Lead Public Health Service Dentists in Finland: Leaders or Dentists?

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Abstract

Aim: To survey the leadership roles of the Finnish Public Dental Service (PDS) lead dentists in a changing oral health care environment. ***Methods:*** Data were collected using an Internet questionnaire from lead PDS dentists (total N=265) on the following: how dentists became leaders in the PDS, what motivated them, their leadership styles and work well-being, whether they were primarily "leaders" or "dentists", and their perceptions of their decision-making power in the municipal health care organisation. Factor analysis, chi-square and non-parametric tests were used to analyse the data gathered. ***Results:*** The response rate was 73%. Only 32% of the respondents had applied for a leading position in the PDS. The remainder had been asked or were "forced" to take it. A third (35%) were formally qualified for the post (i.e., had specialist education in dental public health). Most lead dentists (90%) had to treat patients in addition to working as leaders. Most lead dentists (66%) had good leadership motivation and appreciated the mental reward of being a lead dentist. As regards leadership styles, 88% felt that they were good people-oriented leaders and 61% good goal-oriented managers. Slightly more than half of the lead dentists (59%) could be identified primarily as leaders and 41% primarily as dentists. Lead dentists considered that, in general, their power in municipal decision-making was weak. ***Conclusions:*** Being a lead dentist in the PDS was *not* a highly desired part-time job in comparison with clinical work. Lead dentists had many of the same problems that studies on lead doctors' roles have shown.

Key Words: Lead Dentists, Public Dental Service, Leadership Styles, Work Well-Being, Power Position

Introduction

In Finland, oral health services are provided both by the public and private sectors. Public services are offered throughout the country and private services are more concentrated in the densely populated areas. Prior to 2002, mainly children, younger adults (born in 1956 and later), and some special-needs groups were officially entitled to care in the public sector. Alternatively, when using private care, they were entitled to reimbursement from the National Insurance Institute of payments for basic treatments. Older adults were expected to use private dentists or denturists and to pay for the entire cost of treatment themselves. In 2001-2002, the dental care provision system was reformed and the age limits restricting adults' use of the Finnish Public Dental Service (PDS) and reimbursement of private dental care were abolished, as a result of political pressures from the no longer edentulous older adults, who now had greater treatment needs than the previous generation [1,2]. As expected, the reform led to increased demand for oral health care by adults, especially in the PDS, where care was less expensive than in the private sector, even after reimbursements. Long waiting lists for the PDS emerged, especially in towns and cities, which before the reform had heavily restricted adults' access to the PDS [3]. Before the reform, local municipalities had been able to define rather independently the adult age groups to which they would offer dental care. In practice, in sparsely populated, rural municipalities the whole population could use public dental services, whereas in bigger cities, with high numbers of private practitioners, care for adults within the PDS was restricted to younger age groups than the official statutes stipulated. These reforms have been shown to be demanding for workers in the PDS [4,5]. Thus, the lead dentists who were in charge of the municipal health centres' dental clinics (PDS) faced a challenging situation when they had to implement the national dental care reform [6].

An earlier paper [7] reported that most of the lead dentists (72%) and their superiors, the munic-

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ipal leading doctors (72%), considered the lead dentists to be *good bosses*, but less than half of the dentists (46%) who worked in the PDS considered their superiors (the lead dentists) to be *good bosses.* Lead dentists were thought to be better bosses in small than in large health centres, where the reform caused bigger changes in public dentists' work and made leadership more challenging. This paper investigates the lead dentists' roles and perceived success as leaders in greater detail.

The World Health Organization (WHO) defines leadership in health care as a skill to secure the active support of employees to the valuable goals of the organisation [8]. Public systems for the provision of oral health care are rare [9-11] and they pose different leadership questions to those posed in private practice-based care provision models. In an earlier study, it was found that the PDS in Finland worked in great isolation from the general public health care in the municipalities [12]. In all Nordic countries, the chief dental managers and lead dentists have an important position in the PDS [13-15]. Leadership in the public primary health care in Finland has been criticised as weak and the need for revised work descriptions and education for leaders in these organisations has been proposed [16,17]. Recently, a few interesting studies have been published on leading doctors' roles and role conflicts in Finnish hospitals, where management and leadership have become more and more challenging because of economic and political changes in the working environment [18-20]. These studies showed, among other things, that the nature of the leadership work was unclear, badly organised, and poorly appreciated.

Aim

The aim of this study was to examine the managerial and leadership roles of the PDS lead dentists in a changing oral health care environment. Its objectives were to survey in detail how dentists became leaders in the PDS, what motivated them, their leadership styles and work well-being, whether they could be identified as primarily "leaders" or as "dentists", and, finally, their perceptions of their decision-making power in the organisation of municipal health care.

Methods

The views of the lead dentists in municipal PDS clinics on their leadership abilities were investigated using an Internet questionnaire designed for this purpose. It was based on previous studies of Finnish primary care and consisted of 124 questions in Finnish. The core questions used in this study considered application and education for a leadership position, time to lead, leadership tasks, leadership motivation/styles/roles, position in the municipal administrative hierarchy, and some background information *(Table 1).* Both closed and open questions were used. Four options were given for answering closed questions and statements. Two were positive and two negative. No neutral answer ("can't say") was possible. In the text, answers 1-2 on the scale of 1-4 were negative and usually described as low, small or bad. Answers 3-4, on the same scale, were positive and described as high, great or good. A detailed description of the methods used is given in a previous paper [7].

Answers were entered into Microsoft Excel spreadsheets (Microsoft Corporation, Redmond, USA), and PASW Statistics 15 and 18 (SPSS Inc, Chicago, USA) were used to analyse the data. For analysis, both separate variables and sums of variables were used. Sums of variables were formed by factor analysis (method: maximum likelihood, rotation: varimax) on a case-by-case basis and by using the mean function of SPSS. The reliability of sum variables was assessed using Cronbach's coefficient alpha, which is the more reliable the nearer it is to one on a scale 0-1. In the text, sum variables have been written in *italics (Table 1).* All respondents did not answer all questions and thus the n-values vary slightly in the analyses. Where applicable, chi-square and non-parametric tests were used [7]. Health centres were classified as either small (serving fewer than 20,000 inhabitants) or large (serving 20,000 inhabitants or more).

Results

The questionnaires were answered by 194 (73% of the original sample of 265) lead dentists. Lead dentists were divided evenly by gender (96/96), and there were also equal numbers of those under and over 50 years of age (96/96). Most (138; 71%) worked in small health centres that served fewer than 20,000 inhabitants.

Becoming a leader in the PDS

Of the 178 respondents who answered the question, 57 (32%) had applied for a position as a lead dentist in the PDS, whereas the remaining 121 (68%), a statistically very significant difference ($P<0.001$), had been asked or "forced" to take the position because there were few or no alternatives. The pro-

Table 1. *Summation of factors from the questions in the questionnaires into characteristics*

1. From questions on qualities of leadership (constructed using factor analysis)
Goal-oriented manager (Cr. alpha=0.856): summation of innovative; convincing; purposeful/persistent; passive/indolent (as negative); unsure (as negative) *(Figure 2).*

People-oriented leader (Cr. alpha=0.813): summation of negotiating; just; empathetic/emotionally intelligent; reliable; authoritative (as negative) *(Figure 2).*

Weak and/or good managers and leaders: 4-step sum variable was formed of managers and leaders where as-good-ones were classified in the uppermost quartiles and as-weak-ones in the three lower quartiles = weak manager and leader, good manager but weak leader, good leader but weak manager, good leader and manager *(Table 2).*

2. From questions on enjoyment of work, satisfaction with leadership, the following sum variables were constructed using factor analysis *(Table 1, Figures 1* and *2)*

Work well-being (Cr. alpha 0.705): my own work well-being as school grades; I withstand stress and criticism; I have energy to learn new things; it is difficult to match working life with private life (as negative); I often feel exhausted because of work (as negative); work atmosphere is good.

Self-esteem (Cr. alpha 0.823): I feel that I succeed as a leader (as a dentist); I feel that I am esteemed as a leader (as a dentist).

Mental reward (Cr. alpha 0.652): challenge; creativity; independence of the present work; possibility to influence the future of dental care; teamwork or acting among the people; value of work to the society and fellow-men.

Material reward (Cr. alpha 0.443): Good salary; possibility to work day-time; possibility to maintain clinical skills.

Work control (Cr. alpha 0.553): I have enough time to lead; I have to do too much clinical work (as negative); I have to do too many items of secretarial work (as negative).

Positive attitude to change (Cr. alpha 0.613): positive attitude to the change of National Health Act; before that, positive attitude to the dental care of adults; dental care of adults is good; division of labour is sensible; individual time between dental examinations is sensible; change of Health Insurance Act is the most important (as negative); I am fear deterioration of children's dental health (as negative); has not been enough attention drawn to dental care of the people of working age; was high time for working age group to get public dental services.

Leadership motivation (Cr. alpha 0.746): I am motivated to lead; leading the change is an interesting challenge; I am only a dentist among the other dentists (as negative); I would rather be a clinician than a leader (as negative); sometimes you have to act against the opinion of the staff; to avoid conflicts, it is better to act as always acted previously (as negative).

3. Variables connecting identification and a position or role as leaders or dentists Formed from the sum variable *leadership motivation: identification as a dentist* $1 \leq 2$, 99; *identification as a leader* ≥ 3 (on a scale 1-4) *(Figure 3).*

Position as a superior (Cr. alpha 0.409): Subordinates understand the goals imposed by management; I know expectations of my subordinates towards my leadership; my position is conflicting with expectations of subordinates towards my leadership (as negative) *(Figure 3).*

Position as a subordinate (Cr. alpha 0.594): The goals imposed by the uppermost political management are clear; I know the expectations of the uppermost management towards my leadership.

Difficulties in implementation of the reform (Cr. Alpha 0.782) ($1<1.5$, $2>1.5$ on the scale 1-2): The change has had a great influence on the breadth of dental care; demand exceeds supply of services; special arrangements have been necessary; prioritising of services has been necessary; change resistance has been encountered.

Decision-making power (Cr. alpha 0.650): I feel my position conflicts with the goals imposed by the uppermost political management (as negative); members of health board seldom or never make decisions against my opinion; I have enough independent power to make decisions; I have more responsibility than power (as negative); *(Figure 3).*

Management by objectives (Cr. alpha 0.368): Subordinates know the goals imposed by the uppermost political management to the dental care; I know my subordinates' expectations towards my leadership.

Consequences of change (Cr. alpha 0.778) ($1<1.5$, $2=1.5$ on the scale 1-2)*:* The change has had a great influence on the breath of dental care; demand exceeds the supply of services; special arrangement have been needed; prioritising of services has been needed; change-resistance encountered.

portion of lead dentists having applied for the position was significantly greater in large health centres (34; 66%) than in small ones (24; 19%), again a statistically very significant difference ($P<0.001$). A smaller number (40; 22%) of the lead dentists were specialists in dental public health and, in addition, 15 of them had further education in administration leading to a degree in "administrative competence". Of the non-specialised lead dentists, 24 had this degree. In addition, 14 lead dentists were specialists in other domains and 10 had a PhD. In total, 64 (35%) of the lead dentists could be considered to be formally qualified to fill leading posts.

Half of the lead dentists (87; 49%) felt that they had had enough leadership education, 75 (42%) that they had had too little, and 17 (9%) that they had had no leadership education at all. In small health centres (n=129), the corresponding figures were 55 (43%), 59 (46%), and 15 (11%), and in large ones (n=50), 32 (64%), 16 (32%), and 2 (4%), a statistically significant difference ($P<0.05$). In their open comments, 110 (61%) respondents reported that they were in need of further education, especially in personnel administration, financial management, jurisprudence, and database management. Of these, 13 were specialists in dental public health and also had the formal "administrative competency", and a further 14 had one of the aforementioned educational qualifications. A smaller number (17) of the respondents wished to participate in a recently formalised complementary education for lead dentists, organised and certified by the Finnish Dental Association.

Most respondents (133; 74%) felt that career development was not at all important or only of little importance for them and 46 (26%) felt that it was rather or very important.

Time to lead

Only 17 (10%) of the 176 respondents were full-time leaders and did not work with patients. They all worked in large health centres. They spent 21 (61%) of their on average 34 weekly working hours (normal working hours are 37 hours a week, some worked part-time) on management by objectives, 13 hours (37%) on personnel administration and 0.5 hours (21%) on miscellaneous tasks. The remaining lead dentists estimated that they used 24 hours (66%) of their on average 36 working hours on clinical work with patients, seven hours (19%) on management, three hours (9%) on personnel administration and two hours (5%) on miscellaneous tasks.

Leadership motivation

Slightly more than half (106; 59%) of the lead dentists thought that their *leadership motivation* was rather or very good (≥3). As shown in *Table 2,* the respondents were more often well motivated in their work as leaders when they had applied for the leading post, had had enough leadership education, or when they worked in large health centres.

Table 2. *Distributions of sum variables connecting lead dentists' leadership motivation and work well-being in regard to applying for a position as lead dentists, leadership education and size of the health centre*

Dependent variables	Applied for a position as a lead dentist		Leadership education		Size (inhabitants) of the health centre	
	No n=120-121	Yes n=57	Too little n=91-92	Enough n=87	<20,000 n=129-138	≥20,000 n=50-56
Leadership motivation	***57/120 (48%)	***49/57 (86%)	**47/91 (52%)	**58/87 (67%)	***61/129 (47%)	***45/50 (90%)
Mental reward	**101/121 (83%)	**54/57 (95%)	ns.	ns.	**110/130 (85%)	**47/50 (94%)
Material reward	***93/121 (77%)	***32/57 (56%)	ns.	ns.	***106/130 (82%)	***20/50 (40%)
Self-esteem	***77/120 (64%)	***51/57 (89%)	**56/91 (62%)	**74/87 (85%)	**86/129 (67%)	**44/50 (88%)
Work well-being	**57/121 (47%)	**39/57 (68%)	**40/92 (43%)	**57/87 (66%)	*68/130 (52%)	*30/50 (60%)
Work-control	*17/120 (14%)	*17/57 (30%)	**8/91 (9%)	**26/87 (30%)	***15/129 (12%)	***19/50 (38%)

Percentages recorded as ≥3 on scale 1-4, ***=$P<0.001$, **$P<0.01$, *$P\leq0.05$, ns.=not significant

A great majority (157; 87%) of the lead dentists said that the *mental reward* that they gained from being a lead dentist was great (≥3). The *mental reward* was higher when the lead dentists had applied for their posts, or worked in large health centres. *Autonomy of work,* a part variable of the sum variable *mental reward,* was especially important to lead dentists. Nearly all (173; 96%) thought that it was rather or very important in their work.

The *material reward* was appreciated highly (≥3) by 126 (70%) respondents. In contrast with the previous finding, *material reward* was appreciated more often when the lead dentists had not applied for their positions or when they worked in small health centres *(Table 2).* However, half of the respondents (95; 54%) thought that their salary was too low with regard the demanding tasks that they performed.

Issues related to work well-being

Most respondents (130; 73%) considered their *self-esteem* to be good. *Work well-being* was considered good by only slightly more than half of the respondents (98; 54%). As shown in *Table 2,* both of these aspects were found to be better when the lead dentists had applied for their posts, had received leadership education, or worked in large health centres. Only 34 (19%) of the lead dentists were satisfied with their *control of work.* Most of them (145; 66%) felt that they had to do too much clinical work and routine secretarial tasks to have time to concentrate on the more important leadership questions and duties. Almost half (94; 49%) of the lead dentists reported that they thought of leadership problems when they were at home.

Leadership styles and work circumstances

Two sum variables were formed of the 10 leadership qualities: *goal-oriented manager* and *people-oriented leader.* Most lead dentists (161; 88%) thought that they were rather or very good *people-oriented leaders* and slightly more than half of them (113; 61%) that they were rather or very good *goal-oriented managers.* These two sum variables were broken down into a four-scale variable weak and/or good manager and leader.

As shown in *Figure 1,* those lead dentists who rated themselves as "both good managers and leaders" or "good managers but weak leaders" had better *leadership motivation, self-esteem,* and *work well-being* than the "good leaders but weak managers" and those who were "not good in either". The difference was statistically significant ($P<0.05$). *Mental reward* from the work was lowest when the lead dentists considered themselves as "weak managers and leaders". *Work control* was the aspect in lead dentists' work where most of them felt to be weak. However, *work control* was higher among those who felt that they were good managers but weak leaders than among the other groups.

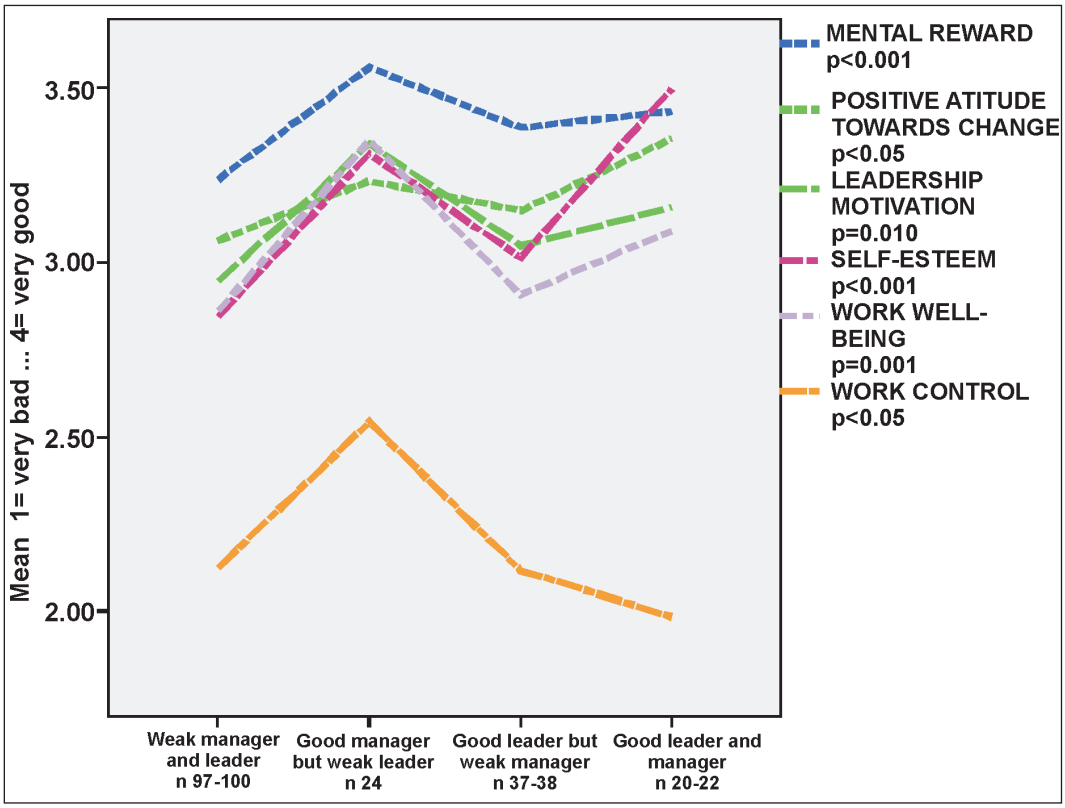

Figure 1. *Leadership styles estimated by the leading dentists themselves in relation to* mental reward, positive attitude towards change, leadership motivation, self-esteem, work well-being *and* work control.

Most of the good managers but weak leaders had applied for their posts themselves, had received enough leadership education, and more often worked in large health centres whereas the majority of lead dentists who rated themselves as good leaders but weak managers had not applied for their posts and more often worked in small health centres.

Those lead dentists who rated themselves both good leaders and managers or good managers but weak leaders had a more *positive attitude towards change* than the other groups. In general, a greater proportion of all respondents (114; 59%) had a positive attitude (≥3) towards the change in the Act that extended the National Sickness Insurance reimbursements to all adult age groups than towards the change of the Health Care Act opening the PDS for all adults (83; 43%) (*P*<0.001).

Leaders or dentists

The sum variable*leadership motivation*was divided into a two-scale variable: 1=dentists (<3) and 2=leaders (≥3, scale 1-4). On this scale, slightly more than half (106; 59%) of the respondents could be identified as leaders and the rest (73; 41%) identified as dentists . Nearly half (49; 46%) of the lead dentists identified as leaders and eight (11%; *P*<001) of those identified as dentists had applied for their posts, 45 (43%) and five (7%; *P*<0.001), respectively, worked in large health centres, 46 (43%) and 15 (21%; *P*<0.01) were qualified as leaders, and 58 (55%) and 29 (40%; *P*<0.05) felt that they had had enough leadership education.

A higher proportion of the lead dentists identified as leaders compared with those identified as dentists were *goal-oriented managers,*had high *work well-being, self-esteem and mental reward* and were *positive towards change (Figure 2).* As regards people-orientation, there was no difference between the groups.

Lead dentists' position in the municipal administrative hierarchy

As shown in *Figure 3,*the lead dentists did not consider their position to be a powerful one in the municipal administration. Slightly more than half (101; 54%) of the lead dentists thought that their superiors were rather or very powerful in decision making concerning dental care at municipal level. A low proportion of the lead dentists (45; 42%) who were identified as leaders and an even lower proportion (17; 23%) of those identified as dentists felt that they themselves had enough *decision-making power* over dental matters in the municipality; however, they thought that they did better with their own subordinates. Eighty-five (80%) leaders and 50 (69%) dentists felt that they were successful in *management by objectives* and they felt that they had succeeded to intermediate the goals imposed by municipal decision-makers to their subordinates. For 48 (45%) leaders but only for 22 (30%) dentists the reform had caused big changes in work conditions in the health centre (e.g., long waiting lists, imbalance between supply and demand, and strong resistance to the changes among the dental personnel).

Career development was of importance for a slightly higher number of leaders than dentists . In general, the lead dentist had not had possibilities to influence the width of dental care in their municipalities to any great extent.

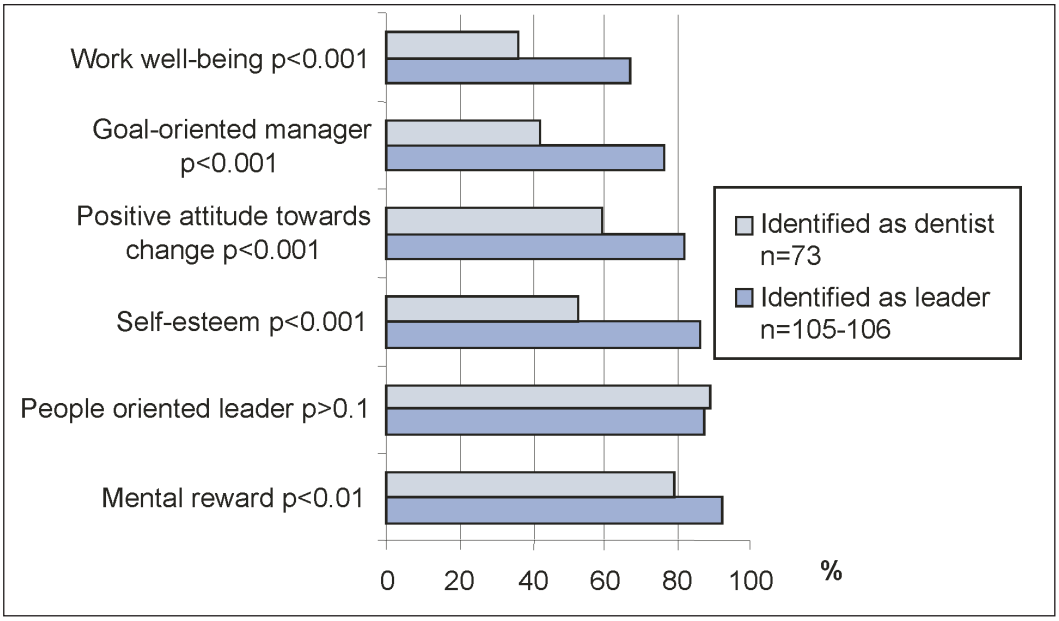

Figure 2. *Distributions of lead dentists (%)* 'identified as leaders'*and* 'identified as dentists' *according to high/good (≥3) values given to issues related to work well-being.*

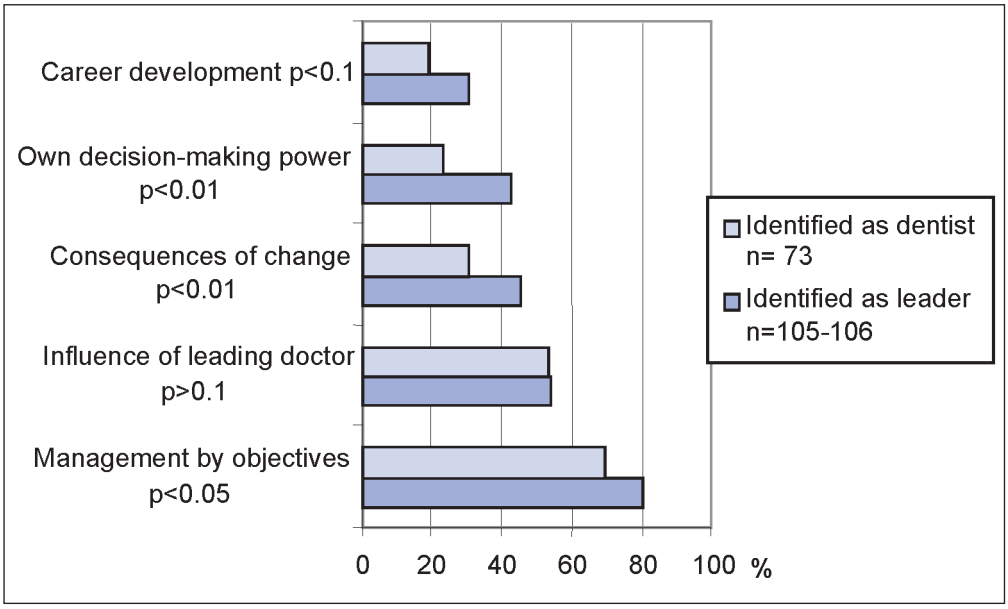

Figure 3. *Distributions of lead dentists who* 'identified themselves as dentists' *and* 'identified themselves as leaders' *in proportion to the hierarchy of the upper level of the health centre organisation, to the position of their own subordinates, to consequences of and resistance to the change and to their own decision-making power.*

Discussion

Collecting data for this study was an arduous and time-consuming process, as explained in the previous paper [7]. After several reminders, the final response rate of 73% can be considered satisfactory and the study representative of the whole country.

Historically, the Nordic model of oral health care provision has put great emphasis on public provision of services to ensure equal access, particularly in sparsely populated areas. Finland has a land area of 338 000 km^2 and a population of 5.2 million. At the turn of the 21st century, the country was divided into more than 400 municipalities responsible for running public health care, either alone or together with other municipalities. Although reducing the number of municipalities has been a political goal since, there are still 336 municipalities of which only 55 have 20,000 inhabitants or more. In a recent study [14], the chief dental managers and lead dentists in Finland, Norway and Sweden defended the existence and continuing need for a public dental service today. They stressed the continuing need for equity of access to oral health care and that the PDS is responsible for the entire population, not just "selected suitable patients", and organising services in remote and rural areas. The PDS is a typical expert organisation characterised by strong professionalism.

In Finland, the decentralised structure of the health care and oral health care provision systems had already been taken into account in the 1970s, when specialist training programmes for physicians and dentists were provided in universities. One of the four dental specialties in Finland became dental public health and it was intended to be a qualification for lead dentists in municipal and government positions [21]. Specialist education in dental public health takes three years and requires living in one of the four cities with dental schools. This has not been realistic for all lead dentists. For several decades, there was also an additional course in administration for leading health care professionals that could be taken part-time while remaining in work and led to a degree called "Administrative Competency". This qualification was popular among doctors, dentists, and head nurses but was discontinued. More recently, the Finnish Dental Association has developed a shorter educational programme for lead dentists that can be carried out in one to two years while working. Since 1999, 86 dentists have taken this new programme.

Against this background, the finding in the current study that a great majority of the lead dentists (68%) had not applied for their leading positions was somewhat unexpected. However, it has been shown that the situation is often similar among leading doctors: "they have not tried to reach but accepted the leadership post" [17]. The most likely explanation for dentists' lack of interest in leadership was the small size of municipalities forming the health centres. Being a lead dentist in a health centre with one to three dentists, one or two dental hygienists, and a few dental assistants was not a full-time job. Most lead dentists participated in clinical work to help with the long patient queues after the dental care reform opened public services for all adults, to maintain their clinical skills, or to

raise their salary. Only 17 (9%) lead dentists did not treat patients. Leading doctors have also been shown to work with patients most (80%) of their working time [17]. Many lead dentists complained that they were busy with secondary tasks because secretarial support was missing. Further, most respondents felt that they had too little leadership education, and had too little knowledge of practical tasks such as personnel administration and information technology. However, few were left without any leadership education because of further training given by the employer. According to this study, almost half of the lead dentists had formal qualifications for their office.

The lead dentists' leadership had many characteristics in common with leading doctors. Almost all respondents in this study considered autonomy of work to be very important. Sihvonen (1990) found that it is one of the most crucial motivational factors among leading doctors and other health care personnel [22]. In accordance with physicians [23], autonomy and independence of work as a measure of expertise and good income as the indicator of professional rank were also definite targets for lead dentists working in health centres. Also, lead doctors have been shown to be more interested in developing their clinical skills and a clinical career than those of a leader [19]. Career development did not play a significant role in the lead dentists' career choices. Both groups also felt that they had too little time to lead [19]. However, there were also differences. Among doctors, being male proved to be the most selective factor in the rise to a municipal office [17,18]. This was not the case with lead dentists. They were evenly divided by gender both in small and large health centres.

Many issues related to the lead dentists' *work well-being* were better if had they applied for their posts themselves and had received enough leadership education. However, a certain, opposite trend could also be seen between "good managers but weak leaders" and "good leaders but weak managers". Those belonging to the first, managerially oriented group were probably not mentally as sensitive to their surroundings as those in the other group. They presumably did not suffer from various kinds of pressures and resistance brought by changes in the health centres and also managed to keep their *work-control* at a reasonable level.

Lead dentists had a more positive attitude towards enlarging the National Sickness Insurance reimbursements to all adult age groups using private dental care than towards opening the PDS for all age groups. This was also the attitude of their superiors and subordinates (and of the dentists' association/ trade union) but not of the municipal decision-makers who considered both changes equally important and welcome. Although most lead dentists were *positive towards change* and well motivated towards *leadership,* they had generally not been able to influence the extent of adult dental care in their municipalities. An earlier study showed that the directors of municipal public health care did not value lead dentists' influence in municipal decision-making very highly [7]. This study showed that they did not feel powerful, either.

The conflict in leading doctors' roles, who in many cases experience that they are physicians in the first place and leaders in the second place [19], was also seen in lead dentists. However, in the current study, slightly more than half of lead dentists could be identified to be leaders rather than dentists.

Development of the leadership function in the PDS has an impact on the future of public health care. Doctors' and dentists' leadership motivation ought to be improved by providing more training and removing barriers to effective leadership. This is easier said than done. Parks (2005) has stated that teaching leadership is more difficult than learning it [24]. Not only is doctors' professional training challenging, but training them into a leadership position within their profession also proves a challenge. In Finland, the attempts to increase the sizes of the local municipalities seem reasonable from lead dentists' point of view.

Conclusions

This study confirms results from studies on leading doctors in Finland. Lead dentists' leadership position was unclear and their administrative work not well organised. Being a lead dentist in the PDS was a not highly desired part-time job in comparison with clinical work. A slight majority felt that they were primarily leaders and the remainder primarily clinical dentists.

Contribution of each author

PA was the principal investigator, planned the study, collected data, performed statistical analyses, and wrote the manuscript.

EW was the main supervisor, participated in planning and designing the study, and wrote the manuscript.

Statement of conflict of interests

Neither author is aware of any conflict of interest.

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