

May 2013

Keywords accidental fall, guidelines for the prevention of falls in

people over 65, elder home safety, incident reporting sys-

tem, patient safety, reporting accidents

Elder people accident prevention starts from systematic collection of accident information. Health care still lacks behind industries in accident reporting. Accident prevention is part of quality care which is expected by health care law (2010/1326).

The thesis aimed to assess the views of health care workers at home care, assisted living, higher-level care, and nursing homes about the usability, usefulness, and exploitation of TAPE-accident reporting and monitoring system. The purpose is to emphasize accident reporting and exploitation of TAPE software© with the goal of decreasing elder accidents in Kymenlaakso.

Semi-structured questionnaire was sent electronically to nursing supervisors in elder care in Kouvola with a request to answer it and send it further to her/his subordinates. The data collection was 12.12.2012 - 31.1.2013. Anonymity was promised. The quantitative survey results were analyzed with the data collection tool The Zef Evaluation Engine® and the qualitative free text was analyzed with conventional content analysis. Response rate was 61 percent, 157 people received the questionnaire and 96 answered to it.

The study raised a concern about the level of orientation and training for TAPE-program, 72 % of the respondents have been trained to use the TAPE-accident reporting and monitoring system, on the contrary 28 % claimed they have not been oriented to the TAPE-program. Nursing managers say TAPE has aided their patient safety management by heightening the awareness and the etiology of accidents. A greater exploitation of the TAPE-program is suggested by more frequent use of it and shared feedback of accident reports. Reporting is the first step in the aim to reduce elder accidents.

# TIIVISTELMÄ

### KYMENLAAKSON AMMATTIKORKEAKOULU

Terveyden edistämisen koulutusohjelma / Ylempi AMK

BAEZ, NINA Empiirinen tutkimus TAPE-tapaturmien raportointi- ja

seurantaohjelman käytöstä ja hyödynnettävyydestä vanhus-

tenhoidossa Kouvolassa

Opinnäytetyö 57 sivua + 12 liitesivua

Työnohjaaja TtT, yliopettaja Hilkka Dufva

Toimeksiantaja FT, dosentti, keskuksen päällikkö Ilona Nurmi-Lüthje

Tapaturmien ja väkivallan ehkäisykeskus (Start)

Toukokuu 2013

Avainsanat hoivatyö, kotitapaturmat, laitoshoito, potilasturvallisuus,

vanhustyö

Vanhusten tapaturmista suurin osa on ehkäistävissä. Tapaturmien rutiininomainen kirjaaminen tuo tapaturmatiedon kaikkien ulottuville ja tietoisuus tapaturmista kasvaa. Tapaturmien ehkäisyn suunnitteluun tarvitaan yksityiskohtaista kuvaavaa tietoa tapaturmista: missä, milloin, millaisissa olosuhteissa ja kuinka tapaturmat sattuvat ja mitkä tekijät ovat yhteydessä niihin. Koko henkilökunnan tulisi olla mukana potilaiden ja asukkaiden tapaturmien ehkäisyssä.

Opinnäytetyön tarkoituksena oli kartoittaa TAPE©-tapaturmien seurantaohjelman käyttöä, käytettävyyttä ja hyödynnettävyyttä vanhusten hoidossa Kouvolassa. Puolistrukturoitu kysely lähetettiin Zefarviointikone®:n avulla vanhustyön esimiehille, joita pyydettiin vastaamaan siihen ja lähettämään kysely eteenpäin heidän oman vastuualueensa TAPE:n käyttäjille. Vastausaika kyselyyn oli 12.12.2012 – 31.1.2013. Kyselyyn osallistui 96 vastaajaa, vastausprosentti oli 61. Tietojen keruu toteutettiin nimettömänä ja vapaapalautetekstit analysoitiin konventionaalisella sisällön analyysillä.

Esimiehet kertoivat TAPE-ohjelman auttaneen potilasturvallisuuden kehittämisessä. Vastausten mukaan TAPE-ohjelman käyttö on helppoa ja nopeaa, mutta koska sitä käytetään harvoin, keskimäärin kerran kuukaudessa, perehdyttäminen ja jatkuva koulutus TAPE-ohjelman käyttöön tarvitsevat lisätukea. Raporttien yhteiseen jatkokäsittelyyn toivottiin panostusta. Noin joka viides kyselyyn vastaaja kertoi, että heillä on TAPE-vastaava hoitaja, ja moni kertoi toivovansa TAPE-vastaavaa, joka huolehtisi uusien työntekijöiden TAPE-koulutuksesta ja vanhojen työntekijöiden TAPE-koulutuksen päivityksistä.

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### **ACKNOWLEDGEMENTS**

# Opening words

I would like to acknowledge the staff at the Centre for Injury and Violence Prevention in Kouvola, Finland, Ilona Nurmi-Lüthje PhD, Kirsi-Marja Karjalainen MSc, and Miia Pauna MSocS, for giving me the opportunity to do my master's thesis for the accident project. Your kindness and sincerity in guiding and assisting in developing the questionnaire and being available when needed is greatly appreciated.

My warmest appreciation to Pia Kupiainen, the Webmaster from the Kymenlaakso University of Applied Sciences for guiding me with the use of the Zef-software.

Thank you for Hilkka Dufva PhD, the Principal lecturer, from the Kymenlaakso University of Applied Sciences for your guidance and patience with me when I was working on the thesis. Your constructive evaluation was important for developing the thesis.

Thank you to Kouvola elder care department head Kaisa Kelkka, and regional home care leaders of Anne Koivula and Tiina Köninki, in your quick and effective communication, assistance, and in your extra help in distributing the questionnaire.

Thank you to all public and private nursing managers, charge nurses, and staff members for your enthusiasm in participating in the study and supplying valuable empirical data and contributing to this thesis.

Moreover, thank you for my classmates, I felt mutual support among us in the two years of creating this master's thesis. The occasional little enthusiasm from fellow students gave an important little boost to continue the processing the thesis.

Lastly, but most importantly, a big thank you to my family, without your support I would not have been able to write this thesis.

In Kouvola on the 2<sup>nd</sup> of May 2013

Nina T. Baez

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### 1 BACKGROUND AND INTRODUCTION

# 1.1 Numbers of elderly accidents in Kouvola and in Finland

Elder people's accidents at home are by far preventable. Elderly is defined by age of 65 years or more. The most common elder accidents are falls. Because falls, and injurious falls, are forecast to increase in the next few years, due to aging population, effective accident prevention is important. (Pajala, Piirtola, Karinkanta, Mänty, Pitkänen, Punakallio, Sihvonen, Kettunen, and Kangas 2011, 2.) In 2009 in Kymenlaakso there were 123.3 deaths of elder women, out of which 100.5 as falls and 4.6 in traffic accidents (Statistics Finland). On 2010 in Finland there were 960 deaths due to accidental falls among people 65 years and older. In Kymenlaakso there were 47 deaths of elderly due to falls in 2010. Due to falls, hospital care was given to 378 per 10 000 inhabitants of those aged 65 and over of the same age in Kymenlaakso. Table 1 shows periods of care from accidental falls of elderly. Mortality of elderly falls is higher in Kymenlaakso than in the whole Finland (Table 2). (THL 2013.)

Table 1. Periods of care arising from accidental falls for those aged 65 and over per 10 000 inhabitants of the same age

Source: THL 2013. Statistics and indicator bank SOTKAnet

Bouree. The 2013. Statistics and indicator came Bo the met					
Region		2009	2010	2011	
Region		n	n	n	
Whole country	Male	265	264	255	
	Female	451	443	412	
	Combined	374	368	346	
Region of Ky-					
menlaakso	Male	237	251	246	
	Female	428	468	448	
	Combined	349	378	363	

Table 2. Mortality from accidental falls per 100 000 inhabitants Source: THL 2013. Statistics and indicator bank SOTKAnet

Region		2009	2010
		n	n
Whole country	Male	26	24
	Female	19	20
	Combined	22	22
Region of Kymenlaakso	Male	37	32
	Female	28	29
	Combined	32	31

### 1.2 Reporting of accidents

For effective accident prevention it is important to record and analyze all accidents even if no injury happened. Reported accidents increase awareness of accidents that have happened. With the help of statistics, targets and indicators for accident reduction can be set. Injury statistics are essential for accident prevention. In comparison to health care, or here more specifically to elder care, accident reporting concept is more developed in other industries like nuclear industries, aviation, and occupational safety. (Honkanen, Luukinen, Lüthje, Nurmi-Lüthje, and Palvanen 2008, 9; Taswell & Wingfield-Digby 2008, 1.)

Now there is no standard for defining, collecting, and reporting injurious falls which makes it difficult to compare and interpret the accident report results (Schwenk 2012, 51). It would be ideal that accidents were reported into a regional, statistically retrievable, and useable accident log, like TAPE-accident reporting and monitoring system.

A guide for preventing falls designed by Australian Commission on Safety and Quality in Health Care (ACSQHC) sets a basis for a comprehensive fall management plan, implementation, and evaluation in elder care. Its fall prevention planning, tool P11 – tool P15, has many similarities to TAPE-program even though it is not an accident reporting and monitoring system. Most Australian aged care facilities and community health report accidents internally non-electronically on a paper-version. (ACSQHC 2009, 13-15; Bedford 2013.)

With the help of the accident reports, all accidents can be assessed, for example, by their type, location and the severity of trauma caused. This information helps to design safety precautions, pinpoint high risk patient-accident situations, and aids to focus resources to the most needed situations. Evidence-based accident statistics can be used to evaluate safety progress by reviewing accidents periodically, identifying future priorities for action, developing coherent and relevant strategies and implementing programs; this can be done on unit level or nationally. Nationally information from accident reports can be used to evaluate the need to allocate resources and modify guidelines and policy on elder accident prevention. (ACSQHC 2009, 2, 10-15; Honkanen et al. 2008, 9; Schwenk, Lauenroth, Stock, Rodriguez Moreno, Oster, McHugh, Todd, and Hauer 2012, 51; Taswell et al. 2008, 1.)

Furthermore, the accident reports should be regularly studied and exploited among the employees in teams. Patient safety improves when leadership manages accident reports and learns from them. The main responsibility of patient safety is on the management. Here this can be demonstrated by emphasizing accident reporting and discussing the results with the staff. (Finnish Patient safety strategy by MSAH 2009, 14; 341/2011; Wagner, McDonald, and Castle 2012, 212.)

For a continuous quality improvement clinical practice about accident recording and monitoring methods must be reviewed regularly. This means reflect and review current practice against identified best practice. The staff should be closely involved in planning, implementing, and evaluation patient safety. (ACSQHC 2009, 7.)

# 1.3 What was researched, how, and the target group

The thesis investigates employees' views about the use, usability, and exploitability of the TAPE-accident reporting and monitoring system in elder care in Kouvola. Kouvola is a city of 88 000 people in Southeast Finland. Employees' opinions were collected with electronic questionnaire to search suggestions for improving and developing the TAPE-program, and to find out ways how to emphasize accident reporting and increase the exploitation of the system. The field data was collected in Finnish and translated by me.

Injury registration and prevention project (START-project) is run by the Centre for Injury and Violence Prevention, shortly called START centre, in Kouvola, Finland. Funding for the Start centre is by Finnish Ministry of Social Affairs and Health (KASTE-project) (75 %) and by Kouvola city (25 %). The Start centre is managed by Ilona Nurmi-Lüthje PhD adjunct professor in public health, Head of the Center; Sirkku Kallio MSc Senior Planning Officer, and Miia Pauna MSocSc Planning Officer. The Start centre maintains and continuously develops TAPE-accident reporting and monitoring system, and educates staff at different work sites how to use the program. "Their purpose is to ensure the continuity and conditions for injury statistics compilation and the use of injury data in systematic injury and violence prevention." They produce information about accidents and good preventive measures. (Centre for Injury and Violence Prevention 2012.)

### 2 ELDER PEOPLE'S ACCIDENTS AT HOME

Falls are the leading cause of nonfatal injury among the elderly (Honkanen et al. 2008, 6; Schwartz, Hillier, Sellmeyer, Resnick, Gregg, Ensrud, Schreiner, Margolis, Cauley, Nevitt, Black, and Cummings 2002, 1749). In Finland falls are the most common cause of accidental deaths of those over 65 years of age (Honkanen et al. 2008, 6; Nurmi 2000). The Joint Commission, a national health care accreditation organization (JCAHO) in the United States, lists fall reduction as a National Patient Safety Goal #9 in the year 2013. This patient safety goal applies to home care and long-term care. Health care facilities having the Joint Commission recognition are valued across the USA as offering safe and quality care. Elder accidents are seen as a paramount due to the commonness and seriousness of falls.

Etiologies and preventative measures of elder accidents are widely researched. Accident prevention in elder care should be prioritized more diligently. Accident prevention starts from accident reporting which brings evidence-based data for accident prevention, however, only a part of accidents are reported into a common database. To have more comparable accident data, unified definitions of patient safety terminology is being created based on JCAHO in a patient safety development project by WHO (STAKES 2006, 4). (Pajala 2012; Schwenk et al. 2012, 50.) Etiologies and prevention of elder accidents are studied by many aspects in Finland and abroad (Table 3).

Table 3. Brief summary of key issues in literature

By whom, when, where	Subject group, response rate %	Main results
Clemson, L. et al. 2012, Sydney, Australia	Over 70 yr. old healthy, who had fallen last year, N=317, randomized parallel trial	Exercises integrated into ADL effective in fall prevention
Wagner, L. et al. 2012, all 50 states, the USA	Directors of 6000 nursing homes, comparing accredited and non- accredited nursing homes, 67%	Joint Commission accreditation asso- ciated with more favorable resident safety culture in nursing homes
Schwenk, M. et al. 2012, electronic literature search	2 089 English electronic articles, 41 articles were included, ≥ 65 yr. RCT on injury and fall prevention measures and definitions	No standard for defining, measuring, and documenting injurious falls

Table 3 continues...

Table 3 continues...

By whom, when, where	Subject group, response rate %	Main results
Junnila, T. 2011, Etelä- Kymenlaakso, Finland	Health care workers who assess the safety of home environment of elder people, N=15, 88.2%	Physical, psychological, social ability of elder effect the safety
Zoltick, E. et al. 2011, Framington, MA, USA	807 men and women aged 67-93 yr., from population-based Fram- ington Original Cohort Study	Increased protein intake reduces falls when associated with weight reduction of $\geq 5\%$
Vieira, E. et al. 2011, many countries	2 824 English articles of which 8 articles and 6 studies qualified, 1 924 geriatric rehabilitation hospital patients ≥ 65 yr.	Carpet flooring, vertigo, being an amputee, confusion, cognitive impairment, stroke, sleep disturbance, anticonvulsants, tranquilizers and antihypertensive medications, age 71-80, previous falls, and need for transfer assistance are risk factors for falls
Avelin, T. & Lepo- la, L. 2008, Hämeenlinna health center hospi- tal, Finland	341 HaiPro-cases, 18 nurses (department heads and patient safety office nurses)	HaiPro reporting system added to staff learning, further reporting, staff felt essential processing cases at meetings
Schwartz, A. et al. 2002, Portland, OR; Minneapolis, MN; Baltimore, MD; Monongahela Valley, PA, USA	Population-based cohort osteoporotic fractures study 9 249 women ≥ 65 yr.; 629 with diabetes	Older women with DM have increased risk of falls because of increased rates of other known fall risk factors; may benefit from fall prevention
Nurmi, I. 2000, Hamina, Kuusan- koski, Finland	Over 60 yr. old living in institutions, N=218 people who fell once or more, 554 falls; control group 632	1.34 falls per bed, men fell more than women, most falls in resident's own room, 1/3 night time, 39% found on the floor, women on hip, men on face
Carter, S. et al. 2000, Australia & New Zealand	657 older people, assess the accidents in the past 4 weeks, subsample 425 for home hazard check	101 accidents: 51% (n=51) falls and 50% (n=50) other accidents. When >5 hazards and infrequent home visits, associated with ≥1 accident and ≥1 fall

### 2.1 Common accidents of the elderly

Falls can be categorized by fall on the same level, collapsing or slumping, tripping, colliding, slipping, someone else pushed or made the fall, falling from bed, falling from a chair or wheelchair, falling from a toilet seat, stumbling when getting up, found on the floor or ground according to the TAPE accident reporting system. In long-term care, half of same level falls happen without extrinsic reason. The same-level fall means slipping or tumbling excluding elevated falls like falling in stairs or falling from bed. Falls among institutionalized elderly are 2-3 times more common than those in community. (Lobo 2011, 53; Lord, Sherrington, and Menz 2000, 8.) In nursing homes most falls happen in person's own room without a witness; these are reported 'found on the floor' (Honkanen et al. 2008, 9; Nurmi 2000, 106). Other accidents in addition to falls are burns, frostbites, getting pressed or squeezed, poisoning, and choking.

### 2.2 Common etiology for accidents

Reasons for the most common accidents of elderly, the falls, have been widely studied. Etiology is typically divided into intrinsic and extrinsic factors. Intrinsic fall risks relate to the elder himself like decreased gait, fragility, dizziness, decreased blood pressure, decreased cognition or altered mental status, urinary problems, medications affecting alertness and those with cardiovascular effects (hypotensive and extra pyramidal effect). Moreover, increased age (+75yr., physiological changes of old age), being female, decreased muscle tone, poor vision, slowed walking speed, fear of falling, and certain diseases (Parkinson, osteoarthritis, rheumatoid arthritis, depression, osteoporosis, diabetes), acute illnesses like with syncope and transient ischemic attack, alcohol consumption (>2 servings/day), and a lack of sufficient dietary protein intake and vitamin D also increase the risk for falls.

Extrinsic fall risks relate to the surrounding living environment like home furniture (example chairs with wheels), lighting, flooring, existence of stairs, elevated flooring levels, thresholds, electric cords, railings, person's clothing, footwear, winter season, technical aids, hurry, maintenance of outdoor area, lowered activity level, and the activities of him/her are recognized as reasons for accidents. Falling down more than doubles for nursing home residents in comparison to those living at home (ACSQHC)

2009, 15; Curtin 2005; Honkanen et al. 2008, 10-14; Huusko 2011; Jones 2011; Lobo 2011, 47-52; Lord et al. 2000, 181; Nurmi 2000, 10-17; Pajala et al. 2011, 9; Pajala 2012, 13; Vieira 2011, 789; Zoltick, Sahni, McLean, Quach, Casey, and Hannan 2011.) Because of multiple risk factors for falls, a team approach is required to implement falls prevention practices. Multidisciplinary teams at the point of care are formed by health care professionals, consumers, and nonclinical staff. (ACSQHC 2009, 5-6; Lord et al. 2000, 181; Pajala et al. 2011, 2; Pajala 2012, 49.)

Different tools have been developed for fall risk assessment for older adults (Lobo 2011, 52). Those show cumulative scores for various risk factors to predict risk of falling. Some of the most common ones are the STRATIFY scoring system (St Thomas's risk assessment tool in falling elderly inpatients) (Oliver et al. 1997), The Tinetti Assessment Tool (gait and balance problems) (Curtin 2005), SPLATT (symptoms, previous falls, location, activity, time, trauma) (Huusko 2011), the PROFET study (the prevention of falls in the elderly trial) (Close, Hooper, Glucksman, Jackson and Swift 2003, 421), FROP-Com meter (for home living elderly), FRAT-meter (for elderly at nursing care facilities), and a broader FROP-Com and FRHOP (fall risk for hospitalized elderly) (Pajala et al. 2011, 10; Pajala 2012, 106).

Contributing causes for accidents are also the lack of knowledge of the elderly and their families regarding the use of assistive devices and hip protection pants (Pajala 2012, 49). Elders should be encouraged to talk about their symptoms, wishes, and worries. (MSAH 2009, 15) Residents who are not in constant supervision of nurses are encouraged to self-report falls (Lord et al. 2000). Elderly usually do not report a fall to health care worker unless an injury happened (Curtin 2005.).

## 2.3 Survival, mortality, and the cost of accidents

Elderly hospitalizations are five times more likely related to fall-injuries than other injuries (Schwenk 2012, 50). Mortality rate after falls is increased with decreased cognition, high age, use of an assistive devise, male sex, use of antidepressants and short acting benzodiazepines, post-stroke condition, and dizziness. Hip fracture is the most serious injury after a fall because of slow recuperation and postoperative complications. Forecast for recuperation after hip fracture is poor, 25 - 30 % patients die within the first year. (Honkanen et al. 2008, 8; Pajala et al. 2011, 7) In Finland fall is the

leading cause of mortal accidents among those 65 years and over. 1 188 people died due to falls vs. 1 390 people died in all accidents in 2011 (Statistics Finland 2011.) A fall can also cause disability, restriction of activity, fear of falling, and can lead to admittance to a nursing home. (Lord et al. 2000; Nurmi 2000, 34, 37).

Fall related costs include hospital care (diagnostic tests), nursing home care, outpatient clinics, rehabilitation stays, medications, home care, home modifications, equipment and institutional care, a carer, and patient morbidity and mortality costs (Lord et al. 2000). Hip fracture is the most severe morbid injury after falls (Nurmi 2000, 108; Pajala 2012, 11). The cost of hip fracture during the first year is €19 150. If nursing home care is required, the costs for the first year are about €47 100 (Pajala et al. 2011, 7; Pajala 2012, 14).

### 3 REPORTING AT HOME ACCIDENTS OF THE ELDERLY

# 3.1 Accident reporting systems

HaiPro is a web-based software program used to report patient safety incidents, adverse events, and near-miss situations. A patient safety incident is a risky event that causes or could cause harm to a patient. An adverse event is a patient safety incident that causes harm to patient. A near miss is a patient safety incident that could have caused harm to a patient. A harm is a temporary or permanent a not-wished for physical, psychological, emotional, social, or financial burden to a patient. Definitions were by Stakes (2006). A HaiPro event is reported anonymously, and no patient name is given. Goal is to get information on patient safety situations in the unit. The main user is Awanic Ltd who develops and maintains the HaiPro system. (Aalto & Sani 2012, 7; Awanic 2013; Kouvolan kaupunki perusturva 2012.)

Other reporting systems for risky, hazardous, and dangerous events:

- HILMO, for reporting visits at social- and health care establishments, including adverse effects of care, maintained by National Institute for Health and Welfare (THL)
- SAI, for reporting hospital acquired infections (Effica\* based)
- Siro, for reporting hospital acquired infections (THL)
- Infectious disease registry (THL)
- Vaccination harm effects registry (THL)
- Fimea, Medicine adverse reactions registry maintained by Finnish Medicines Agency
- Medical device adverse incidents reported to National Supervisory Authority for Welfare and Healh (VALVIRA)

(Fimea 2013; Kouvolan kaupunki perusturva 2012, 10-18; THL 2012.)

\*Effica is patient care IT-program used in public health care in Kouvola

# 3.2 TAPE-accident reporting and monitoring system

TAPE is a web-based accident reporting and monitoring program. The main user is

the Start centre who maintains, develops, and educates all TAPE-users about the program. TAPE software program was designed in 2006 by the participants at Start centre in Kouvola and the information technological part was designed and maintained by Amli Ltd.

To report an accident the employee signs in with a username and password to the TAPE-program and anonymously answers 23 questions about the accident. With the help of the questions, a thorough accident description gives detailed information about to whom (without giving names), what, when, how, where, by what contributing causes, and what preventive measures were in place, if any, at the time of the accident. Managers can print on-line real-time accident reports and statistics of their own unit.

TAPE-accident reporting and monitoring system is available for child day care, schools, hospitals, home care, elder care, and other health service stations. A wide scale accident reporting system is not yet in use in other elder care facilities than those in Kouvola (Nurmi-Lüthje 2012 - discussion). TAPE, or similar national or even regional accident reporting data base, is not known in many European countries neither. The Start –project leader, Ilona Nurmi-Lüthje has been to different countries promoting the TAPE software. So far, this Finnish TAPE - accident reporting and monitoring system has been internationally introduced at various injury prevention and safety conferences in Mexico (2008), London (2010), Iceland (2010), and in Sweden (2011). (Amli, 2012; Centre for Injury and Violence Prevention, 2012.) TAPE is recognized internationally as a unique accident reporting and monitoring system (Ministry of the Interior 2012, 49).

### 3.3 TAPE and its benefits

Accident prevention begins by reporting all accidents. TAPE is one of the two injury monitoring systems developed by the Centre of Injury and Violence Prevention. First, in population level there is the patient record system-based injury registration which is to be used in the emergency room (ER) of the North Kymi Hospital. Data on patients, attending to the hospital because of an acute injury, are collected in the patient record system by the ER staff (Figure 1). Secondly, in the unit level there is the TAPE-accident reporting and monitoring system.

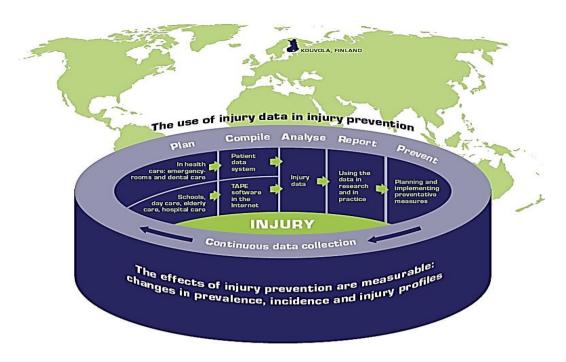


Figure 1. Benefits of TAPE - accident reporting and monitoring system Source: Centre for Injury and Violence Prevention 2012, START.

Injury prevention starts with the use of injury data which is obtained from an accident reporting system, TAPE. TAPE-program compiles, analyzes, and gives reports on accident data. This evidence-based information can be used to identify risk groups, to monitor risk behavior, to monitor the use of protective equipment, and to plan and implement preventative measures (Figure 1). (START 2012.)

Kouvola was accredited in 2008 until 2012 a safe community status partly because of the emphasized focus on developing and taking into use the accident reporting system. The aim of the Safe community act states "All human beings have an equal right to health and safety" (Spinks, Turner, Nixon, and McClure 2009). Two of the seven indicators for a city to obtain the internationally recognized Safe community status is the community needs to have (1) programs that are based on the available evidence and (2) programs that document the frequency and causes of injuries, according to the official web site of WHO Safe Communities (WHO 2012). Goal is to systematically decrease the number of accidents. Further, the effects of preventive measures need to be assessed.

### 4 RESEARCH QUESTIONS

The aim of this research was by charting the opinions and views of TAPE-users to find out how TAPE-program is used, managed, and exploited in the elder care in Kouvola. The purpose was to find out any suggestions how TAPE-program can be developed and improved to emphasize accident reporting.

Elder care in this study involves four levels of care specified by the intensity of care services provided to the residents, patients, or customers: home care, assisted living, higher-level care, and nursing home or institutional care. In this thesis an assisted living facility is where elderly live quite independently with little or no help by the nurses and other assistive health care personnel, various services are available upon request. Higher-level care elderly living establishment is similar to nursing home where residents manage their daily activities with almost constant supervision and need varying amount of assistance in their activities of daily living (ADL). Nursing home residents need almost constant assistance in all ADLs, many are bed-ridden.

The term TAPE-user in this thesis means any health care worker in any of the above mentioned establishments who uses the TAPE-program.

- 1. How TAPE-users find the orientation and training they have received for the TAPE-program?
- 2. How TAPE-users find the use and usability of the TAPE-program?
- 3. How TAPE-program is managed and exploited in elder care?

### 5 RESEARCH METHODS

### 5.1 The questionnaire making

I chose an electronic questionnaire for its convenience to collect data from a large population. Anonymity was provided to encourage more answering the open-ended questions. Research questions were comparable with the empirical data and the research topic and results were indicative of research questions.

I developed the questionnaire with assistance and guidance of the experts (the chief and the planning officers) from the Start centre during two meetings on Dec. 2011 and Jan. 2012. The answers needed to be measureable (Statistics Finland 2013). The questionnaire was piloted by three nurses, each one from a different facility, and unknown to each other. Feedback from pilotees did not suggest any changes to the invitation letter nor the questionnaire. The piloting responses were not part of the study results.

The research data from the field was collected in Finnish since the sample group was Finnish speaking health care workers. The questionnaire and the free text were translated by the author. The questionnaire had a total of 24 questions, including both multiple choice and open-ended questions (Appendix 1). Nine questions also had the option of giving optional free text answers. The questions were formed so that only one answer can be selected. Moreover, each question was aimed to fulfill the purpose of the research. First was asked demographic data like age, sex, position, and the type of work place. Then the questionnaire measured TAPE-users' views about the TAPE-program in regards to the orientation, training, usability, easiness to use, frequency, feedback of reports, and processing of the accident data. The exploitation of the TAPE-program was also under scrutiny; if facilities had implemented accident prevention measures based on the TAPE-accident monitoring reports, and if they had any suggestions for improving the TAPE-program.

# 5.2 The data collection and the target group

The field data was collected with the questionnaire Dec. 12, 2012 – Jan. 31, 2013. An invitation letter (one sample of it in Appendix 2) with the link to the electronic questionnaire was e-mailed to 54 the department heads, charge nurses [also called (unit) managers, lead nurses, or nursing supervisors], and the directors of the elder care facilities. The sample consisted of 25 facilities (19 public and 6 private) and home care (Southern, Central, and Northern regions). In the invitation letter, the department head was asked to answer the questionnaire and then forward it to her/his subordinates.

Whenever possible, the invitation letter was personalized to include the name of the director or department head. In private elder care facilities, I called the directors for permission, and her willingness to ask her staff to participate in the research, and then sent the questionnaire to her. At the home care the questionnaire was sent to the regional leaders, North, Central, and South, and each one of them was asked to forward it to nursing managers under her jurisdiction. To increase the response rate I called randomly to some of the charge nurses few days later to ask and remind them to participate in this study. 157 people opened the questionnaire and 96 answered to it. Response rate was 61 % (96/157).

The theoretical target group was all elder care TAPE-users in Kouvola. The empirical population, the sample, was the department heads, charge nurses, and their staff who responded to the questionnaire. Purposive non-probability sampling was used, because I had a specific predefined group in mind, the department heads, based on the list from Start centre. (Trochim 2006.) It was not feasible to use random sampling, for example, because of the confidentiality of employees' names and work e-mail addresses.

A list of all the elder care facilities in Kouvola using the TAPE-program was obtained from the Start centre. The list had elder care places organized by the level of care provided. It was noticed, by working in the field and by calling the facilities before sending the questionnaire that not all facilities that had taken TAPE-system were actually now using it. The facilities and units not using TAPE now were excluded from the sample. Excluded from the sample were also the facilities that on the phone upon asking for permission and willingness to participate denied the interest. Denial was reasoned by busyness due to upcoming Effica update requiring staff training. Some fa-

cilities had several individual units. The list was organized so that all units belonging to one facility were grouped together, and then alphabetized it by the main facility. That way, when calling those elder care places, the same facility would not be called twice. This is because some facilities had one lead nurse in charge of the whole facility consisting of more than one unit.

# 5.3 Processing and analyzing methods

This is an empirical quantitative and qualitative study using a semi-structured questionnaire. The survey data, the corpus, was executed with the data collection tool The Zef Evaluation Engine® from Zef Solutions Inc. There were three types of questions: (1) choice questions where only one alternative was allowed to select, (2) choice questions where only one alternative was allowed to choose and the evaluator was also able to give reasoning and free text for his/her choice, and (3) free answer questions. The quantitative survey data was analyzed and cross-tabulated with the Zef-program.

Furthermore, the qualitative data set, the free text data, was analyzed inductively with conventional content analysis (coding categories derived directly and inductively from the raw data). The words were counted under each category according to summative approach but this approach was not used further requiring analyzing meanings or underlying communication in the data. Qualitative content analysis can be used for empirical research. "Qualitative content analysis does not produce counts and statistical significance; instead, it uncovers patterns, themes, and categories important to a social reality" (Zhang & Wildemuth 2009, 312).

In a subjective but scientific manner it allows to draw conclusions from, for example, free text answers. (Zhang & Wildemuth 2009, 308-9.). I demonstrated the prevalence of the theme by quantification rather than by giving many of extracts. Selection of grounded theory was an option if the purpose was to make theory from the qualitative data analysis by comparing and classifying the material. (Saaranen-Kauppinen & Puusniekka 2006).

Like according to conventional content analysis, I inductively read through the data corpus several times looking for repetitive themes and identifying patterns while keeping the research questions in mind. The aim was to selectively and systematically reduce the text to categories under each question. Different themes were highlighted each one with a different color using the Word program. This way the text was coded. Words, clauses, and sentences were identified as themes and used as coding units. The same coding unit could be used in more than one category simultaneously (Tesch 1990), according to Zhang & Wildemuth (2009, 310). Coding units were kept relevant to research questions.

Then, subheadings were selected for each theme and tabulated. Different highlighted comments were each copied and pasted under the appropriate theme. Data within themes should cohere together meaningfully while there should be clear and identifiable distinctions between themes (Braun & Clark 2006, 91). Special emphasis was given not to code for any implicit information. The focus was on the explicit terms of the words and clauses without searching for implicit meanings when analyzing the survey results. Information which added nothing to the quantification of selected themes was listed under the theme of other comments.

Moreover, the units were counted under each theme and arranged in order of magnitude. Then, meanings were drawn and conclusions were made from the tabulated data to get results to answer each question. When reporting the results, the quantifying value of the replies is shown on the tables summarizing the comments given to each question. The more expanded qualitative data sets, showing themes and all comments, are shown in Appendix 3. (Braun & Clarke 2006, 87; Devi 2009, 2-4; Zhang & Wildemuth, 2009, 308, 312; CSU 2013.)

Disadvantages of the content analysis can be time-consuming and it can disregard the context that produced the text. However, it could be computerized by, for example, the Atlas.ti -software. Also, it takes lots of diligence from the researcher to focus on keeping the analysis as objective as possible, avoiding the author's own views and attitudes getting into the analyzing. Objectivity, strictly following the selected scientific research methods, gives qualitative content analysis trustworthiness. When analyzing implicit meanings, or with deeper interpretation of the data, content analysis can become more challenging to be objective. In my thesis, partly for that reason, I decided

to keep the analysis on the explicit meanings of the terms and without trying to search relationships and build-in meanings or inferences on the corpus of the text. (Devi 2009, 4.) I translated the respondents' comments of the open-ended questions after finishing the content analysis. By doing so, I minimized the possibility of losing meanings during translation.

### 6 RESEARCH RESULTS

# 6.1 Demographics of the respondents

Most respondents were 20–65 year olds (97 %, n=93 from 96), the largest group was 50–65 year old (38 %, n=36 from 96). Nobody was over 65 year old. Most respondents were women (99 %, n=89 from 94). There was one man, and 4 replies of the gender question were 'don't know.' By the occupation the largest group was licensed practical nurses (61 %, n=56 from 92), then registered nurses 18 %, and charge nurses or department heads were 16 % (Table 4). The rest (4 %), who categorized themselves as 'someone else,' where home aids, home care counselors, and nursing students, according to the free text. There were no responses by physical therapists or geriatric nurses.

Table 4. Occupation of respondents

Occupation	n	%
Licensed practical nurse	56	61
Registered nurse	16	18
Department head/charge nurse	15	16
Someone else	4	4
Student	1	1
Geriatric nurse	0	0
Physical therapist	0	0
Total	92	100

Most respondents worked at a higher-level care (44 %, n=42 from 96) and the second most worked at home care (25 %), then, nursing homes (22 %), and assisted living (5 %) (Table 5).

Table 5. Respondents based on the type of work place

Type of work place	n	%
Higher-level care	42	44
Home care	24	25
Nursing home	21	22
Assisted living	5	5
Not answered	4	4
Total	96	100

Most had worked in the unit more than a year (86 %, n=78 from 91), and 14 % (n=13) had worked less than a year. Furthermore, some research data is crosstabulated for charge nurses; Table 6 presents demographics of that sub-group.

Table 6. Demographics of charge nurses and department heads (n=15)

(n=15)			
		n	%
Age:	20–34 years	2	13
-	35–49 years	6	40
	50–65 years	7	47
	Total	15	100
Gender:	Female	14	93
	Male	-	-
	'Don't know'	1	7
	Total	15	100
Place of employment:	Higher-level care	8	53
	Nursing home	6	40
	Assisted living	1	7
	Home care	-	-
	Total	15	100
Time worked at the unit:	> 12 months	13	86
	6–12 months	1	7
	< 6 months	1	7
	Total	15	100

### 6.2 Orientation and training of the TAPE-program as perceived by the staff

Of all the respondents 72 % (n=65 from 91) reported they have been orientated to use the TAPE-program, in contrast 28 % (n=25) answered they had not been orientated to the TAPE-program, and one answered 'don't know.' Most said that they later received more training (81 %, n=67 from 91) if needed, whereas 19 % (n=16) argued more training was not available later. Eight people answered 'don't know' regarding whether more training was available at a later time when needed. Most considered their orientation had been sufficient (72 %, n=63 from 90), but 28 % (n=24) felt orientation had not been sufficient. Three people answered 'don't know' regarding whether her/his training to TAPE had been sufficient.

Most department heads and charge nurses (14 from 15; 93 %) had received TAPE training. One charge nurse (from 15) had not received training on TAPE-program. Most charge nurses (11 from 15) claimed additional guidance was later available when needing help with TAPE-program, but 3 remark they did not receive help later when needed, and one replied 'don't know.' Most (13 from 15) feel TAPE training had been sufficient, and two felt it was not sufficient. Six (from 15) say staff ask each other for TAPE help, five (from 15) say their work site has a nurse responsible for TAPE, and four say the department head shows TAPE use.

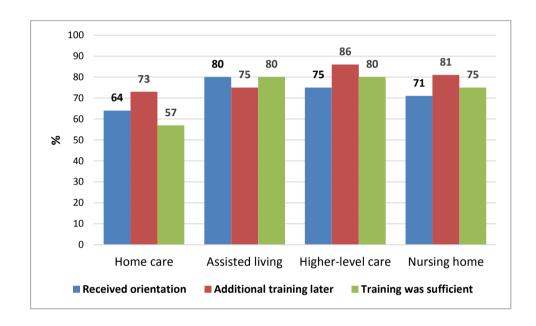


Figure 2. The orientation of TAPE-program as perceived by TAPE-users

Figure 2 differentiates respondents' views of orientation and training based on the type of workplace. It shows 64 % (n=14 from 23) of respondents at home care answered that, they had been oriented to TAPE-program use, whereas in assisted living 80 % (n=4 from 5) said they had received TAPE training. At higher-level care 76 % of TAPE-users feel orientation was given (n=32 from 42). At nursing homes 71 % (n=15 from 21) said they did receive orientation to TAPE-program use. When asked if additional training was later available, the responses were similar, at home care 73 % (n=16 from 23), at assisted living 75 % (n=3 from 5), at higher-level care 86 % (n=31 from 42), and at nursing homes 81 % (n=17 from 21). Lastly, I planned to find out whether TAPE-users feel the training she or he received was sufficient. The training was sufficient by 57 % (n=13 from 26) at home care, by 80 % (n=4 from 5) at assisted living, by 80 % (n=31 from 42) at higher-level care, and by 75 % (n=15 from 20) at

nursing homes.

The Figure 2 also inversely shows the opposite percentages of how many answered negatively. Inversely saying, 36 % (n=8 from 23) of TAPE-users at home care said they have not been oriented to TAPE-program use. About one-third, 27 % (n=6 from 23) said no additional training was available later when needed. One answered 'don't know.' The orientation and training to TAPE-use has been insufficient according to 43 % (n=10 from 23) TAPE-users from home care.

One-fifth (21 %) of the workplaces has a TAPE-nurse, someone at work site who is responsible for the TAPE-program (Table 7). However, in most workplaces (60 %) assistance for TAPE use is asked from any working friend; there is not one individual in charge of TAPE. Department head orients and later helps with the TAPE-program use in 12 % of the cases and 7 % answered – nobody directs TAPE-program use.

Table 7. Who trains TAPE-use at work

	n	%
I can ask many working friends about TAPE	50	55
We have a TAPE-nurse	17	19
Department head	10	11
Nobody	6	7
Did not know	7	8
Total	90	100

About half (53 %) of those who answered positively they had received orientation which had been sufficient, and extra training had been available when needed, said they feel orientation to TAPE-program use comes true in her department (n=21 from 46). Six replied 'don't know.' On the contrary, 19 people (from 46), 48 %, of the above mentioned 'well-orientated' group criticized, orientation and training to TAPE does not come true in her/his department.

Almost one-third (28 %, n=25 from 91) of the respondents felt they have not received orientation to TAPE-program use. As many from the sample (28 %) voiced their concerns that orientation to TAPE-program had been insufficient (n=24 from 90).

Nearly half (48 %, n=34 from 84) of all the respondents state orientation to TAPE-program is more or less happening at one's unit, 32 % (n=23) feels TAPE orientation

comes true, and 20 % (n=14) argue TAPE orientation is not fulfilled at their unit. 'Don't know' -answers were 13. In comparison, 90 % of charge nurses see the orientation to TAPE coming true or at least somewhat coming true in her/his unit. Figure 3 demonstrates how the opinions are spread in bell-shape in the issue of how the TAPE-orientation comes true at one's unit.

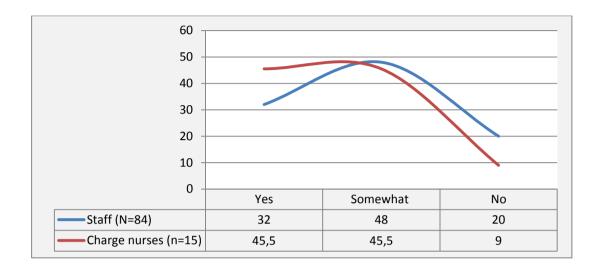


Figure 3. Opinions on how orientation comes true at my unit. Y= % of people stating whether orientation to TAPE is happening at the unit. X= Responses on whether orientation to TAPE in the unit comes true: yes, somewhat, no

Total of 27 respondents described with 51 comments about how to develop and improve the orientation to the TAPE-program. Table 8 shows a summary of those comments which are also graphically presented in Figure 4. The importance of having a TAPE-nurse at one's unit was voiced as the most wanted change. TAPE-nurse is someone from the staff who is more thoroughly trained and can comprehensively teach others about the TAPE-program, how, why to use it, when, by whom, do the follow up and discuss with the staff the results of TAPE-reports. According to the replies, TAPE-program would be easier to learn when someone shows how to use it rather than having to read instructions on it. Then, respondents wished new employees would be orientated to TAPE-program use. Thirdly, refresher training for all was wished for. Lastly, more frequent discussions on feedback of TAPE-reporting and the statistics created, reminders to staff meetings, and to make the TAPE-process more routine were listed as ways of developing and improving orientation to TAPE. More detailed comments are listed on Table 8 B in Appendix 3.

Table 8. Suggestions how to develop and improve orientation to TAPE-program

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Wanted a TAPE-nurse in the unit to train and teach:	22
Someone from staff could be a TAPE-nurse	
Somebody should be leading the TAPE	
Guidance and counseling at job about TAPE	
Someone reminding about it	
Someone to show in detail how to use TAPE	
Wanted new employee orientation to TAPE:	12
Every new employee should be oriented to use TAPE	
TAPE to be part of orientation	
New employees should be show how it works	
Make TAPE training part of the orientation binder	
Wanted refresher training to all:	6
Periodically re-train, a quick course occasionally	
A shared/common education to all	
A quick guide	
Wanted more frequent discussions:	6
More frequent talk about accident prevention	
TAPE reminders to staff meetings	
Get feedback, get report info	
Make it more routine	
Other comments:	6
The staff documents on TAPE paper version, I input data to	
computer	
Many IT-programs to master	
I do not know, I don't know what to say	
Number of comments	51
Number of people answered this question (n)	27
Total number of respondents (N)	96

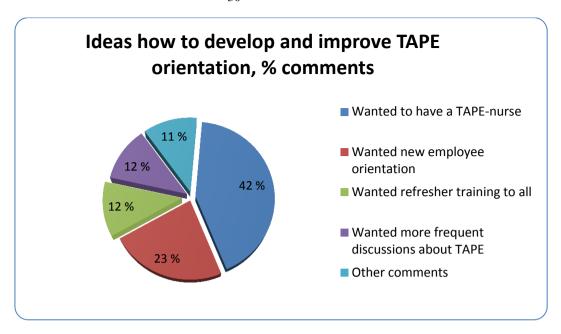


Figure 4. Suggestions how to develop and improve orientation to TAPE-program

# 6.3 TAPE-users' views about the use and usability of the TAPE-program

Most respondents feel TAPE is easy to use (95 %, n=71 from 85) but the rest, who considered it difficult (5 %, n=4 from 85), complained the program has too many questions to reply and poor orientation. Ten replied 'don't know.'

Most people say reporting an accident to TAPE takes 5-10 min (63 %, n=47 from 87). Little under one-third, 27 % (n=20 from 87), suggest reporting an accident takes under 5 min and 11 % (n=8 from 87) state it takes over 10 min.

More than half of the respondents (53 %, n=45 from 88) use TAPE-program less often than monthly to report an accident. About one-third (36 %, n=30 from 88) report an accident to TAPE monthly and 11 % (n=9) does it weekly.

Over half 53 % (n=42 from 85) point out TAPE is used enough at work, 37 % (n=29) suggest TAPE is used more or less, and 10 % (n=8) argue TAPE is not used sufficiently at work. Six people answered 'don't know.' Interestingly, in comparison, the same percentage of charge nurses (53 %) felt TAPE is used sufficiently at the unit.

About one-fifth, 21 % (n=17 from 85), admits there sometimes has been an accident that she/he did not report into the TAPE-program, whereas, 79 % (n=65 from 85) thinks she/he has never let an accident unreported to TAPE. Three replied 'don't

know.' The summary of reasons for not documenting an accident to TAPE reporting system were forgetfulness, hurry, minor or no injury, and insufficient orientation to the program (Table 9, Figure 5). Moreover, three out of 14 charge nurses who admit there has been a time when she/he did not report an accident to TAPE because of no or little harm to the patient, forgotten in hurry, or not knowing whether TAPE or Haipro was in use. Table 9 B in Appendix 3 lists all the 28 comments on the reasons why an accident has not been documented to the TAPE-program.

Table 9. Reasons why an accident has not been documented to the TAPE-program

Data extract, Theme as a topic, coded for words r/t topic	Number of comments
Forgetfulness: I have forgotten, forgetfulness, did not remember	12
Hurry: Hurry, didn't have time, no time	7
Insufficient orientation: I did not know how to use TAPE Unclear whether TAPE or HaiPro was in use	5
Minor or no injury: Minor injury No injury Little fall doesn't seem necessary to report Can't always bother for the smallest things	4
Number of comments	28
Number of people answered this question (n)	17
Total number of respondents (N)	96

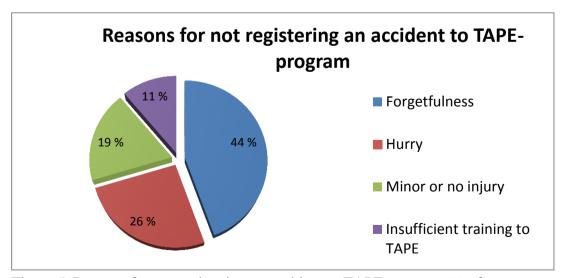


Figure 5. Reasons for not registering an accident to TAPE-program, % of comments

According to the responses, the use of TAPE could be increased by further developing the documentation of accident reporting by specifying, defining, and clarifying reporting, by reducing and decreasing reporting, and by getting training on how to use the program. The comments are summarized on Table 10, and are graphically presented on Figure 6. All 18 comments are shown in Appendix 3 on table 10 B.

Table 10. Suggestions how to develop documentation to TAPE-program

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Wanted to clarify documentation, make reporting more specific:	
Documentation need to be developed to be more specific	
Clarification to some questions in the report	
More alternatives	8
Documentation more to Effica	
Also better note other customer groups	
Wanted to report after effects later, but cases may have been closed	
Wanted to decrease, reduce documentation:	
Too much documentation responsibilities now	5
I'd hope Haipro and TAPE would be in the same program	
Wanted orientation to the program, more training:	
Easy to use quick guide to lower threshold to use TAPE.	3
Orientation to use the program.	
Other comments:	
I don't know	2
I don't know what to say	
Number comments	18
Number of people answered this question (n)	14
Total number of respondents (N)	96

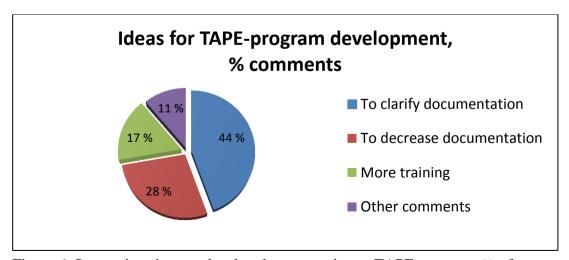


Figure 6. Suggestions how to develop documentation to TAPE-program, % of comments

# 6.4 The management and exploitation of the TAPE-program in elder care

Opinions were split in half in whether TAPE is responsible for emphasized accident prevention at the unit. Half of the respondents (49 %, n=34 from 84) stated accident prevention had been emphasized due to the accident reporting system, whereas, another half (51 %, n= 35 from 84) said accident prevention had not been emphasized because of TAPE. Answer '-I don't know' was given by 15 people. Respondents told accident prevention has been emphasized by putting more attention to accident prevention, more discussion and increased awareness, by more attention on minimizing harm from potential accidents, and by putting more attention to accessibility (Table 11, Figure 7). Table 11 B in Appendix 3 shows all comments on how accident prevention has been emphasized because of the use of TAPE-program. In comparing the total respondents (N=96) to the subgroup of charge nurses (n=15), 12 from 15, meaning 80 %, of charge nurses say accident prevention has been enhanced due to TAPE.

Table 11. Summary of comments on how accident prevention has been emphasized because of TAPE-program

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Attention on accident prevention: Taking in use alarm carpets Purchasing of assistive devices Rehabilitation, exercise for elderly	5
More discussion and awareness:  More discussion and more knowledge Information of falls to everyone's attention Guidance to customers, too	5
Minimizing harm from potential accidents: More hip protection pants in use	4
More attention to accessibility: More attention to accessibility Carpets removed from rooms	3
Number of comments	17
Number of people answered this question (n)	12
Total number of respondents (N)	96

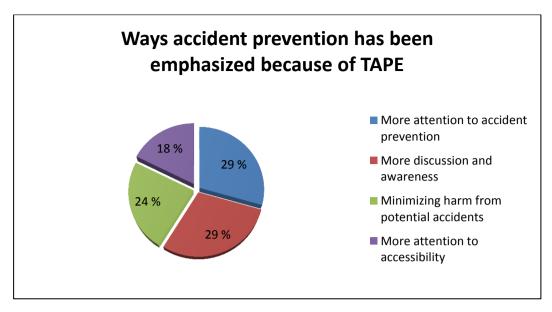


Figure 7. Ways accident prevention has been emphasized because of TAPE, % of comments

Nursing staff would see TAPE more useful when the accident cases were discussed more often. At staff meetings TAPE-reports are discussed seldom (54 %, n=44 from 85), never (25 %, n=20), and regularly (21 %, n=17). The ones with a thorough orientation to TAPE are more likely to regularly discuss accident reports at staff meetings: seldom 59 % (n=26 from 45), never 18 % (n=8 from 45), and regularly 23 % (n=10 from 45). One of the well-oriented people answered 'don't know' for the question on how often TAPE-reports are discussed.

According to charge nurses the results of TAPE-reports are discussed at staff meetings regularly (6/15; 40 %), seldom (8/15; 53 %), and never (1/15; 7 %). The charge nurses commented that TAPE could be better exploited by having regular TAPE meetings at the unit organized by the nurse responsible for TAPE, by increasing the processing of TAPE reports, and by more effective exploitation of the follow-ups. Figure 8 shows how opinions of different sub-groups of respondents are similar, all staff, only charge nurses, or only the well-orientated people. Most typically TAPE-reports are discussed at staff meetings seldom.

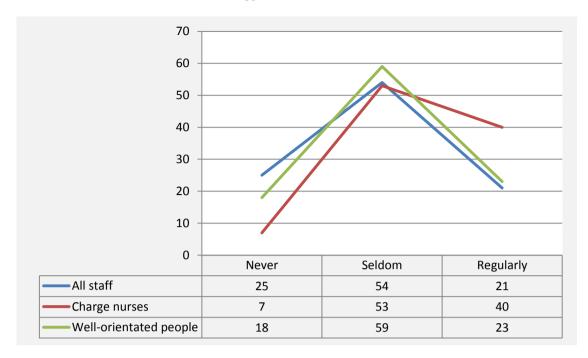


Figure 8. Frequency of processing TAPE-reports at staff meetings

TAPE-program could be more exploited by sharing and processing TAPE-reports in teams to comprehensively understand the reporting and monitoring system and together pondering causes and discussing preventive measures regularly about the accidents (Table 12). In addition, respondents here again stated the importance of having a TAPE-nurse who can aid in the exploitation of TAPE. All comments of better exploitation of TAPE-program are listed on Table 12 B in Appendix 3.

Table 12. TAPE-users' summarized comments on how TAPE can be exploited better

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
More sharing of the TAPE reports: Discussing TAPE reports at regular unit meetings More processing of TAPE-reports Occasionally go through the accidents Get feedback on TAPE documentation Go through the statistics TAPE-nurse holds the TAPE-meetings	20
Ponder causes and preventive measures: After accident ponder the causes Ponder and think in what situations did accident happen Always the same customers falling? Time of the day that is the highest risk? Together ponder what could be done Together with the team influence on prevention	17
Other comments:  Make invocation of accident follow-ups more efficient Processing of reports will be more timely when unit has more residents walking No falls when bedridden patients	3
Number of comments	39
Number of people answered this question (n)	14
Total number of respondents (N)	96

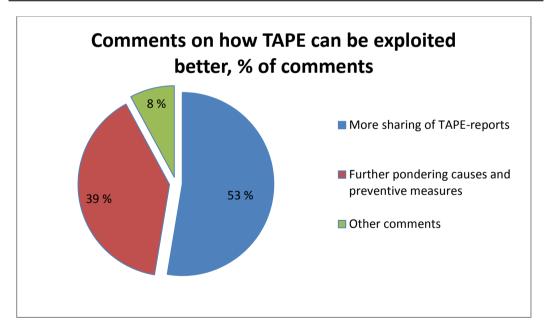


Figure 9. Themes as percentages showing how TAPE can be exploited better

Figure 9 shows the respondents' comments about suggestions for better exploitation of the TAPE-program.

The majority of respondents feel that patient safety in her/his unit is emphasized sufficiently (63 %, n=49 from 79) because safety is increased and there is more discussion and guidance (Table 13). Increased safety is seen as increased use of assistive devices and protective equipment, attention on accessibility, and, if needed, increased visits to home care customers. Customers' matters are daily discussed in teams, dangerous situations are attempted to be eliminated, home safety is guided to customers, and customers are encouraged and reminded to use assistive devices and hip protection pants. One-third of the respondents view that patient safety is only somewhat emphasized at one's unit (32 %, n=25 from 79).

Table 13. Summarized comments on good patient safety emphasis at one's unit

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Safety increased: Assistive devices plentiful in use Safety handles/grab bars installed Have reorganized furniture Have added home visits to customers when necessary	11
<b>Discussion, guidance:</b> Daily we ponder each customer matters Dangerous situations are attempted to eliminate	3
Other comments: It is part of nursing	2
Number of comments	16
Number of people answered this question (n)	8
Total number of respondents (N)	96

Lastly, patient safety is not emphasized sufficiently by 5 % (n=4 from 79) because of deficiencies in safety culture. Respondents explained insufficient emphasis on safety because "hurry, indifference toward patient safety as a whole, added IT-work, insufficient orientation of temporary workers, and many changes at work may cause forgetting important intentions" (Table 14). Table 14 B in Appendix 3 shows all the comments.

Table 14. Summarized comments explaining insufficient safety culture at one's unit

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Deficiencies in safety culture, attitude: Indifference, disinterest toward patient safety Blaming the hurry Can't piece together all what's related to safety	6
Other comments: Better orientation to temp workers Always room for improvement Added IT-work takes away from safety focus	4
Number of comments	10
Number of people answered this question (n)	4
Total number of respondents (N)	96

Table 15 shows how TAPE-reports have guided the patient safety management at one's unit. In the quantifying order the replies were by adding emphasis to accident prevention like, attention to the etiology and risks of accidents, and more focus on teamwork and discussing the reports. Furthermore, hip protection pants have been purchased, a nursing assistant has been hired to the unit to monitor and watch the residents while the registered nurse is doing more demanding treatments. Table 15 B in Appendix 3 shows all the comments on how TAPE-reports have guided patient safety management at one's unit.

Table 15. Comments on how TAPE-reports guide your patient safety management

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
More emphasis on accident prevention: Purchased hip protection pants Hired a nursing assistant More attention on those already once fallen More assistive devices in use Attention on prevention Focus on shoes and footwear Accessibility	15
More attention on etiology and risks of accidents:  Medication effect Unsteady gait, poor balance Investigate reasons for falls Take notice on dangers Concern oneself to risks	12
More focus on teamwork, discussion: Together with the team discuss prevention Pondering together Discussing with nurses Process accident info in the meetings	6
Other comments: Nothing, none What reports? Be no use when reports are not processed	5
Increased awareness of accidents: I can be on the lookout for accidents Help notice safety problems Improved anticipation on/forecast on harmful situations	3
Staff placement on shifts: Properly place employees in shifts	2
Number of comments	43
Number of people answered this question (n)	19
Total number of respondents (N)	96

About one-quarter of the respondents (26 %, n=19 from 82) stated additional education from the Start centre on the exploitation of the TAPE-program is needed (Table 16). Respondents mostly wanted general education and training about how to use the TAPE-program (14 replies), secondly they wanted guidance in processing and handling reports (8 replies), and lastly more collaboration between the Start centre and the TAPE-nurse was wished for.

Most of the respondents, 74 % (n=54 from 82), say no extra education at this time is needed from TAPE-educators about the exploitation of the TAPE-program. There were 9 'don't know' -replies.

Most charge nurses (12 from 15) state there is no need for additional training on enhanced exploitation on TAPE-program right now. Three (from 15) voiced the need for extra support by the TAPE educators for increased collaboration between the TAPE-nurse and the Start centre, and a common training or information event because TAPE is used so seldom that forget things, and there is uncertainty among staff about whether TAPE is still in use.

Table 16. Type of extra support respondents wanted from the Start centre about exploitation of the TAPE-program

Data extracts, Theme as a topic, coded for words r/t topic	Number of comments
Wanted more education and training:	
More training	
Extra training always welcome	
I never had any TAPE-orientation, only the password	14
Review would be good	14
No feedback because of no training	
Info about if TAPE is still in use	
I don't know what needs to be reported to TAPE	
Wanted help in handling reports:	
Going through the reports	
Frequency of reading reports	8
Printing them	o
Reports and what else?	
Who takes the reports?	
Other comments:	
Increased collaboration between educators & TAPE-nurse in the unit	2
Everybody documents to TAPE and I print reports bi-annually	
Number of comments	24
Number of people answered this question (n)	17
Total number of respondents (N)	96

## 6.5 Summarized research results and their implications

The results show that TAPE-program is easy to use but what holds back its more widespread use is a lack of orientation and the lack of regular follow-up and feedback of accident-reports and monitoring results. TAPE-users want to know what has been reached because of the TAPE-accident reporting and monitoring system. Togetherness and teamwork was emphasized rather than reading the results from a book when pondering the accident reports. Only 21 % of respondents say TAPE-reports are discussed at staff meetings regularly. This is why some users feel frustrating to report accidents.

Emphasis on orientation and follow-up can be improved by managers who are expected to use feedback from staff in safety-related decision making (Wagner et al. 2012, 212).

Almost half of the people who feel themselves as well-orientated to TAPE think orientation to TAPE-program does not come true in their department. This leads to think, orientation is not happening systematically. Reasons for orientation not coming true can be a lack of resources (dedicated time to train, money to hire for paid orientation, knowledgeable staff to show, trained trainers), lack of comprehension of the purpose and meaning of the accident reporting system (because infrequent follow-up), many new employees, maybe even a new supervisor who is not orientated to TAPE-system, management support and prioritizing tasks, and maybe even a lack of occasional feedback from the main-user.

According to the department heads, a third of the units have a TAPE-nurse, however, based on the replies of the total number of respondents, only a fifth of the elder care units have a TAPE-nurse. This does not mean that every employee would not be aware of the existence of the TAPE-nurse but rather the difference is explained by having the most nursing managers in this study coming from the higher-level of care and from nursing homes. Those two types of elder care facilities, in this research, have on average, a TAPE-nurse in 20 % of the units. To illustrate, 1/3 of the higher-level care places and 1/10 of the nursing homes has a TAPE-nurse, which lead to an average of 20 %, 1/5, of all places having a TAPE-nurse. In conclusion, there is no discrepancy in the results between charge nurses and rest of the staff when asking whether they have a TAPE-nurse.

Forgetfulness was the most common reason for not reporting. In the field of nursing the causes that may lead to forgetting, deals with issues in prioritizing, shared values of the unit, what is emphasized and appreciated by the management, and little involvement of the staff in the overall comprehensiveness of accident prevention plan.

Interestingly respondents report that TAPE is used at work but admit not everyone is trained to use it. However, everyone is expected to use it. Between 64 % and 80 % of the staff claim they have been trained how to report an accident to TAPE-program versus 20 % - 36 % state they have not been shown how to use the program. Half of

the people who state they have received TAPE orientation which has been sufficient, state orientation does not come true in her/his department. This must mean the respondent was orientated but she/he views that not everyone is being orientated to the TAPE-accident reporting and monitoring system. New employees come, temporary employees come, and orientation is not long and thorough enough to include everything necessary. The idea of the accident reporting system is not rooted into everyday practice. Even charge nurses have not gotten 100 % orientation to TAPE, but the rate was higher than the whole sample orientation rate.

Based on the results TAPE-orientation is not systematically given to every new worker; the most common way to find out about accident reporting is to ask fellow workers. Meaning, one is expected to search information about accident reporting when he/she considers it important. The safety of elderly should not be relied on that statement. Thus, accident reporting should be taught to everyone proactively, being part of orientation before one can independently work in elder care. However, the less than a perfect orientation rate leads to a lesser chance to find a fellow worker who can show TAPE. Furthermore, if in the unit are four nurses working, and one of them is familiar with TAPE, in the case of needing to use TAPE, that one person would need to find someone else to do her work while she shows how to report an accident. This is an example, explained by the limited staffing resources, of why not all accidents are reported.

If there is a TAPE-nurse, part of his/her work time should be factored into accident prevention work. For a regular staff member to be in charge of something, should not add to nurse's duties but replace some of her existing tasks. It is typical in nursing units that each employee is in charge of something: resuscitation, hygiene, wound care, order supplies, laundry cart, documentation, and TAPE-program. This 'in charge of something' is optional, but required by the unit to dedicate a person for it, adds to one's own work without being rationed to the pay. Ideally, the one in charge of, for example, TAPE-program, participates in education related to TAPE and then shares her/his new knowledge fellow employees.

Over half 53 % (n=42 from 85) point out TAPE is used enough at work, 37 % (n=29) suggest TAPE is used more or less, and 10 % (n=8) argue TAPE is not used sufficiently at work. Six people answered 'don't know.' Interestingly, in comparison, the same percentage of charge nurses (53 %) felt TAPE is used sufficiently at the unit.

This means, the ones stating TAPE is used insufficiently, there is an understanding about the larger concept about accident reporting, accident prevention, and all what it involves. It is noticed that the resources, means, and methods on how to achieve the evidence-based best practice on safety are obtainable and within reach when TAPE is exploited better.

Nine from 15 charge nurses (60 %) say patient safety is emphasized sufficiently at one's unit and 6 (from 15; 40 %) answered patient safety is emphasized somewhat in her/his unit. The ones stating safety is somewhat emphasized at one's unit, acknowledge and recognize safety culture could get more focus. However, to be scientifically objective with the test results, I should focus on the majority of the respondents, 60 % of charge nurses which, unfortunately, state that safety is now sufficiently emphasized at one's unit. Being satisfied with the situation leaves less interest for improvement. There are more elder falls proportionally in Kymenlaakso than in the whole Finland, and most of them happen for those living in institutions rather than at home.

The goal is to regularly discuss TAPE-reports; however, majority discusses them seldom at unit meetings. According to some of the managers, the TAPE-nurse should process the TAPE-info and more often discuss it with the staff. Since (some) charge nurses hope that TAPE-nurse would execute the reporting duties, may mean that charge nurses are overwhelmed with too many responsibilities. Delegation of TAPE to a particular staff member is seen appropriate. On the other hand, TAPE is typically used less often than monthly, which partly explains why TAPE-reports are not discussed on regular meetings.

According to the leader-member exchange (LMX) theory good communication is essential for motivating each party to do their expected tasks. Communication, here feedback, from the main user to the charge nurses and from the charge nurses to the staff, needs reinforcement.

#### 7 CONCLUSION

#### 7.1 Making of the thesis

There is an abundance of prior studies on the reasons and types of elder people falls, however, resources about electronic health care accident reporting systems were very scarcely available. Most elder accident studies were fall studies.

Even though the survey was fully done electronically, to increase the response rate I made many phone calls to charge nurses reminding and encouraging them to participate. I believed verbal presentation in addition to the e-mails would increase the response rate. Negative, since questionnaires were answered anonymously, some had already answered it when I called them. In that case, on the phone I asked her/him to motivate the staff to answer. I was not able to send the questionnaire directly to the nursing staff members because obtaining the e-mail addresses of each employee would have potentially pose a risk to their private info. Sample size was smaller than I had originally anticipated. But I accepted the 96 responses as satisfactory. Moreover, research questions were refined during the research which is accepted in qualitative research (Braun & Clarke 2006, 85).

Positive, the Kouvola web site was convenient and informative providing the contact information of all public and private nursing homes, assisted living, and other elder care facilities in Kouvola.

Interesting in the analyzing process was making inferences and reasoning the results. When reasoning the results, I realized that each reasoning situation could lead to another research, for example on leadership skills, safety culture, motivation, and varying ways of accident prevention. According to The Joint Commission "Studies in nursing homes generally report a poorly developed safety culture, yet no interventional studies to improve safety culture have been reported to date" (Wagner 2012, 207). It is good to notice, safety culture is more emphasized in aviation and nuclear industries than in elder care, even though we know human safety everywhere is important, it is just not managed with the same perspective. Resident safety culture in nursing homes can be improved organization wide by efficiency, work climate, and goal clarity. (Wagner 2012, 207, 213.) The fact that accident reporting and registering is the first

step in accident prevention is not widely recognized in elder care. Guidelines on fall prevention focus on the etiologies rather than reporting (Pajala et al. 2011). Pajala (2012, 14), however, acknowledged, there are deficiencies in injurious falls documentation.

### 7.2 Some pertinent information on research

More work places were expected to have a 'TAPE-nurse' who is responsible for showing everyone else how and when to use TAPE-program. Moreover, she/he would regularly do follow-ups of the reports and monitoring safety improvements. The TAPE-nurse would delegate her/his task to someone else if she/he was not available.

Seems like most of the job sites do not have implemented methods on how to continue the safety management with the aid of TAPE after a single case is registered. All employees and managers should have agreed what accidents are to be recorded, should be clear to everyone what information is recorded, what is done with the accident log; is information collated and reviewed and by whom, and is the info fed back to staff, if so, how and when is this done (Australian Commission on Safety and Quality in Healthcare 2009, 10).

Most respondents report an accident seldom. That probably partly explains the less than fullest usability of TAPE-program. Moreover, since more than half of the employees use TAPE less often than monthly, monthly meetings should have about one to two TAPE-cases. It is good to remember that half of the falls do not have any extrinsic reason. So, a fall or found on the floor should be registered to the TAPE-program. Most of the unreported accidents were explained by forgetfulness, lack of time, poor orientation, and no injury. All those reasons could be explained by work stress which can be conquered by management communicating well, consulting, and developing their staff (Loveday 2012).

For a continuous quality improvement clinical practice about accident recording and monitoring methods must be reviewed regularly. This means reflect and review current practice against identified best practice. The staff should be closely involved in planning, implementing, and evaluation patient safety. (ACSQHC 2009, 7.)

TAPE-program was mainly reported to be quick and convenient to use, however, some suggested the reporting sections should be made more population specific to have options more applicable to one's own unit. Rather than developing the TAPE-program there emerged the need for more thorough orientation and training to its use and more frequent feedback of the reported accidents. The results of this study can be used to increase accident reporting and heighten the exploitation the TAPE-program. Feedback is expected to have most probably a positive impact on desired motivation.

Moreover, there was reported confusion between TAPE-accident reporting and monitoring system and HaiPro-patient incidence and adverse event reporting system. It was not clear to some elder care workers which program to use and when.

One nursing facility had hired a nursing aid, for added safety, to watch the residents during busy times, however, some others replied there are no financial resources to hire additional staff even though, it is agreed it would increase safety of the elderly in the unit. One suggestion from the author is to consider volunteers to watch and socialize with the elderly. Increasing the activity level of the elderly is known to reduce the risk of falls. Volunteers would be an enormous help in increasing the activity level and brightening the day of elderly, from the whole scale of home care to nursing homes, with the aim of fall prevention.

Further research, suggested by Nurmi-Lüthje (2011), is to find out staff-patient ratio at the time of accident by work shift and secondly, to measure actions of accident prevention that have been performed in the facilities. New research also can be done on ways how to promote accident reporting within an organization and nationwide. An empirical study could also be done on investigating the views of staff what in their opinion is causing forgetfulness at work since it was listed as the main reason for not registering an accident.

#### 7.3 Ethics

While doing this research the commissioner was kept in mind. It was aimed to do this thesis ethically correctly for the commissioner to get valuable results. The implications of the research are important because it directs attention on accident reporting which is the start for accident prevention. I hope this thesis initiates discussion about how to increase accident reporting and broader TAPE-use at Kouvola elder care. Plans

for increased exploitation should be discussed.

Research permit was acquired from the city of Kouvola department of health services (Kouvolan kaupunki perusturva) (Appendix 4). I followed the rules stated on the research permit application. Private elder care places' permission to participate in the survey was asked on the phone from the directors prior of sending the survey to them.

In the invitation letter, voluntary participation was asked, anonymity was ensured, contact information was provided, and respondent was encouraged to contact the researcher for further information if needed. The invitation letter also explained the aim and nature of the research. The exact site of employment was not asked, only the level of care that was provided. In the published analysis of the survey results, no connection was given that could link the respondent with answers. I ensured the respondents were not identified.

### 7.4 Reliability, validity, and trustworthiness

The quantitative field data can be assessed by the traditional research criticism of reliability, meaning consistency, and validity, meaning accuracy. This thesis is estimated to be reasonably reliable. I explained the research methods and processes, used them clearly and consistently, to measure the TAPE-use according to the research questions. Research questions were comparable with the empirical data and the research topic and the results were indicative of research questions. I believe the respondents answered the questionnaire honestly and with their true opinions since in many questions there was a trend toward certain replies even if I separated the respondents based on different demographic variables, the type of employment or the occupation. Time to answer the questionnaire is a factor affecting reliability. To increase reliability in that sense, I wanted the questionnaire to be as short as possible and at the same time intending to cover the research questions. The research process was planned, consultations were made, theories were studied, and time was spent doing this research to ensure this thesis was made according to the university and scientific guidelines.

The validity was good because, in my opinion, the collected data answered the research questions. Some questions had even to the point of saturation the answers, meaning, no further responses needed to confirm the answer. The quality of the meas-

uring device, the questionnaire, was developed with consideration to be clear, exclusionary, understandable, and unambiguous. For empirical data collection the Zefsearch engine was selected since it was available by the Kymenlaakso University of Applied Sciences. The respondent was guided by The Zef-software how to answer the questionnaire. Furthermore, leading questions were voided through careful questionnaire planning with the assistance of the experts at the Start centre.

Reliability could be increased by asking the same question in different ways, but then there would have been a danger that in a hectic nursing environment the non-response would be higher. A larger sample, including more of Kouvola elder care workers, would have been more representative. Piloting the questionnaire did not bring any constructive feedback regarding the style, length, nor intelligibility. The invitation letter and the questionnaire were piloted with a pledge to give critics. (Trochim 2006.)

In qualitative research the trustworthiness of the research can be described by credibility, transferability, dependability, and conformability. The credibility of the research results and the analyzed data was good because I had planned and developed the questionnaire and the execution of it with care. The qualitative data was diligently and consistently coded according to the stated guidelines as shown on the tables in the appendices. This consistency adds to the reliability and repeatability, meaning, another researcher should get the same results with the same data when same methods were used. Conclusions were made based on the collected data. The credibility of the research findings also was verified by the fact that most criteria were mentioned by more than one respondent and in more than one scenario. Furthermore, the accuracy and comprehensiveness of the results was improved since I am familiar with the elder care, I have worked at different elder care facilities in the past five years. I was committed to the research project; I felt a mutual interest with the commissioner to find data that can be used to enhance accident reporting and exploitation of the TAPE-program in elder care. (Devi 2009, 4-5; Zhang & Wildemuth 2009, 312, 315-16.)

I tried to report the results in a transferable and objective manner. I think the research results can be used in similar situations because I described the data so that other researchers can make judgments about the findings' transferability to different settings or contexts. (Zhang & Wildemuth 2009, 313.) Moreover, I tried to keep the subjectivity low and process the work as objectively as possible. However, I am quite certain

that my attitudes and thoughts somewhat show in the thesis. However, I think the dependability of the research results was improved by deciding in data analysis to choose only to process explicit terms, leaving out the more demanding interpretation of implicit meanings when coding the data.

To ensure the conformability I diligently tried to present the research data in a manner that the research results, "can be confirmed by others who read or review the research results" (Bradley 1993, 437), by checking the internal coherence of the research product, namely, the data, the findings, the interpretations, and the recommendations (Zhang & Wildemuth 2009, 313).

"Through careful data preparation, coding, and interpretation, the results of qualitative content analysis can support the development of new theories and models, as well as validating existing theories and providing thick descriptions of particular settings or phenomena" (Zhang & Wildemuth 2009, 318-19.)

#### 7.5 Exploitation of this research

The results of this qualitative content analysis research add to the knowledge of elder care team leaders and the staff at the Start centre about employees' opinions about accident reporting. TAPE-users' wishes for improvement on accident registering are listed below.

The benefits of this research for elder care team leaders to know, staff wished:

- increased communication, discussion, and sharing the accident reports
- orientation of every employee to accident reporting system
- more frequent feedback about the use of TAPE
- TAPE-nurse to each unit or facility
- to justify the purpose of registering accidents for the unit level health care worker "Maija Meikäläinen"

The benefits of this research for TAPE main user to know:

- once in a while feedback to elder care facilities about how TAPE-statistics are used
- allow more specific accident reporting when necessary either in a form of free text or more choices in the TAPE-program
- the benefits of TAPE in accident prevention are widely acknowledged among its users

Making TAPE- accident reporting and monitoring system more visible would increase its use. This could be addressed by organizing events or fairs with a safety culture related theme, and reminding of easy access communication and collaboration with Start centre and TAPE-nurse of each facility. Also, the main user could offer assistance in setting safety goals and give recognition to facilities that have succeeded in their resident accident prevention measures. Being recognized as having better than average safety interventions would bring success to the business and satisfaction to staff and managers for accomplishing their goals.

With insufficient orientation to the TAPE-program, some accidents are not reported, and therefore there is less accident monitoring. This means we cannot plan well-targeted evidence-based safety measures to reduce elder people falls and other accidents. This further leads to the incapability of monitoring the effectiveness of accident reducing interventions. I think the target of more emphasized use of accident reporting and monitoring system is to reduce mortality of elderly falls in Kymenlaakso to the national level.

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The questionnaire ZEF Solutions: Evaluation and Comparison Solutions

- 1. Place your mouse on the response base below
- 2. Choose your answer by clicking on the appropriate spot
- 3. Go back to previous questions by clicking on question set

Select appropriate alternative. No answer –option was always given. Continue / Save -logo at the end of each question.

# **Background information**

Duckground Information
1. Your age?under 20 yr20–34 yr35–49 yr50–65 yr. over 65 yr.
2. Your gender?womanman
3. Your occupation / position in the organization?  a student / doing a practice a nursing aide a licensed practical nurse a registered nurse / a specialized registered nurse a geriatric nurse a physiotherapist a department head / a charge nurse someone else
<ul> <li>4. The type of care your facility provides:     <ul> <li>home health</li> <li>assisted living</li> <li>higher-level care</li> <li>nursing home or institutional care</li> </ul> </li> <li>5. How long have you worked in this unit?  less than a month 1–5 months 6–12 months more than a year</li> </ul>
Orientation to the use of the TAPE program
6. Is the TAPE program used in your unit? 1 = yes 2 = no

7. Have you been shown how to use the TAPE program? 1 = yes 2 = no
8. Did you get additional guidance to TAPE usage later if needed? When you first time went to report an accident to the TAPE, if you did not remember how to do it, did you get help at that time?  1 = yes 2 = no
9. Is the orientation to the TAPE program sufficient? 1 = yes 2 = no
10. Who at your job supervises the TAPE usage?  1 = We have a nurse in charge of the TAPE.  2 = the department head  3 = I can ask help from my collegiate.  4 = no one assigned
TAPE usage
11. How you feel using the TAPE-program? 1 = easy to use 2 = difficult, if so, please state proposal for improvement
12. How often in your unit happens an accident that you report to TAPE?  1 = almost daily 2 = at least weekly 3 = monthly 4 = more seldom
13. How long it lasts to register an accident to the TAPE-program?  1 = under 5 min 2 = 5 - 10 min 3 = over 10 min
14. Have you not reported an accident you had seen?  1 = Yes, sometimes. Why? 2 = Yes, often. Why? 3 = No, I haven't.
15. How would you still develop reporting? 'Write your answer and click continue'
The exploitation of the TAPE-program.
16. Is accident prevention emphasized because of TAPE accident reports?  1 = yes

17. Are the results of TAPE reports discussed at the unit meetings? 1 = regularly
2 = seldom
$_{-}3 = never$
18. How TAPE could be exploited more?
Managing and Administration
19. Is TAPE used sufficiently at your unit?
$_{-}1 = yes$
$_{-}2 = somewhat$
$_{-}3 = no$
20. I think orientation to TAPE comes true at my unit.
= yes
= somewhat
= no
21. How orientation to the TAPE-program use could be developed?
22. How TAPE reports guide your patient safety management?
23. Do you feel patient safety at your unit is emphasized adequately? 1 = yes
2 = somewhat
$\frac{1}{2}$ 3 = no
24. Do you need additional support from TAPE-educators on how to exploit TAPE? If you
answer yes, please, explain
1 = yes
2 = no

Invitation letter Appendix 2

#### Tervehdys Maija Meikäläinen!

Kutsu kaikille kotihoidossa ja vanhuspalveluissa työskenteleville TAPE:n käyttäjille. Kysely on osa opinnäytetyötäni, jonka ohjaajana toimii Hilkka Dufva Kymenlaakson ammattikorkeakoulusta, Kotkasta. Kysely toteutetaan yhteistyössä Start - Tapaturmien ja väkivallan ehkäisykeskuksen kanssa. Kysely vie n. 15 min. Raportti valmistuu keväällä 2013. Tulokset julkaistaan ammattikorkeakoulujen verkkokirjastossa (Theseues.fi). Pyydän vastaamaan kyselyyn 31.1.2013 mennessä. Kyselyyn vastataan nimettömänä.

Tapaturmien kirjaaminen on tärkeää, jotta

- -osataan kehittää menetelmiä tapaturmien ehkäisyyn
- -tapaturmien yksityiskohtainen kirjaaminen tuo tiedon esiin missä, milloin, kuinka tapaturmat sattuvat
- -tapaturmien ennaltaehkäisytavat osataan ajoittaa oikein
- -saadaan näyttöön perustuvaa tietoa tapaturmista
- -tilastot auttavat laatimaan valtakunnallisia turvallisuutta lisääviä toimintamalleja.

Tutkimuksen tavoitteena on selvittää, kuinka TAPE - tapaturmien seurantaohjelmaa käytetään ja hyödynnetään vanhusten hoidossa Kouvolassa. Tietojen avulla suunnitellaan malli TAPE:n käytön edistämiseksi. Vastausten avulla pyritään myös kehittämään TAPE - ohjelmaa.

Voisitko vastata kyselyyn ja lähettää sen XX-hoitokodin hoitajille ja kannustaa heitä vastaamaan siihen.

Vastaamisen voit aloittaa klikkaamalla seuraavaa linkkiä tai kopioimalla linkin Internet-selaimen osoiteriville

http://zef.kyamk.fi/player/?q=380-zke93cbc

Lämmin kiitos!

Iloisin terveisin ja otathan yhteyttä, jos mitään kysyttävää.

Nina Baez

nina.baez@student.kyamk.fi

#### PIKAOHJE:

- 1. Vastaaminen tapahtuu hiirellä työskennellen
- 2. Voit muuttaa vastauksiasi valitsemalla kysymyksen aktiiviseksi kysymyslistasta ja sijoittamalla sen uudelleen vastausalueelle
- 3. Voit keskeyttää jatkaaksesi myöhemmin painamalla Keskeytä-nappia

Table 8 B. Suggestions on improving orientation to TAPE-program showing all comments

TY ( I TRADE	
Wanted a TAPE-nurse, someone to train at work:	
Joku hoitaja voisi olla TAPE-vastaava	
Vastuuhenkilö	
Ohjausta työyksikössä mikä ohjelma on	
Neuvoisi tarvittaessa	
Muistuttaa henkilökohtaisesti miten/koska sitä käytetään	
Henkilökohtainen neuvo on parempi kuin ohjeista lukeminen	
Koulutus paikanpäällä	
Harjoitusohjelman käyttö?	
Jää paremmin mieleen mitä tehdään kun toinen joka osaa neuvoo toista joka ei niin hyvin osaa Nimetyt TAPE-hoitajat jotka huolehtii uusien perehdyttämisen	
Nimeämällä vastuuhoitajan	22
Käytännön esimerkkejä miten se toimii	22
Omalla työpaikalla koulutus	
Joku näyttäisi, mistä pääsee täyttämään	
Joku näyttää, missä tilanteissa käytetään	
Jonkun tulisi käydä kysymyskohtia läpi	
Käydä kysymyskohtia läpi. Olisi tarpeen tullessa sitten helpompi täytellä	
Mistä pääsee täyttämään	
Lisää opastuskertoja	
Missä tilanteissa TAPEa käytetään?	
Kuka ohjelmaan kirjaa?	
Tape koulutuksia kaikille	
Wanted New employee orientation	
Jokainen uusi työntekijä perehdytettäisiin	
Perehdyttäisi uudet hoitajat	
Uusille työntekijöille	
Uudet työntekijät perehdytetään	
Sijaisille TAPE-ohjaus	
Perehdyttämiskansioon liitteeksi	12
Aina kun tulee uusi työntekijä, asiasta voisi puhua	
Uudelle työntekijälle näyttää, miten kaavakkeen täyttö tapahtuu	
Uusille työntekijöille liittää perehdytyslistaan	
Uuden työntekijän perehdytykseen	
Uuden työntekijän kanssa TAPE läpi heti perehdytyksen yhteydessä	
Kunnon perehdytystä ei tässä yksikössä ole ollut	
Wanted Refresher training to all:	
Aina tietyn väliajoin perehdyttää uudelleen	
Pikakursseja silloin tällöin auttaisivat muistamaan myös ohjelman käytön	
Yhteinen koulutus jokaiselle työntekijälle	6
Kaikille muistutusta aika ajoin	O
Pikaopas	
Jonkin ajan kuluttua kerrataan, mitä TAPE pitää sisällään ja virkistetään muistia kuinka sitä	
käytetään	
Wanted more frequent discussions:	
Keskustelemalla riitttävän usein tapaturmien ehkäisystä	
Palavereihin muistutuksia	
Tilastoatietoa niistä	6
Saada palautetta, vastinetta tomintaan	
Rutiininomaiseksi toiminnaksi	
Tehdään asia tutuksi	
Other comments:	
Paperiversio hoitajille, minä kirjaan koneelle	
Niin monta atk ohjelma-asiaa mitä jouduttu opiskelemaan	
Efficankin päivitys tulee työllistämään	6
En tiedä	
En osaa sanoa	
En tiedä	
Number of comments	51
Number of people answered this question (n)	27
Total number of respondents (N)	
Total number of respondents (14)	96

Table 9 B. Reasons why an accident has not been documented to the TAPE-program

Forgetfullness: Olen ajatellut kirjata myöhemmin Olen unohtanut Olen unohtanut asian Unohtanut On unohtunut Asia on saattanut muistua mieleen vasta viikkojen päästä Unohtuu muussa Unohtunut Muistamattomuuden vuoksi	12
Unohdus Unohdus Epähuomio	
Hurry: Kiire Ja kiire Ei ole ehtinyt tehdä Kiire Ei ollut aikaa Kiire Kiire	7
Insufficient orientation: En tiennyt miten tapea käytetään Ei ollut paikalla ketään joka olisi voinut neuvoa Epäselvyyttä käytetäänkö tape ohjelmaa vai haipro-ohjelmaa Päällekkäistä toimintaa Kirjattu v-kotilehdelle Efficaan	5
Minor or no injury: Haitta vähäinen Ei lainkaan haittaa Pikkukaatuminen ei tunnu tärkeälle Aina ei jaksa pienimmistä	4
Number of comments	28
Number of people answered this question (n)	17
Total number of respondents (N)	96

Table 10 B. Suggestions on how to develop documentation to TAPE-program

Data extracts, Theme as a topic, coded for words r/t question	Number of comments
Wanted to clarify and make more specific: Kirjaamista pitää kehittää tarkempaan suuntaan Selkeyttämistä joihinkin kysymys kohtiin Ei ympäri pyöreesti vain tarkasti kirjaten kaikki Peruskirjaamista ehdottomasti enemmän Efficaan Vaihtoehdot saattavat johtaa harhaan ja näin ollen väärään vastaukseen Enemmän vaihtoehtoja Kehittäisinkin ohjelmaa myös muita asiakasryhmiä huomioivammaksi Jälkiseuraamukset kuten mustelmat ja kipu jää liittämättä tapaturmaan, jos tapahtumishetkellä ei näkyviä vammoja/kipua ja tapaturma tapahtuma on mahdollisesti jo suljettu	8
Wanted to decrease documentation: Kirjallisia velvollisuuksia on liikaakin kotihoidossa Lisää klikkauksia ja ed. hommia ei ole tarpeen sisällyttää hoitotyöhön Jotain kirjattava, mutta sekin vaatii aikaa enemmän koneen äärellä olemiselle Ei kannata kehitellä pidempää ohjelmaa ainakaan Toivoisin, että haipro ja TAPE olisi samassa	5
Wanted orientation to TAPE-program: Helppokäyttöisen pikaoppaan laatiminen madaltaisi käyttöönottamista Uusille työntekijöille perehdytys ohjelman käyttöön En juurikaan ole saanut perehdytystä TAPEen	3
Other comments: En tiedä En osaa sanoa	2
Number of comments	18
Number of people answered this question (n)	14
Total number of respondents (N)	96

Table 11 B. How accident prevention has been emphasized because of TAPE-program

	1 0
Attention on accident prevention:	
Hälytysmattojen käyttöönotto	
Apuvälineiden hankinta	5
Yksin liikkuvien asukkaiden liikkumista seurataan/ollaan mukana enemmän	5
Kuntoutusta	
Kaatumisten ehkäisyä on lisätty	
More discussion and awareness:	
Näistä keskustellaan	
Tiedostetaan paremmin	5
Kaatuminen tulee kaikkien tietoon paremmin	3
Tietoa lisää	
Ohjausta sitä myötä asiakkaille	
Minimizing harm from potential accidents:	
Lonkkasuojahousujen käyttö lisääntynyt	
Lonkkahousut lisääntyneet	4
Lonkkahousujen käyttöä lisätty	
Lonkkahousut käytössä useammalla	
More attention to accessibility:	
Enemmän huomiota esteettömyyteen asukashuoneissa	3
Riskitekijät kuten matot yms. on jo automaattisesti pois	3
Huoneista matot pois	
Number of comments	17
Number of people answered this question (n)	12
Total number of respondents (N)	96

Table 12 B. Suggestions on increased exploitation of TAPE

Table 12 B. Suggestions on increased exploitation of TAPE	
More sharing of the TAPE reports/TAPE cases at meetings:	
Säännölliset TAPE-palaverit	
Lisätä raporttien käsittelyä	
Tapaturmat pitäisi käydä ajoittain läpi	
Nyt teemme vain tilastoa hyödyntämättä sitä mitenkään	
Joku kävisi kertomassa mitä hyötyä siitä on	
Eli tulisi saada palautetta	
Rakentavaa keskustelua	
Tapausten läpikäyminen tiimeissä	
Turhauttaa koko kirjaaminen koska siitä ei mitään "tuotosta"	
Ei muutosta omaan työhö	20
Keräillään ja mitään edistystä ei tapahdu eikä muutosta parempaan. Kaipa niitä	20
tilastoja sitten joku jossain pyörittää kun me niitä ensin sinne klikkaillaan.	
Sisäisissä palavereissa käytäisiin omat tapaturmat läpi	
Käydä tilastoja läpi	
Keskustelua	
Tiimin kanssa yhdessä tapauksia läpi	
Kuinka voisimme parantaa turvallisuutta?	
Yhdessä?	
Mitä voisimme tehdä?	
Miettiä yhdessä?	
Vastuuhoitaja kutsuu koolle TAPE-palaveriiin	
Ponder causes and preventive measures	
Kun kirjataan TAPE:n, tulee aina keskustelua esim. kuinka ko. asukkaan kohdalla	
pystymme ehkäisemään kaatumistilanteita	
Miettiä missä tilanteissa tapaturmia sattuu	
Onko aina samat asiakkaat?	
Onko aina samat tilanteet?	
Kuinka voisimme niihin vaikuttaa?	
Tietoa mikä vuorokauden aika on riskialttein	
Syy miksi näin on käynnyt	
Enemmän tietoa tapaturmien ennaltaehkäisyyn käytännössä	1.7
Ennaltaehkäisyn miettiminen	17
Tapaturman jälkeen pohditaan syytä	
Yhdessä tiimin kanssa vaikuttamaan ennaltaehkäisyyn	
Olisi syytä kouluttaa hoitajia jo etukäteen näitä riskejä vähentämään	
Mietittäisiin mitkä tekijät vaikuttavat yksilötasolla	
Mitä voisimme tehdä ?	
Tapaturmaan vaikuttavia tekijöitä mietittäisiin kokonaisuutena: (liika)lääkitys,	
jalkineet, silmälasit	
Helposit ajatellaan että näitä käy ja ei voida mitään	
Miettiä miten tapaturmilta oltaisiin voitu välttyä	
Other comments	
Seurantojen hyödyntäminen tehokkaammaksi	
Tulosten käsitteleminen ja hyödyntäminen ajankohtaisempaa, kun yksikön toimint	a 3
muuttuu	
En tiedä	
Number of comments	39
Number of people answered this question (n)	14
Total number of respondents (N)	96

Table 13 B. Reasons you feel patient safety is emphasized enough at one's unit

Safety increased:	
Apuvälieitä on käytössä kiitettävästi	
Käytetään lonkkahousuja	
Apuvälineiden hankkiminen	
Tukikahvojen laitto	
Kalusteiden uudelleenjärjestelyt	11
Mattoja poistettu	11
Kodin mahdolliset muutokset huomioidaan	
Arvioidaan kodin turvallisuus	
Asiakkaan luona lisätään käyntejä tarpeen mukaan	
Asiakas lähetetään jatkohoitoon tarvittaessa	
Vaaratilanteita yritetään karsia	
Discussion, guidance:	
Päivittäin pohdimme asiakaskohtaisesti	3
Muistutetaan rollaattorin käytöstä	3
Kodin mahdolliset muutokset jolloin olo kotona turvallisempaa	
Other comments:	
Niinkuin kotihoidossa on mahdollista	2
Kuuluu hoitotyöhön	
Number of comments	16
Number of people answered this question (n)	8
Total number of respondents (N)	96

Table 14 B. Reasons why patient safety is not focused enough at one's unit

Deficiences in safety culture, attitude: Ollaan välinpitämättömiä	
Syytetään kiirettä	_
Ei nähdä asioita/tilanteita kokonaisuutena	6
Ei hahmoteta mitä kaikkea potilasturvallisuus on	
Hyvät aikomukset voi unohtua	
Toteutus on saattanut unohtua	
Other reasons:	
Parannettavaa aina riittää	
Sijaiset perehdytettävä paremmin	4
Turvallisuuteen panostetaan, ei tietokonekikkailuun	
Työssä on paljon muutoksia	
Number of comments	10
Number of people answered this question (n)	4
Total number of respondents (N)	96

Table 15 B. Ways how TAPE-reports guide your patient safety management

	1
More emphasis on accident prevention:	
Hankittiin lonkkahousuja	
Osastolla on avustaja	
Huomio asiakkaat jotka ovat jo kerran pari kaatuneet	
Tarvittavien toimintojen toteuttaminen Sängyn laidat	
Apuvälineet	
Huomio kiinnittyy tilanteisiin	
Yritetään ennalta ehkäistä kaatumisia	15
Ehkäistä liukastumisia	
Huomio jalkineet	
Huomiointi esteet	
Riskitekijöiden karsiminen	
Kiinnitän huomiotani epäkohtiin	
Mietittävä keinoja kaatumisten ehkäisyyn	
Apuvälineiden hyödyntäminen	
More attention on etiology and risks of accidents:	
Huomioi kaatumisten ulkoiset tekijät	
Tasapainon menettäminen	
Enemmän huomiota mahdollisiin haittatekijöihin	
Huomio kiinnittyy vaara tekijöihin	
Riskien havaitseminen	10
Riskeihin puuttuminen	12
Kiinnitetään enemmän huomiota kaatumistilanteisiin	
Missä olosuhteissa ne sattuivat	
Lääkityksen huomiointi	
Lääkevaikutusten arviointi	
Kaatumisen syiden selvittely	
Mietin; mitä teen, miksi teen, miten teen ja mitä toiminnastani seuraa	
More focus on teamwork, discussion:	
Pohditaan yhdessä ennaltaehkäisyä	
Raporttien käsittely	
Palavereissa käsittelemme puolivuosittain tapaturmat	6
Pohdimme mitä voisimme tehdä turvallisuuden parantamiseksi	
Keskustellaan	
Kaatumisista keskustelu hoitajien kanssa	
Other comments:	
Ei mitenkään	
Ei mitenkään	5
Ei mitenkään	
Mitkä raportit?	
Hyöty jää saamatta kun ei raportteja käsitellä	
Increased awareness of accidents:	
Osaan olla kuitenkin varuillani	3
Auttavat havaitsemaan turvallisuuteen liittyviä ongelmia	
Ongelmatilanteiden ennakointi parantunut	
Staff placement on shifts:	
Henkilökunta mitoitukseen ei ole resursseja lisää	2
Henkilökunnan oikea sijoitus työvuoroihin	
Number of comments	43
Number of people answered this question (n)	19
Total number of respondents (N)	96
Town named of respondents (14)	70

Table 16B. Type of extra support respondents wanted from the Start centre about exploitation of the TAPE-program

of the TAFE-program	
Wanted more education and training: Onko ko. ohjelma edelleen käytössä? Yleisiä koulutuksia/tiedotustilaisuuksia Mitä kaikkea sinne voi laittaa? Mitä on järkevää laittaa tapeen tai kirjata? Ei tapaturmia "ruodita" mitenkään puuttuvan tiedon/ohjauksen puuttumisen takia Ei lisäoppi koskaan pahasta ole Lisää oppia Lisäohjausta on kiva saada Kyllä, sillä käytän ohjelmaa harvoin Ei ole ollut mitään koulutusta, tunnusluvut vain Tekee harvoin, saattaa jokin asia unohtua Kertauskoulutus voisi olla hyvä Kaikki uudet hoitajat eivät luultavasti ole saaneet asiaan minkäänlaista koulutusta En ole saanut mitään tukea	14
Wanted help in handling reports: Missä reportit käydään läpi? Milloin reportit käydään läpi? Kuinka usein raportit käydään läpi? Mihin vanhat tulostetut TAPE:t arkistoidaan? Raportit - miten tulostetaan? Raportteja ym. mutta mitä kaikkea? Miten raportteja voi ottaa? Kuka voi ottaa raportteja?	8
Other comments:  Meillä kaikki kirjaavat tapaturmat tapeen ja minä tulostan raportit puolivuosittain Mitä muuta voisi tehdä?  Vastuuhoitajille yhteistyötä	2
Number of comments	24
Number of people answered this question (n)	17
Total number of respondents (N)	96
A	1



Lausunto (perusturva)

Lausunto

# TUTKIMUSLUPAPÄÄTÖS

tutkimuksesta ja hakemuksen tekninen tarkistaminen	<ul> <li>☐ Tutkimuslupaa puolletaan esitetyssä muodossa</li> <li>☐ Tutkimuslupaa puolletaan seuraavin ehdoin:</li> <li>☐ Lupaa tietojen saantiin salassa pidettävistä asiakirjoista ja henkilörekistereistä puolletaan hakemuksen mukaisesti</li> <li>☐ Lupaa tietojen saantiin salassa pidettävistä asiakirjoista ja henkilörekistereistä puolletaan hakemuksesta poiketen</li> <li>Käyttöoikeudet yksilöidään erikseen. Käyttöoikeus tietojärjestelmiin edellyttää Kouvolan kaupungin tietoturva- ja tietosuojasitoumuksen allekirjoittamista.</li> <li>☐ Tutkimuslupaa ei puolleta, perustelut</li> <li>☐ Tutkimuslupahakemus on oikein laadittu, teknisesti tarkastettu ja hyväksytty.</li> </ul>				
	Päiväys	Lausunnonantajan nim		Puhelin	
Päätös	<ul> <li>☐ Tutkimuslupa myönnetään esitetyssä muodossa</li> <li>☐ Tutkimuslupa myönnetään seuraavin ehdoin:</li> <li>☐ Lupa tietojen saantiin salassa pidettävistä asiakirjoista ja henkilörekistereistä myönnetään hakemuksen mukaisesti.</li> <li>☐ Lupa tietojen saantiin salassa pidettävistä asiakirjoista ja henkilörekistereistä myönnetään hakemuksesta poiketen</li> <li>Käyttöoikeudet yksilöidään erikseen. Käyttöoikeus tietojärjestelmiin edellyttää Kouvolan kaupungin tietoturva- ja tietosuojasitoumuksen allekirjoittamista.</li> <li>☐ Tutkimuslupa hylätään, perustelut</li> </ul>				
	Tutkimuslupa liitteineen tallennetaan Kouvolan hyvinvointipalvelujen tutkimusluparekisteriin.				
Yhteys-	Yhteyshenkilön nimi		Virka-asema	Puhelin	
henkilö(t)	Kirsi-Marja Karjala	inen	erikoissuunnittelija (Start-keskus)		
perusturvassa	Yhteyshenkilön nimi		Virka-asema	Puhelin	
	Tuula Jaakkola		kotihoidon palvelupäällikkö		
	Yhteyshenkilön nimi		Virka-asema	Puhelin	
	Mervi Takala		asumispalvelujen palvelupäällikkö		
Päätös	Viranhaltijapäätös: päivämäärä   18.6.2012  Päätöksentekijän nipri Martti Toukoaho  Virka-asema Palvelujohtaja				
Päätöksen	Makijalle		rshenkilölle		
jakelu	Muualle, mihin/kenelle				
Liitteet	Tutkimuslupahakemus TAPE-ohjelman käytöstä vanhusten hoidossa				
17.1.2012	. data i doi de partante			115x	

17.1.2012