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Research Article

Organizational Factors Associated with Regulation Noncompliance in Home Care Services and Service Housing Facilities: An Exploratory Cross-Sectional Study

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Rationale. Recent studies have highlighted organizational issues, work stressors, and moral distress as prevalent problems among staff working within care services for older people, but factors influencing regulatory compliance in care services for older people are currently uncharted. *Aims and Objectives*. The aim of this exploratory study was to investigate how organizational factors, the clinical characteristics of the clients, and perceived organizational factors are associated with staff regulation noncompliance within home care services and service housing facilities. *Methods*. A self-report survey was sent to practical and registered nurses working in home care services and service housing in Finland in October 2021. The sample consisted of 352 home care and 555 service housing staff members. Separate models were calculated for home care services and service housing facilities. The data were analyzed using logistic regression models. CROSS reporting guidelines were followed. *Results*. The results show that in service housing facilities, higher numbers of disruptions, lower team autonomy, and working for a private employer increased the odds of regulation noncompliance. In home care services, higher numbers of visits during a day, higher numbers of disruptions, and lower team autonomy increased the odds of regulation noncompliance, while attending to clients requiring less resources decreased the odds of regulation noncompliance. Perceived lack of time and resources were influential factors in both contexts. *Conclusion*. Allocating more time to attend to tasks, ensuring adequate staffing, as well as supporting team autonomy, may increase regulation compliance within care services for older people.

1. Introduction

As the number of older people is expected to increase, recruiting and retaining staff within care services has become of pivotal importance [1, 2]. However, during the past years, it has been reported that work satisfaction among care staff has been decreasing, with sickness absences and reported work strain and stress increasing [3]. Furthermore, there have been increased concerns related to the workforce shortage of care workers, especially in the long-term care settings, due to the aging of the workforce, poor working conditions, limited training and career development opportunities, high turnover rates, and insufficient social recognition [1, 4]. While many factors associated with work dissatisfaction and workforce shortage among care services for older people are related to organizational factors, studies have also highlighted moral distress and ethical conflicts as a prevalent problem among staff within care services for older people [3, 5, 6].

Regulation has been defined by Selznick as "sustained and focused control exercised by a public agency over activities that are valued by the community" [7]. In healthcare settings, regulations are often formulated for the protection of the clients and to ensure quality of care and are often embedded in local legislature [8, 9]. Regulatory failure, or noncompliance, refers to the violation of the regulations and

may be due to several reasons, such as, but not limited to, the environment and culture of the organization, management practices, and staff characteristics and attitudes [10, 11]. Regulation noncompliance in healthcare settings may contribute to both reduced quality of care and ethical and moral distress for staff members, especially if the reasons for noncompliance are due to structural and/or organizational hinders that inhibit one from working according to either personal ethics or the rules of the organization.

Previous studies on regulatory compliance in the setting of care for older people are few. A study on cutting corners, which refers to deliberate violations or deviations from established rules, norms, or procedures, among nurses working in various healthcare settings showed that cutting corners was described as common practice, often done to manage the workload, or to prioritize the health and well-being of patients in emergency situations [12]. An older study on nurse's aides in the nursing home setting found that nurse's aides often had to increase the efficiency of their work by planning in advance, cut corners due to a lack of time, and break rules to either increase efficiency or enhance perceived quality of care [13]. Furthermore, studies on noncompliance to guidelines within clinical healthcare settings have revealed lack of support from management, poor communication of management, lack of involvement in decision making, lacking resources, ambiguity concerning responsibilities, and hierarchical structures, as described reasons behind noncompliance to guidelines [14, 15].

Previous study has illuminated factors related to working conditions, such as time pressure, stress, and increasing administrative demands as factors that increase occupational stress and result in staff not being able to provide the type of care they would wish to [16]. Research on the concepts of unmet care needs and care poverty, referring to unfulfilled healthcare needs due to socioeconomic and demographic factors or policy-level failure due to lack of resources, has also increasingly emerged during the past decades [17, 18], underlining the significance of organizational factors, understood as factors, processes, or conditions relating to the organization [19], to the quality of care provided. The working conditions in home care services have also recently been described as more hectic, as the number of older people receiving home care services has increased during the past decades in Finland, but the number of staff has not increased equivalently [20]. Despite these significant organizational changes over the years, there has been very limited study into regulatory compliance within care services for older people.

Donabedian describes quality of care as a system of structures, processes, and outcomes [21, 22]. Structures refer to organizational characteristics, such as facilities, financing, and staffing, which are related to, and have influence on, the processes and outcomes [21, 22]. Exploring the relationship between organizational factors, perceived organizational factors, and regulation noncompliance may therefore illuminate potential structural hinders to the actualization of the regulations formulated to ensure quality of care. Exploring the clinical characteristics of clients and the allocated care time in relation to the clients' clinical characteristics may further illuminate if and how the clinical status of clients' is associated with regulation noncompliance, and if the allocated resources are sufficient to address clients' needs in a manner that permits regulatory compliance. Investigation of these factors may illuminate internal hinders to regulatory compliance and assist in the planning and implementation of tasks and work management. Furthermore, supporting regulatory compliance of staff may support staff retention, enhance client safety and care continuity, and improve both the quality of care and the working conditions of staff.

2. Aim and Research Questions

The aim of this exploratory study was to investigate how organizational factors, the clinical characteristics of the clients, and perceived organizational factors are associated with staff regulation noncompliance within home care services and service housing facilities. The research questions were as follows:

(1) How is the number of clients, amount of indirect care time, number of disruptions, clinical complexity of clients, the care time in relation to clinical complexity, team autonomy, and working for a private employer associated with regulation noncompliance of staff working within service housing facilities providing 24-hour assistance?

(2) How is the number of visits, amount of indirect care time, number of disruptions, clinical complexity of clients, the care time in relation to clinical complexity, and team autonomy associated with regulation noncompliance of staff working within home care services?

(3) How is perceived lack of time and resources associated with regulation noncompliance of staff working within service housing facilities providing 24-hour assistance and home care services?

3. Methods

3.1. Design, Sample, and Data Collection. This exploratory cross-sectional survey study is part of the larger research entity Staff Time Measurement study, which explores the time allocation and working conditions of staff working in service housing facilities and home care for older people in Finland [23]. As the topic of noncompliance in the setting of care services for older people is scarcely researched, an exploratory design was implemented. This study was carried out in both service housing facilities providing 24/7 assistance, as well as within home care services. An invitation to participate in the Staff Time Measurement study was sent to 50 service housing and 25 home care service organizations that utilize the Resident Assessment Instrument (RAI) within the organization in different geographical regions in Finland. During the time of the data collection, a staffing level law was in place for service housing facilities, mandating a minimum staff/resident ratio of 0.55 [24]. There were no regulations in place concerning staffing ratios in home care services. Organizations utilizing the RAI

instrument were selected to obtain data on the clinical complexity of the clients. Some organizations declined participation due to COVID-19-related staff shortages. This resulted in a total sample of 44 service housing facilities (consisting of 72 teams) and 17 home care service organizations (consisting of 30 teams) representing several geographical areas in Finland. The inclusion criterion was employment within an organization that participated in the larger study.

The Staff Time Measurement study took place in October 2021 and consisted of three surveys: the Time Measurement Survey, in which the staff listed the duration of tasks during their working day; a Wellbeing Survey that measured staff perceptions regarding wellbeing and work satisfaction; and a Manager Survey, in which managers provided information on organizational factors, such as task planning and autonomy of staff. For the Time Measurement Survey, each respondent listed the duration of different tasks from a list of ready options (e.g., assisting with hygiene, medication, documentation, and travel time). Time allocation was followed during one day in service housing facilities and seven days in home care services. Home care service staff responded to the Wellbeing Survey during the first working day. Each participating organization/unit was provided written instructions, access to a video with information on the survey, and instructions for filling the paper survey. Online training sessions were also arranged for the participating organizations/units. All care staff working in the organizations participating in the Staff Time Measurement study were invited to participate in the Time Measurement Survey and Wellbeing study, and staff were permitted to complete the survey during working hours.

The Wellbeing Survey was an additional survey for the staff of units participating in the Time Measurement study. The Wellbeing Survey consisted of a before part, with questions to be answered before the working shift on when the respondent had their last shift and how they have slept. The after part of the Wellbeing Survey, to be answered after the working shift, consisted of questions about perceptions about the working day.

Each staff member that participated in the study was supplied with an anonymized identification number, and demographic information on the respondents, their clients, and the organization was obtained from the Resident Assessment Instrument (RAI) registries. The RAI registries are maintained by the Finnish Institute for Health and Welfare and consist of data on care services for older people for quality assessment purposes. The RAI registry data were combined with the study data to explore how the clients' clinical characteristics are associated with regulatory compliance. Only registered nurses and practical nurses were selected for the sample of this study. Other staff members were excluded due to the limited amount of time these staff members spend with clients and small sample sizes (<50). This study is reported in compliance with the Consensus-Based Checklist for Reporting of Survey Studies (CROSS) checklist (Supplementary file 1).

3.2. Study Variables. Data from the Time Measurement Survey, the Wellbeing Survey, the Manager Survey, and RAI registry data were utilized for this study. The surveys contained data on time allocation within care services, numbers of clients, staff perceptions of the shift, and team autonomy. The RAI registry contained data on the clinical characteristics of clients the staff had attended to. Amount of indirect care time provided, number of disruptions, the number of different clients attended to by each participant during the shift (in service housing), the number of home visits the participants had during the shift (in home care services), clinical complexity of clients, care time in relation to clinical complexity, team autonomy, and working for a public/private organization (service housing only), perceived lack of time, and perceived lack of resources were included as independent variables to explore the significance of these factors to regulatory compliance. The question related to regulatory compliance from the Wellbeing Survey was included as the dependent variable (Table 1).

3.3. Regulatory Compliance. The question on regulatory compliance was adapted from Rizzo et al.'s role conflict and ambiguity scales [25]. For this study, the question on regulation compliance from the before/after survey ("In some situations I had to violate regulations to get my job done") was dichotomized as the distribution of the responses was skewed. In the dichotomized variable 0 indicated that the staff member perceived that they were able to completely comply to regulations, and 1 indicated that, to different degrees, the staff member perceived that they violated regulations during their working shift. Rizzo et al.'s role conflict and ambiguity scales have shown good validity and reliability, with Cronbach Alpha values between 0.64 and 0.85 [26, 27] and between 0.70 and 0.82 in the Finnish context [28].

3.4. Indirect Care Time. Indirect care time was measured by combining the number of minutes staff reported to have spent doing tasks related to indirect care (defined as work done without the clients present, e.g., documentation at the office, updating care plans). This resulted in a sum score of minutes per day of indirect care allocated by staff. For home care services, where time allocation was followed for seven days, the combined values for seven days were divided by seven, to obtain a mean value for one day.

3.5. Number of Disruptions. Number of disruptions was measured by having the staff mark if disruptions (such as sudden emergencies and unexpected events) occurred during their working shift. The total number of disruptions was then converted into a variable to indicate the number of disruptions during one working day.

3.6. Number of Clients/Number of Visits. Due to contextual differences between home care services and service housing facilities, the number of unique clients was added as an independent variable in service housing facilities, while in

Table 1: Overview of variables utilized in this study.

Variable	Source	Scoring	Total range
Regulatory compliance	Wellbeing survey—item from Rizzo et al.'s role conflict and ambiguity scales: "In some situations I had to violate regulations to get my job done"	Likert scale 1–5. 1 indicated disagreement and 5 indicated full agreement with the statement. For this study dichotomized; did not violate against regulations (1 "never") and did violate against regulations (2 to 5)	0 (no violation) to 1 (violated against regulations)
Indirect care time	Time Measurement Survey	Time measured in minutes	0–255
Number of disruptions	Wellbeing Survey	Total count of disruptions	0–20
Number of clients/number of visits	Time Measurement Survey	Total count of clients/visits during one working day	Service housing 0–20 Home care 0–24
Clinical complexity of clients	RAI registry Case Mix Index (CMI)	The CMI baseline is 1, with values exceeding 1 indicating clients requiring more resources, and values under 1 indicating clients requiring less resources	Home care 0.792 to 3.046 Service housing 0.682–1.178
Care time in relation to the clinical complexity of clients	RAI registry(CMI) + direct care time (Time Measurement Survey)	Measured by subtracting the amount of care time reported in the staff time measurement from the clients CMI group	−2.269–3.852
Team autonomy	Manager survey—seven items related to team autonomy	Likert scale 1–4. 1 indicating "not at all" and 4 "the team can decide fully independently"	1 to 4
Working for a public/private organization	RAI registries. Only for service housing facilities	Private/public	Private/public
Perceived lack of time	Wellbeing Survey—item from Rizzo et al.'s role conflict and ambiguity scales. "Lack of time to do job properly"	Likert scale 1–5. 1 indicated disagreement and 5 indicated full agreement with the statement	1 to 5
Perceived lack of resources	Wellbeing Survey—item from Rizzo et al.'s role conflict and ambiguity scales. "Assigned tasks without being provided the tools and/or resources to complete the tasks"	Likert scale 1–5. 1 indicated disagreement and 5 indicated full agreement with the statement	1 to 5

home care services the number of visits was added as independent variable, as the staff member in home care services may visit the same client multiple times during one shift.

3.7. Clinical Complexity of Clients. The clinical complexity of clients was measured using The Case Mix Index (CMI). The CMI is a value indicating the required resources and clinical complexity of clients based on clinical diagnostic groups [29]. To calculate the CMI, clients are grouped based on diagnoses, needs, and functional status. The mean of required resources for those in each clinical group is calculated and weighted, resulting in a value indicating the mean total of resources and care time an individual requires within a certain clinical group. The baseline value for the CMI is 1, with values exceeding 1 indicating clients requiring more resources, and values under 1 indicating clients requiring less resources. Previous study has indicated that the CMI often is between 1 and 2 [30]. Each clinical diagnostic group also has its own baseline value, indicating the resources the clients require in relation to the mean within the clinical diagnostic group. Therefore, each diagnostic group indicates the resources the clients require in relation to all the clients, as well as in relation to others within the same diagnostic group [29]. For this study, separate context-specific weights have been calculated for both home care services and service housing facilities, with data derived from RAI assessments used to calculate diagnostic groups. The diagnostic groups were defined using the Finnish Resource Utilization Group (RUG-III/18) classification system. The mean CMI of the clients the staff member attended to was calculated for each staff member.

3.8. Care Time in Relation to the Clinical Complexity of Clients. Care time in relation to the clinical complexity of clients was measured by subtracting the amount of care time reported in the staff time measurement from the clients' CMI group. This resulted in a variable indicating if the clients' care time was above or below the mean for the clients' CMI group, indicating if the staff were able to provide above or below the mean care time in relation to the clients' clinical complexity.

3.8.1. Team Autonomy. Team autonomy was measured by combining seven items from the Manager Survey and calculating the mean value (Cronbach's Alpha 0.76). These seven items were questions related to whether staff was able to decide independently within their team about their work planning, client visits, recruitment, use of substitute workers, working methods, care of clients, and participation in education to promote professional competence. The questions were scored on a 1- to 4-point Likert scale, with 1 indicating "not at all" to 4 "the team can decide fully independently."

3.8.2. Working for a Public/Private Organization. The variable working for a public/private organization was only included in models concerning service housing facilities, as all included home care organizations were public.

3.8.3. Perceived Lack of Time and Perceived Lack of Resources. Perceived lack of time and perceived lack of resources were measured by asking respondents after their working day if they felt they had a lack of time to do their job properly, and if they felt they were assigned tasks without being provided the tools and/or resources to complete the tasks. These questions were adapted from the Harris Nurse Stress Index and Rizzo et al.'s rule conflict and ambiguity scales [25, 31]. The questions were scored on a 1- to 5-point Likert scale: 1 indicated disagreement and 5 indicated full agreement with the statement.

3.9. Statistical Analysis. Descriptive statistics were utilized to explore the data and describe the demographic data. To explore associations between the dependent and independent variables, correlations, chi-square tests, and independent sample *t*-tests were utilized. To explore the potentially nested nature of the data, mixed-effects regression models were performed to explore how belonging to specific organizations and teams is associated with responses. These analyses showed intraclass correlation values of <0.03 for home care services and <0.10 for service housing, indicating high individual variability within groups [32]. Therefore, logistic regression models with the dependent variable regulatory compliance and the independent variables clinical complexity of clients, number of clients/visits (service housing/home care), indirect care time, number of disruptions, care time in relation to clinical complexity, and working for a private employer (only service housing) were performed to explore factors that are associated with regulation noncompliance. To explore how perceived factors are associated with regulatory compliance, separate models were performed including the variables listed above and adding the variables perceived lack of time and perceived lack of resources. Models were calculated for both service housing facilities and home care services separately.

The linearity of the continuous variables with respect to the logit of the dependent variable was assessed using the Box-Tidwell procedure. The continuous independent variables were found to be linearly related to the logit of the dependent variable. Goodness of fit of the logistic regression model was assessed using the Hosmer–Lemeshow test ($p \geq 0.05$). Standardized residuals were examined to identify potentially influential outliers. The percentages of item-level missing values varied from 1.3%–5.6%. The team autonomy scale had 7.3% missing values; this may be due to the smaller sample size, as these data were provided by the managers of the participating units ($n = 17$). No imputations were done to the data. A reference population of 47,000, based on the total number of staff working daily in home care services/nursing homes in Finland, was used to calculate the sample size. The power level for this study was set to be 95% with a 0.05 significance level, resulting in a minimum required sample size of 385. Statistical significance was defined as $p < 0.05$. SPSS version 29 was used for the statistical analyses.

3.10. Ethical Considerations. The study was approved by the Finnish Institute for Health and Welfare Ethical Review Board (THL/1447/6.02.01/2021). All participants were

informed of their rights; that participation in the study is voluntary and that they may withdraw their participation at any time without justification or consequences. The data have been stored in compliance with data regulations, and the study was conducted according to the ethical principles of the Declaration of Helsinki [33].

4. Results

4.1. Demographic Data. The response rate for the Wellbeing Survey was 90.1%. The total sample of this study consisted of 907 respondents. Of these respondents, 352 worked in home care services: 50 were registered nurses and 302 practical nurses. The mean age of those working in home care services was 43.2, and 92.3% of respondents were female. Of those working in home care services, 24.4% reported that in some situations, they violated regulations to get their job done.

Of the total study sample, 555 respondents worked in service housing facilities: 89 were registered nurses and 466 practical nurses. The mean age of those working in service housing facilities was 44.6, and 92.6% of respondents were females. Of those working in home care services, 25.9% reported that in some situations, they violated regulations to get their job done. Furthermore, information may be found in Table 2.

4.1.1. Variables Explaining Regulatory Compliance in Service Housing Facilities. Regression model 1 was performed to explore how number of clients, amount of indirect care time, number of disruptions, clinical complexity of clients, the care time in relation to clinical complexity, team autonomy, and working for a private employer are associated with regulatory compliance in service housing facilities. The full model containing seven independent variables was statistically significant χ^2 $(7,\ N = 555 = 27.309,\ p < 0.001)$, indicating that the model was able to distinguish between those who had not complied to regulations and those who had. Three variables made a statistically significant contribution to the model: number of disruptions, team autonomy, and working for a private employer. The odds ratios indicate that a higher numbers of disruptions, lower team autonomy, and working for a private employer increase the odds of regulation noncompliance in service housing facilities.

For regression model 2, perceived lack of time and perceived lack of resources were added to regression model 1. The full model containing nine independent variables was statistically significant χ^2 $(9,\ N = 555 = 180.135,\ p \leq 0.001)$. Two variables made a statistically significant contribution to the model: perceived lack of time and perceived lack of resources. The odds ratios indicate that higher perceived lack of time and higher perceived lack of resources increases the odds of regulation noncompliance in service housing facilities (Table 3).

4.2. Variables Explaining Regulatory Compliance in Home Care Services. Regression model 3 was performed to explore how number of visits, amount of indirect care time, number of disruptions, clinical complexity of clients, the care time in relation to clinical complexity, and team autonomy are associated with regulatory compliance in home care services. The full model containing six independent variables was statistically significant χ^2 $(6,\ N = 352 = 23.469,\ p \leq 0.001)$. Four variables made a statistically significant contribution to the model: number of visits, clinical complexity of clients, number of disruptions, and team autonomy. The odds ratios indicate that higher numbers of visits during a day, higher numbers of disruptions, and lower team autonomy increased the odds of regulation noncompliance, while attending to clients requiring less resources decreased the odds of regulation noncompliance in home care services.

For regression model 4, perceived lack of time and perceived lack of resources were added to regression model 3. The full model containing seven independent variables was statistically significant χ^2 $(7,\ N = 352 = 27.309,\ p \leq 0.001)$. Three variables made a statistically significant contribution to the model: clinical complexity of clients, perceived lack of time, and perceived lack of resources. The odds ratios indicate that caring for clients requiring less resources decreased regulation noncompliance, while higher amounts of perceived lack of time and higher amounts of perceived lack of resources increased the odds of regulation noncompliance in home care services (Table 4).

5. Discussion

The aim of this study was to investigate how organizational factors, the clinical characteristics of the clients, and perceived organizational factors are associated with regulation noncompliance within home care services and service housing facilities. In service housing facilities, higher numbers of disruptions, lower team autonomy, and working for a private employer increased the odds of regulation noncompliance. In home care services, higher numbers of visits during a day, higher numbers of disruptions, and lower team autonomy increased the odds of regulation noncompliance, while attending to clients requiring less resources decreased the odds of regulation noncompliance. Perceived lack of time and resources increased odds of regulation noncompliance in both service housing facilities and home care services.

In service housing facilities, working for a private employer increased the odds of regulation noncompliance; however, previous investigation on differences between private and public sector care of older people in Finland showed better staffing, higher client satisfaction, and shorter intervals between meals in private care services [34], indicating that further research is needed to identify factors and reasons for differences between private/public sector facilities. Interestingly, the clinical complexity of clients and the care time in relation to clinical complexity showed no statistical significance to regulation noncompliance in service housing facilities, while the *perception* of lack of time and resources was significant. Care time in relation to clinical complexity only indicates if clients receive the clinically required time for care, and does not take into consideration, for example, the psycho-social aspects of care.

Table 2: Characteristics of the sample.

	Service housing facilities		Home care services	
	n (%)	Mean (SD)	*n* (%)	Mean (SD)
Registered nurses	89 (16.0)		50 (14.2)	
Practical nurses	466 (84.0)		302 (85.8)	
Female	514 (92.6)		325 (92.3)	
Male	36 (6.5)		24 (6.8)	
Age		44.60 (12.99)		43.18 (12.85)
Years of employment		8.92 (8.98)		8.57 (9.28)
Permanent contract	433 (77.9)		294 (84.0)	
Fixed-term contract	103 (18.6)		56 (16.0)	
Works in the public sector	367 (66.1)		352 (100.0)	
Works in the private sector	188 (33.9)			
Number of clients/visits		9.66 (5.38)		7.11 (3.59)
Number of disruptions		1.13 (2.17)		1.10 (1.84)
Clinical complexity of clients		1.02 (0.07)		1.11 (0.27)
Care time in relation to clinical complexity		0.17 (0.31)		0.43 (0.74)
Indirect care time		13.43 (26.84)		11.44 (34.24)
Perceived lack of time		2.35 (1.24)		2.17 (1.21)
Perceived lack of resources		1.74 (1.13)		1.71 (1.09)
Team autonomy		2.81 (0.30)		2.77 (0.41)
In some situations, violated regulations	144 (25.9)		86 (24.4)	
Did not violate regulations	411 (74.1)		266 (75.6)	

Therefore, although clients may receive a clinically adequate amount of time, this time may differ from what is perceived as an appropriate amount of care time. These results align with previous studies indicating lack of resources leading to care poverty [17, 18], and raise questions as to if the amount of time allocated for care is currently enough to provide care that is perceived as sufficient. It is possible that regulation noncompliance in service housing facilities may be due to a lack of resources and opportunities to work in a way that facilitates both the opportunity to comply to professional and personal moral codes, and the regulations of the organizations.

In home care services, the clinical complexity of clients showed a statistically significant, negative, contribution to the model. This result indicates that caring for clients, requiring less resources decreases the odds of regulation noncompliance in home care services. This may be due to the limited amounts of time home care services have to attend to those requiring more resources, as a previous study on the same sample showed that clients with higher levels of ADL receive almost half the amount of care time in home care services, compared to clients with similar levels of ADL in service housing facilities [23]. It is possible that due to time restraints, home care staff may need to cut corners and violate regulations when attending to clients with higher care needs, especially as higher numbers of visits were also significantly associated with regulation noncompliance. These results may also, to some extent, be due to lower staffing levels in home care services, as there are no regulations concerning minimum staffing in home care services, as there are in service housing facilities in Finland [24]. It is also possible there is not enough staff to assist in, for example, lifting or moving clinically complex home care clients, resulting in regulation noncompliance. Previous study on nurses' aides has shown that cutting corners and breaking rules were practices done out of necessity due to time restraints, and in some cases planned so that the minimum amount of harm was caused [13]. However, further studies are needed to explore this topic, as regulations are enforced to assure client safety and quality of care [8], and noncompliance may result in reduced quality of care and even potential harm for clients. Especially, as older people in need of care may not have sufficient capabilities to report misconduct, staff themselves are often required to report misconduct [35], and as the severity of the consequences of noncompliance may vary [13], the extent and effects of regulation noncompliance within care services for older people require further investigation.

Lower team autonomy increased the odds of regulation noncompliance in both service housing facilities and home care services. Previous study on team autonomy in care services has found that team autonomy is associated with higher staff satisfaction [36, 37] implying that supporting team autonomy may both enhance work satisfaction and facilitate opportunities to regulatory compliance. Disturbances were also significantly associated with regulation noncompliance in both contexts, indicating that better planning for unexpected events may increase regulatory compliance. Although disturbances were not further defined in this study, the mean number of disturbances was one in both home care services and service housing, indicating disturbances to be somewhat commonplace. Therefore, further study should explore what type of disturbances takes place and explore if disturbances could be reduced with better management or increased staffing.

The results of this study indicate that it is possible that staff members may perceive and/or experience the regulations of the organization as unattainable and therefore feel a need to prioritize tasks. A previous study found that the way in which nurses' aides organize their work was

Table 3: Results of logistic regression models—variables explaining regulation noncompliance in service housing facilities.

	Model 1[a]								Model 2[b]							
	B	S.E	Wald	df	*p*	Odds ratio	95% C.I for odds ratio		B	S.E	Wald	df	*p*	Odds ratio	95% C.I for odds ratio	
							Lower	Upper							Lower	Upper
Clinical complexity of clients	0.703	1.426	0.243	1	0.622	2.020	0.124	33.031	−0.024	1.791	0.000	1	0.989	0.976	0.029	32.670
Number of clients	−0.006	0.017	0.140	1	0.708	0.994	0.961	1.027	−0.007	0.021	0.107	1	0.743	0.993	0.954	1.034
Indirect care time	0.002	0.003	0.286	1	0.593	1.002	0.995	1.008	0.001	0.004	0.021	1	0.885	1.001	0.992	1.009
Number of disruptions	0.110	0.047	5.531	1	0.019	1.116	1.019	1.224	0.022	0.055	0.157	1	0.692	1.022	0.917	1.139
Care time in relation to clinical complexity	−0.107	0.346	0.096	1	0.757	0.898	0.456	1.769	−0.387	0.437	0.783	1	0.376	0.679	0.288	1.600
Team autonomy	−0.891	0.341	6.814	1	0.009	0.410	0.210	0.801	−0.752	0.421	3.192	1	0.074	0.472	0.207	1.076
Private employer	−0.717	0.230	9.729	1	0.002	0.488	0.311	0.766	−0.492	0.276	3.184	1	0.074	0.611	0.356	1.050
Perceived lack of time									0.542	0.102	28.337	1	<0.001	1.719	1.408	2.099
Perceived lack of resources									0.812	0.103	61.734	1	<0.001	2.252	1.839	2.758
Constant	0.830	2.002	0.172	1	0.678	2.293			−1.179	2.535	0.493	1	0.483	0.169		

[a]Model 1: Cox and Snell $R^2 = 4.4\%$ and Nagelkerke $R^2 = 6.5\%$. [b]Model 2: Cox and Snell $R^2 = 26.3\%$ and Nagelkerke $R^2 = 39.1\%$.

Table 4: Results of logistic regression models—variables explaining regulation noncompliance in home care services.

	Model 1[a]								Model 2[b]							
	B	S.E	Wald	df	*p*	Odds ratio	95% C.I for odds ratio		B	S.E	Wald	df	*p*	Odds ratio	95% C.I for odds ratio	
							Lower	Upper							Lower	Upper
Clinical complexity of clients	−1.865	0.764	5.960	1	0.015	0.155	0.035	0.692	−2.138	0.813	6.922	1	0.009	0.118	0.024	0.580
Number of visits	0.101	0.033	9.623	1	0.002	1.106	1.038	1.179	0.051	0.037	1.896	1	0.169	1.053	0.979	1.132
Indirect care time	−0.008	0.006	1.461	1	0.227	0.993	0.980	1.005	−0.011	0.007	2.769	1	0.096	0.989	0.976	1.002
Number of disruptions	0.178	0.084	4.469	1	0.035	1.195	1.013	1.409	0.146	0.101	2.086	1	0.149	1.157	0.949	1.410
Care time in relation to clinical complexity	0.250	0.203	1.523	1	0.217	1.284	0.863	1.911	0.124	0.256	0.233	1	0.629	1.132	0.685	1.869
Team autonomy	−0.687	0.345	0.3.981	1	0.046	0.503	0.256	0.988	−0.424	0.407	1.082	1	0.298	0.655	0.295	1.454
Perceived lack of time									0.516	0.164	9.937	1	0.002	1.676	1.216	2.311
Perceived lack of resources									0.896	0.171	27.336	1	<0.001	2.449	1.751	3.426
Constant	1.384	1.349	1.052	1	0.305	3.989			−1.430	1.538	0.865	1	0.352	0.239		

[a]Model 1: Cox and Snell $R^2 = 6.9\%$ and Nagelkerke $R^2 = 10.7\%$. [b]Model 2: Cox and Snell $R^2 = 27.6\%$ and Nagelkerke $R^2 = 42.7\%$.

a determinant of both quality of care and staff turnover; those staff members that did not adapt their work according to the working conditions, risked repercussions for the patients and other staff members, such as patients being unattended or partially assisted, and staff members that did not, or could not, increase their efficiency or felt the care provided was unacceptable were more likely to resign [13]. It should therefore be noted that prioritization may result in varying levels of experienced distress upon noncompliance. For instance, if prioritization is done for the good of the clients, it is possible that this action may to some level alleviate moral distress, rather than contribute to it. It should also be noted that within this study, regulations were not further defined, and therefore, these results represent the participants' subjective understandings. It is possible that the severity of noncompliance differs and may therefore result in varying consequences for the clients. It is therefore paramount to further explore the consequences of regulation noncompliance to clients, especially as previous studies have indicated unmet needs among older people receiving care services [17, 18] and less favorable working environments being associated with rushed or missed care tasks [38]. These results raise questions as to how to ensure quality of care, of which regulatory compliance is a pivotal part, as resources for care of older people have reduced [39, 40]. While regulation noncompliance behaviors of staff may both compromise the quality of care and be a significant work stressor, both being factors that require further study, the results of this exploratory study revealed organizational factors, which may be addressed to promote regulatory compliance within care services for older people.

The results of this study imply that increasing resources and time to attend to tasks and clients may increase possibilities to regulatory compliance, ultimately improving the quality of care. It may also be beneficial to support team autonomy and planning for unexpected events. Team autonomy may also increase efficiency in two ways: if the teams have reasonable number of clients, the employees get to know clients and their needs and habits, which makes the work easier and effective. Secondly, when teams are able to plan their work more autonomously, they can better adapt their visits to the needs of clients. It seems more resources need to be allocated from the policy level to the organizational level, to ensure adequate staffing and time for staff to perform tasks. It also seems staff may not be able to provide care that is *perceived* as sufficient with current resources, which may influence levels of experienced stress. Furthermore, qualitative and quantitative studies on regulation noncompliance are needed to better understand the multifaceted reasons behind, and consequences of, regulation noncompliance in care services. Specifically, future research should explore in which situations staff engage in regulation noncompliance behaviors, and how regulatory noncompliance is associated with quality of care, experienced moral distress, stress, and work satisfaction among care staff. Furthermore, the relationship between team autonomy and regulatory compliance warrants further investigation. The results of this study may be utilized to inform stakeholders of the factors currently influencing regulatory compliance and assist in planning interventions. Interventions to reduce regulation noncompliance may not only contribute to increased quality of care, but also assist in ensuring staff retention and satisfaction.

5.1. Limitations. As the study data were collected as self-report surveys, it is possible that the subjective nature of the data may influence the results and that the actual amount of care time provided varies from that reported here. As the study was voluntary for organizations, the units that decided to participate in the study may be those with overall better resources. The facilities with lower quality of care or more negative work environments may have not participated in the study. Thus, we cannot fully say that the study represents the Finnish services for older people. These results may therefore be mainly representative of organizations with better staffing situations and/or with management supportive of development and research. The subjective nature of the question relating to regulation noncompliance may also influence the results, as no exact definition for regulatory noncompliance was provided. As in all self-report surveys, this may result in varying responses [41], and no direct conclusions can be drawn as to the severity or consequences of the exhibited noncompliance, as the nature of the transgressions may vary. It is also possible that in self-reports, employees answer what is expected to be suitable. On the other hand, the anonymous answering may relieve this tendency. Finally, as regulation noncompliance may be viewed as a controversial action, it is possible that the responses reflect socially desirable answers [42]. This may have resulted in an underestimate of the number of staff that violated regulations. However, this exploratory study offers insight into a topic that has been scarcely researched, providing current and important knowledge on regulation noncompliance within care services for older people.

6. Conclusion

The results of this study imply that regulation noncompliance in service housing facilities may be due to staff cutting corners or prioritizing to be able to provide care that is *perceived* as sufficient. In home care services, staff may need to violate against regulations, especially when attending to clients with higher care needs, due to a lack of time or resources. Supporting team autonomy, as well as ensuring adequate staffing and time to attend to tasks, may help ensure regulatory compliance.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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Supplementary Materials

Supplementary file 1: Checklist for Reporting of Survey Studies (CROSS). (*Supplementary Materials*)

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