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Public dentist in Finnmark

Work conditions and challenges

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Introduction

You can often hear people within the dental care system in Norway expressing that: “if you take a job in Finnmark you will get to do a lot and gain a lot of experience”. This claim might be based on the fact that there are very few specialists in Finnmark. In addition, low population density with long distances to dental service creates a high degree of independence and self-reliance among dental health personnel in the area. This combined with higher frequency of irregular treatment habits among adults and inferior oral health conditions compared to the rest of the country (St.meld 35) might yield an extra challenge to dentists, particularly in more remote areas of Finnmark.

We wanted to find out how it actually is to work at a public dental clinic in Finnmark compared to urban clinics in a city like Tromsø where there is enough dentists, both privately and publicly employed, and with easy access to specialist services. We have also focused on the differences within Finnmark, comparing small clinics with larger clinics.

Is it true that a dentist in Finnmark get to do more complicated treatments than a colleague in Tromsø? If yes, we are wondering if the reason is that the specialists are far away, and the threshold to refer a patient therefore is higher. Can this challenge the dentist to take more difficult cases and as a result develop knowledge and experience? Are acute or difficult cases showing up more often in Finnmark because of the low dentist coverage? Do people in general attend an annual dental examination or are they only coming if they have pain or other symptoms? Is the normal working day of the dentists affected by the fact that they have to treat prioritized groups first (t.ex. children and elderly)? Is this resulting in less endodontic and prosthodontic treatment in adults? What kind of clinical experience is achieved in a clinic in Finnmark compared to one in Tromsø?

Aim and hypothesis

The aim of the present investigation was to study if there are differences between a typical working week of a public dentist in Finnmark compared with Tromsø. Our hypothesis is that a dentist who works in Finnmark, in particular in small clinics, gets a wider clinical experience compared to one working in a densely populated urban area.

Material and methods

A questionnaire containing a total of 23 questions asking about different aspects related to background and working conditions was sent to all publicly employed dentists in Finnmark (41) and in Tromsø (23). We received answers from 21 dentists in Finnmark (response rate 51%) and 13 dentists in Tromsø (response rate 56%). Information about non-responders did not indicate any systematic bias in the final sample. In the analyses, a differentiation was made between small (< 3 dentists employed) and large clinics (\geq 3 dentists employed) in Finnmark. All clinics in Tromsø were grouped together.

The topics we wanted to focus on were the following:

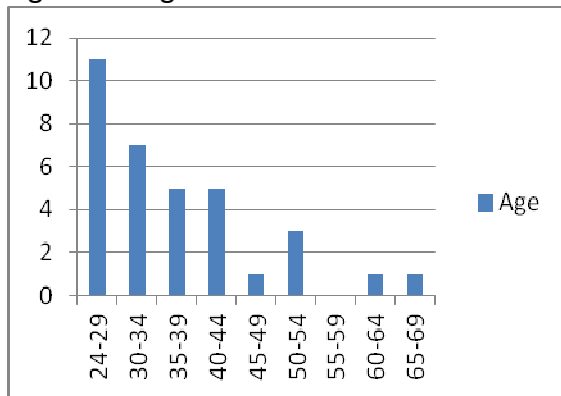
- What are the characteristics of the dentists working in the different clinics (age, place of education and working years after graduation)?
- Reason(s) for choosing the actual clinic?
- Treatment profile in a small public clinic compared to a large one in Finnmark and a Tromsø clinic?
- Is the threshold for referring a patient to a specialist higher in Finnmark than in Tromsø?
- Which cases do the dentists refer and what are the factors considered?
- How is the cooperation between the clinics in Finnmark and Tromsø with TkNN?
- Is more acute treatment done in Finnmark than in Tromsø and what characterize the acute treatment pattern?
- Time spent on Group F patients (adults who have to pay) and maintenance of clinical skills related to comprehensive treatments?
- Do the clinics have capacity to include more group F patients?
- Do most adults visit the dentist annually or do they wait until they experience pain or discomfort?

Fylkestannhelsesjef (Chief dental officer in Finnmark County) Torill H. Lauritsen and Peter Marstrander (Chief dental officer in Troms County) gave their consent to the project.

Results

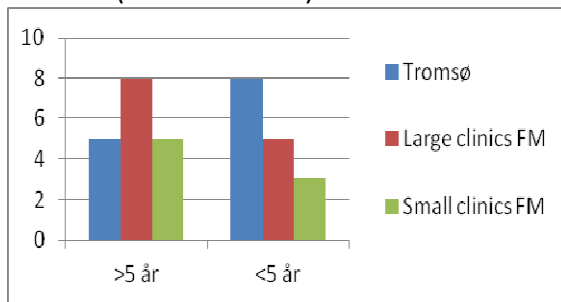
Age, place of education and years since graduation.

Figure 1a. Age distribution of the dentists



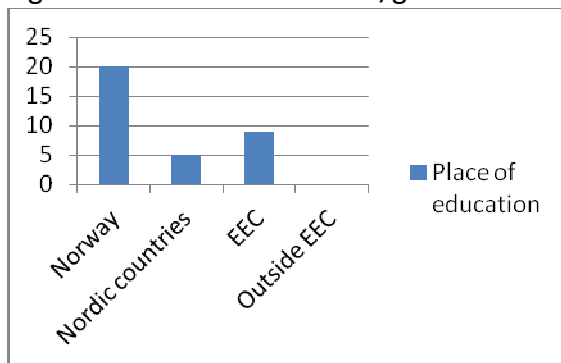
Out of a total of 34 dentists 28 (82%) were less than 45 years old and only 6 (18%) were older than 45. This gives a rather young age profile among the respondents.

Figure 1b. Years since graduation. Distribution between the three areas of interest (FM=Finnmark)



In Tromsø the majority of the dentists got their education less than 5 years ago, while both in large and small clinics in Finnmark, a majority have worked for more than five years indicating a more stable work force.

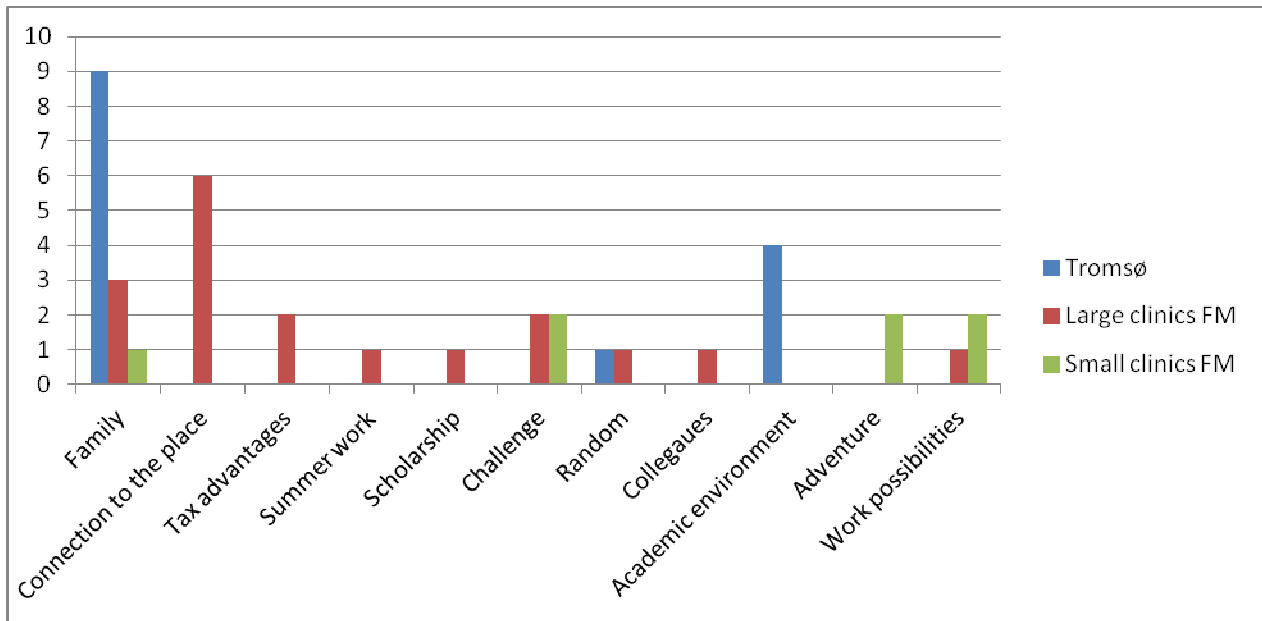
Figure 1c. Place of education/graduation



Of the 34 dentists responding, 20 were educated in Norway. However, in the small clinics in Finnmark, only 1 of 8 (12%) were educated from Norway (Figure not shown).

Reasons for choosing working place

Figure 2. A variety of reasons for choosing working place related to location (FM=Finnmark).

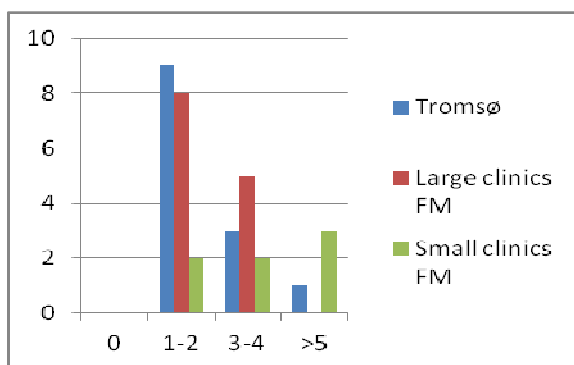


Family and academic environment are important factors for many dentists in Tromsø.

Connection to the place is important for dentist on the large clinics in Finnmark, while at the small clinics in Finnmark, challenge, adventure and work possibilities was often mentioned.

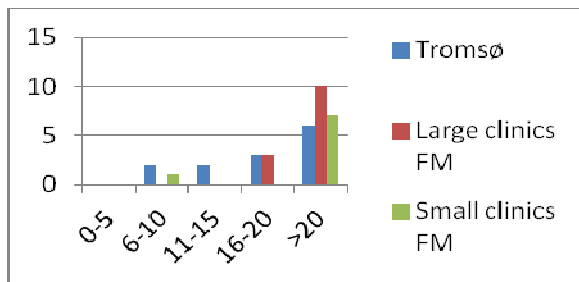
Treatment profile during an average week according to location

Figure 3a. Endodontic treatment



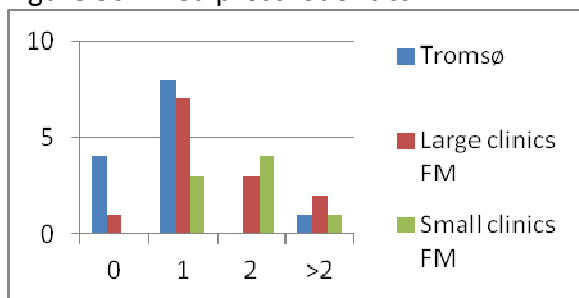
A majority (58%) of the dentists are doing 1-2 root fillings during an average week. Dentists at small clinics in Finnmark are doing more endodontic treatments than the rest.

Figure 3b. Restorations



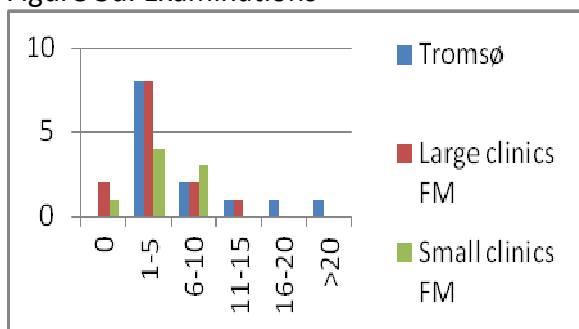
A majority of the dentists in Finnmark are doing more than 20 fillings per week. In Tromsø more than half are doing less than 20 fillings per week.

Figure 3c. Fixed prosthodontics



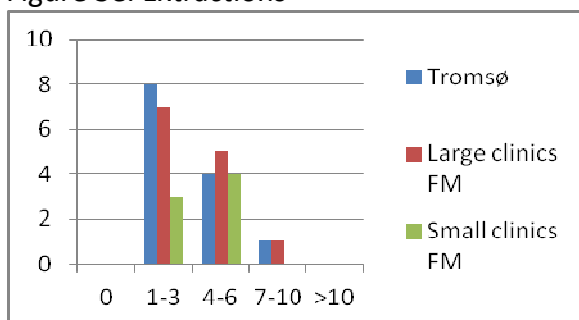
It appears from the results that publicly dentists in Tromsø are doing less fixed prosthetic treatments than in large and small clinics in Finnmark.

Figure 3d. Examinations



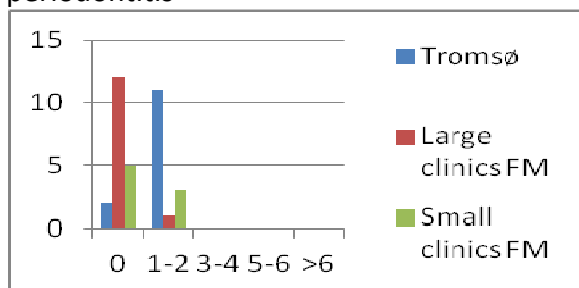
A majority of the dentists are doing 1-5 examinations per week. The regional differences are small, but two dentists in Tromsø do more than 15 examinations pr week.

Figure 3e. Extractions



The dentists are normally extracting 1-6 teeth per week. 8 of 13 dentists in Tromsø are extracting 1-3 teeth per week. On small clinics in Finnmark, 4 of 7 are extracting 4-6 teeth.

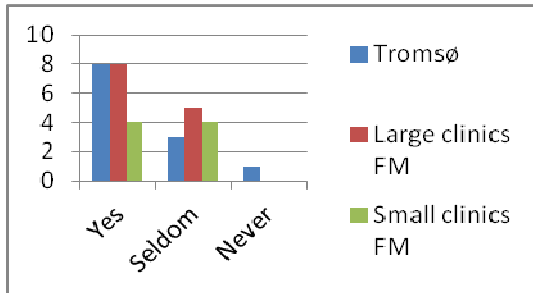
Figure 3f. Systematic treatment of periodontitis



The majority of dentists in Finnmark are not doing systematic treatment of periodontitis on a weekly basis, reporting that this is usually performed by hygienists. In Tromsø, the majority are doing 1-2 treatments pr week.

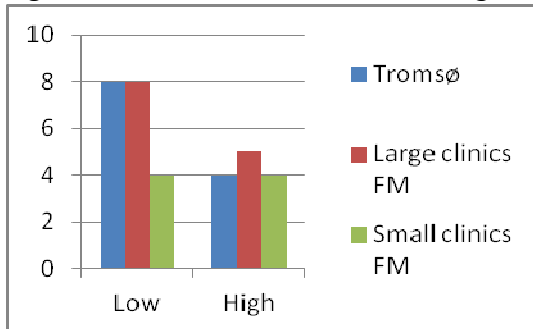
Use of specialist services

Figure 4a. Consultation with specialists



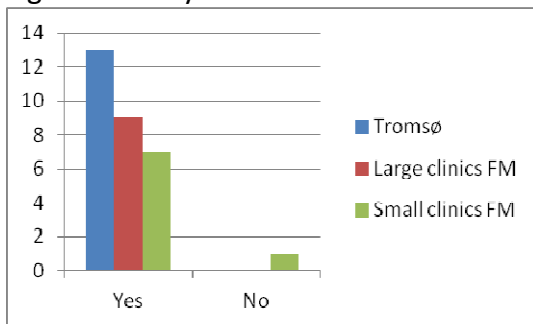
A majority of the dentists consult a specialist if they need further information or advice about a patient. A majority mentioned surgery, periodontics and orthodontics as the fields of most concern.

Figure 4b. The threshold for referring



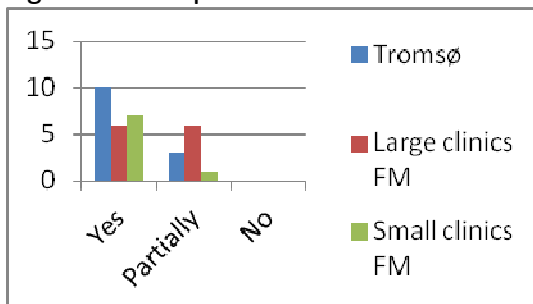
A majority of the dentists have a low threshold for referring patients to specialist.

Figure 4c. Easy to refer



All dentists in Tromsø refer all needed cases to specialist in Tromsø. The dentists in Finnmark, refer orthodontics and surgery to their own county, but refer the rest of the cases to Tromsø. All dentists, except from one, say it is an easy process to refer.

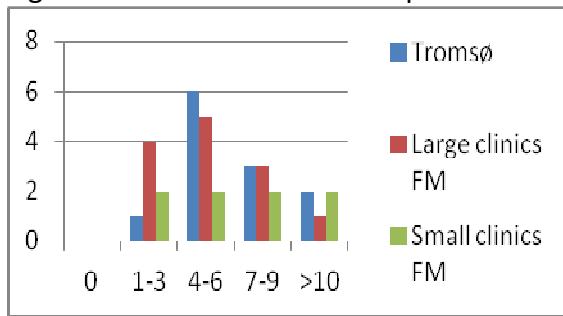
Figure 4d. Cooperation with TkNN



All clinics say they have good cooperation with TkNN ("Tannhelsetjenestens kompetansesenter for Nord-Norge") despite long waiting lists and difficulties to get answer from TkNN.

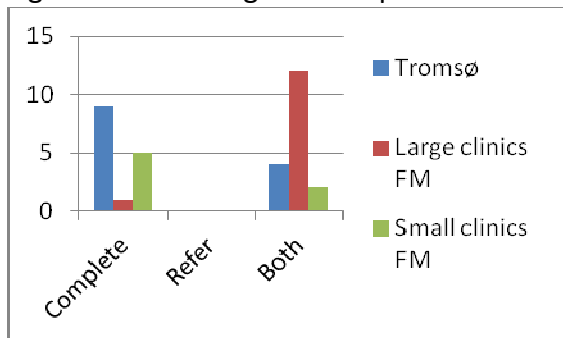
Acute treatment

Figure 5a. Acute consultations pr week



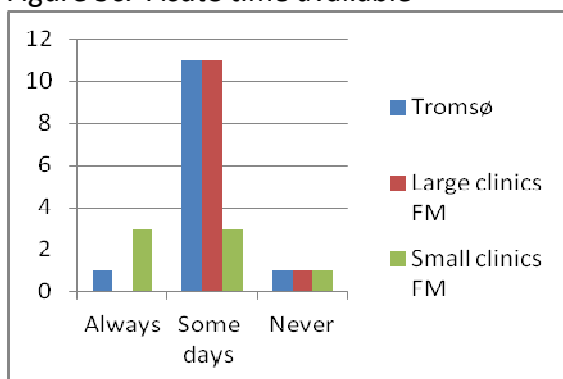
A majority of the dentists have 4-6 acute consultations during an average week. Two of the dentists at small clinics in Finnmark and 2 in Tromsø have more than 10 acute consultations.

Figure 5b. Handling of acute patients



A majority of dentists at small clinics in Finnmark and in Tromsø complete treatment of acute cases while at large clinics in Finnmark, the patients are often referred to another dentist for final treatment.

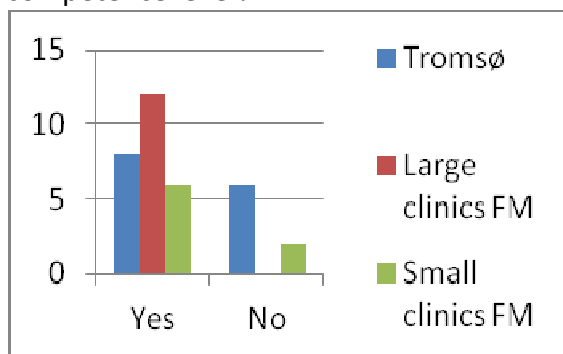
Figure 5c. Acute time available



A majority of the clinics have time available for acute patients some days, but very few “always”. Small clinics in Finnmark say that they have to “squeeze in” acute patients, sometimes this happens after regular opening hours.

Experience

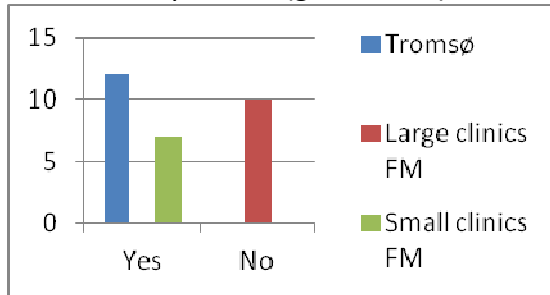
Figure 6. Do dentists get sufficient experience in endodontics and prosthodontics to maintain their competence level?



All dentists at large clinics in Finnmark say that they have enough cases to maintain their competence level. Some dentists at small clinics in Finnmark and in Tromsø, do not get enough prosthodontic patients.

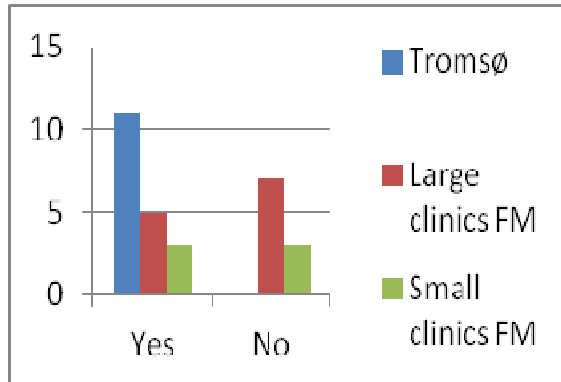
Capacity

Figure 7a. Do the clinic have capacity to include new patients (gr.F, adults)?



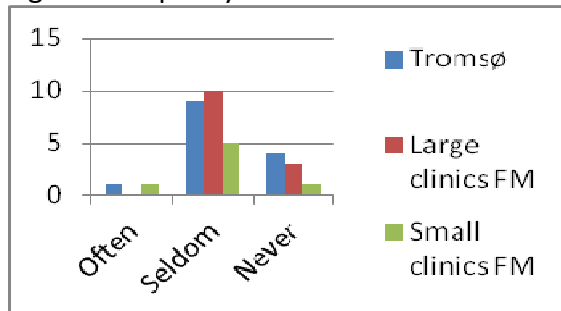
At the clinics in Tromsø and the small clinics in Finnmark, they have capacity to include new patients but large clinics in Finnmark have long waiting lists.

Figure 7b. Annual examination for group F patients



All clinics in Tromsø say they have capacity to offer group F patients annual examination. In Finnmark one half of the clinics do not have the capacity to offer this.

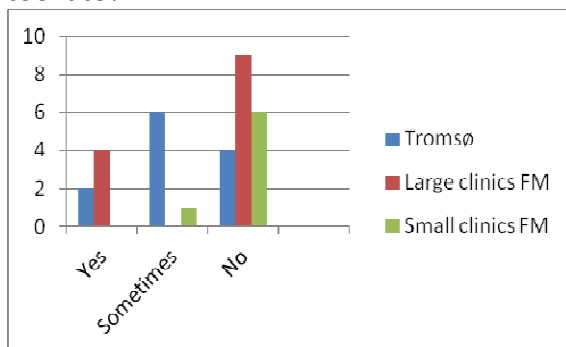
Figure 8. Capacity for cosmetic treatment



Almost all the dentists say that they seldom or never prioritize cosmetic treatments like bleaching.

Orthodontics

Figure 9 Is orthodontic treatment started too late?



A few of the dentists think the treatment is started too late. None of the dentists on the small clinics in Finnmark say this is a problem.

Discussion

Age profile

About half of all the responding dentists were under 35 years old indicating a young age profile (Fig.1a). In Finnmark the age distribution was 43% under 35 years old. A majority of the public dentists in Tromsø had been employed less than 5 years while the public work force in Finnmark appeared to be more stable (Fig.1b). Out of the 8 dentists in Tromsø that got their education less than 5 years ago, 6 of them were educated in Tromsø. The dentistry education program started in Tromsø in 2004 and the first students graduated in 2009. A lot of the students from the University in Tromsø want to work in Tromsø.

Education

In the small clinics in Finnmark 88% of the dentists had a foreign background and were educated outside Norway (Fig.1c). It seems to be easier to recruit dentists from abroad than to get Norwegian dentists to work in rural areas in Finnmark. This may be due to a shortage of dentists, particularly in Northern Norway and a surplus in other countries like Germany. "Finnmark Fylkeskommune" does have a recruitment program in Germany. This might be a reason why there are many German dentists in the county. The dentists working in Tromsø indicated family and academic environment as their main reasons for choosing working place while the foreign dentists working in small clinics in Finnmark mentioned adventure/challenge and work possibilities as their main reasons (Fig.2).

Work experience

One half of the responding dentists in Tromsø had been working in other parts of Norway before they started in Tromsø. In Finnmark we saw that the majority had started their career there. Comments from the dentists did not disclose any reasons for this difference.

In the continuing, the profile of an average working week will be used for documentation.

Endodontic treatment

More than half of all the dentists are doing 1-2 endodontic treatments every week (Fig.3a). In Finnmark the dentists in the small clinics are doing more endodontic treatments per week than in the large clinics and also more than in Tromsø. An explanation might be that the

dentists in Finnmark seldom can offer annual examinations. If a person has to wait until something acute happens, the result is often endodontic treatment or extraction. This may also explain the higher incidence of extractions in Finnmark (Fig.3a). In general, all dentists say that they perform sufficient endodontic treatments to maintain their clinical skills (Fig.6).

Restorations

A majority of dentists reported that they did more than 20 fillings per week, the maximum limit in the questionnaire (Fig.3b). However, some dentists in Tromsø have a lower number of fillings per week, 7 out of 13 are doing less than 20. In the clinics in Finnmark the majority does more than 20 indicating a higher “productivity”. This might be explained by the profile of the work force with more experienced dentists in Finnmark (Fig.1b).

Fixed prosthodontics

In the large clinics in Finnmark the dentists are doing 1-2 fixed prosthodontics constructions per week and in Tromsø they are doing 0-1 (Fig.3c). In the small clinics in Finnmark the majority are doing 2 fixed prosthodontic constructions per week. Some of the dentists are reporting that they do not get enough fixed prosthodontic treatments to maintain their clinical skills (Fig.6). This seems to be due to a shortage of patients seeking prosthodontics treatment at public dental health clinics, particularly in Tromsø where there are many private dentists.

Examinations

A majority of the dentists are doing 1-5 examinations per week (fig.3d). Dentists in Tromsø report a higher number of examinations than the others. This might be due to the higher number of private practitioners in Tromsø, leaving the public dentists with more time for the prioritized groups, particularly 0-18 year olds.

Extractions

Eight out of 13 dentists in Tromsø were extracting 1-3 teeth per week. In small clinics in Finnmark, 4 of 7 were extracting 4-6 teeth, indicating a higher number of extractions during a regular working week in Finnmark.

There were more extractions performed pr. week in Finnmark compared with Tromsø. This was particularly evident from the small Finnmark clinics (Fig.3e).

Systematic periodontal treatment

The situation in large and small clinics in Finnmark is similar, they do very little periodontal treatment. They report that this is mostly done by the dental hygienists. In Tromsø the majority of the dentists are doing 1-2 systematic periodontal treatments per week (Fig.3f). This might be because of higher capacity in Tromsø and because there are so many newly educated dentists from Tromsø where the focus on periodontal treatment is substantial. As a student in Tromsø you are not allowed to start any prosthodontic treatment before periodontal disease is under control.

Use of specialist services

Consultation with specialist

More than half of the dentists reported that they consult with specialists if necessary. This was slightly more common among dentists in Tromsø than in the small clinics in Finnmark, but even here half of the respondents answered “yes” to the question (Fig.4a).

Threshold for referring

Two thirds of the dentists in Tromsø have a low threshold for referring the patients to a specialist, and in the small clinics in Finnmark half of the dentists say that they have a low threshold (Fig. 4b).

Easy to refer

All the dentists except from one on a small clinic in Finnmark said it was an easy process to refer patients (Fig.4c).

Cooperation with TkNN

50% of the dentists on large clinics in Finnmark says that they have a reasonably good cooperation with TkNN. In the 2 other groups the majority says that they have a good cooperation (Fig.4d).

The response to the four questions related to use of specialist services indicate the use of specialist services is quite common with no obvious barriers (Fig.4c). The tendency that dentists in Finnmark use the specialists less frequently might be due to the travel distance for the patients, patient priorities and a more independent attitude among the dentists working in remote areas. In Tromsø the density of specialists is high, particularly due to the location of TKN, and therefore a closer contact is natural.

Acute treatment

Acute consultations

A majority of the dentists have 4-6 acute consultations in an average week. Four out of eight dentists in small clinics in Finnmark have more than 10 (Fig.5a).

Handling of acute patients

There was no clear pattern regarding completion of acute patients although large clinics in Finnmark indicated a higher tendency to refer final treatment to another dentist (Fig.5b). This might reflect a routine more related to available time than a treatment pattern (Fig.7a).

Time available for acute treatment

A majority of the dentists in all clinics say that they have acute time available some days. This is because they distribute acute patients within the clinic. In small clinics in Finnmark, half of the dentists say that they have acute time available every day and that they use time after regular opening hours, if necessary (Fig.5c).

About the high number of acute consultations in small clinics in Finnmark, this is probably because there are few dentists in the area. Some of the dentists in small clinics in Finnmark say that they have to “squeeze in” acute patients if needed. The number of inhabitants per dentist is approximately the same in the different areas of Finnmark. The high number of acute consultations per dentist on small clinics in Finnmark indicates a higher number of acute treatments there.

Capacity

Capacity to include new group F patients

In the clinics in Tromsø and the small clinics in Finnmark, they have capacity to include new patients. None of the large clinics in Finnmark have the possibility to take new patients due to lack of capacity and long waiting lists (Fig.7a).

Annual examinations

All clinics in Tromsø say they have capacity to offer group F patients annual examinations. In Finnmark half of the dentists do not have the capacity to offer this (Fig.7b). Because of the high density of private dentists in Tromsø, we assume that the percentage of group F is lower on the clinics in Tromsø than on the clinics in Finnmark.

Cosmetic treatment

Almost all the dentists say that they seldom or never prioritize cosmetic treatment like bleaching (Fig.8).

Orthodontics

Twenty percent of the dentists in the whole survey said that they think orthodontic treatment is started too late (Fig.9). However, none of the dentists in the small clinics in Finnmark expressed this opinion. There are three places in Finnmark with an orthodontist and we find it surprisingly that so many think it is started too late.

General considerations

Endodontic treatment versus extraction

We asked the dentists: "Have you ever given the patient the choice between extraction of the tooth rather than endodontic treatment" because of lack of time? We discovered that almost all the dentists misunderstood this question and thought that were asked if they had to give the patient an ultimatum where they could offer extraction or no treatment at all. A majority said that this would be unethical which we agree on. We meant that they should give the patient the choice between extraction or acute treatment and referral to another dentist (in most cases far away) for final endodontic treatment. It is important that the dentist inform the patient about all the treatment options and give the patient all necessary information needed in order to be able to make this decision which was the opinion shared by all the dentists.

Nationality

We noticed that there were far more foreign dentists than Norwegian dentists working on the small clinics in Finnmark (seven out of eight). A lot of newly educated Norwegian dentists prefer to work in group practices and do not consider Finnmark as an exotic and adventurous place to work, but rather a far away and cold area of Norway. The foreign dentists would probably prefer to work in a group practice as well, but if the alternative is to be unemployed, it is better to accept the offer you get.

Work experience and profile

We noticed that the majority of the dentists in Tromsø had been working in other regions of Norway before they started in Tromsø. It is a big competition of the jobs in the public dental service in Tromsø and a lot of dentists are working in rural areas while they are waiting for job opportunities in one of the cities, preferably Tromsø. The tendency is that many young people want to live in urban areas, and then the competition for jobs gets more demanding.

Treatment profile

In small clinics in Finnmark the tendency is that the dentist are doing more endodontic treatments, more restorations pr. week, more fixed prosthetic constructions and acute treatment. This is probably due to a scattered population pattern and long distances creating independence and self-reliance among the dentists. The almost absence of systematic periodontal treatment might be due to a combination of under-diagnosis and lack of skills by the dentists, lack priority from the patients. It is quite clear that the treatment profile seen in the small Finnmark clinics is different from the larger in the county and definitely different from Tromsø. A young dentist will gain a lot of clinical experience and experience a substantial professional responsibility in a small Finnmark clinic.

On all the large clinics in Finnmark it has to be acute before group F patients get an appointment because of delay. In small clinics in Finnmark the dentists said that they could offer annual examinations. The clinics in Tromsø have the same situation. The fact that dentists on the large clinics in Finnmark not are doing so many examinations and systematic periodontitis treatments, might be due to the fact that the density of the private dentists is low. If you have a lot of patients with a great need for restorative treatment or patients from

the prioritized groups, it is understandable that the dentists want to prioritize this before examinations of group F patients. We registered that the dentists in Tromsø are doing less fillings and more examinations in an average week.

Main conclusion

Our hypothesis was that a dentist that works in Finnmark, in particular in small clinics with 1-2 dentists, gets a broader clinical experience than one that works in a city in Finnmark or in particular in Tromsø where the specialist density is higher. Our initial hypothesis is thereby to a large extent confirmed.