
District Medical Officers' perception of their own role

ORIGINAL ARTICLE

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BACKGROUND

All Norwegian municipalities have a statutory duty to employ a District Medical Officer as their medical advisor, but they are free to decide where this role should be placed in the municipal hierarchy. The position's contracted working hours, seniority and job content vary between municipalities. We conducted a survey to increase our understanding of how District Medical Officers see their own role.

MATERIAL AND METHOD

Data were collected by conducting focus group interviews with fifteen District Medical Officers from various municipalities and counties. The data were subjected to thematic qualitative analysis involving systematic text condensation.

RESULTS

All the District Medical Officers had advisory roles and many reported limited access to formal decision-making arenas. They typically saw their role as poorly defined and felt a sense of invisibility, but this perception was combined with considerable autonomy. Most of the District Medical Officers reported that they felt caught between demands for advice at two different levels: clinical advice relating to individual cases and general public health advice to local authorities. This sense of being squeezed was more pronounced among District Medical Officers in large municipalities than in small municipalities. Organisational contexts and managerial expectations played a part in creating greater demand for clinical advice. This curbed the development of a public health identity and role.

INTERPRETATION

District Medical Officers have a hybrid role as multi-level advisors, and this requires them to adopt several identities. In order to bolster the public health aspect, their role must be made clearer by introducing appropriate expectations and organisational contexts within the municipality.

Main findings

District Medical Officers considered their role to be poorly defined and they often felt invisible. Although they also enjoyed a considerable degree of autonomy, they pointed to a duality in their role as it incorporates both a clinical identity and a public health identity.

In large municipalities, the District Medical Officers' opportunity to develop their public health identity is influenced by organisational contexts as well as managerial expectations and follow-up. In smaller municipalities, the officers' contracted working hours appear to be an important factor.

The District Medical Officers held the view that their sense of invisibility and role uncertainty would be alleviated if measures were put in place to facilitate a variety of public health efforts.

After the introduction of the Norwegian Care Coordination Reform and the Public Health Act in 2012, several tasks have been transferred from the specialist health service to the primary health service, and local authorities have been given a wider disease prevention remit. This development has led to growing needs for professional medical advice and management (1–3), both in

respect of individual cases in clinical settings and vis-à-vis local authorities. Municipalities have a statutory duty to employ a District Medical Officer as their chief medical advisor (4). Local authorities are free to decide on their own administrative arrangements, including where to place the District Medical Officer in the organisational hierarchy. Consequently, the position's contracted working hours, as well as its level of seniority, vary between municipalities (2).

There are several organisational levels to any municipality. The top ranking administrator is the Chief Executive, who tends to have a staff of advisors. Below the Chief Executive, there are municipal executives with responsibility for specific sectors. The Chief Executive and the sector-specific executives together make up the municipality's top tier administration (Level 1). Level 2 officers are advisors to the sector-specific executives. Level 3 officers are subordinate managerial staff. Large municipalities have even more levels. The people who provide front-line services to the population (service level) tend to be lower-tier staff. The role of District Medical Officer can be placed at any level and in a variety of sectors within the organisation, as advisor, manager or staff.

Physically, the job can be located near the municipal executives in the Town Hall or near service-level offices. The location has an impact on the officers' informal contacts and on their visibility within the organisation. The full-time equivalent (FTE) of the hours they are contracted to work can vary considerably, and large municipalities may have more than one District Medical Officer. According to a report published in 2016 by the Norwegian Association of Local and Regional Authorities (KS) and Agenda Kaupang, contracted working hours were underestimated by many local authorities (2) and there was considerable variation in the extent to which municipal executives sought input from the District Medical Officer (1).

District Medical Officers work in the field of public health medicine. Public health is a public entitlement (5), and important themes include infection control, environmental health, health promotion and disease prevention, quality assurance and monitoring, health management and administration, health emergency preparedness, health law, communication and advice. The role can be split into three main parts (6). District Medical Officers are local health officials whose authority is founded on legislation on infection control, environmental health and mental health, etc. District Medical Officers are also medical advisors, externally to the public and internally to the local authority – to individuals, to groups, and to the population. Finally, the role has a managerial aspect which often involves administration of the general practitioner scheme and responsibility for LIS1-level junior doctors and specialty registrars.

Whatever their seniority, District Medical Officers need to relate to a variety of organisational levels within the municipality. On the service level, they deal with individual cases, while on the executive level, they deal with systemic matters. Individual cases may require more clinical competence, while systemic matters require public health competence. There is no sharp dividing line, but the two types of advice pull in different directions. Consequently, District Medical Officers perform a form of 'hybrid management' (7)– (11), which requires a coming-together of two different identities and types of logic. A

successful hybrid professional is able to juggle and combine the two identities (7), but this type of role can lead to conflicts of identity and role (10). Several studies have shown that doctors primarily identify with health service practitioners rather than administrative executives (7, 12). It can therefore be challenging for a District Medical Officer to develop a public health identity (7). At a time of heightened need for medical advice on multiple levels, we wanted to investigate how District Medical Officers in different municipalities perceive their own role, and what factors influence this perception.

Material and method

The study was born from a wish to establish more systematic knowledge about the role of District Medical Officer and how this role is perceived. The first author has several years' experience of working as a District Medical Officer and a public health specialist, and was familiar with the fact that the role is governed by different rules in different municipalities. A qualitative design was chosen, involving focus group interviews with District Medical Officers. Focus group interviewing is an established data collection method which is well suited to exploring the experiences of healthcare workers (13). The interviews obtain data direct from individual participants as well as from discussions and reflections across the group (14).

Sample

An invitation to take part in the study was sent to three different groups of District Medical Officers: two were pre-existing inter-municipal public health networks, one was made up of speciality registrars who were attending a foundation course in public health medicine. Information about the study was sent by e-mail to 51 people. A consent form was attached. Six invitees from one of the pre-existing public health networks accepted the invitation, as did five from the other pre-existing network and four specialty registrars. The two pre-existing networks included District Medical Officers from municipalities in two different regions of southern Norway, and they met regularly to share experiences and discuss professional challenges and questions. The group of specialty registrars who were attending a course, came from all parts of the country and were not already known to one another.

The three focus group interviews included a total of 15 participants, 10 female and 5 male. They were conducted in the period from December 2018 to October 2019. The informants represented 13 different municipalities and five different counties in southern Norway. The mean age was 54.4 years. The length of their experience of working as District Medical Officers varied from 4 months to over 30 years, the median being eight years. Seven of the fifteen were public health specialists, seven were specialty registrars and one was a non-specialist. Half the sample worked in large municipalities while the rest worked in either small or medium-sized municipalities. The full-time equivalent (FTE) of their contracted working hours varied between 20 % and 100 %, with a median of 70 % and a mean of 67 %. None of the small or medium-sized municipalities

represented in the sample had District Medical Officers working in a full-time position. In these municipalities, the mean FTE of the District Medical Officer's contracted working hours was 50 % (table 1).

Table 1

The sample of District Medical Officers who took part in the study.

	Sex	Years of experience	Public health specialisation	Size of municipality (population)	FTE of contracted working hours (%)
1	Male	5-10	Specialty registrar	10 000-19 999	80
2	Female	5-10	Specialist	> 20 000	100
3	Female	> 10	Specialty registrar	> 20 000	100
4	Male	> 10	Specialist	> 20 000	80
5	Female	< 5	Specialty registrar	> 20 000	50
6	Female	< 5	Specialty registrar	> 20 000	40
7	Female	< 5	Specialty registrar	< 4 999	40
8	Female	5-10	Specialty registrar	5 000-9 999	50
9	Male	< 5	Specialty registrar	10 000-19 999	50
10	Female	> 10	Specialist	> 20 000	70
11	Female	5-10	Specialist	> 20 000	100
12	Male	> 10	Specialist	< 4 999	50
13	Female	5-10	Specialist	> 20 000	80
14	Male	> 10	Non-specialist	5 000-9 999	20
15	Female	> 10	Specialist	> 20 000	100

The average duration of the focus group interviews was 60 minutes. The interview guide that was developed and used included questions about the organisation, general awareness of the District Medical Officer's expertise within the local authority, the demand for advice, and influence among promoters and obstructors of good role performance. The points included in the template were always raised, and reflections that occurred during the interviews were explored and followed up with further questions. This allowed participants to contribute with input to the set points as well as with new reflections. The first author conducted the interviews and carried out the analysis supervised by the second author. Audio recordings were made of the interviews, and these were manually transcribed by the first author and anonymised using an encryption key in accordance with current privacy regulations. The audio recordings were then deleted.

Analysis

The project was inspired by organisational and management theories that also provided its theoretical frame of reference, but no pre-defined categories were established for the analysis. The data were subjected to thematic qualitative analysis by means of systematic text condensation [\(13\)](#), which is a four-step methodology. There were ongoing discussions between the authors before, during and after each analytic stage. First, an overall impression was formed of the full text, and preliminary themes were identified that reflected the research question. In the next step, the preliminary themes were further abstracted into code groups. The text was then broken down into multiple different meaning units that were sorted and put into the system of code groups.

The code groups were repeatedly merged, adjusted and revised in an iterative process, each round producing a document that the authors discussed between themselves. In the third step of the analysis, the various meaning units were condensed, and in the last step, the results of the analysis were synthesised, thereby forming a text which included a selection of quotes from the interviews. Finally, the text was validated by re-reading the original interviews to ensure that the end result gave a true impression of the original material.

Ethics

A project description, the information letter and the consent form were submitted to and approved by the Norwegian Centre for Research Data (NSD) before the study commenced.

Results

The analysis generated two summary descriptions of the District Medical Officers' perception of their own role: invisibility and role uncertainty. Perceptions were particularly influenced by organisational contexts, managerial follow-up and expectations, and personal competence and interests. Most informants reported that they felt pulled between demands for advice at different levels: relating to individual cases on the service level and vis-à-vis executive leaders on a general level. There was broad agreement that it was difficult to give a precise definition of the role, and although its performance was influenced by the doctor's personal passions and interests, there was variation between municipalities.

Invisibility

Several District Medical Officers described a sense of being near-invisible to their immediate superior and within the organisation as a whole, and of exerting less influence because they found themselves excluded from the arenas of decision-making and outside of professional and social communities. The concept of *invisibility* has here been used as shorthand to refer to a level of prominence, recognition, and integration. The sense of being invisible was

largely negative but it was coupled with a positive sense of autonomy. This was generally more prominent among District Medical Officers from medium-sized and large municipalities.

The sense of being invisible was especially influenced by organisational contexts. Most of the District Medical Officers were Level 2 Advisors, but some were lower ranking officers. Lower-tier officers in large municipalities described a lack of visibility outside of their own field. In medium-sized and large municipalities, the location of the workplace was also considered to be an important factor. Those who were located at a distance from their immediate superior or municipal executives, believed that this excluded them from involvement in high-level matters. One District Medical Officer described the sense of being invisible in these terms: 'There is no-one who knows what I do and what I don't do ... and no-one asks [resigned laughter]' (District Medical Officer, Participant 4). In smaller municipalities, organisational place and physical location had less of an impact on the District Medical Officers' sense of being invisible. The District Medical Officers found that informal contacts across levels and sectors were more frequent. However, the FTE of their contracted working hours was described as all-important in terms of the time available to make themselves visible.

All focus groups pointed out that cross-sector working was an important factor in securing good role performance. There was broad agreement that this was difficult to achieve in practice. Several District Medical Officers sat on various advisory groups, but few were executive team members. Restricted access to arenas for decision-making was considered a challenge, particularly in medium-sized and large municipalities. Most had found that they were granted good access to the arenas of decision-making in times of crisis but reported that this access was reverted once the crisis was over. This increased their sense of being invisible in the day-to-day.

'So, I'm the typical closet gnome. Meaning that whenever there is a calamity, they come and get me. And then, once that crisis is over and done with, they put me back into the closet.' (District Medical Officer, Participant 13)

Finally, certain factors were mentioned by several District Medical Officers as contributing to their feelings of invisibility and loneliness. One was a sense of being on call around the clock. Very few had contingency systems in place, and several informants felt there was a lack of recognition of the pressures that this involved, which increased their sense of not being seen or understood. Many also described executives who were less than familiar with their expertise, and this led to reduced involvement in public health matters. Several participants explained that they felt excluded from the municipality's professional and social communities, and this was particularly the case among District Medical Officers in medium-sized and large municipalities. Being outsiders gave considerable freedom, but also a feeling of invisibility and loneliness.

'I still think I'm a bit of a hermit in a way. Socially, you know, within the organisation. I think that's the case for many District Medical Officers. That you work on your own. There may well be many arenas for co-operation, but still ... you're on your own.' (District Medical Officer, Participant 1)

The importance of a network of peers across municipalities was therefore raised by all focus groups.

Role uncertainty

Most of the District Medical Officers talked about being forever uncertain about how to fill their role. Those with the shortest term in office and least public health expertise gave the strongest account of such uncertainty, but experienced District Medical Officers also recognised the problem. They listed two factors that particularly confounded the understanding of their role: their own personal public health competence, and managerial contexts and expectations.

Most of the District Medical Officers had been working in clinical settings before they embarked on a career in public health medicine. Several explained that their role uncertainty at the start of their career was a consequence of limited experience and competence combined with receiving little guidance from their superiors. In the words of a newly appointed District Medical Officer: 'Some of my statutory duties have been delegated to others. Which begs the question, what am I left with? I feel that my tasks are really quite vague.' (District Medical Officer, Participant 9)

Several District Medical Officers explained that as their public health competence grew, they sought access to various municipal arenas in order to contribute with advice and authority. This was considered important to filling the role well. When access to such arenas and tasks was denied, or when executives voiced no expectation of such advice, several expressed uncertainty and confusion over their own role. District Medical Officers from small municipalities felt they had good access to various municipal arenas and tasks. They raised personal competence and a lack of managerial expectations as important reasons for any role uncertainty. District Medical Officers from large municipalities reported that a lack of access to public health tasks outside of the health service was the most prominent source of role uncertainty.

'There is nowhere like the health service for being asked to take on jobs. All I need do is show my face in the corridor, and I'm drowning in work. So in the health service, being tasked with work is no problem at all, but that may not be the most important aspect of the public health remit.' (District Medical Officer, Participant 13)

District Medical Officers from both large and small municipalities found that most of the demand came from the health service. Several explained that this made it more difficult to prioritise work in other sectors. Managerial expectations that the officer would provide advice to the health service, combined with a lack of access to tasks beyond this service, meant that high-level public health work and work for other sectors was often given lower priority. In turn, this resulted in role uncertainty and ambivalence in terms of organisational position.

All the focus groups reflected on the fact that inadequate guidelines, invisibility and role uncertainty brought considerable freedom. This autonomy was cherished, especially with increasing competence. Nevertheless, it was pointed

out that this freedom to shape the role also contributed to the lack of a shared understanding of the intentions for the role, because no two District Medical Officers filled it in the same way.

'But it's rather an interesting question, you know. For when you leave, would it be possible for someone else to walk straight into your job and take on the same role? No. When I arrived, there were no big shoes for me to fill, and I am pretty sure that when I leave my job, there won't be a replacement officer at the ready who'll set to it on day one and then everything will fall into place' (District Medical Officer, Participant 13). So long as they were assigned public health tasks across the whole municipality, most of the District Medical Officers agreed that a non-uniform role was a strength. Several felt that being able to adjust the role and the tasks to local circumstances was essential for good role performance. All focus groups reflected on the balance between executive guidance and personal autonomy. Some of the least experienced District Medical Officers called for more management control to start with, followed by gradual loosening of the reins. However, most of them concluded that they were not seeking more medical guidance from their superiors, only closer follow-up and interest.

Discussion

The results of the study show that many District Medical Officers feel invisible and that their role is poorly defined. Organisational contexts, personal qualities and competence, and managerial follow-up and expectations were the primary influencing factors. The analysis also demonstrated a basic tension between two different identities that are both needed for the role of District Medical Officer: a clinical identity and a public health identity. In combination with the other factors, this impacted on their perception of the role. This is consistent with research on hybrid professions (7–11). Most doctors have a strong clinical identity (7, 12). In the role of District Medical Officer, this clinical identity is especially appropriate for providing clinical advice in individual cases in the health service, and this requires clinical competence, authority, and visibility on the primary care level. The public health identity on the other hand, focuses on the population and is appropriate for providing advice on a general level. This requires public health competence, authority, and executive visibility. Although there is a sliding scale between the two identities, it can be maintained, in simple terms, that they need different terms of reference and are intended to deal with different tasks.

Our own study is consistent with other studies (7) in that it identifies certain practitioners as hybrid professionals who can change between identities without adversely affecting their role perception and performance. According to our results, this is an experience reported by District Medical Officers from small municipalities. In their case, it was their contracted working hours that restricted their role performance and identity development. However, we found

that the larger the municipal organisation, the larger the gap between the two identities, and this had an adverse effect on the balance and the role performance.

Several District Medical Officers in large municipalities listed organisational contexts and managerial expectations as factors that obstruct their access to high-level public health work and work in other municipal sectors. This had a restrictive effect on their development of a public health identity and heightened their sense of being invisible and increased their role uncertainty. The results suggest that outside the health sector, municipal executives fail to recognise the relevance of public health competence, which is why they fail to seek this expertise to the same extent that the health sector does. Various organisation and management theories support our findings as they assert that organisational contexts will influence an individual's motivation, sense of mastery and role appreciation (14–16). This is supported by studies such as Berg et al. 2017 (12).

Studies on hybridity show that an emphasis on clinical identity may delay the development of an administrative identity, thereby adversely affecting role performance (7), (10–12). Various motivational theories show that we are attracted to tasks that engage our skillset and give us a sense of mastery (7, 10). Local authorities should therefore seek to prioritise the development of a public health identity for the role of District Medical Officer, to enhance role performance. This will require organisational contexts and expectations to encourage public health work efforts on a variety of levels in different municipal sectors. If the contexts primarily promote the clinical identity, this may obstruct the development of a public health identity, heighten the sense of being invisible and increase role uncertainty. Figure 1 shows the relationship between the basic identities, the influencing factors and role perception.

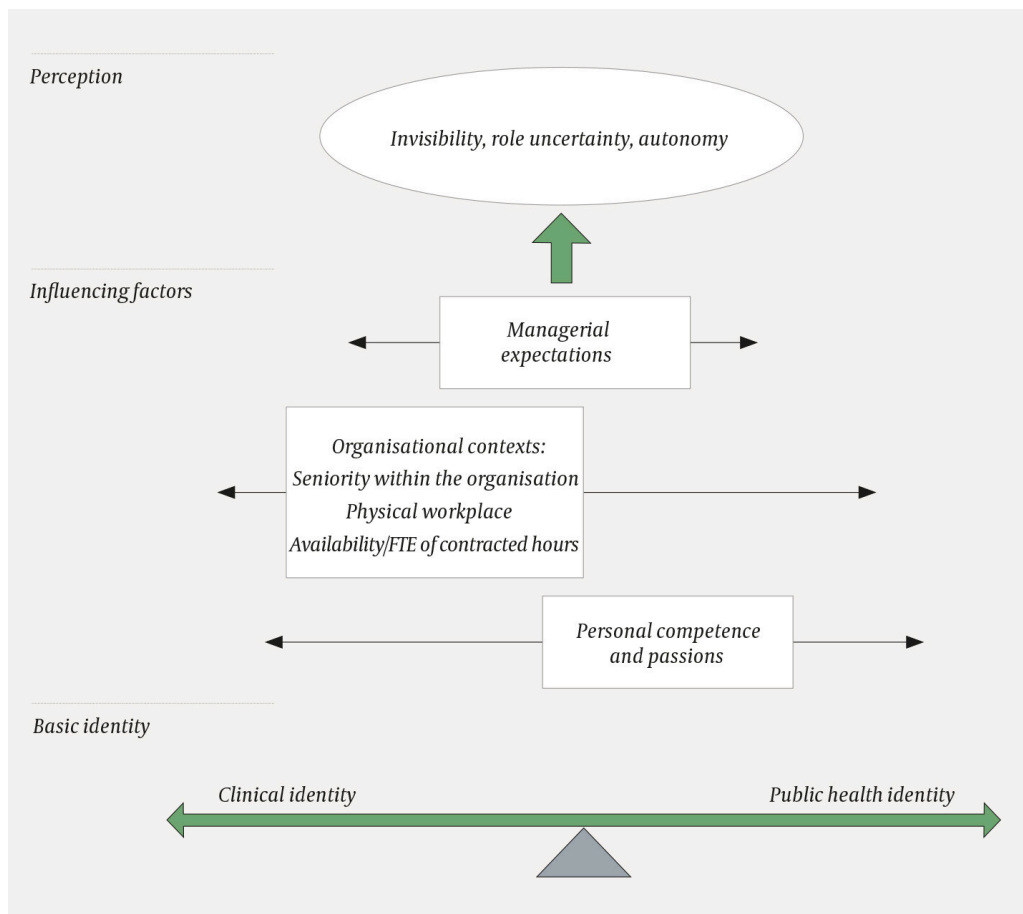


Figure 1 Simplified presentation of the relationship between the underlying identity conflict, influencing factors and the perceptions reported by the District Medical Officers.

The study suggests that District Medical Officers need their public health identity to accord with the three influencing factors in order for their sense of invisibility and role uncertainty to be reduced and their identity developed. This is particularly the case in large municipalities, where such adjustments may come at a cost to clinical advice in individual cases. In small municipalities, it appears that contracted working hours is the factor with the greatest influence on the District Medical Officers' perception of their own role.

In order to limit the effect of the first author's bias, the second author was actively involved throughout the process. The first author's background and experience of working as a District Medical Officer made it easier to make participants feel at ease within the focus groups, encourage openness and ask follow-up questions and further examine statements. The focus group interviews were conducted in person. This meant that all informants were from southern Norway, but there was variety in respect of geography, size of municipalities, years of experience, sex, FTE of contracted working hours, and seniority within the municipality. All the informants were able to report extensively on the problems raised and provide nuanced details. Focus group participants were observed to talk freely and frankly, and they engaged in productive dialogue. The first author conducted the focus group interviews alone, which may have resulted in loss of some nuances.

The study examines the perceptions that a sample of District Medical Officers have of their own role, and the results cannot be generalised to encompass all District Medical Officers in Norway. Nevertheless, the information richness of the sample was considered to be good, despite the relatively limited number of participants. It is therefore likely that the findings are relevant and applicable to other District Medical Officers in Norway. Some of our findings, especially the role uncertainty observations, are reflected in other studies (7), (10–12). This strengthens the validity of our findings. However, the study examines perceptions that District Medical Officers have of their own role. The experiences and thoughts that municipal executives may have in respect of the District Medical Officer role have not been examined, and neither have any measures that may have been implemented to ensure good role performance. This could have brought extra depth to the material. The study was conducted immediately before the COVID-19 pandemic and gives an insight into how some District Medical Officers in southern Norway saw their own role at the time when the pandemic struck. There has been significant pressure, but also increased focus, on the District Medical Officer role during the pandemic, and it would be interesting to conduct a post-pandemic follow-up study to explore whether, and if so how, this has altered perceptions of the role.

The article has been peer-reviewed.

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