NURSING ETHICS

WHISTLEBLOWING PROCESS IN HEALTH CARE –FROM SUSPICION TO ACTION

Johanna Pohjanoksa

University of Turku, Finland; Welfare District of Forssa, Finland

Minna Stolt

University of Turku, Finland; Turku University Hospital, Finland

Riitta Suhonen

University of Turku, Finland; Turku University Hospital and City of Turku, Welfare Division, Finland

Eliisa Löyttyniemi

University of Turku, Finland

Helena Leino-Kilpi

University of Turku, Finland; Turku University Hospital, Finland

---

Corresponding author: Johanna Pohjanoksa, Forssa Welfare District of Forssa, Box 42, FI-30100 Forssa, Finland.

Email: jmtpoh@utu.fi

Abstract

Background: Whistleblowing is an ethical activity that tries to end wrongdoing. Wrongdoing in health care varies from inappropriate behaviour to illegal action. Whistleblowing can have negative consequences for the whistleblower, often in the form of bullying or retribution. Despite the wrongdoing and negative tone of whistleblowing, there is limited literature exploring them in health care.

Objective: The aim was to describe possible wrongdoing in Finnish health care and to examine whistleblowing processes described on the basis of the existing literature in health care as perceived by health care professionals.

Research design: The study was a cross-sectional descriptive survey. The data were collected using the electronic questionnaire Whistleblowing in Health Care and analysed statistically.

Participants and research context: A total of 397 Finnish health care professionals participated, 278 of whom had either suspected or observed wrongdoing in health care, which established the data for this article.

Ethical considerations: Ethical approval was obtained from the Ethics Committee of the University (20/2015). Permission to conduct the study was received according to the organisation's policies.

Findings: Wrongdoing occurs in health care, as 96% of the participants had suspected and 94% had observed wrongdoing. As regards the frequency, wrongdoing was

suspected (57%) and observed (52%) more than once a month. Organisation-related wrongdoing was the most common type of wrongdoing (suspected 70%, observed 66%). Two whistleblowing processes were confirmed in health care: 1) from suspicion to consequences (SUSP), happened to 27%, and 2) from observation to consequences (OBSE), happened to 37% of the participants.

Discussion and conclusion: Wrongdoing occurs in health care quite frequently. Whistleblowing processes were described based on existing literature, but two separate processes were confirmed by the empirical data. More research is needed on wrongdoing and whistleblowing on it in health care.

Keywords

Wrongdoing, whistleblowing, process, health care, questionnaire survey

Introduction

Whistleblowing is an ethical activity aiming to stop wrongdoing, rooted in business[1] and virtue ethics[2]. Whistleblowing has been traced in the literature in the organisational context to the early 1970s[3]. In the health care context, whistleblowing has been studied for over twenty years[4]. As a symbolic term, whistleblowing refers to sounding an alarm to bring attention to wrongdoing[5].

Wrongdoing in health care has been reported in several countries (e.g. Australia, UK, USA) during the past few decades[6,7]. In the UK, the Francis Report revealed a total system failure, with high mortality rates and appalling wrongdoing, between 2005 and 2008[8]. Recently, wrongdoing has been revealed especially concerning elderly abuse, mistreatment and neglect[8,9]. Responses to wrongdoing include whistleblowing policies, guidance from regulators and professional bodies[9,10], and legislation to protect the whistleblowers[11].

Not much is known about wrongdoing and whistleblowing in the Finnish health care context, even though whistleblowing may well be a relevant factor in enhancing patient safety and well-being at work. This study aims to describe possible wrongdoing in Finnish health care and to examine whistleblowing processes described on the basis of the existing literature in health care as perceived by health care professionals.

Background

Whistleblowing on wrongdoing requires courage to act despite the possible personal or professional consequences[12]. It is associated with the values and norms of the individual, workplace or organisation[9] and requires moral integrity[12,13]. Moral integrity involves identifying the values and norms of the society and culture, but also one's own personal values, and acting on them[14] to maintain one's own ethical standards[13]. In addition, whistleblowing can be considered as an act of advocacy,

standing beside the patient[14] and being the patient's advocate[15,16]. Whistleblowing is defined here as a process where wrongdoing is suspected or observed in health care by a health care professional, a current or former member of an organisation, who blows the whistle to a party that can influence the wrongdoing.

The whistleblowing process will start from suspected or observed wrongdoing[17]. Suspicion of wrongdoing is the initial phase where one becomes suspicious of wrongdoing[17], and it means not being sure whether wrongdoing is occurring or not, whereas an observation of wrongdoing means seeing wrongdoing with one's own eyes and being sure that wrongdoing is occurring[18].

Wrongdoing occurs worldwide in health care[7,19]. However, studies in the Finnish health care context concerning wrongdoing were not identified. Wrongdoing occurs despite ethical guidelines[20], patient safety guidance[21] and guidance for the professional duties[22] of health care professionals. It may be harmful to the patient, colleagues, health care organisation or society.[23] Wrongdoing can be classified into patient-related, health care professional-related and organisation-related wrongdoing (Table 3). The classification was adapted and modified for this study from existing literature concerning ethical dilemmas[24].

Patient-related wrongdoing is targeted at patients. It may occur in the form of neglecting patient care or treating patients inappropriately[6]. Inadequate care is provided to patients[25]. Patients are left without assistance in feeding and toileting despite their requests[7]. Patients are left untreated allowing the progress of a deadly disease leading to increased mortality in New Zealand. Furthermore, inappropriate and unnecessary procedures are performed on healthy patients.[6] Patients' rights are ignored and the privacy and dignity of the patients denied even when they are dying[7]. Physical violence towards patients occurs in the form of abusing[24] and beating patients[26]. Patients are also charged for supplies that are not used but discarded purposively[17].

Health care professional-related wrongdoing occurs firstly as workplace bullying. Health care as a public sector institution is recognised as a high-risk setting for workplace bullying[27]. Workplace bullying is well-documented worldwide and occurs in various forms involving managers and staff bullying each other, or peers bullying peers[28]. Secondly, both alcohol and substance abuse seem to be a problem among health care professionals[18,29]. Workplace drug testing has been growing globally as a response to drug-related risks and safety at work.[29] Thirdly, fraud or thefts occur[25], and stealing from the workplace may occur, for example, stealing narcotics[18].

Organisation-related wrongdoing occurs in health care in the form of scarce human resources in relation to need of care[25], incompetent personnel[6,7,17] and insufficient work equipment[30]. Shortage of staff resources[25] in workplaces has been described as leading to them being extremely understaffed[17] and as staff have been cut the number of patients has increased[18]. Unqualified and untrained staff have been used in health care[6,7,17]. In order to save money, insufficient equipment and the re-use of single-use products have been reported[30].

Wrongdoing was explored separately in terms of suspicions or observations. A qualitative study examining whistleblowing processes in one particular hospital in Japan suggested that neither suspicion nor awareness of wrongdoing leads to a whistleblowing act, but a firm conviction of wrongdoing does.[17] Another study from the USA presented that suspected wrongdoing was not reported because the respondent was not sure of the wrongdoing and did not want to make a false claim[18]. However, one study emphasised that concerns about quality of care should be raised in health care[31]. In addition, the Nursing and Midwifery Council (NMC) have produced guidance on openness and honesty in health care for health care professionals to raise concerns about safety and quality of care, even concerning near misses[22]. Therefore it is justified to explore suspected and observed wrongdoing separately.

A whistleblowing process will continue with a whistleblowing act after suspected or observed wrongdoing. This whistleblowing act can be either internal or external. Internal whistleblowing means that the disclosure of wrongdoing is made to someone inside the organisation, and external means the disclosure is made to someone outside the organisation. [32] Internal whistleblowing acts may be addressed to superiors[23], union or safety representatives or the health authorities. External whistleblowing acts could be addressed to the media, regulatory bodies (e.g. police), health authorities, union representatives or ombudsmen.[25] In one study[25], all the respondents (n=30) had addressed a whistleblowing act to management. Eighteen had contacted the trade union, 17 health authorities and 13 the local or national media[25]. In another study, the respondents addressed whistleblowing acts to the media[17]. Few studies suggest that in hypothetical wrongdoing situations the whistleblowing act will be addressed internally rather than externally[32-34].

The whistleblowing process then continues to the consequences of the whistleblowing act. The consequences of the whistleblowing act for the whistleblower may be positive or negative[2,16,26]. A small amount of research deals with the positive consequences of whistleblowing acts. Positive consequences occur in the form of being supported by colleagues, superiors[26], trade unions or the public after blowing the whistle. Approval and respect are also received from outside the organisation. [35] Severe negative

consequences affect whistleblowers[2,16], their family lives[25,36] and their working community[2]. The whistleblower may also suffer from retribution in the form of workplace bullying[2,35,37] or discrimination in the form of isolation and ostracism[2]. The act of whistleblowing can negatively affect the whistleblower's career: transfer to another working unit[35], forced career change[25], job loss[25,35] and other attempts to ruin their working career[35] have been reported as negative consequences.

The whistleblowing process was described on the basis of the existing literature (Figure 1). Whistleblowing consists of three phases: 1) a suspicion or observation of wrongdoing, 2) a whistleblowing act, and 3) the consequences of the whistleblowing act. The arrow in the background describes the direction in which the whistleblowing process is proceeding. The process is considered from the perspective of the whistleblower as the actor, the one who is making a disclosure of wrongdoing.

Insert Figure 1 about here.

Empirical research on whistleblowing in health care is narrow, even though interest in exploring whistleblowing has been increasing in recent years. A limited number of

studies were identified to have investigated whistleblowing processes and only one in the health care context. Not much is known about wrongdoing in in health care in many countries, including Finland.

Aim of the study

The aim of the study was to describe possible wrongdoing in Finnish health care and to examine whistleblowing processes described on the basis of the existing literature in health care as perceived by health care professionals. The ultimate goal was to describe the whistleblowing process in health care for further research.

The following research tasks were set:

- To find out about possible wrongdoing in Finnish health care and the frequency of its possible occurrence.
- To find out if empirical data confirm the whistleblowing process described on the basis of the existing literature.
- To find out what background variables are associated with possible whistleblowing acts.

Methods

Study design

The study design was a descriptive, cross-sectional questionnaire survey.

Setting and participants

The study was conducted within a Finnish health care context, more specific in primary and specialised health and social care. Corresponding studies conducted in Finnish health care concerning whistleblowing as such were not identified. Participants were health care professionals who were members of the trade union, The Union of Health and Social Care Professionals in Finland (Tehy). NQuery4 software was used to calculate the required sample size. The calculation was based on cross-tabulation of the variables in the instrument. With a 20% estimated response rate to Web-based questionnaires and the calculation with NQuery4, the estimated sample size was determined as being between 1,290 and 1,500 participants. Potential participants were recruited by sending an email, containing the questionnaire to 100,502 members of the trade union with valid email addresses in Tehy's membership register. Altogether 1,273 (= N) health care professionals opened the questionnaire and 397 (= n) returned the completed questionnaire, giving a response rate of 31%. The large number of health care professionals contacted was justified to receive a relatively good response rate despite the sensitive nature of the research topic.

Data collection

The data were collected using a questionnaire, Whistleblowing In Health Care (WIHC) developed for this study. Data collection was carried out between 26 June 2015 and 17

July 2015 on the Internet using the Webropol questionnaire software. The Tehy trade union distributed an email to potential participants together with an invitation to participate and a link to the Webropol survey on 26 June 2015.

Instrument

The development of the WIHC questionnaire was based on deductive reasoning from the literature[19]. The questionnaire was pilot-tested by eight health care professionals, and some minor changes were made to the layouts.

The WIHC questionnaire had six parts, with a total of 41 questions; in this article, parts one to four are reported. The first part of the questionnaire (eleven questions) included background factors: age, length of work experience, gender, education, occupation, management position, working shift, nature of the employment, working sector, working area and size of the working unit (Table 1). The second part comprised six questions on suspecting and observing wrongdoing in health care. The questions measured whether participants had suspected or observed wrongdoing, the frequency of their suspicions or observations (Table 2) and what wrongdoing occurred in health care (Table 3). The third part included three questions on the whistleblowing act, whether health care professionals had blown the whistle on suspected or observed wrongdoing, and to whom the whistleblowing act was addressed internally or externally (Table 4).

The fourth part comprised three questions concerning positive and negative consequences of the whistleblowing act and whether the whistleblowing act ended the wrongdoing (Table 5). The response formats varied from open-ended questions to closed questions with multiple choices.

Ethical considerations

Ethical approval for this study was obtained from the Ethics Committee of the University (20/2015). Written permission to conduct the pilot study and use Tehy's membership register in recruiting potential participants were obtained according to the organisation's policies. This study was conducted according to good scientific standards by following the responsible conduct of research guidelines[38]. All potential participants received detailed information about the study, its objectives and methods. The voluntariness of participation and the right to withdraw at any time without consequences were assured. Confidentiality and anonymity were guaranteed, as the data were collected without individual identifiers. The potential participants were also informed about an opportunity to obtain additional background information from the researcher via email. The returned questionnaire was considered to be consent to participate.

Data analysis

The analysis of the data was statistical. Descriptive statistics (frequencies, percentages, mean values, standard deviation) were used to describe relevant variables. Pearson's Chi-square test was used to calculate associations between the background variables and whistleblowing acts on suspected or observed wrongdoing. Statistical significance was considered to be present when the p-value was less than 0.05 (2-tailed). Sum scores were formed by calculating the values from patient-, health care professional- and organisation-related wrongdoing, internal and external whistleblowing acts, and positive and negative consequences. Data were analysed using SPSS Version 22 for Windows (IBM, Chicago, IL, USA).

Findings

Participants

A total of 397 health care professionals responded to the questionnaire and the majority of them (70% n=278) had either suspected or observed wrongdoing in health care. Suspicions and observations of wrongdoing established the data of 278 participants for this article. Most of the participants were female (95%), their mean age was 47 years and their mean length of work experience 20 years. Over half of the participants (54%) had a vocational school degree as their highest educational level and more than half were registered nurses (57%). Nearly half of the participants (45%) were working in small units with fewer than 20 employees. The majority of the participants (82%) were

staff, half were working on the dayshift (50%) and the majority in a permanent position (80%). In addition, a majority were working in the public sector (82%) and either in primary (38%) or specialised health care (41%) (Table 1).

Insert Table 1 about here.

Wrongdoing in Finnish health care

Wrongdoing is seen as occurring in health care in terms of both suspicions and observations. All the participants had suspected (96%) or observed (94%) wrongdoing. Wrongdoing occurred more often than once a month with regard to both suspicions (57%) and observations (52%). A minority had suspected (15%) or observed (17%) wrongdoing less than once a year (Table 2).

Insert Table 2 about here.

Patient-related wrongdoing was the least occurring type of wrongdoing in health care, however over half of the participants had still suspected or observed patient-related wrongdoing. The most common was inappropriate treatment of the patient and

neglecting patient care and the least common physical violence towards the patient and stealing their property (Table 3).

Health care professional-related wrongdoing was the second most common wrongdoing in health care. Here, workplace bullying was most commonly suspected and observed by nearly half of the participants. A less common wrongdoing was stealing medicine from the workplace (Table 3).

Organisation-related wrongdoing was the most commonly occurring wrongdoing in health care. Here, too scarce human resources in relation to need of care was the most common wrongdoing. Insufficient work equipment was the least common wrongdoing. Other wrongdoing included data protection offences and discrimination by superiors or colleagues (Table 3).

Insert Table 3 about here.

Whistleblowing processes in health care

There are two whistleblowing processes in health care: 1) from suspicion to consequences (SUSP), and 2) from observation to consequences (OBSE). Both of these processes consist of three phases. The SUSP process begins with 1) suspicion of wrongdoing (Table 2), followed by 2) a whistleblowing act on those suspicions (Table 4), and 3) consequences of the whistleblowing act (Table 5, Figure 2). The SUSP whistleblowing process had happened to 27% of the 278 participants. The OBSE whistleblowing process starts from 1) an observation of wrongdoing (Table 2), 2) a whistleblowing act on those observations (Table 4), and 3) consequences of the whistleblowing act (Table 5, Figure 2). The OBSE whistleblowing process had happened to 37% of the 278 participants.

Insert Figure 2 about here.

Whistleblowing process from suspicion to consequences (SUSP). Of the participants, 266 had suspected wrongdoing in health care and less than half of them (40% or 107) had blown the whistle on their suspicions of wrongdoing (Figure 2). The whistleblowing act was done internally or externally. The majority of the 107 whistleblowers had blown the whistle internally (97%) to their closest manager (76%). Internally the whistle was blown least to the workplace union representative (10%).

External whistleblowing acts were mostly addressed to union representatives (12%) and least to the media or the Parliamentary Ombudsman (1%) (Table 4). Half (50%) of the whistleblowers stated that blowing the whistle on their suspicions did not end the wrongdoing (Figure 2).

Insert Table 4 about here.

Well over half of the 107 whistleblowers (70%) experienced consequences after blowing the whistle on their suspicions of wrongdoing; out of these 39% were positive (Figure 2). Positive consequences were mostly in the form of private thanks (Table 5). Forty-six percent suffered from negative consequences (Figure 2), such as bullying, discrimination, job loss or criticism (Table 5). Fifteen percent (n=16) had experienced both positive and negative consequences.

Insert Table 5 about here.

Whistleblowing process from observation to consequences (OBSE). Of the participants, 262 had observed wrongdoing in health care, and out of them, 147 (56%) had blown the

whistle (Figure 2). The majority (94%) of the 147 whistleblowers had blown the whistle internally and the whistleblowing act was addressed mainly to their closest manager (76%). Twenty-nine percent had blown the whistle externally. External whistleblowing acts were addressed mostly (15%) to the union representative, least to the Parliamentary Ombudsman (1%) (Table 4). Half (50%) of the whistleblowers stated that their whistleblowing act did not end the wrongdoing (Figure 2).

Well over half of the 147 whistleblowers (69%) experienced consequences after blowing the whistle on the observed wrongdoing; of these, 42% were positive (Figure 2). Positive consequences were received mostly in the form of private thanks (Table 5). Forty-three percent suffered from negative consequences (Figure 2), such as being fired from work or criticism of the whistleblowing act (Table 5). Sixteen percent (n=23) had received both positive and negative consequences after blowing the whistle on their observations of wrongdoing.

Background variables associated with whistleblowing acts

There were three background variables associated with whistleblowing acts: length of working experience, gender and working in a management position. In terms of length of working experience, an important period is ten years of practice: participants with less than ten years had blown the whistle less on observed wrongdoing than those with

more than ten years (p-value 0.009). Female participants had blown the whistle more on suspected wrongdoing than male (p-value 0.017). Participants working in management positions had blown the whistle on suspected wrongdoing more than participants not working in management positions (p-value 0.046) (Table 6).

Insert Table 6 about here.

Discussion

This study produced information on the frequency and forms of wrongdoing and on whistleblowing processes in health care, based on the existing literature, from the perspective of health care professionals. The results indicate that health care professionals face a variety of severe wrongdoing, as is also seen in the previous findings of international studies[4,6,7]. In addition, wrongdoing such as malpractice and poor care in health services has been mentioned increasingly in news headlines and reports. There are also a growing number of recommendations and guidelines for raising concerns about the quality of care and safety of patients. In this area, the Professional Codes for health care workers suggest that any concerns about the well-being of patients should be raised immediately[39].

Suspected and observed wrongdoings were examined separately here. Previous studies present that merely a suspicion of wrongdoing does not necessarily lead to whistleblowing[17,18]. However, guidelines and laws discuss suspected wrongdoing[11,40]. For further research it is crucial to understand whether there is a difference in health care professionals' action if wrongdoing is suspected or observed, and if observing wrongdoing is more powerful in leading to whistleblowing than suspecting.

Two whistleblowing processes in health care were confirmed with empirical data. Based on the starting point of the process, the first process (SUSP) begins with a suspicion and the second process (OBS) with an observation. However, different results were found, with one study suggesting that neither observation nor suspicion lead to whistleblowing, but firm conviction does[17]. Inconsistent results were also presented in a study in another context than health care, suggesting, that whistleblowing is a two-stage process including pre- and post-reporting phases[42].

Wrongdoing is suspected and observed quite often. Only a few previous studies have separated suspicions from observations of wrongdoing[17,18]. However, one study explored raising concerns about poor care quality, which indicates not only observed

wrongdoing, but also matters that are worrying health care professionals[31]. Although this study found that wrongdoing is suspected and observed often in health care, one study reported in contrast that health care professionals had observed poor care more rarely, one to five times during six months[37]. Almost all the participants had observed wrongdoing, as supported by previous research[15].

Patient- and health care professional-related wrongdoing violates human rights and dignity. Research on wrongdoing such as elderly abuse, neglect of patient care[8] and workplace bullying has increased during recent years[41]. Workplace bullying is a global and worrying phenomenon with severe consequences. Furthermore, workplace bullying increases staff turnover and sick-leave of health care professionals and decreases job satisfaction, increasing the costs of health care[41]. The results of this study show that nearly half of the health care professionals had suspected or observed workplace bullying in health care: this is more than the amount of between 18% and 31% of nurses as having been the targets of bullying presented in previous studies[41].

Scarce human resources is a common wrongdoing in health care. Compatible findings were made in a study suggesting that personnel shortage is a quite common wrongdoing[25]. According to the World Health Organization, the global deficit in

health care professionals was 7.2 million in 2014 and is estimated to increase to 12.9 million by 2035[42]. However, despite the shortage of health care professionals, this study considered shortage as an organisation-related wrongdoing of not hiring enough competent personnel.

Suspected or observed wrongdoing does not necessarily lead to a whistleblowing act, and it is rare if the wrongdoing is suspected. One explanation for the reluctance to blow the whistle might be lack of courage and fear of the possible negative consequences for oneself[14]. Contradicting findings have been reported in studies where nearly all participants had blown the whistle on wrongdoing[13,15]. The findings in this study pointed out that whistleblowing acts were mostly addressed internally to the closest manager rather than externally, as can be seen also in hypothetical wrongdoing situations[32-34]. Considerably few of the participants had addressed the whistleblowing act externally to the health authorities, even though they are the supervisors of health care services. Contradicting findings were presented when over half of the participants in a study had blown the whistle to the health authorities[25].

The consequences of the whistleblowing act were both positive and negative. Positive responses to whistleblowing acts were mainly private thanks. One study[15] suggested

that very few received a positive response, which was less than in this study. In this study, an almost similar number suffered from negative and received positive consequences. However in previous studies, negative consequences were experienced more often than positive ones[25,37]. Whistleblowing acts rarely ended wrongdoing. The reason for this may be that the whistleblowing act was inefficient when addressed mainly to the closest manager. The closest manager could be unaware of how to handle the situation and put an end to the wrongdoing. In addition, the closest manager could be involved in the wrongdoing or protect the wrongdoer[2]. Workplace culture or climate could also impact whistleblowing. Therefore it is important to create ethically safe and supportive workplace culture with jointly agreed protocol to handle possible wrongdoings in health care context.

Whistleblowing acts on suspected or observed wrongdoing seem to be associated with three background variables: length of work experience, gender and management position. Participants working in management positions were more likely to blow the whistle than those not working in management positions. This is compatible with previous research where associations between whistleblowing and background variables were examined, and nurse managers were more likely to blow the whistle on wrongdoing than staff nurses[37].

Strengths and limitations

There are some strengths and limitations in this study. The first limitation has to do with the instrument. We could not find any existing instrument and therefore the WIHC instrument was developed and pilot-tested for this study. Its development was based on deductive reasoning and the construct of the instrument was based on the theoretically developed whistleblowing process, which was a strength. The second limitation was that the response format in the questionnaire varied, although this was justified to obtain the information needed to describe potential wrongdoing and whistleblowing processes in health care. The third limitation was that empirical research on whistleblowing is narrow, but corresponding findings have been reported in international studies that were also discovered in this study. Use of the NQuery4 software to calculate the required sample size was a strength. Wrongdoing is a sensitive research topic and anonymity was guaranteed by collecting the data with the help of the trade union, Tehy: this supported the reliability of the study. The representativeness of the participants improved external validity in this study. Half of the participants were registered nurses and majority were female, which corresponds with the figures for Tehy members[44].

The fourth limitation of this study had to do with suspicions and observations of wrongdoing. Due to differences in the questionnaire, it was not possible to analyse the associations between the phases of the whistleblowing process. The sample was national and participants were health care professionals and members of the trade union.

However, 90% of the working health care professionals in Finland are members of the trade union[44]. The sample size was smaller than was estimated with the NQuery4 software and the response rate was quite low. Participants' understanding of the difference between suspected and observed wrongdoing might also have been a limitation.

Implications

This study has implications for practice, education and further research. The results, the descriptions of whistleblowing processes, can be used to enhance whistleblowing on wrongdoing and to intervene in wrongdoing. The results help to enhance ethical quality and safety for patients, health care professionals and organisations. Developing ethical curricula for health care professionals and increasing ethical discussion in workplaces might decrease wrongdoing, increase whistleblowing and decrease the negative consequences of whistleblowing. In addition, simulation education could be an effective way to practise action in potential wrongdoing and whistleblowing situations.

Future research is needed to gain a deeper understanding of the whistleblowing phenomenon, to decrease wrongdoing and to increase appropriate whistleblowing. Effective interventions are needed, for example, to teach nurse managers how to effectively handle whistleblowing acts to stop wrongdoing, or group interventions for

health care professionals on how to enhance openness in the workplace and lower the barriers to raising concerns of wrongdoing. Associations between the phases of the whistleblowing process described and confirmed here could be examined. In addition, other potential processes associated with and other options for blowing or not blowing the whistle on wrongdoing could be explored. To study cultural differences concerning wrongdoing and whistleblowing, an international comparative study could be initiated.

Conclusion

Based on the results of this study, wrongdoing occurs frequently in Finnish health care, but has been stated to be an international characteristic of health care[6-9]. Two separate whistleblowing processes, SUSP and OBSE, were confirmed. It is crucial to understand that suspicion of wrongdoing sometimes leads to different action than does observation. Suspecting or observing wrongdoing does not necessarily lead to whistleblowing, and whistleblowing turns out to be an ineffective way to stop wrongdoing. The results of this study show that whistleblowing is a multidimensional phenomenon that requires more research in the future. However, learning from these whistleblowing processes helps to develop the ethical quality of care and organisations.

Funding

This study received no grant from any funding agency in the public, commercial, or not-for-profit sectors.

Acknowledgements We kindly thank all the participants and the authorities that made this study possible.

Conflict of interest

The author(s) declare no conflict of interest.

Ethical Approval

From the Ethics Committee of the University of Turku (20/2015).

References

1. Elliston FA 1982. Anonymity and whistleblowing. *J Bus Ethics.* 1 (3), 167–177.
2. Jackson D, Peters K, Andrew S, Edenborough M, Halcomb E, Luck L, Salamonson Y, Weaver R & Wilkes L. 2010a. Trial and retribution: A qualitative study of whistleblowing and workplace relationships in nursing. *Contemp Nurse*. 36 (1–2), 34–44.
3. Nader R, Petkas PJ, Blackwell K (Eds). 1972. Whistle-blowing: The report on the conference on professional responsibility. New York: Grossman.
4. Hunt G (ed). 1995. Whistleblowing in the health service. J. W. Arrowsmith Ltd. Bristol.
5. Near JP & Miceli MP. 1985. Organizational dissidence: The case of whistleblowing. *J Bus Ethics*. 4, 1–16.
6. Walshe K & Shortell SM. 2004. When things go wrong: How health care organizations deal with major failures. *Health Affair*. 23 (3), 103–111.

7. Francis R. 2013. The Mid Staffordshire NHS Foundation Trust Public Inquiry. Retrieved from: http://webarchive.nationalarchives.gov.uk/20150407084003/http://www.midstaffspublicinquiry.com/report Accessed: 26/07/2016.
8. World Health Organization, WHO. 2008. Global Response to Elder Abuse and neglect. Building primary health care capacity to deal with the problem worldwide. World Health Organization, Geneva.
9. Jones A & Kelly D. 2014. Whistle-blowing and workplace culture in older peoples' care: qualitative insights from the healthcare and social care workforce. *Sociol Health Ill*. 36 (7), 986–1002.
10. Lewis D. 2006. The contents of whistleblowing/confidential reporting procedures in the UK. Some lessons from empirical research. *Emp Relat*. 28 (1), 76–86.
11. Worth M. 2013. Whistleblowing in Europe Legal protections for whistleblowers in the EU. Transparency International. Retrieved from: https://issuu.com/transparencyinternational/docs/2013_whistleblowingineurope_en Accessed: 11/04/2016.
12. Berry B. 2004. Organizational culture: A Framework and strategies for facilitating employee whistleblowing. *Emp Responsibilities R J*. 16 (1), 1–11.
13. King G & Scudder JN. 2013. Reasons registered nurses report serious wrongdoings in a public teaching hospital. *Psychol Rep*. 112 (2), 626–636.
14. Numminen O, Repo H & Leino-Kilpi H. 2016. Moral courage in nursing: A concept analysis. *Nurs Ethics*. Original manuscript. 1–14.

15. Moore L & McAuliffe E. 2012. To report or not to report? Why some nurses are reluctant to whistleblow. *Clinical Gov*. 17(4), 332–342.
16. Jackson D, Peters K, Andrew S, Edenborough M, Halcomb E, Luck L, Salamonson Y & Wilkes L. 2010b. Understanding whistleblowing: qualitative insights from nurse whistleblowers. *J Adv Nurs*. 66 (10), 2194–2201.
17. Ohnishi K, Hayama Y, Asai A & Kosugi S. 2008. The process of whistleblowing in Japanese psychiatric hospital. *Nurs Ethics*. 15 (5), 631–642.
18. Orbe MP & King G 3rd. 2000. Negotiating the tension between policy and reality: Exploring nurses' communication about organizational wrongdoing. *Health Commun*. 12 (1), 41–61.
19. Jackson D, Hickman LD, Hutchinson M, Andrew S, Smith J, Potgieter I, Cleary M and Peters K. 2014. Whistleblowing: An integrative literature review of data-based studies involving nurses. *Contemp Nurse*. 48(2), 240–252.
20. International Council of Nurses, ICN. 2012. The ICN code of ethics for nurses. Retrieved from: http://www.icn.ch/ Accessed: 26/07/2016.
21. National Institute for Health Research, NIHR. 2016. Patient safety 2030. Retrieved from: http://www.imperial.ac.uk/media/imperial-college/institute-of-global-health-innovation/centre-for-health-policy/Patient-Safety-2030-Report-VFinal.pdf Accessed 21/10/2016.
22. Nursing & Midwifery Council, NMC. 2015. Opennes and honesty when things go wrong: the professional duty of candour. Retrieved from: www.gmc-uk.org/DoC_guidance_englsih.pdf_61618688.pdf Accessed: 26/07/2016.

23. Davis AJ & Konishi E. 2007. Whistleblowing in Japan. *Nurs Ethics*. 14 (2), 194–202.
24. Aitamaa E, Leino-Kilpi H, Puukka P & Suhonen R. 2010. Ethical problems in nursing management: The role of codes of ethics. *Nurs Ethics.* 17 (4) 469–482.
25. Hunt g & Shailer B. 1995. The whistleblowers speak. In: Hunt G (ed). 1995. Whistleblowing in the health service. J. W. Arrowsmith Ltd. Bristol.
26. Ion R, Smith K, Nimmo S, Rice A M & McMillana L. 2015. Factors influencing student nurse decisions to report poor practice witnessed while on placement. *Nurs Educ Today*. 35, 900–905.
27. Hutchinson M & Jackson D. 2015. The construction and legitimation of workplace bullying in the public sector: insight into power dynamics and organisational failures in health and social care. *Nurs Inq*. 22 (1), 13–26.
28. Dzurec LC & Bromley GE. 2012. Speaking of workplace bullying. *J Prof Nurs*. 28 (4), 247–254.
29. Pidd K & Roche AM. 2014. How effective is drug testing as a workplace safety strategy? A systematic review of the evidence. *Accident Anal Prev.* 71, 154–165.
30. Carey D. 2001. Reprocessing and reusing single-use only medical devices: safe medical practice or risky business? *J Contemp Health Law & Policy*. 17 (2), 657–685.
31. Attree M. 2007. Factors influencing nurses' decisions to raise concerns about care quality. *J Nurs Manag*. 15(4), 392–402.
32. Mansbach A, Ziedenberg H & Bachner YG. 2013. Nursing students' willingness to blow the whistle. *Nurs Educ Today*. 33, 69–72.

33. Malmedal W, Hammervold R & Saveman B-I. 2009. To report or not report? Attitudes held by Norwegian nursing home staff on reporting inadequate care carried out by colleagues. *Scand J Public Healt*. 37, 744–750.
34. Mansbach A & Bachner YG. 2010. Internal or external whistleblowing: nurses willingness to report wrongdoing. *Nurs Ethics*. 17 (4), 483–490.
35. Hedin UC & Månsson S-A. 2011. Whistleblowing processes in Swedish public organisations-complaints and consequences. *Eur J Soc Work*. 15 (2), 151–167.
36. Wilkes LM, Peters K, Weaver R & Jackson D. 2011. Nurses involved in whistleblowing incidents: Sequelae for their families. *Collegian*. 18, 101–106.
37. Moore L & McAuliffe E 2010. Is inadequate response to whistleblowing perpetuating a culture of silence in hospitals? *Clin Governance*. 15(3), 166–178.
38. Beauchamp TL and Childress JF. 2008. Principles of biomedical ethics. 6th ed. New York: Oxford University Press.
39. Nursing & Midwifery Council, NMC. 2015. The Code. Professional standards of practice and behaviour for nurses and midwives. Retrieved from: https://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/nmc-code.pdf Accessed 13/12/2016.
40. OECD. 2012. Whistleblower protection: encouraging reporting. Retrieved from: http://www.oecd.org/cleangovbiz/toolkit/50042935.pdf Accessed: 22/12/2016.
41. American Nurses Association. ANA. 2012. Bullying in the workplace. Retrieved from: http://www.nursingworld.org/EspeciallyForYou/Staff-Nurses/Staff-Nurse-News/ANA-Bullying-in-the-Workplace-Publication.html Accessed: 11/12/2016.

42. World Health Organization. WHO. 2014. A universal truth: no health without a workforce. Retrieved from: http://www.who.int/en/ Accessed: 11/12/2016.
43. Somers M & Casal J. 2011. Type of wrongdoing and whistle-blowing: further evidence that type of wrongdoing affects the whistle-blowing process. *Public Pers Manage.* 40 (2), 151–163.
44. Tehy 2016. Tehy tilastoina 2016. Tehyn julkaisusarja D. Tilastoja ja kartoituksia 1/2016. Grano Oy. Vantaa.

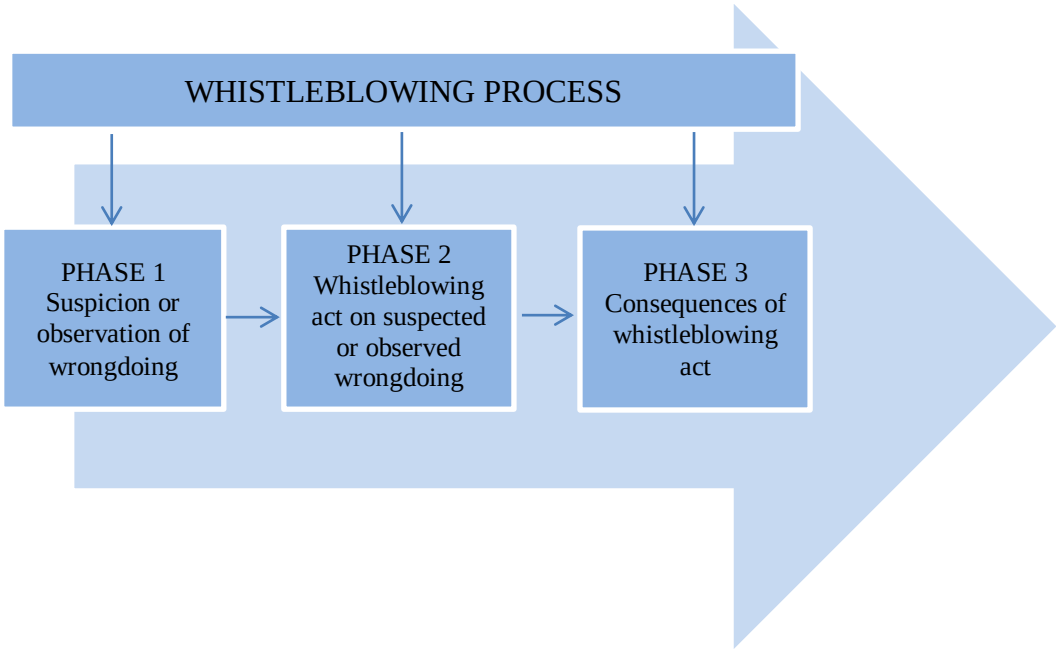

Figure 1. Whistleblowing process described on the bases of the existing literature

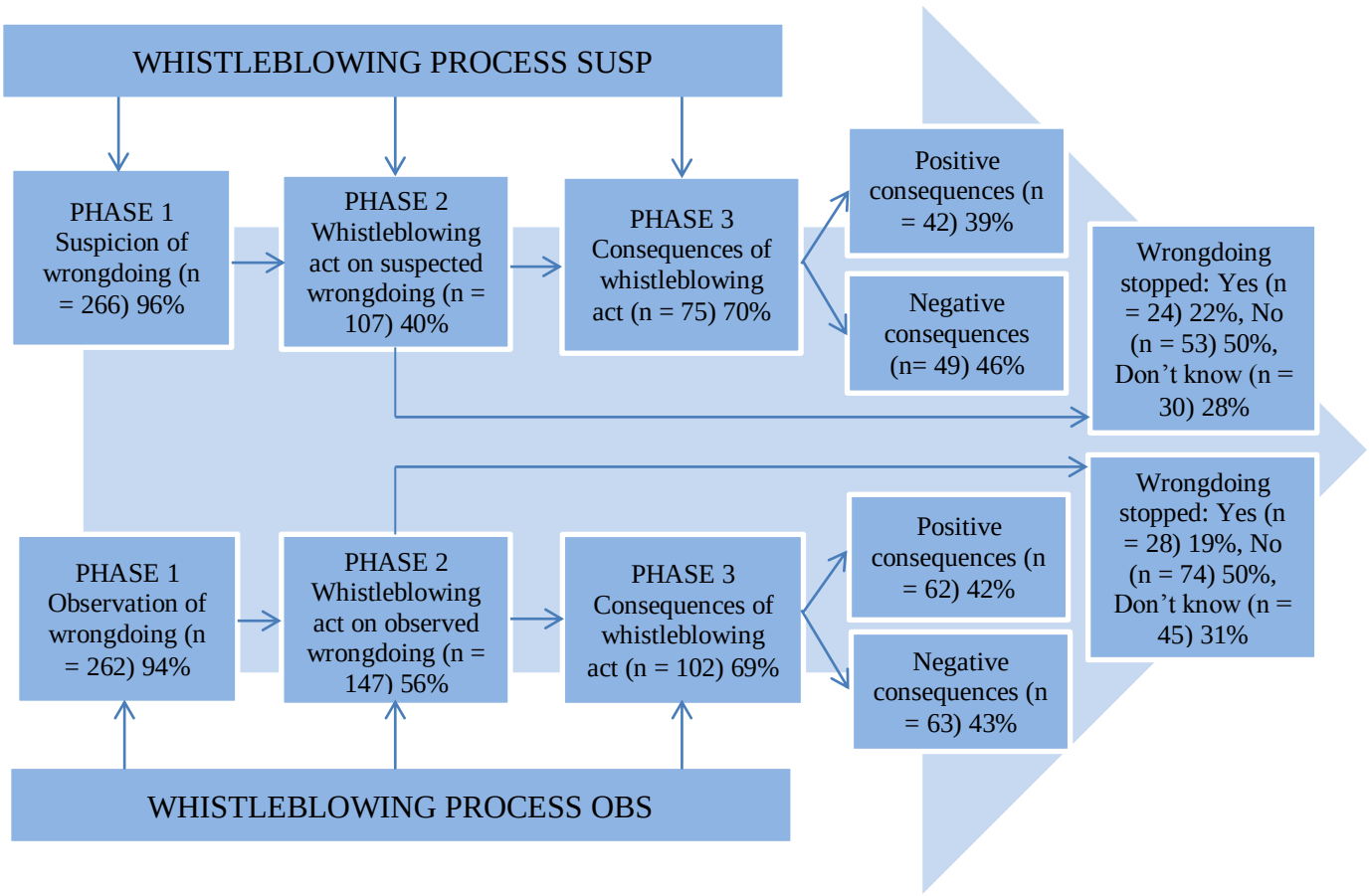

Figure 2. Whistleblowing process based on the empirical data, Whistleblowing process SUSP from suspicion to consequences and Whistleblowing process OBSE from observation to consequences

Table 1. Background variables of the participants n = 278

Background variables	n	Mean	SD	Range
Age, years	275	46,8	10,5	16-66
Work experience, years	272	19,6	11,3	0-43
Background variable	n			f (%)
Gender	276			
Female				263 (95)
Male				13 (5)
Education level	271			
Student				4 (2)
Vocational school degree				146 (54)
Baccalaureate or bachelor degree				94 (35)
Master degree				27 (10)
Occupation group	278			
Registered nurse				158 (57)
Other (f.e. practical nurse, radiographer, physiotherapist)				120 (43)
Management position	276			
Yes				50 (18)
No				226 (82)
Working shift	273			
Dayshift				137 (50)
Two shifts				57 (21)
Three shifts				79 (29)
Nature of the employment	277			
Permanent position				221 (80)
Temporary position				38 (14)
Not working at the moment				18 (7)
Working sector	272			
Public				222 (82)
Private				50 (18)
Working area	271			
Primary health care				104 (38)
Specialized health care				111 (41)
Social care				21 (8)
Other (f.e. entrepreneur)				35 (13)
Size of the working unit	273			
<20 workers, small				123 (45)
21-40 workers, medium				84 (31)
>41 workers, large				66 (24)

Table 2. Occurrence of wrongdoing in health care n = 278

	Suspicions f (%)	Observations f (%)
Occurrence of wrongdoing	266 (96)	262 (94)
Frequency of occurring wrongdoing		
More often than once a month	151 (57)	133 (52)
More often than once a year	75 (28)	79 (31)
Less than once a year	40 (15)	42 (17)

Table 3. Occurring wrongdoing in healthcare as suspicions or observations n = 278

Wrongdoing	Suspected f (%)	Observed f (%)
Patient-related	163 (59)	154 (55)
Neglecting patient care	94 (34)	92 (33)
Ignoring patient's rights	50 (18)	50 (18)
Inappropriate treatment of the patient	125 (45)	121 (44)
Physical violence toward the patient	11 (4)	13 (5)
Stealing property of the patient	14 (5)	11 (4)
Health care professional-related	177 (64)	173 (62)
Workplace bullying	124 (45)	119 (43)
Alcohol abuse of the staff member	52 (19)	48 (17)
Substance abuse of the staff member	35 (13)	28 (10)
Stealing medicine from the workplace	37 (13)	35 (13)
Stealing property of the workplace	19 (7)	17 (6)
Organisation-related	194 (70)	182 (66)
Scarce human resources	148 (53)	143 (51)
Incompetent personnel	105 (38)	103 (37)
Insufficient work equipment	61 (22)	60 (22)
Other (f.e. data protection offence)	48 (17)	45 (16)

Table 4. Internal and external whistleblowing act, on suspected n = 107 and observed n = 147 wrongdoing

	Whistleblowing act on suspected wrongdoing f (%)	Whistleblowing act on observed wrongdoing f (%)
Internal whistleblowing	104 (97)	138 (94)
Closest manager	81 (76)	111 (76)
Middle management	21 (20)	33 (22)
Higher management	24 (22)	37 (25)
Workplace union representative	11 (10)	29 (20)
Safety representative	12 (11)	31 (21)
Other e.g. occupational health care	25 (23)	29 (20)
External whistleblowing	29 (27)	43 (29)
Media	1 (1)	5 (3)
AVI	5 (5)	9 (6)
Valvira	7 (7)	11 (8)
Union representative	13 (12)	22 (15)
Data Protection Ombudsman	0	0
Parliamentary Ombudsman	1 (1)	2 (1)
Police	5 (5)	9 (6)
Other e.g. patient representative	11 (10)	17 (12)

Table 5. Consequences of whistleblowing act to whistleblower on suspected n = 107 and on observed n = 147 wrongdoing

Consequences	Consequences of whistleblowing act on suspected wrongdoing f (%)	Consequences of whistleblowing act on observed wrongdoing f (%)
Consequences of whistleblowing act	75 (70)	102 (69)
Positive consequences	42 (39)	62 (42)
Private thanking	30 (28)	43 (29)
Private compliments	7 (7)	12 (8)
Public thanking	0	1 (1)
Public compliments	0	1 (1)
Other e.g. support	11 (10)	17 (12)
Negative consequences	49 (46)	63 (43)
Verbal complaint	2 (2)	7 (5)
Written warning	2 (2)	6 (4)
Unpaid leave of absence	0	2 (1)
Transfer into another unit	2 (2)	5 (3)
Bullying	14 (13)	22 (15)
Discrimination by manager	17 (16)	25 (17)
Discrimination by colleagues	12 (11)	19 (13)
Other e.g. firing, criticizing	25 (23)	39 (27)

Table 6. Association of background variables with whistleblowing act on occurring wrongdoing

Background variable		Whistleblowing act on observed wrongdoing f (%)	P-value
Work experience	<10 years	22 (36)	0.009*
	10-19 years	49 (63)	
	20-29 years	37 (61)	
	>30 years	41 (57)	
		Whistleblowing act on suspected wrongdoing f (%)	
Gender	Female	107 (41)	0.017*
	Male	1 (8)	
Management position	Yes	26 (52)	0.046*
	No	83 (37)	

*Pearson Chi Square