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The Clinician in Leadership. Perceptions of Style

Perspectives from Rural Primary Medicine in Norway

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The Clinician in Leadership

Perceptions of Style

Perspectives from Rural Primary Medicine in Northern Norway.

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CONTENTS

Preface

The history behind this research goes many years back. Even in my early days in rural medicine I recognised that my consultation in clinical practice did not operate in a vacuum but was part of something more. Together with my patients I saw that we were indisputably dependent on people around us, both within and outside the health centre, to give good quality care. Leadership and clinical practice work side by side. I have been more or less in a leadership position in combination with clinical work for the majority of my 30 years in rural primary care.

This perspective on primary medicine was strengthened even more after three years in primary health care (PHC) in rural Zimbabwe and while working part-time with primary care in Central Asia, Uzbekistan. This experience abroad, especially in Africa, has taught me the necessity of having a system and organizational perspective on rural medicine, and also how leadership training for all health staff prepared them for making the system work, all way down into the community. Two of my years in Zimbabwe were in a lead position as District Medical Officer.

This organizational and leadership interest led me in the early 1990sto the office of County Medical Director in Troms and later in Nordland County as a part-time Quality Advisor for PHC. This was an extremely interesting and eye-opening experience where the need for leadership in PHC in Norway became so obvious. This inspired me to ask some questions about leadership primarily in primary medical care in a rural context, which had been the setting within which I had been operating all these years. How had research contributed to the knowledge about this leadership? There was not much to be found.

These small steps that were taken almost 10 years back on this journey were inspired and facilitated not in the least by the early days of the "National Centre for Rural Medicine" at University of Tromso. This made it possible for me to start exploring this topic part-time.

When focusing on a very limited researched part of PHC, leadership behaviour in rural medicine, there are in principle two major approaches- digging deep on a few details or "scratching" a broader surface. I have perhaps been over-enthusiastic and not been willing to make choices, but by thinking of all the lead clinicians in PHC, I had to strike a balance between being broad and exploring details, to make the issue understandable. By this I also hope that my small contribution will provide the inspiration to further explore this important topic. The leaders well deserve it, for the sake of our patients and communities.

Acknowledgements

This project goes 10 years back and I am deeply in debt to my wife, Marit, who has been extraordinary patient in waiting for this project to reach its goal, which was constantly being pushed into the future. First of all, I am thankful to her and my family and very grateful to what they have had to compensate for during these years.

I am very happy that I can express my sincere gratitude and appreciation to all those who have had both a large and small part in making this report a reality. First I must thank my prime supervisor, Toralf Hasvold, who understood my field of interest, inspired me and motivated me to develop a small research project into a comprehensive one as presented here. He also encouraged me to approach other professions to seek needed support, using mixed method research and reminding me about the scientific attitude and approach. This must have challenged his patience and I appreciate him always being supportive.

Further, I am thankful for my co-supervisors, Carl Edvard Rudebeck for teaching me qualitative research, Rudi Kirkhaug for giving me organizational and leadership knowledge,

The contributions of all the staff and leaders at health centres and doctors stations in Northern Norway are greatly appreciated. I would like to thank NSDM by Ivar Aaraas and especially Per Baadnes for his administrative support and municipality of Vestvagoy for granting me the needed leave of absence. Finally but not the least, staff and colleagues at Origo doctor station have been extremely patient and supportive despite the challenges having a “mixed” clinician and researcher in the team. Thanks to Unn May Storvik for her typing skills.

Linguist Jessica Vinter has done a great job by checking the language in papers and thesis and made them all presentable documents.

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It has been greatly appreciated.

List of papers

Paper I. *Leadership in rural medicine: The organization on thin ice?*
(Published in SJPHC)

Paper II. *Physicians' leadership styles in rural primary medical care: how are they perceived by staff?* (Published in SJPHC)

Paper III. Leadership behaviour in rural medicine: Does it make any difference?
(Ready for submission).

The Roman figures are being used when referring to the respective paper throughout this thesis.

1. SUMMARY

Background

Clinical/medical leadership in PHC is poorly researched, especially in a predominantly rural context.

The health centre /doctor's station is the key institution delivering medical care to the community and is led by one of the physicians, a GP in the team.

For the past two decades, a considerable focus has been directed to the quality of health care services and to what degree a systematic approach has been applied to improvements. These strategies have all emphasized the importance of leadership to achieve the quality targets. Leadership training for PHC physicians in Norway is limited both in undergraduate teaching and what is required for specialisation in community or family medicine.

This thesis assumes that the leadership role in primary medical care is under pressure and challenged by the daily running of the services, the context, and major health reforms.

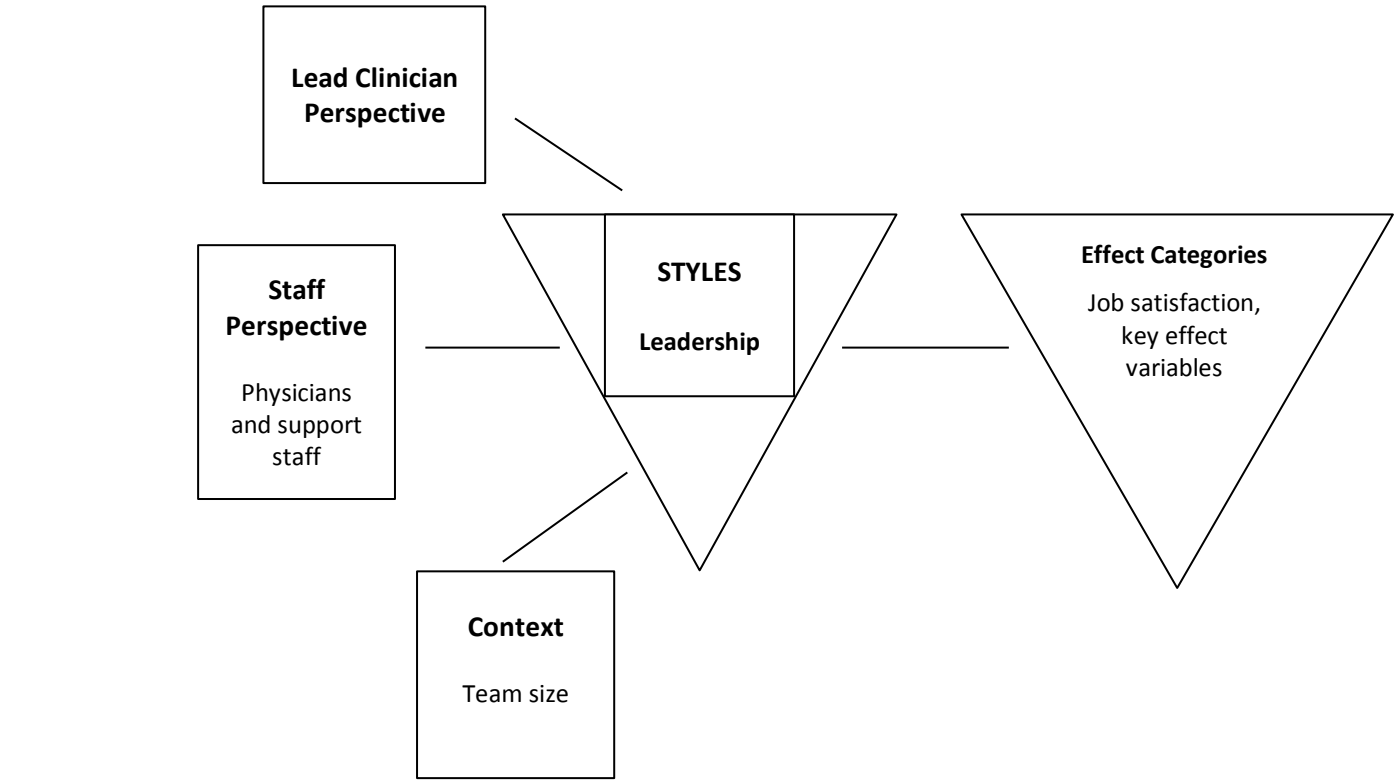
With limited studies within the field of PHC leadership there are many aspects that could be focused. Therefor this thesis will have leadership behaviour in terms of style as it prime focus.

To guide us in exploring this, we have to base our research strategy on relevant leadership theory. To make the best choice in this respect, we have to take into consideration that lead physicians are formally poor prepared, they work as clinicians and the context is a decentralized mostly rural environment.

We should anticipate that human relations competency, problem solving and task focus is at the core of the training of any health profession. With the increasing focus on quality development, we have been made aware of the crucial importance of PHCs ability to continuously change and adjust to demands from both internal and external forces. Hence, in our aim to explore leadership behaviour, our attention has been directed towards the concept of leadership style and the theoretical, "three dimensional model" which includes task, relation and change styles. This behaviour could be identified through the perceptions of subordinates; physicians and support staff. Leader's, staff 's, context characteristics' and effect variables' associations with this behaviour , should widen our understanding of this leadership.

Figure 1.

Study Sketch



Aims

- Study thoughts, feelings and experiences about leadership from the lead physician perspective
- Study what styles of leadership that reveals based on staff's perceptions
- Study how identified leadership styles are associated with contextual, staff's and leader's characteristics.
- Study how leadership styles are associated with job satisfaction and key service and organizational categories.

Method and Material

This study has a mixed method design. The qualitative part is using focus group interviews. The quantitative part has a cross-sectional study design and data was collected through self-administered questionnaires.

The three northern most counties in Norway were purposely selected for the study (Northern Norway). Four focus groups were conducted with a total of 22 lead physicians which covered 25% of the 88 municipalities in the region. A questionnaire was distributed to 101 health centres/doctors stations for staff to respond. 122 (53%) physicians and 224 (63%) support staff responded.

The verbatim, transcribed interviews were analysed using qualitative content analysis where meaning units were then identified, condensed, abstracted, and labelled with a code. Based on their similarities and differences, the codes were first sorted into preliminary subcategories and categories, and then, after continuing comparisons, into definite ones. Finally, after reading the categories as a whole, a general theme emerged.
Descriptive and association analysis were performed by univariate and bivariate analysis, factor analysis, different t- tests, ANOVA, Pearson product-moment correlation and multivariate regression analyses.

Results

- ***Style from lead clinician perspective***

Based on their experiences, lead clinician felt that both the lack of formal leadership qualifications and the contextual conditions forced them to practice an ad hoc, exception-focused leadership style and that clinical training and experience made them able to cope in their role as leaders in PHC.

- ***Style identification by staff***

Three styles were identified. Change style was perceived the most. The distribution of items was slightly different as the task style also included individual relational items. This is partly explained by the context of this leadership. The lead physician is an integrated member of the PHC team as a clinician, and is working hand in hand with the staff. The relation style diverted somewhat from the original three dimensional model as it could be compared with the external dimension of and expanded model of four dimensions.

- ***Leadership styles associations with staff and context characteristics.***

Support staff perceived less of all three styles compared to physicians. Males experienced significantly more of all three styles, and were significant predictors for *task style* specifically.

Focusing on the whole data sample, age was negatively correlated with *relation* style and c*hange* style, while work experience was negatively correlated with c*hange* style. Team size was not significantly associated with any leadership styles.

- ***Leadership styles' associations with job satisfaction and key effect categories.***

Job satisfaction was strongly associated with *change style* for both groups, but for support staff also *task* and *relation styles* were significantly positive correlated. For service and organizational variables, the *task style* dominated for both staff groups as explored by correlation and regression analysis. Over all, support staff reported stronger associations between leadership and outcome measures than physicians. Some outcome measures were significantly associated with more than one style.

Conclusions

1. Working on this study has revealed the paucity in research that focuses on medical leadership in PHC, and specifically in a rural context. Undergraduate leadership training in medical schools is limited and might undermine the motivation and may have caused the reluctance among physicians to take on a leadership role. Lead physicians feel clinical training and experience partly compensate for that. They clearly express the need for tailored leadership competency.
2. This study has shown that the application of the three dimensional model (task, relational and change) has revealed two important aspects. Firstly, the leadership context in frontline PHC makes a shift of items from the *relational* to *task* metacategory. Secondly, our remaining *relational style* corresponds well to the "external" dimension presented in the new "four dimensional model". *Change style* is perceived the most as very promising concerning the professional development of primary medicine as well as handling major health reforms.
3. There are differences in associations between staff characteristics (gender, professional group and maturity) and perceptions of leadership behavior. These differences are important to make note of. The gender balance in primary medical care moves to more females, the staff will be more diversified because of health reforms and leadership substitutes, as maturity, are assets but also a challenge how to consciously incorporate it.
4. Styles and Job satisfaction. *Change style* is best associated with and a predictor for job satisfaction for all staff. For support staff, *task oriented* style is second best.

Leadership works through the staff to achieve goals; hence, staff job satisfaction is of crucial importance. Identification of the best style in this regard is valuable.

5. *Styles and effect categories*. Leadership behavior is positively associated with effect categories, and is dominated by *task oriented style*. These associations are less prominent for physicians than for support staff and shows that leadership is perceived and experience differently by the two groups. It seems like the more autonomous the group, the less association between leadership and outcome measures. For all staff there is a strong association between all styles and the development of a quality system. This positive link can play a vital role for future health service development and reforms.

Recommendations

This study represents one of many bricks in the construction of leadership for primary medical care and the findings and conclusions will be channeled into the following recommendations:

- *Theory development*

  More has to be done to find a theoretical basis for understanding and developing leadership in primary care. This study suggests that the four dimensional model, transformational theory, change leadership and value based leadership, should be important contributions to this process.

  For medical leadership, the overlapping of clinical theory and leadership behavior theories should be explored as there might be mutual benefits.

- *The daily work.*

  The information created by this study on the relationship between leadership and staff gender, profession, maturity, job satisfaction and effect categories, can be considered by those lead clinicians already in action and in relevant ongoing training.

- *The span of leadership.*

  The leadership span in frontline primary care is wide. The model of shared, collective leadership should be considered. This has thought to be balanced between the expressed advantages of the mixed lead position and the total workload when the municipality exceeds a certain size. This model requires a general level of leadership competency in the whole physician group which in fact is an argument for undergraduate training.

- ***Training***

  This study argues that leadership training must start in undergraduate teaching and not as a short program but as an ongoing activity throughout medical school. The training must have an approach that can provide competency directly applicable and relevant for primary care.

As was said 14 years ago, if the medical community should be taken seriously about leadership, leadership training has to become just as important as clinical training. To achieve this, there will be challenges and responsibilities in medical as well as the leadership community.

Norsk samandrag.

Bakgrunn.

Det er forska lite på medisinsk lederskap i primærhelsetenesta, særleg i ein distriktskontekst.

Helsesenteret/legekontoret er nøkkelinstitusjonen som gir medisinsk helsehjelp til lokalsamfunnet og er leda av ein av legane , oftast ein allmennpraktiker i teamet.

I dei siste 20 åra har det vore eit betydeleg fokus retta mot kvalitet på helsetnester og i kva grad det har vore drive systematisk forbedringsarbeid. Desse strategiane har alle understreka viktigheta av lederskap for å nå kvalitetsmåla. Undervisning i lederskap for primærlegar i Norge er begrensa både i medisinerutdanninga men også kva som er kravet i spesialitetane til samfunnsmedisin og allmennmedisi.

Denne avhandlinga tar utgangspunkt i at leder rolla i i primærmedisinen/allmennmedisinen er under presss og utfordra i ein travel kvardag, konteksten og viktige helsereformer.

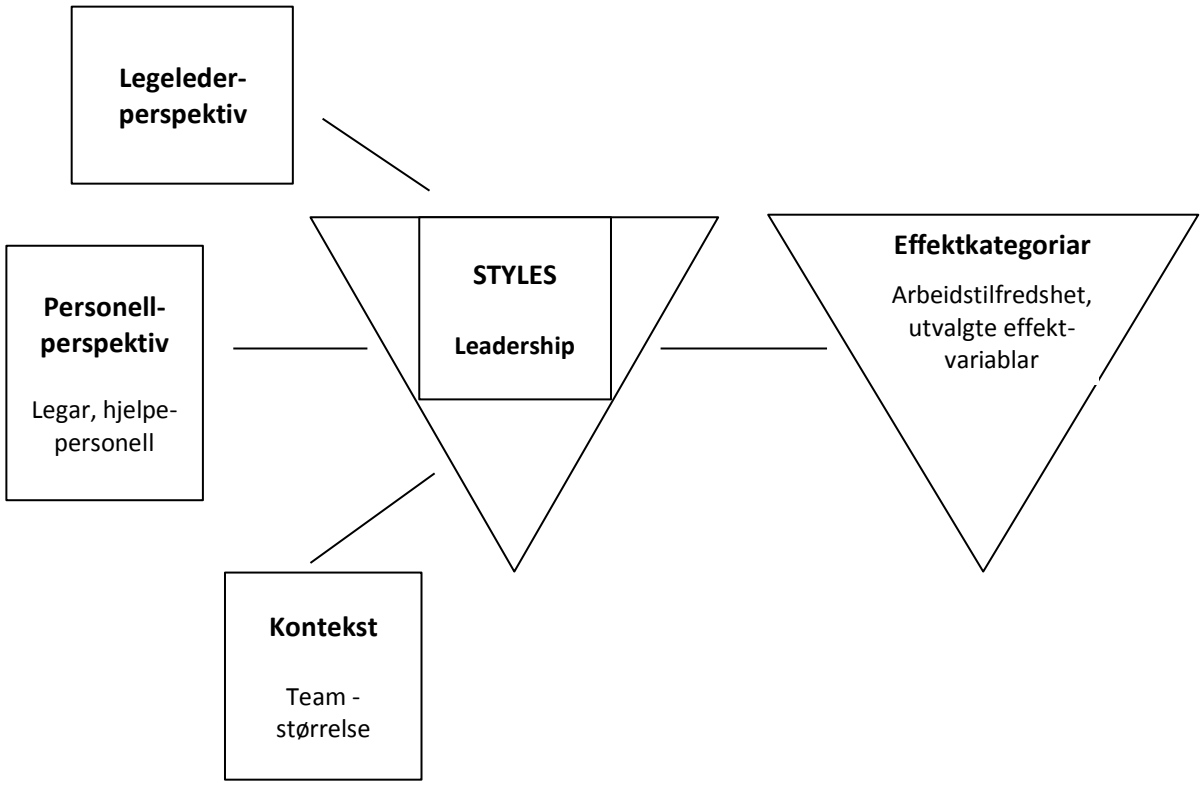
Med få studier om lederskp i primærhelsetenesta , er der mange aspekt som kunne blitt gitt oppmerksomheit. Denne avhandlinga har valgt ut leder adferd/stil som sitt primære fokus.

Vi må la relevant lederskapsteori danne grunnlaget for å utforske dette temaet. For å gjære eit mest mulig riktig valg av teori må vi ta utgangspunkt i at legelederen har lite formell lederkompetanse, jobbar primært som klinikere og at konteksten er eit desentralisert og distriktsprega helsesystem.

Vi må kunne anta at menneskelig relasjons kompetanse, problem løsning og oppgåve fokus er kjernen i helseutdanning generelt. Med den aukande fokus på kvalitets utvikling har vi blitt oppmerksoam på den avgjørande viktigheten av primærhelsetjenesta si evne til fortløpande endring og tilpasse seg både interne og eksterne krav. På denne bakgrunn har denne avhandlinga sitt behov for å utforske lederskaps adferd satt fokus på lederstil og valgt som sitt teoretiske grunnlag den «tre-dimensjonale lederstil modellen» ; oppgåve-, relasjons- og endrings-orientert. Denne leder adferden kan bli identifisert ved hjelp av dei tilsette sine observasjonar; legar og hjelpepersonell. For å få ei vidare forståing av lederstilane skal dei sjåast i samanheng med legeledarane sine erfaringar, personell og kontekst karakteristika samt arbeidstilfredshet og nokre effekt variablar (figur 1.).

Figur 1.

Forskings skisse.



Mål

- Studere tankar, følelsar og erfaringar med dette lederskapet frå legeleder sitt perspektiv.
- Studere kva lederskapsstilar som kan påvisast slik personnelet opplever det.
- Studer korleis desse stilane er assosierte med legeleder, personell og kontekst karakteristika.
- Studere korleis stilane er assosierte med arbeidstilfredshet og nokre effekt variablar.

Metode og Materiale

Dette er ein cross-sectional studie med ein «mixed method» design. Den kvalitative delen brukar fokus gruppeintervju. Den kvantitative delen brukar sjølv- administrerte spørreskjema tilsendt i posten.

Dei tre nordlegaste fylka vart valt for studien. Fire fokusgruppe intervju vart gjennomført med totalt 22 legeledere som dekka 25% av dei 88 kommunane i landsdelen. Spørreskjemaet vart sendt til legar og hjelpepersonell ved 101 helsesentra/legekontor .122 (53%) legar og 224(63%) hjelpepersonell svara.

Dei direkte transkriberte intervjua vart analysert ved bruk av «kvalitativ innhalds analyse». Det kvantitative materialet vart studert gjennom deskriptiv- og assosiasjons-analyser med bruk av univariate og bivariate analyser, faktoranalyse, ulike t-testar, ANOVA, Pearson produkt-moment korrelasjonar og multivariat regresjons analyse.

Resultat

- *Stilar og legeleder sitt perspektiv*

Legeledere erfarte at mangel på formel og tilpassa lederskaps kompetanse pressa dei til å praktisere eit reactiv, ad hoc og avviks fokusert lederskap. Det vart den kliniske utdanninga og erfaringa som gjorde at dei kunne handtere lederansvaret så godt som dei gjorde.

- *Stilar og personalet sitt perspektiv*

Tre stilar vart identifisert. Endrings stilen vart erfart mest. Fordelinga av dei ulike spørsmåla på stilar avveik noe frå modellen da oppgåve stilen også inneheld indivuell rasjonelle

spørsmål. Dette kan også avspegle det integrerte arbeidsforhold legelderen har i teamet som kliniker, jobbar skulder ved skulder med alt personalet. Dette endra *relasjons stilen* på en slik måte at den betre passa med den fjerde dimensjonen , «external», i ein utvida « fire dimensjons lederskaps model».

- *Assosiasjonar mellom Stilar, og karakteristikkar ved personalet og kontekst.*

Hjelpepersonellet opplevde mindre av alle tre stilar samanlikna med legane. Mannleg personale (legar) scora alle tre stilane høgare enn kvinner, samt at dei var signifikant prediktor for opplevd *oppgåve orientert* stil. For heile data materialet var alder på personalet negativt korrelert med *relasjons* og *endrings* stilane, medan arbeidserfaring var negativt korrelert med *endrings* stil.

- *Assosiasjonar melom Stilar, og arbeidstilfredshet og effekt kategoriar***.**

Arbeidstilfredshet var sterkt assosiert med *endrings stil* for begge personalgruppene, medan for hjelpersonellet var også *oppgåve* og *relasjons* stilane positivt korrelert. For dei andre effektvariablar som tilgjengelegheit, pasient fornøydhet, kompetanse utvikling osv dominerte den *oppgåve orienterte* stilen for både legar og helpepersonell. Totalt opplevde hjelpepersonell fleire positive assosiasjonar mellom lederstilar og effekt variablar enn legane. Dei enkelte effekt variablane kunne være positivt assosiert med ein , to eller tre stilar.

Konklusjonar

1. Arbeidet med denne studien har vist ein betydeleg mangel på forsking innafor medisinsk lederskap i primærhelsetenesta og særleg i distriktsmedisinen. Undervisning i lederskap i medisinsk grunnutdanning er begrensa og undergrev nok motivasjonen til å ta på seg leder ansvar. Legeledarane føler klinisk utdanning og erfaring kompenserer delvis for det. Dei gir klart uttrykk for behovet for leder kompetanse som er skreddarsydd for deira situasjon.
2. Denne studien har ved bruken av den tre dimensjonale modellen (oppgåve, relasjon og endring) fått fram to viktige forhold. For det første ser det ut som at lederskapet i primærmedisinen fører til ein «flytting» av individ fokusert realsjons adferd frå relasjons stilen over i oppgåve stilen. For det andre , den «gjenværande» relasjons stilen korresponderer godt med « external» dimensjonen i den utvida «fire dimensjons

modellen». Endrings stilen er mest opplevd og er eit lovande utgangspunkt for vidare utvikling av primærmedisinen og ikkje minst møtet med store helsereformer.

3. Der er forskjellar i assosiasjonane mellom ulike personell karakteristika (kjønn, fag gruppe og «modenhet») og opplevinga av leder adferd. Desse forskjellane skal ein merke seg. Kjønnsfordelinga i primærmedisinen går meir og meir i kvinne favør, fleire ulike fag grupper kjem inn som følgje av «Samhandlingsreformen», og substituttar for lederskap (som «modenhet») kan bli verdifulle og må has eit medvite forhold til.
4. Leder stil og arbeidstilfredshet. For heile personellgruppa er endringsstilen den som scorar best på arbeidstilfredshet. For hjelpepersonellet er også oppgåve stilen sterkt korrelert. Lederskapet fungerer ved hjelp av personell gruppa for å oppnå måla for virksomheten, derfor blir arbeidstilfredshet så viktig. Difor blir det viktig å finne den leder stilen som er best assosiert med dette.
5. Leder stil og effekt variablar. Leder adferd er positivt assosiert med desse variablane og oppgåve orientert stil dominerer. Desse assosiasjonane er mindre uttala i lege gruppa og viser at oppfatninga av samanhengen mellom ledelse og effekt i virksomheten er ulikt fordelt mellom faggrupper. Meir autonome faggrupper opplever mindre av slik samanheng. For å ta eitt særleg viktig poeng; begge gruppene ser ein sterk samanheng mellom lederskap og utvikling av kvalitetssystem . Dette er viktig med tanke på utviklinga av primærmedisinen og møtet med viktige helsereformer.

Tilrådingar

Denne studien er ein av mange element i konstruksjonen av primærmedisinsk lederskap, og funn og konklusjonar kan førast vidare i følgjande tilrådingar:

- *Teori utvikling*. Det står enda igjen ein del arbeid med å finne eit teoretisk grunnlag for å forstå og utvikle lederskap i primærmedisinen. Denne studien vil tilrå at den « fire dimensjons modellen», transformasjons teori, endrings- og verdibasert leiing bert tatt med i denne prosessen. Samanhengen og mulig overlapping mellom klinisk medisinsk teori og lederskapsteori må utforskast.
- *I det daglege arbeidet*. Det som har kome fram i denne studien av assosiasjonar mellom lederstil og ulike personell og effekt variablar, burde allereie i dag være av interesse for legeledere i sitt arbeid og i opplærings samanheng.

- *Kompleksiteten i lederskapet.* Særleg for kombilegen («mixed lead») blir omfanget av leder ansvaret stort. Her burde ein vurdere andre måtar å organisere leder rolla på der leder oppgåva vert delt på fleire. Det er likevel viktig å balansere fordelane med den oversikt kombilegen har over heile primærmedisinen som leder og at arbeidsmengda blir altfor stor når kommunen blir over ein viss størrelse. Ein fordeling av leder ansvaret på fleire legar forutset at denne kompetansen er hos fleire, som igjen er eit argument for at undervisning i leiing må inn i grunnutdanninga.
- *Utdanning.* Det blir viktig at undervisninga i ledelse startar i grunnutdanninga, og da ikkje som eit kort program men som ein fortløpande aktivitet gjennom heile studietida. Heilt sentralt i denne undervisninga blir å gi kompetanse som er direkte anvendbar i primærmedisinen.

Det vart sagt for 15 år sidan at dersom medisinen skulle bli tatt på alvor når det gjeld ledelse, må ledelse utdanninga bli like viktig som klinikken . Dette er framleis aktuelt og medfører ansvar og utfordringar både innan det medisinske men og i lederskap miljøet, men denne studien vil antyde at fordelane kan gå begge vegar.

2. BACKGROUND

Leadership behaviour in rural primary medicine is poorly researched. This study aims to shed more light on this important element in primary medical care (PMC) by exploring it from the perspectives of lead clinicians and staff. This background section will present information necessary for understanding the justification of the study as well as the steps leading to the conclusion. It will include an overview of PMC organization, rural context, leadership structure, quality development strategies, health policy documents, leadership training and leadership theory.

Organization

The municipality in Norway has the responsibility to provide and finance primary health care to everyone who needs it in the community. It includes medical care by physicians. This study is based in Northern Norway, a region with predominantly rural communities and a population of 466,000 (4.1/km^2). The PMC services to this population are the responsibility of 88 municipalities, 75% of which have less than 5,000 inhabitants.

Primary medical care is delivered by a team of physicians and support staff at health centres/doctor's stations. Usually municipalities with less than 5,000 inhabitants have one such centre, but larger municipalities might have two or more. Most facilities have teams of 2 to 5 physicians and the same number of support staff. Physicians are individual owners in a patient listing system but are often renting space, support staff, equipment etc. from the municipality. Some physicians might also be salaried employees of the municipality. This keeps a close link between primary medicine and the municipality.

Physicians might be specialists in family medicine or in the process of specialising. The support staff group is dominated by "health secretaries" who receive 3 year training at high school level. At some centres there are also nurses.

These centres provide comprehensive primary medical care services; a wide spectre of clinical medicine as well as public health services.

In some municipalities there are other health cadres like physiotherapists, public health nurses and home based care staff within the same facility.

Rurality

Medical services in a rural context entails small organizations, long distances to referral hospitals, qualified human resource constraints, and comprehensive services to be provided

(1-3). These conditions will influence clinical assessments, decisions and management options, the structure of the primary care organizations and its processes, and how goals can be reached (1-5). This affects how services need to be led and managed. This is the "real" frontline of decentralized PMC

Rural PHC is defined in several ways in national and international research, and often differ according to the focus of the project (6-8)). The region selected for this study, the 3 northernmost counties, Nordland, Troms and Finnmark, meet the criteria for rurality. The following elements in defining rurality as presented by Rygh and Hjortdahl (7) is found applicable for this study and should in short be more or less present: (1) isolated and scattered local communities, (2) low population density, (3) limited public transport and road infrastructure, (4) relatively long distances to health centres and hospitals, and (5) difficulties in attracting and retaining qualified personnel. I suggest adding (6); the close and integrated relationship health workers have to the local community (4).

Leadership structure

From the perspective of the PMC team one of the physicians has the leadership role in the team, but in some teams leadership responsibilities could be shared between 2 or 3 physicians. Except for the most urban municipalities, the lead physician has his/her major workload as a clinician (9,10). In almost all municipalities in the region, this lead clinician is also in charge of public health in the community and a member of the Municipal Executive Officer's team. About 87 % of municipalities in Norway have such a "mix" of duties for the lead clinician (9).

The team to be led ranges from 5 to 10 persons in the majority of municipalities in the region. Quite often the lead physician also has a wider administrative span which could include physiotherapists and public health nurses (9). This is the case for about 60% of the lead physicians found in a study in 1999 (9). The same study found also that the average number of services to be administrated was 3.9 where clinical practice dominated completely as 94% of the "mixed lead" physician also led this service. The "mixed lead" spent on average 8.3 hours a week on management. The majority of this time seems to be allocated to clinical medicine and less to public health (9). About 1/3 of lead clinicians at the time of this study had a specialty in public health/community medicine in Northern Norway (11).

The lead clinician might in smaller municipalities be in the managerial line under the Municipal Executive officer , but mostly there is a mid-level manager in between who not necessarily is health trained by profession.

Quality of care development

The focus on structured and formalized quality development in health care in Norway emerged in the early 1990s. In Norway, several quality improvement strategies have been launched by national authorities in concert with the different health professional associations (12, 13)

The Norwegian strategies for quality improvement in health care have been presented in two key documents, "Nasjonal strategi for kvalitetsutvikling i helsetjenesten (1995-2005)" and "… og bedre skal det bli" Nasjonal strategi for kvalitetsforbedring (2005-2015)" (12, 13). The action plan has identified *"improvements of leadership and organization"* as one of the key elements in this strategy. The main objectives are to achieve services that are effective, safe, and coordinated, and utilize resources appropriately, involving community and are accessible. Though presented as national targets, they highly reflect international perspectives on quality in primary health care as well as the focus on leadership and governance (14-16). Health systems must change continually, as it is a prerequisite to handle current and future challenges and implementing needed reforms. Both nationally and internationally, we are aiming at a decentralized health care with considerable responsibilities and expectations given to primary health care (16-20) .

The improvement of leadership and organizational competency is one of the critical factors to reach the strategic targets. Change must be acknowledged as a core activity needed to meet current and future challenges. Quality development sets targets for improvement, and leadership allows people and organizations to be able to reach their targets, hence leadership becomes crucial for improvement and change.

Key health policy documents.

Some key policy documents and legislation are important for the health system and might give some indication of how leadership and organizational competency is being focused and acknowledged. I have searched for the keyword, "leadership" in these documents. The major law for health care in Norway "Lov om Helse og Omsorgstjenester" (21) had only one hit, "Fastelegeforskriften" (22) regulates clinical practice within the listing system and has none,

and finally the regulations on internal audit, " Internkontroll forskriften", has none (23) . These are key regulating laws, and as such we should perhaps not expect them to include that much specifically on leadership as it is the leaders and administrators that should have the responsibility to implement what is required in regulations and laws.

"The National Health Plan 2011-2015" (24), on the other hand, several places in the document underlines the importance of leadership and emphasizes that leadership competency at all levels of the health care system is a prerequisite for success. At the municipality level the plan underlines the key role played by the Public Health Officer (mostly the "mixed lead") and that this person's leadership and management competency should be developed and improved. In Chapter 8, *Quality and Knowledge* and Chapter 9, *Personnel* (9.2) the plan specifically highlights the importance of leadership competency.

The latest reform within the health sector, "Cooperation Reform", with implementation period 2012-2015, has a major impact on PHC structurally and functionally (25). This reform focuses on preventive medicine and shifting clinical care from specialist/hospital level to PHC/municipal level. This means more municipal responsibility for clinical care beforehand and after referral to hospital level. It will influence health care in the municipality not only at the political and executive level but all the way into the primary care physician's consultation room. It will affect structures and processes of PMC, and challenge the professional capacity and competency to handle new clinical cases. The success of such a change will rest strongly on the ability to lead and organize the work. Therefore we expect that the reform should also include some fairly detailed recommendations about what will be required in this regard and how to achieve this competency. Chapter 15: "Krav til ledelse og organisering" focuses on what this reform requires of leading and organizing in PHC. Less than one page (out of 150) was allocated to this issue and three elements were highlighted: (1) Public health competency will be important. (2) Leadership responsibility must be formally placed, and (3) Patients and service users must participate in the reform.

The lead clinician must be capable of performing both strategic as well as frontline leadership in organizing this care, making a more professionally diverse human resources group motivated and competent to embark on change and development. The "mixed lead" position should be the optimal role that could include all these perspectives, but it will require a lot of resources for this lead clinician that include time, competency, and relevant support from the health system both vertically and horizontally.

So far it seems that the existing line management structure is expected to handle this and ensure that they are capable to do so. We are left to see if that is enough.

Leadership and management training

Leadership skills are important for both those leading as well as those being led. Changes and successful improvements in health services are dependent on trained and qualified leadership, but often rural municipalities have no other choice except to employ physicians without such training (127). An Australian study showed that leaders in rural nursing units face certain key challenges, such as role complexity and the lack of relevant training and support (27).
Undergraduate teaching in leadership in Norway's medical schools is still fragmented, with one out of four schools, Oslo, providing training above the minimum. Two faculties have short courses and one none. The speciality in public health requires six days of leadership training and general practice requires two days. The public health speciality is steadily losing ground as the number of new candidates does not replace in number of those leaving (9,28).
In Norwegian municipalities, leadership competency in medical PHC should specifically be found within the role of the Public Health Officer (9,29). In Northern Norway only 1/3 of lead physicians at the time of this study had this speciality (11).
Municipalities give short training courses but are generally not tailored to all the different professions or work places found in that organization. The Norwegian Medical Association offers optional leadership courses for family medicine/general practice. In addition general leadership courses are given by colleges and universities. The University of Oslo is known for their master course in Health Administration and Leadership (30).
The study among all public health physicians in Norway showed that 55% had one or more postgraduate managerial training which is dominated by training for specialisation in family medicine, community health, public health, etc. where management is just a part of the content as described (9). Minor courses of different kind were also included. The conclusion from the authors is that they question the relevance of the management training offered for the specific setting the lead clinicians have in the frontline of PMC.
There seems to be a trend in both Norway and abroad, to bring leadership closer to the patient (31,32). Clinical leadership make clinicians responsible for the services at the point of delivery. This justified move of focus to the frontline will challenge the cooperation with lead clinician and the management line above, to the health administrators. Being given more responsibility requires also having the ability to assume it. Leadership competency will not be an issue of "the few chosen", but the whole frontline team must have knowledge that only undergraduate training can assure.

In conclusion we have good reasons to be concerned about the capability of these clinicians to meet future challenges and especially when new extensive reforms are being

implemented. To develop and improve this competency, primary care physicians should know where to receive this capability. Unfortunately, there doesn't seem to be a common understanding of what leadership theory/ies that could make the fundament for building relevant and applicable leadership for frontline PHC. The next section gives a brief overview of some major theoretical approaches to leadership, and it will provide us with necessary guidance for the decision on what theoretical perspective this study should take.

Leadership theory

This last section in this background chapter will present a very brief overview of developments in leadership research and some central and generally accepted theories and models.

Definitions

There are a vast number of publications on leadership, especially from the past 50 years. There is also a wide range of definitions on leadership; some claim that there are as many as there are scholars in the field. Bass (2008) demonstrates this complexity by being able to group definitions in 12 categories (33).

To become a field of scientific research, it is required that leadership becomes a distinct and defined phenomenon. There are obvious challenges in this regard. Bass (2008, page 15) refers to Rost (1993) who found 221 different definitions of leadership in 587 examined publications (34). There are efforts to do something about this. Bass (2008) refers to a meeting in Calgary, Canada in 1994 for «The Globe Project". There 84 scientist from 56 countries concluded that (33);

> "…leadership is the ability to influence, motivate and enable others to contribute to the effectiveness and success of the organizations of which they are members."

Yukl (2010) presents another synthesize of definitions with the importance of process (35);

> "…most definitions of leadership reflect the assumption that it involves a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization" (35).

In all there are three key components in the definitions: (1) the leader (2) the tasks to be performed for the organization to reach its goals, and (3) the people to perform the tasks.

Theories and models of leadership

The leadership literature is impressive, and so is also the complexity of theories and models in the field. A wide range of scholars have contributed to give an overview and systematization.

It becomes also important to make a brief comment on the methodology that this research is based on. Leadership research has relied heavily on quantitative methodologies for years and most of the results presented in this section are based on that. This methodology can answer the questions "how" and "what". As the complexity of the phenomena of leadership has become clearer, the quantitative approach has also shown its limitations. Going back 30 years, we find the growing visibility of qualitative methodology in this research. This method was able to better answer the important question "why".

Finally we should add a third methodology, "Mixed method research". An accepted definition is "the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of breath and depth of understanding and corroboration". (36). Our study applies the latter.

In the following I will make a short introduction to trait, behaviour and situation approaches and finally mention some "new theories".

1. Trait Approach

This was one of the earliest perspectives for studying leadership and was done mostly between 1900 and 1950. It suggested that certain "physical or personality traits were essential for effective leadership" (37). These approaches emphasised attributes of leaders, such as personality, motives, values and skills. The underlying understanding was that some people are natural leaders having certain traits not possessed by other people. Massive research was conducted in the 1930s and 1940s without finding any traits that would guarantee leadership success and one reason was lack of attention to intervening variables (35).

It seems though that personality psychologists now generally agree on the "Five Factor Model" (FFM) (38). These are five broad domains or dimensions of personality that are used to describe human personality:

- **Openness to experience**: (*inventive/curious* vs. *consistent/cautious*).
- **Conscientiousness**: (*efficient/organized* vs. *easy-going/careless*).
- **Extraversion**: (*outgoing/energetic* vs. *solitary/reserved*
- **Agreeableness**: (*friendly/compassionate* vs. *analytical/detached*).
- **Neuroticism**: (*sensitive/nervous* vs. *secure/confident*).

Later research has added other traits to the lists but for my purpose, the FFM should give an idea of this approach. Leadership is a dynamic process varying from situation to situation and so far a universal set of traits that that will give leadership success has not been identified. Some traits will work in one situation but not in another. Lack of validation of the trait approaches moved the focus of leadership research to behavioral approaches. However, recently we see that some trait approaches are being focused in newer theories like value-based leadership, transformational and charismatic leadership models.

2. Behavioural theory

This approach began in the early 1950s and shifted the focus from traits to what leaders actually did on the job. Two decades of researched brought two important studies.

The Ohio State leadership studies brought forward two dimensions of behaviour *; initiating structure* (task oriented and directing of subordinates toward goal achievement.) and *consideration* (sensitive to subordinates, respect their ideas and feelings, create thrust)

The University of Michigan leadership studies identified also two concepts; *employee orientation* (interest in subordinates, their individuality and their needs) and *production orientation* (focus on the production and technical aspects of the job, subordinates were tools to achieve organizational goals)

In later studies these two behavioural dimensions have very often been subsumed under the headings, task- and relation-oriented behaviour:

1) *Task -oriented behaviour*

- Plan short-term activities
- Clarify task objectives and role expectance
- Monitor operations and performance

(2) *Relations-oriented behaviour*

- Provide support and encouragement
- Provide recognition for achievements and contributions
- Develop member skill and confidence
- Consult with members when making decisions
- Empower members to take initiative in problem solving

It is important to understand that task and relation behaviours are two separate dimensions and not contrasts on a linearly continuum. They are both present at the same time, to the degree the situation decides.

Change behaviour.

First, in the 1980's the change dimension caught research interest in addition to the task and relation dimensions. This happened much in concert with the exploration of charismatic and transformational leadership. Especially, studies by Ekval and Arvonen(1991) and Yukl (1999) made change an identifiable behavioural leadership dimension (39,40) .

The change dimension has been further explored by studies done by Avolio and Bass (1999) and in these analyses, interpersonal relations becomes important (41).

(3) *Change oriented behaviour*.

- Monitor the external environment
- Propose an innovative strategy or new vision
- Encourage innovative thinking
- Take risks to promote necessary changes

The initial two dimensional model (task and relation) was later expanded with the change dimension, and we see that scholars also add a fourth dimension. They characterise it in different ways: structure (Hersey/Blanch/Johnseon) (37.), external (Yukl) (42), strategic (Kirkhaug) (43), situation (Busch Vanebo Dehlin) (44). It could be concluded that this "fourth" dimension primarily focuses on the relationship between the organization and the environment in all aspects as this relationship affects the internal processes in the organization as well as being a target for strategic reflections in this regard .

It seems though that the three dimensional model, task, relation and change behaviour, has a well-researched and empirically based foundation .

3. Situational theories

Vroom and Jago summarize the research by concluding that "..neither of the two approaches (trait and behaviour) to the study of leadership addressed so far has produced a solid body of scientific evidence sufficient to guide practice…Today, most researchers include situational variables in their investigations , either as determinants of leader behaviour or as moderating variables interacting with traits or behaviour" (45).

In other words, no organization model or leadership approach will succeed in all situations. Leadership will be dependent on the leader's trait and behaviour, subordinates characteristics, the task to be performed and the situation that frames it.

In the following I will give some brief highlights from four acknowledged theories in the field and focus specifically how they describe the contingency elements that influence leadership. :

- **Fiedler's Contingency Model**

This model suggested three major situational variables facing the leaders (37):

1. Their personal relations with the member of their group (*leader-member relation*)
2. The degree of structure of the task the group has been assigned to perform (*task structure*).
3. The power and authority that their position provides (*position power*.)

- **Path –Goal Theory**

It builds on the two behavioural dimension (Ohio State), initiating structure and consideration, and the "Expectancy Model" that "people are satisfied with their job if they think it leads to things that are highly valued (goal) and they work hard if that effort (path) leads to it." (37)

This theory suggests a "leader's behaviour is motivating or satisfying to the degree that subordinates attain their goals and clarifies the path to these goals. To make the best choice of leadership behaviour, including path clarification, the situation at hand needs to be proper diagnosed.

- **Vroom-Yetton's Normative and Descriptive Model**

This model is not viewed as a general model as it is narrower in its focus. The key point in this model is how it deals with "the degree to which the leader involves his or her subordinates in the decision-making process ". It starts with the mapping of the problem together with the subordinates by asking some key questions: Is the importance of quality of decision? Sufficient info/expertise to make decisions?" Is the problem structured? What are the, subordinates' commitment to decision implementation? Will autocratic decisions be accepted? Are subordinates motivated to attain the goals? and, Will subordinates have internal conflicts over preferred solutions? (37). The answers to these questions will reflect aspects of the prevailing situation and, being fed into a decision matrix, the best decision will have the contingency element within.

- **Hersey Blanchard Situational Leadership Model**

Their situational leadership model is based on a Three-Dimensional Leader Effectiveness model which attempts to integrate the concepts of leader style (task and relation behaviour) with situational demands of a specific environment. The environment becomes the third dimension. This model states that there is no *one* best way to influence people. The style that should be used depends on the *performance readiness* level of the people the leader is attempting to influence. This readiness is defined by Hersey/Blanchard "as the extent to which a follower demonstrates the ability and willingness to accomplish a specific task" (37). These are the key situational variables in this model.

In general the two dimensions, task and relation behaviour, are found at the core of several of the situational leadership theories/models.

4. "New "theories

New theories have evolved for the past 30 years and in this overview I will briefly add some key word to three of them ; charismatic, transformational and transactional leadership.

- **Charismatic leadership.**

  The following attributes are seen to be essential for the charismatic relationship: charismatic leaders must be persons of strong convictions, determined, self-confident

and emotionally expressive; and their followers must want to identify with the leaders as persons whether they are or are not in crisis" (33)

- **Value based leadership.**

This leadership is defined a " collective and top down tool for influencing employees attitudes, behaviour, and ambitions to achieve the organization's goals and formal through strengthening, changing remove existing values, make new ones, transfer values to the whole organization and maintain values through conscious behaviour by leadership."(43)

- **Transformational leadership.**

Transformational leaders are those who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity (46). Key elements in the model are listed below:

1. Idealized influence (Charismatic behaviour)
2. Inspirational motivation
3. Intellectual stimulation
4. Individual considerations

- .**Change leadership**

Though we have mentioned change leadership under the behaviour models/theory section, it can also be classified as a universal new theory (47).
The key components are listed under 2.) Behavioural theories.

The new theories have elements from trait, behaviour and situational models. This is of some importance as our study is based on a behavioural and situational theoretical understanding, and can take our reflections into the framework of a "newer" perspective on leadership.

Leadership theory in professional organizations

The primary medical care team can in many ways be identified as a small professional organization though it might include professions with different length and level of education; high school, college and university educated members are included in the team. The lead clinician will be one of the physicians and very often not more qualified for leadership than the colleagues. In other words, the team will have highly competent and motivated members with well-defined tasks and goals to be achieved and a very much integrated leadership in team activities.

In such a situation Hillestad argues that “where the leader earlier was formal and controlling, today and in the future leadership is about informal contact, delegation, empowerment and giving responsibilities. The leader subordinate relationship is more characterised by being mutual, equal and sharing common goals, than typical controlling and giving orders. This will cause the leader’s authority to be based on personality aspects as professional competency, charisma, experience etc. and not on formal titles in a hierarchic and traditional bureaucracy (48).

This need of leadership finds equivalents in all the four groups described above; trait, behavioural, situational and new theories. The challenge is to reach a consensus about what should be the theoretical foundation for primary medical care leadership, and what are the major building blocks in this construction.

At the time of this study there was no clear “construction” visible in undergraduate medical training in Norway. As described above, leadership training was scarce in the four faculties. Primary care physicians during second half of the nineties were exposed to a leadership model through the quality development strategies implemented from 1995 (12,13). This strategy had chosen the Total Quality Management (TQM) model and was the first time national health authorities brought such information to all frontline health workers in PHC. The discussion, theoretical reflections and the criteria for selection of leadership theory for this strategy, were not all that visible.

There is limited literature that focuses specifically on leadership in PHC in Norway and especially when it comes to theory selection. However, Øgar and Hovland (2004), highly competent authors, present some viewpoints on this issue (49). They argue that “leadership theories in summary are confusing and it seems like it is “old wine on new bottles””. They relate to this confusion by saying «our presentation does not built on a special theory, but is a collection of what we have read and what we have experienced in our work” (49).

Another text was read with great expectations as it addressed specifically leadership and PHC (50). “Leadership and team building in primary care”. There are not many publications with such a promising title. The authors argue for a model that can be “applied to all situations” and they selected “action-centred leadership model“(ACL) created by John Adair in the 1960s (50). The theoretical approach seems not to be based on major trends in leadership theory as presented in this section.

For some reason it might not be a surprise that those dealing with leadership in PHC feel more confident with taking their own standing when selecting a theoretical basis. Yukl describe the confusing situation(51):

“There has been a bewildering proliferation of taxonomies on leadership behaviour. Sometimes different terms have been used to refer to the same type of behaviour. At other times, the same term has been defined differently by various theorists. What is treated as a general behaviour category by one theorist is viewed as two or three distinct categories by another theorist. What is a key concept in one taxonomy is absent from another. Different taxonomies have emerged from different research disciplines, and it is difficult to translate from one set of concepts to another.”

There is a challenge to conclude what leadership theory to use when studying leadership in rural PHC. We can summarize some of the characteristics of PMC; small organizations, at least tree professional level in the staff group, female dominated, high workload, health reforms , working situation with high level of uncertainty, rural constraints, human resource vacancies, and medical profession as highly autonomous.

From a theoretical perspective these characteristics could be summarized into four key approaches; relational (small organization) , task oriented (high workload with many routine procedures), change focused (medicine develops and reforms are being implemented) and contextual/situational (rural context, municipal restructuring, etc)

The conclusion will be that the three dimensional behavioural model, task, change and relation, should be applied , and assessed and understood from a situational/contextual perspective.

Summary

Leadership is important for any organization to reach its goals. In primary medical care there are daily challenges to meet the needs and demands from patients and community. The lead clinician in this regard seems not to be fully prepared to take on to this lead responsibility, and

at the same time new reforms are in the implementing phase requiring competent and experienced leadership in PMC. Time is overdue to develop and improve the situation. In the process of finding the best “treatment” the dependence and importance of a correct “diagnose” will always be there.

This study aims to add more relevant knowledge to this diagnostic process by revealing more information about the leadership performed by lead clinicians in the frontline of primary care.

This leads to our research questions in the next section.

3. AIMS

The main aims of this study have been to describe and explore medical leadership at the primary care level in a decentralised and rural health care system by:

- Studying experiences, thoughts and feelings about this leadership from the lead clinician's perspective
- Studying what styles of leadership are revealed based on staff's perceptions
- Studying how identified leadership styles are associated with staff and contextual characteristics.
- Studying how leadership styles are associated with job satisfaction, key service and organizational categories.

4. STUDY POPULATION AND METHODS

4.1 Study design

This thesis has a cross sectional study design. It is based on research projects among staff and lead clinicians at health centres in Norway using qualitative and quantitative approaches. The key person in this research is the physician that support staff and GPs relate to as their leader.

Lead physicians in primary care in the three northernmost counties in Norway were invited to participate in focus groups and four discussions were performed. Leadership attitudes, experiences and opinions were explored.
Based on experiences from the focus group discussions and general leadership research, a questionnaire was constructed and distributed by mail to primary care health centres/doctors stations in the region for all support staff and physicians (excluding lead physician) to respond. All centres were contacted by phone beforehand and later under follow-up to motivate participation. Questionnaires differed slightly in their phrasing between support staff and physicians.

4.2 Study population

Focus groups. Four groups of lead physicians were identified, two in Nordland County, one in Troms County, and one in Finnmark County. Bringing colleagues together in a region with small municipalities and long distances was a challenge for practical reasons; only one physician explicitly expressed no interest in participating. Finally, a total of 22 lead physicians took part with three, four, six, and nine participants in each group which covered 25% of a total of 88 municipalities.
Questionnaires. Questionnaires were distributed by mail to 101 health centres/doctors stations in the municipalities: 245(N) questionnaires for physicians and 350(N) for support staff. 127(n) physicians and 222(n) support staff responded, with a total respond rate of 59%; 52% and 63% respectively for the two groups. All centres received a reminder phone call and letter.

4.3 Methods

A quantitative method has dominated leadership research for many years but we have seen a slow growth in the use of qualitative research methods in leadership studies for the past 30 years as they have proven to give a deeper understanding of leadership and how it appears in particular settings and contexts (52-54). Because we have limited research focusing on leadership by clinicians in rural PHC, this study has argued for a mixed method which includes both quantitative and qualitative approaches.

4.3.1 Qualitative analysis

A qualitative approach using focus-group interviews was chosen, as the dynamics of these groups facilitate interaction between the collective experiences, knowledge, and opinions of participants (54-58). The lead investigator led the discussion together with an assistant. The sessions lasted from 1.5 to 2 hours. The verbatim transcribed interviews were analysed using qualitative content analysis (59,60). The texts were initially read by the researchers to become familiar with the content. Meaning units were then identified, condensed, abstracted, and labelled with a code. Based on their similarities and differences, the codes were first sorted into preliminary subcategories and categories, and then, after continuing comparisons, into definite ones. After reading the categories as a whole, a general theme was identified. Coding and categorization were first made individually by the two authors (Paper I), and then tried and decided upon in cooperation. The theme was the fruit of a discussion that continued throughout the later part of the analysing process.

4.3.2 Statistical analysis

The questionnaires were organized in three sections: background information, service quality and leadership behaviour. Service quality questions were slightly different between physicians and support staff. Although in principle the same, they were phrased according to the groups' position, role and responsibilities.

Statistical analyses were performed using the statistical software SPSS for Windows versions 10 through 17. Univariate analysis was performed through percentage distributions for categorical variables and for continuous variables we used means, median, range, and standard deviation.

Normal distribution was assessed by mean, standard deviation, kurtosis, skewness and graphic visualization.
This study focused specifically on leadership styles, and items covering leadership behaviour were distributed randomly in the questionnaire. Through factor analysis and data reduction, we then wanted to identify clusters of related items. Optimal validity for the variables tested was secured by using factor analysis together with principal component extraction rotated to a varimax criterion. The Cronbach's alpha coefficient (α) was used as a reliability test.

The associations between leadership styles and staff, context, job satisfaction and service characteristics, were then explored through different t- tests, ANOVA, Pearson product-moment correlation and hierarchical multivariate regression analyses.

4.4 Ethical aspects

For Subproject I the following necessary approval was granted;

The required approval has been granted by "The Norwegian Social Science Data Services" (Ref 20050118455/RH).
In addition, ethical aspects were taken care of as responders in interviews and questionnaires had complete freedom of participation and were given information as to the purpose, content and furthermore, complete anonymity in publication.

5. Main results

- ***Paper I. Leadership in rural medicine: The organization on thin ice?***

This is a qualitative study among lead primary care physicians in Northern Norway aiming at exploring their personal experiences and conceptions regarding leading primary medical care in a predominantly rural region.

Three main categories were constructed. First, *Demands and Challenges* describe typical, contextual aspects of this leadership shaped by its rural environment, with inclusion of subcategories such as the complexity and span of leadership, qualified human resource constraints, and the overall municipal organizational instability. Strain from national health authorities demanding implementation of different reforms was also felt by lead physicians.

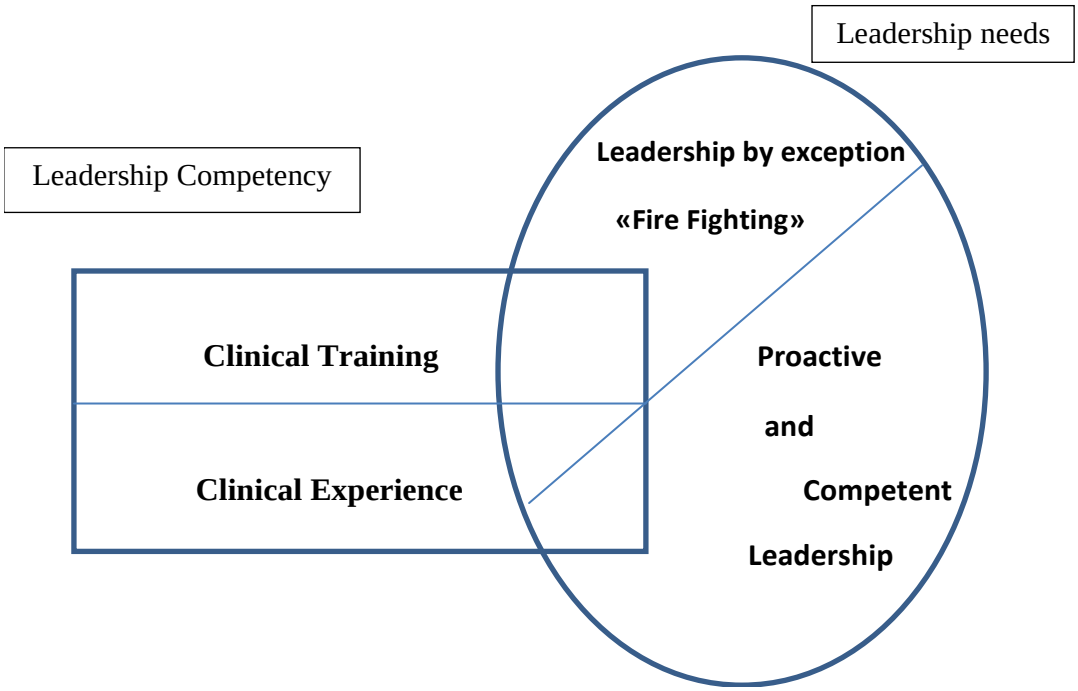
Secondly, *Personal qualifications* included initial lack of motivation for the lead position and the lack of adequate leadership training which made their clinical competency and experience crucial for coping in this role.

Lastly, *Exercising the leadership,* shows how lead physicians managed to cope, but limited information was given about how they ran the organization based on leadership theory. They seemed to miss the formal leadership terminology to describe the situation. They had their visions of leadership but few examples. Clinical competency and facilitating aspects of a rural environment were important assets for coping but still not enough for filling the need for qualified leadership.

In summary. Lead physicians described experienced successes but also an incongruence between demands and qualifications, and between visions and factual execution of leadership. This resulted in a reactive leadership that worked in an immediate sense, but were inadequate. The importance of the unsaid in the groups , despite given good opportunities, must be considered. The lead physicians were coping as individuals but the organization appeared to be on thin ice.

Figure 2.

Leadership *competency and need incongruence*



Paper II. Physicians' leadership styles in rural primary medical care: how are they perceived by staff?

This paper collects material from primary medical care units in Northern Norway and aimed to identify the leadership behaviour through staff perceptions and its associations with professional belonging, staff gender, staff maturity (age and work experience) and team size.

Three significantly different styles were identified. First, *task style* included setting goals and standards, developing routines and service quality, as well as staff dialogue, staff feedback, support and delegation. Secondly, *relation style* focused on cooperation with local co-partners and next level institutions (hospitals), and provision of information within the health centre and with the environment. Thirdly, *change style*, examined to what degree lead physicians accepted improvement suggestions, new ideas, implemented them, and how receptive they were to constructive criticism.

Physicians scored higher for all styles, and significantly higher for *relation* and *change* styles compared to support staff. Within the physician groups, males also scored higher than female physicians, but significantly only on *task style* which also was supported by correlation and regression analysis. In the overall staff population, males scored significantly higher in all styles. Maturity in terms of age and work experience showed less perceived *change style* in the oldest age group which was confirmed by correlation analysis. Team size was not associated with any style.

In summary. This study identified three leadership styles that diverted somewhat from established theory, as *task style* included dimensions that traditionally have been subsumed under the *relation style*. Over all, females seemed to perceive least of all styles. Males are clearly more attentive to and exposed to leadership. Within the physician group, we see less difference between genders in perceived leadership. Support staff might not receive their needed leadership. Since increasing age and work experience (maturity) are less associated with perceived leadership, they might function as substitutes for leadership.

These findings should be useful when training physicians for future leadership in PHC, as it confirms the relevance of some key factors in applied leadership theory: style, gender and maturity (age, work experience).

Figure 3.

Re-distribution of individual *relation style* variables to the main *Task style*

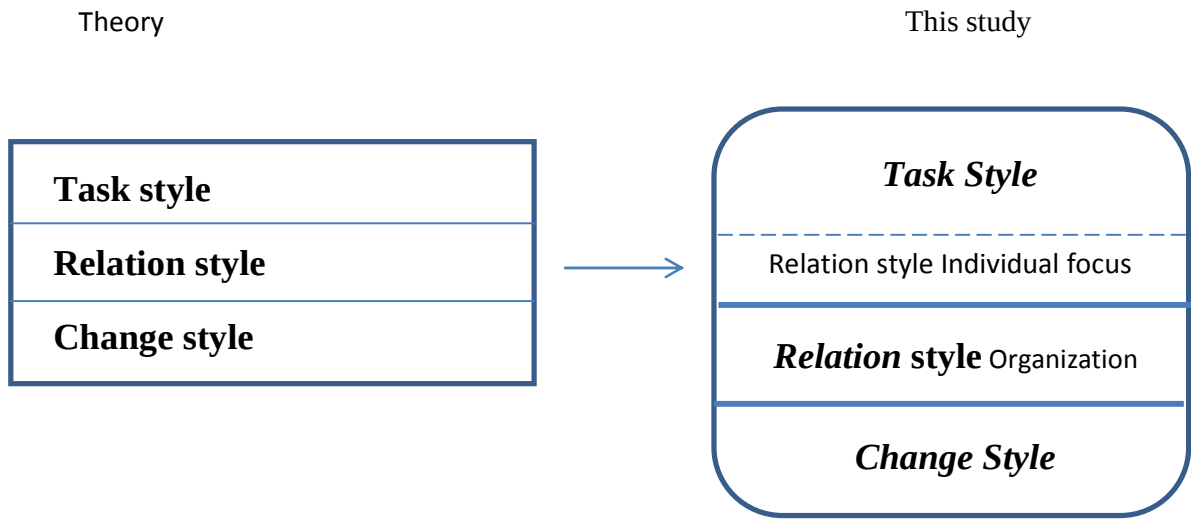
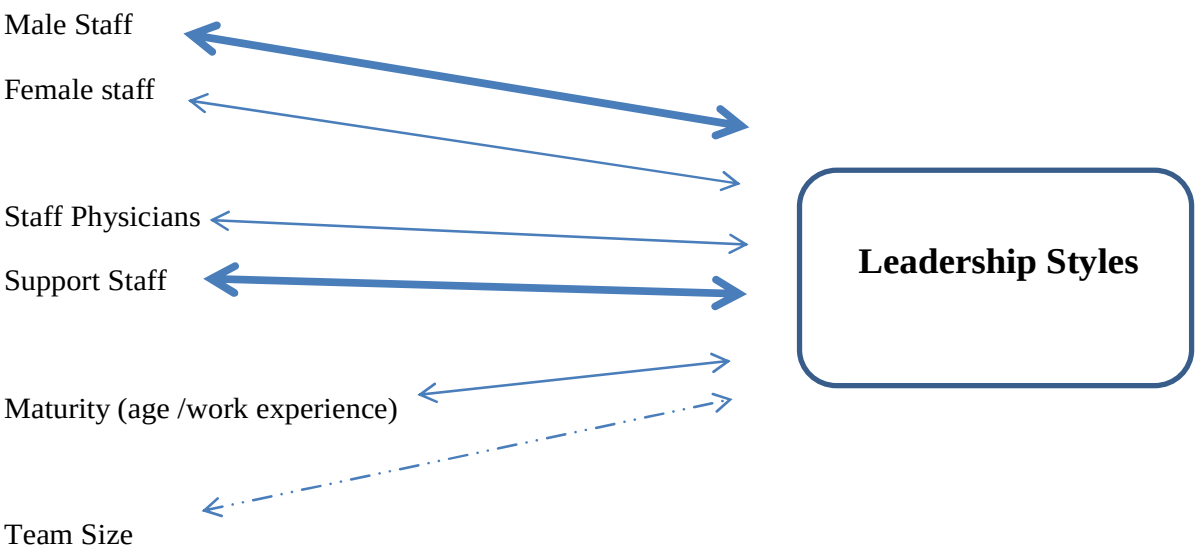


Figure 4.

Associations between staff groups/context and leadership styles.



(Arrow thickness shows strength in positive association, dotted arrow shows no association)

- ***Paper III. Leadership behaviour in rural medicine: Does it make a difference? (Not published)***

This paper presents results from a cross sectional study that aimed to find the associations between leadership styles and key effect variables as perceived by physicians and support staff in primary medical care centres in Northern Norway.

The applied leadership styles, *task, change* and *relational*, were identified in Paper II. Job satisfaction and the other effect variables were either single items in the questionnaire or factors (two or more items) revealed through factor analysis. The following outcome variables were accepted for further analysis: *job satisfaction, , patient service access, competency development, development of quality system, patients' satisfaction, , patients' complaints* and *confidentiality routines.*. The response rate was 59% (N=365). Correlation analysis was performed to identify statistical dependence or independence between leadership styles and the identified effect variables.

Physicians. Change style correlated significantly with job *satisfaction* and *access to services*, t*ask style* with *competency development*. All three styles correlated strongly with *Conducting* m*eetings* and *Quality systems development*, most with r*elational* and t*ask* respectively. For female physicians also *relational style* correlated with *job satisfaction*, and c*hange style* also with *patient access*. Female physicians also reported a positive correlation for *allocated consultation time* (task *style*) and *patient complaints* (*change style*). Overall, female physicians perceived more significant correlations between outcome measures and leadership compared to their male colleagues.

Support staff. All three styles correlated significantly and strongly with all outcome variables as listed in this paper's introduction, except for "*patients' satisfaction of allocated time in consultation"* which was only answered by physicians. For almost all variables, *task style* correlated strongest with the highest Pearson coefficient except for job satisfaction and over all service quality where *change style* was higher.

Multiple regression analysis was performed to determine how leadership styles predicted outcome variables when using gender, age, work experience, and team size as adjusting variables.

Total staff analysis for *job satisfaction* showed that c*hange style* was the best predictor followed by *task style.*

Physicians. *Change style* was best predictor for *job satisfaction* and also for *patient service access.* Further, *task style* was only predictor for *quality system development*. For

Patient satisfaction, and patient complaints; no leadership style was significantly correlating or predicting these variables. When analysed separately no leadership style predicted *job satisfaction* in the male physician group, but for female colleagues *change style* was the most significant predictor followed by *task style. Task style* was the best and only significant predictor for *quality system development* in both gender groups.

Support staff. All effect categories, except patient access were significantly predicted by leadership styles, and for *job satisfaction, change style* was strongest predictor, followed by *task style. Task style* however, dominated as predictor either alone or together with one of the other two styles.

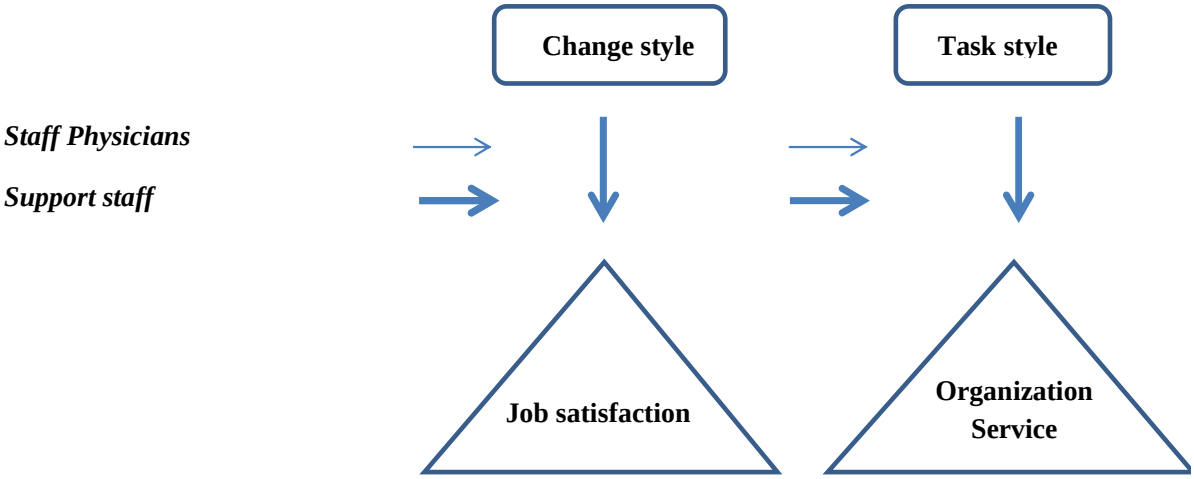
In summary. The job satisfaction and service/organizational variables were assessed as both valid and reliable as effect measures. *Change style leadership,* facing the ever changing working conditions in PHC, has shown to be positively associated with job satisfaction in both staff groups. *Task style* is strongly associated with the other effect variables.

It also appears that physicians, as compared to support staff, perceive less association between leadership behaviour and identified effect variables. This could be explained by the fact that GPs most of the day sit in a patient-physician relation in the consultation room, where it is difficult to both experience and perceive the possible impact from leadership.

Finally, we have seen that not only one but two or three styles are associated with different effect variables depending on staff group. This confirms the idea that leaders must practice a combination of styles and should consider staff groups, task characteristics and the prevailing situation to be effective.

Figure 7.

The perception of association between leadership styles and outcome categories.



Arrow thickness indicates strength of perceived associations (vertically and horizontally)

6. DISCUSSION

6.1 Method considerations

6.1.1 Study population

The aim of the study was to explore the leadership style of lead physicians in primary medical care in a decentralized and predominantly rural community by a mixed research method. Northern Norway was chosen because it filled the criteria for rural region, and was large enough to give statistical power. In addition, the area was not too large and could be covered with focus group interviews.

For the qualitative analysis, the intention was to cover each county (Nordland, Troms and Finnmark) with one focus group and preferably two in the biggest county, Nordland. Potential participants were approached in a reasonably large area to make it easier to meet, but it was still a challenge to gather lead physicians for group discussions. This meant that less attention could be paid to the representativeness of criteria like experience, gender, and positive/negative expressed attitudes towards the leadership issue, though the groups presented both gender and diverse experience perspectives.

Time in positions as lead physicians ranged from 3 months to more than 30 years. 4 (18%) women out of 22 lead physician participated, slightly less than national distribution of 22% at that time (61).

All 88 municipalities in the region were approached with questionnaires, and 75% had a population less than 5,000 people. 101 facilities responded, representing the primary medical care services for a population of almost 1/2 million. Some municipalities had more than one centre.

For physician staff, the mean age was 39.6 years and gender distribution was 42% female compared to national figures of 47.5 years and 29.9 % respectively (62). This could reflect the fact that this region has a higher turnover of primary care physicians and younger colleagues, and interns (53% females) fill relatively more posts than in other regions (63).

We were confident that the study population had the potential to reflect both their own experiences as leaders, as well as perceived leadership by staff at the time of data collection.

6.1.2 *Response rates*

It was a challenge to gather lead physicians for focus group discussions. To make it less difficult to participate, a reasonable distance to travel was provided although this somewhat limited the pool of participants just for that actual group. The investigator contacted all actual candidates by phone and as such received first-hand information about obstacles to meet. The main explanation was lack of time. Others have experienced the same (9,10)

22 lead physicians in the region managed to meet for focus group interviews, covering 25% of all 88 municipalities. 10 lead physicians who were approached for participation could not make it. Only one physician refused to participate. All lead physicians were contacted by phone first, given a brief introduction about the project and if interested, were sent a formal letter. As the four focus groups exhausted the topics for discussion, the number of participants was assessed as sufficient to provide valid information about how lead physician experience their leadership.

For the quantitative analysis, the response rates for the questionnaires were overall 59% (n=349,N=595), 52% (n=127,N=245) for physicians and 63% (n=222, N=350) for support staff. The overall rate is acceptable in general for surveys such as this. While physicians' response could have been higher, it complies with other studies exploring general practitioners responses to different requests for information (64-68). Still it is acceptable. From our knowledge, the support staff seems rarely to be asked questions about their physician leader in relation to service quality and job satisfaction in general practice and they appreciated being invited to this study.

We do not have a central register for employed support staff and it is consequently difficult to mail questionnaires to individuals in this group. To be sure, all staff were approached the same way, a senior support staff at all health centres was contacted by phone. This person provided the investigator with number of physicians and support staff at the centre and was willing to distribute the questionnaires. There was no identification number on the questionnaires so responders could not be identified. Consequently, no information about non-responders was available, a potential weakness. The age and gender distribution in the physician group reflects reasonably well nationally general practice. For support staff, we have no equivalent data for comparison. After the deadline for submission, a new reminding phone call was made to the health centres.

6.1.3 Validity and Reliability

The focus groups

This study argues that the mixed method (both qualitative and quantitative methods) is of importance when studying leadership and several studies attest for its justification and hence contribute to this thesis' validity. Mixed method research is viewed as one of three" research paradigms" together with quantitative and qualitative methods (36). Mixed method is a combination of the two that provides better understanding of research problems than either approach alone. It also "offers strengths that that offset the weaknesses of separately applied quantitative and qualitative research" (69)

Qualitative methods have gained considerable ground in leadership research (52,53,70)

This study has managed to reveal a comprehensive picture of how lead physicians in this setting experience their leadership responsibility, how they were prepared for it and how they handled it (I).

The four focus groups represented a wide range of experience, from a few months to 30 years in a lead position. The groups had 4 females (18%) from a total of 22 participants.

We were confident that the topics were exhausted and the necessary information collected for answering our research questions. We experienced that the constructed categories could be found as a red thread through all four groups, but with different angles and depth on certain issues depending on the groups. We should assume that those mostly interested in leadership took the effort to participate. At the same time they expressed critical opinions about their situation. The categories found relate well to explored topics within leadership theory, further confirming its external validity (35,71)

The questionnaire

For the quantitative part, questionnaires, extra effort was put into motivation for participation to increase representative. All 101 centres/doctors stations were approached by phone to explain and ask for participation, and the identification of contact person that could receive questionnaires and distribute them in the team. After the deadline, new phone calls were made to encourage participation for those who had not answered.

For identification of leadership style, this study based the questionnaire items on the three dimensional leadership model as presented by Yukl (35). These dimensions are: *task, change* and *relation styles*. We were not able to identify validated questionnaires based on these dimensions and specifically constructed for frontline PHC, and therefore we made it for this

study. We were confident that being thoroughly based in the well-researched and empirically based “three dimensional model”, we had a good starting point to create a data collecting tool with sufficiently external validity (47). The focus on the importance of situational and contextual aspects of leadership research indicated in the background section of this study should also justify the adjustments of our questionnaire to frontline PHC in Norway through proper phrasing of the questions, which should improve the internal validity. As the validity was vital, the issue was discussed with other researcher in the department at UiT, Norwegian Medical Association , Norwegian Board of Health Supervision, and Dpt. Health Economics and Management , UiO.

On the other hand, we see that leadership based on passive, exception focused behaviour and even non-leadership (laissez-fair) is not directly emphasized in the questionnaires (33). The focus groups revealed also this kind of reactive leadership but were not further explored in the quantitative part of the study. This is a weakness in the study and must be focused in future research. The emphasis by the groups though, on task and problem orientation, individual relational competency and change attitude, was implemented in the study questionnaires.

Northern Norway has only 4-5 towns/cities that could be called urban communities. The questionnaire did not differentiate between central and remote communities through recording distance to hospital or urban communities. It rather focused on the size of the team and total staff in the municipality. As 66 (75%) of municipalities (88) has less than 5000 inhabitants and the region having 4,1 inhabitants /km2, we are confident that the study population is found in a decentralised health care system, and predominantly rural.

To ensure a highest possible respond rate, all health centres were contacted by phone and since the lead physician were the one focused in the study, a senior support staff were approached which also was done to avoid involving the lead physician and his/her possible influence on the responders. Both phone calls and reminding letters were sent after deadline to motivate non-responders.

Reliability of the results were secured as all single variables and scales being used like identification of styles, service categories and job satisfaction were tested for normal distribution and Cronbach’s alpha tests.. We required Cronbach’s alpha above .60 for scales to be accepted. All single variables were tested for normal distribution before included in factor analysis or used as a single variable in regression analysis.

The whole population of medical PHC staff in the region was included and no sampling was done. An overall response rate of 59% (N=595) in a postal survey is considered acceptable (64-68).

6.1.4 Summary - strength and weakness:

This thesis has:

Strength:

- Both leaders and staff are respondents. Leadership research has been dominated by the leaders' perspective on styles, but this study has also emphasized the importance of staff views.
- It uses mixed methods approach; both quantitative and qualitative methods are being applied for data collection. This has given depth and breadth to the data.
- It has a reasonably high response rate in combination with a sufficiently degree of validity which should support its representativity.
- The leadership theoretical framework for the thesis is well researched.
- The principle investigator is firmly based in clinical PHC medicine though applying theories within the social sciences.
- This study has grasped this leadership through the key PHC frontline team and institution (health centre), the well-defined leader and the staff being led. The results should hence be representative for leadership behaviour in decentralised and predominantly rural primary medical care as perceived by staff.

Weakness:

- Response rate for Norwegian physicians preferably could have been higher.
- We have no information about non-responders to the questionnaires.
- The validation process of the questionnaire could have been improved.
- Some scales, especially the effect variables, could have been more robust if they had included more questions (items)
- The thesis aimed at exploring leadership from four major perspectives; defining styles through leaders and staff's experiences and perceptions, explore style associations with context and staff background data and with outcome data. This could have increased the complexity of questions and data to a level beyond a thesis format.

Conclusion:

The region of Northern Norway has been purposely selected for this research and we feel confident that they are representative for a decentralised and predominantly rural health care system. The targeted institutions, leaders and staff were all well-defined with no other alternative for selection. Questionnaires and topics for focus groups discussions were based on generally accepted leadership research and theories, and not the least inspired by decades of field experience. All single variables used in analysis have been checked for normality and for scales Cronbach's alpha was applied for assessing internal consistency (reliability).
All methodological aspects considered we are confident with the representativity of the results of this research.

6.2 Discussion of main results

6.2.1 *Leadership styles (I, II, III)*

The overall intention of this study is to know more about the leadership performed by lead physicians in decentralized primary medicine. The specific focus is on leadership behavior categorized as styles, and expanding our knowledge about these styles by revealing some key associations these styles have.

Style in leadership is defined as "the *behavior pattern* that a person exhibits when attempting to influence activities of others - as *perceived by those others*" (37). "Those others" are the teams of primary care physicians and support staff in this study. It is their perceptions of the lead physicians' behaviour and this behaviour's association with staffs' own experienced job satisfaction and perceived quality of services and organizational factors.

This knowledge about leadership behaviour is crucial in making "the diagnose" of leadership in this part of the health care system (44). It is an indisputable prerequisite to construct relevant and feasible leadership training for physicians in this setting.

The search for published studies relevant in this regard has not been very productive and has left us very much to ourselves to identify the best starting point for exploring the issue. This justifies taking the initial perspective from what lead physicians themselves in different settings explain about their competency to lead. Lead physicians claim to be task and solution oriented as clinicians who are well trained in relational competency and experienced from working in an ever changing professional and organizational environment in a decentralized health care system (I).

With this background in mind, the selection of leadership model/theory to base this study on, the three-dimensional model, was justified as it caught the key elements in the physicians' own explanation of their leadership competency. This study came up with three factors (scores) as described; *change* (3.4), *task* (3.2) and *relation* (2.9) on a Likert scale 1-5 (very little-very much)
There are some aspects of these results that will be commented on in the following. The following items were initially grouped under the *relation style* metacategory; (1) emphasizing

individual staff dialogue, (2) giving constructive feedback and (3) being supportive and considerate towards staff. In this study they are found under the *task style* category.

- *The validity of the questionnaire.*

The questions were constructed to cover the core focus of the three dimensions in the model and make the phrasing familiar to the context and the different professional staff groups in the frontline of primary medical care. As such, to our knowledge, an investigation has not been carried out previously that has used a questionnaire validated just for this setting and responders. Still we feel that our research instrument is suitable for the scope of this study. Andersen (2011) summarizes the scientific basis for "the three dimensional model" , also called the "CPE model" (Change, Production, Employee) in the following way; " The CPE model builds on the Ohio State studies and later on theories of leader-style, and stands as such on solid scientific ground» (47). He refers also to Yukl (2002) who "see this model as the best way of grouping leaders' specific behaviour patterns" (51). Andersen concludes that extensive research from different countries and on leaders both in private and public organizations, adding the thoroughly testing of the CPE-instrument, strengthen the theory.

As indicated, three items under *relation style* "moved" during factor analysis to *task oriented style*. These items correlated obviously more with the task items. This could be explained by the actual situation in this frontline leadership that the lead clinician as an integrated member of the team, has to combine individual relational behaviour just with this other style, task. On the other side could the phrasing of the individual relational items not sufficiently make a "distance" to the task oriented items. But items 2) feedback and 3) supportive above is difficult to phrase otherwise and since lead clinician deals with different task related issues daily and probably often connect both support and feedback to the task issues at hand, it will be observed by staff as connected elements in the behaviour.

The moving of items from *relational* to *task* style has though opened up for a new perspective on our *relational style* that will be discussed next.

- *A "new" fourth dimension in the model.*

In the model used in this study, as described by Yukl, 3 behaviour categories were presented (35,51) . In a later article, a fourth category was added, *external*, and it is argued that "the

importance and uniqueness of external leadership behaviour provides justification for classifying it as a separate meta-category" (72).

Hierarchical Taxonomy of Leadership Behaviors:

Task-oriented:	Clarifying, Planning, Monitoring operations, Problem solving
Relations-oriented:	Supporting, Developing, Recognizing, Empowering
Change-oriented:	Advocating change, Envisioning change, Encouraging innovation, Facilitating collective learning
External:	Networking, External monitoring, Representing

This focus (*external*) outside the organization is also reflected in the items remaining in our study's *relational* meta-category. This includes (1) cooperation with other professional groups outside the team but inside PHC, (2) stimulating to cooperate with next level of hospital/specialists, and (3) facilitating information from outside the team to team members. This could comply with the core content of this new meta-category in the model. Furthermore, it can also be supported by (Kirkhaug 2013) where he adds a fourth meta-category, strategic dimension, to the model (43). This dimension similarly focuses on the importance of the relationship in different aspects between the organization and its environment.

Our *relational style*, possibly equivalent to the external dimension in the "new" four dimensional model, is interesting in the reform processes going on in our health care. The "Cooperation Reform" will be highly dependent on this leadership behaviour in PHC in the future to succeed.

It will be important in the future to consider all four categories when constructing questionnaires.

- *Is frontline leadership in PMC different?*

We should bring the discussion about items shifting metacategory to a more principal level. Our study represents a frontline leadership in health care where the lead physician as a clinician is an integrated member of the team. This close relationship might require an individual relational behaviour as a leader. This could cause perceived behaviours by staff to correlate somewhat differently compared to the original taxonomy by expanding the *task-oriented style* with inclusion of *relational* items as in this study. More research in frontline PMC is needed with just this perspective.

Conclusion.

A three-dimensional leadership model is confirmed and even the new four -dimensional model could have appeared in this dataset. The use of a questionnaire not specifically validated for this context and population could have had some influence on the outcome of the factor analysis and should be kept in mind through the thesis.

We have managed to identify behaviour categories that can shed more light on this leadership, directly and indirectly through key associations.

6.2.2 Leadership styles in relation to lead clinician-, staff- and situation characteristics (I,II,III).

6.2.2.1 Lead Clinician's perspective

Motivation for leadership

The lead clinicians expressed concern about their initial poor motivation and preparation for leadership which obviously influenced their coping strategies in their lead role (I, 7,8). Their way into the role has more or less a character of coincidence. This has also been said by others: "… many of these managers are reluctant recruits who have stumbled into their roles, do not invest in the role as a career and therefor, are seen as lacking commitment and management knowledge and skills ..." (73). The concepts of "path dependency" and "social pressure" could explain somewhat how these clinicians came into the role. This seems to be the case in hospital departments (74).

Missing adequate leadership training and lack of initial motivation for the role must be linked, and were partly compensated for by relying specifically on their clinical experience and their undergraduate training (I).

Clinical training and experience as substitutes for leadership

This made the choice of leadership style more personally as specifically expressed by some leaders. This is eventually not without problems. Making personal choices in how to manage and lead the PHC team put a great responsibility on the lead physician to practice self-reflection where he/she explores and evaluates his/her own thoughts, feelings and behaviour (75). They argued that their clinical training gave them communication skills, relational and problem solving competency, all relevant for leadership and management and it obviously

functioned as substitutes for formal leadership training (39). The presence of an "intersection" between leadership and medicine has been focused by Huynh and Sweeny and they give several examples. One focused on motivation of patients for behavioural changes (76). This could be explored further to see if medical training and experience can contribute constructively to leadership and management competency building.

Contingency approach needed due to setting/context et.

Though they had the best intentions to fill their lead role effectively, contexts and situations forced them to be reactive and exception focused which is a less effective style (46,77). It seems like lead physician behaviour is very much determined by individual/personal, and situational conditions. The contingency leadership theory provides insight and understanding to this (37). Substituting leadership adapted to the actual situation seems to work for PHC physicians and must be considered when more specific leadership training is being provided.

Role complexity

Another aspect is very *comprehensive work responsibility* , the span, the lead clinician has and the very close relationship on daily basis with the whole team which make it almost impossible not to be relational in most of the leadership activities. This setting defines to a large extent the prerequisites for what this leadership is all about. A qualitative study between 14 PHC physicians in Ireland emphasized that role related influences include the primacy of the clinical identity, time constraints, and lack of managerial training (78). This importance of the clinical identity is also highlighted in a hospital study. In Norway where clinicians saw "a move into clinical management was not seen as a promotion , but rather as a move away from what is important (Mo, 2008) . It is reasonable to expect that training would create behaviour patterns that to a large extent reflect the three style model described. The data included in this thesis is not sufficient to confirm such a hypothesis,

This represents the considerable workload that these clinicians had to deal with. In a hospital setting, this heavy workload requires the ability to delegate work as well as having a functional support system (74).

Yukl and Mahsud (2010) argue that flexible and adaptive leadership is essential (79). They argue that for each context leaders need to know how to use many different behaviours skilfully". But as they argue is that "in a world full of change and uncertainty it is difficult

and stressful and leaders need to have a high level of commitment to do what is necessary. Necessary skills must be developed before they are needed. “
This must be the challenge as the lead physicians are not equipped with necessary motivation, skills and competency to handle this. The role clarification must be there and what realistic expectations the environment has to the leader.
In the very last section in this thesis, training, we will look at the concept of shared and distributed leadership which can be one way of reducing the complexity, span and workload when it falls on only one person.

Why do lead physician not express more leadership theory?

Surprisingly, lead clinician spent very little time on some of the key issues in leadership/management, such as goal achievement, service quality, motivation of staff, enumeration and punishment . They spent much time on describing structural issues such as their role, complexity of duties etc. This focus on organizational factors at the expense of individual factors has also been described by a qualitative study in Australia between 28 clinicians and clinician managers working in primary, community and secondary care (80)

In addition to the lack of formal leadership training, lead physicians also lack a certain level of consciousness about concept in leadership. They might certainly have heard about different keywords in the field but connecting it to their everyday life as a clinician and leader is more difficult. That’s why they expressed very little about motivation of staff, visions, etc.

Employment status of lead physician

Knowledge of the lead physician employment situation could be of interest. Who is paying for the job is of interest. 69% of lead physician were mixed lead and normally employed and salaried by the municipality. Still, this physician could run his private clinical work but still be leading as part of the municipal commitment.

Conclusion

To summarize, it could be feasible to use the description of clinical leadership in the NHS; Clinical leaders are the health professionals best placed to lead changes in practice and suggest innovations that have a positive impact on clinical quality While nurse researchers,

people directing governance initiatives and even government policy can also suggest innovations, it falls to the clinicians to interpret policy and act to initiate and support new initiatives. It is because of their contribution to the delivery of clinical care that clinical leaders are recognized for supporting and directing innovation (14).

This "working inadequacy" is fragile, and over time, adds a considerable burden to lead physicians who always have to compensate for deficiencies to make things work. This leads to ineffective ways of using their personal strengths and resources, and does not contribute to the development of the health organization, but rather, they are continuously forced to adjust to the prevailing situation and apply ad hoc leadership. This negative, downward spiral does not stimulate the lead physician to say "I take the lead". Somewhere lead clinicians must gain this much needed leadership competency and motivation.

6.2.2.2 Staff's perspectives

The quantitative part of this study describes the perspective of the two staff groups, physicians and support staff. This section will explore how staff characteristics like professional belonging, gender and maturity in terms of age and work experience, are associated with the perceived leadership behaviour. These associations could expand our understanding of the leadership in this setting.

Profession.

There was similar ranking of styles by mean scores between the two groups; highest for *change*, and lowest for *task* and *relation*, but for physicians the difference was not significant between *task* and *relational* style.

Change style focuses on change and improvements, and also includes responses to staff's own initiatives, suggestions and new ideas. In other words, it is a considerate and inclusive behaviour toward staff which should be perceived positively across any staff group and could partly explain why this style had significantly higher score than the other styles for both groups. This *change style* could be subsumed under the somewhat broader *Transformational leadership style* which includes Idealized influence (attributed) , Idealized influence (behaviour) , Inspirational motivation, Intellectual stimulation and Individualized consideration (33,46). This leadership has been assessed empirically across a broad range of settings, including health care. It is argued that "transformational leadership is a form of

social influence that has broad applicability in medicine and other health care fields" (81). This research has shown that this leadership is associated with high team effectiveness and a study by (Xirasagar, 2005) concludes that "physicians" leadership development using the transformational leadership model may result in improved health care quality (82). It is most often compared with transactional and Laissez -Faire leadership (33). Huynh and Sweeny (2013) argue for a theoretical extension of transformational and transactional leadership to the clinician-patient relationship (76). Our study might raise the question that in fact the reverse also could happen, that physicians claim that the nature of clinical training and experience also make them able to lead. This clinical competency could be compared to transformational leadership and become visible in our *change style* and for that reason possibly scored highest. In this way clinicians meet their need for change leadership (transformational) more or less based on their clinical competency.
More research is needed and could be a motivating argument when convincing physicians to embark on leadership positions as well as making the connection through leadership training.

Change, in terms of quality development and improvement of health services, has been a focus of many for the past two decades, both as an on-going process but also linked to major reforms and strategies within the health sector (Ref og det skal bli bedre… fastlegeordninen, fastlege forskriften og samhandlingsrefomen) (22,25).
All these reforms challenge the physicians' professional authority because it will require "a leadership that involves doctors in roles that go beyond their clinical practice" (83) .
The Cooperation Reform" brings both structural as well as process changes that will heavily depend on clinical leadership capability within PHC. It does not seem that this has been sufficiently focused on 2 years into the reform where the economic aspect of the reform has caught biggest attention (84).

Between *task style* and *relation style,* there were significant differences in scoring for support staff but not for physicians. Support staff perceived significantly less of this style compared to *task oriented* style. *Relation style* focused cooperation and information flow horizontally within PHC in the municipality and vertically with next referral level, the hospital. As discussed earlier, we now argue that what was the initial *relation style* is now more likely to correspond to Yukl's 4th dimension , external leadership behaviour, where the leader can " facilitate performance with behaviours that provide relevant information about outside events, get necessary resources and assistance , and promote the reputation and interest of the work unit " (42). This is being done through networking by building and

maintaining favorable relationships with peers, superiors and outsiders. It then involves analyzing information about external events and finally representing the team in these relations with the environment. The focus of this leadership covers important elements in any clinician's working day, but clearly to a lesser extent for support staff who have their major working focus on internal activities and processes.

The difference in the two staff group's perceptions of this style might also be an example of how the leader adjusts his/her behaviour to the needs of different staff groups as the need for cooperation outside the team is not the same for the two groups.

Physicians scored all styles higher than support staff and significantly higher for *change* and *relation* style. The lead physician is mostly recruited from within the team and is generally not more formally qualified for the lead position than their colleagues as they are recruited from the same pool of PHC physicians. In addition, physicians have during their university training acquired some common values and perceptions; they have strong professional identity and can easily identify themselves with their colleague in her/his lead role. Support staff has a different professional career path and position in this small PHC organization, and will as such have another background for perceiving and assessing leadership behaviour. These reflections find supported in social behaviour theories (85-90).
The difference between the two staff groups can be explained for *relational style*, but for *change style* there is no obvious reason. It could be that support staff, all females, has expectations to *change* behaviour that the predominantly male leaders cannot meet, hence a lower score. This explanation is based on the understanding of gender differences in perceiving behaviour. It finds some support in a study of support staff (health secretaries) in Norway (N=210) that showed 1/3 got "little" or "very little" support from their lead physician (92)

Finally, there is no significant difference in scores on *task style* between the two staff groups, though physician has a higher score. Physicians and support staff have different roles and responsibilities in the team so this might indicate that the lead physician is able to adjust and apply this style adequately to the different staff groups' needs. This style contains behaviour that includes directive and managerial behaviour that specifically should address support staff's need and work.

In this study we see that specifically for support staff, there is a significant positive correlation between all three leadership styles and outcome categories. This should indicate support staffs perception of the importance of leadership and effect categories. On the other hand, support staff doing more routine and task oriented work should expect to get more of that behaviour from the leader and we should expect a higher score than physicians who are more autonomous in the team. This could be explained in two ways; either feel support staff confident and cope with the work they do, the leader sees it and adjust accordingly , or they don't get the leadership they need. Further research is recommended in this regard.
This relationship between the lead physician and one major profession in the team must be addressed as it has implications for the leadership. Adjusting leadership behaviour to the different groups in the team is important for staff performance (35,37, 92). When formal leadership training is scarce, it becomes even more important that both the leader and staff are aware of how leadership behaviour must differentiate between the needs in staff groups.

Private versus municipal employment

The questionnaire included questions about how much of the position was private and how much was municipal for the staff groups. Close to 80% of support staff was municipal employed. There was no difference between the two groups in experience of leadership behaviour. For the physician group 50% had more the 50% private and 50% had more than 50% municipal employment. There was no difference between these two groups in their perception of leadership behaviour.

Conclusion

Change/transformational behavior might indicate that physicians benefit from their clinical training and experience. *Relational style* might be categorized as the external dimension and plays different role for the two staff groups. Support staff might not get the leadership they need, specifically for *change* and *task* oriented behavior, and should be explored further.

Gender.

There was a clear gender difference in perception of styles (II). Leadership behaviour and leader gender has attracted attention in research (93-95). In terms of differences between subordinates gender and perception of leadership, it has not been explored to the same extent and has not been conclusive (95). "Leadership theories typically do not incorporate characteristics of the evaluators of leadership behaviour. In this vein, subordinate sex has not received attention as a potential moderator of the leadership–leader" (96). The uncertainty

about subordinate gender as a moderator in leadership research is still there, and while some differences have been found, they are difficult to explain.. “We also found that subordinate sex moderated the relationship between transformational leadership and leader effectiveness such that the relationship was stronger when subordinates were male than when they were female. We are uncertain about why.” (96).

This seems still to be the case, as (Cuadrado et al ,2012) conclude from a study where leaders of both gender were scored on 10 different leadership styles by subordinates of both gender (97). For task- and relation-oriented styles and transformational/charismatic style, the subordinates’ gender was not a significant moderator for exploring these styles in relation to leaders’ gender. This study also concludes that future research should consider context as an important moderator.

Our study, for all respondents, shows that male staff perceived most of all three styles. This could confirm other research that shows males are more attentive to leadership in general and that leaders for this reason also focus on this staff group more and, as such, strengthen this link (35). This was also the case within the physician subgroup but significantly only for *task style,* as belonging to the same profession (physician) might reduce the gender difference in perception of *change and relation styles* (II).

We are aware of the still uncertainty about subordinate gender influence in this field of research and our results are just a small contribution to this discussion. Still in our context, this gender difference should be considered, as gender is an important issue within PHC. First of all, the staff in general practice (Norway) is increasingly female dominated, as practically all support staff are females. Secondly, female physicians are on the rise as about 70% of newly enrolled undergraduate students are females, which will have impact in the future. Thirdly, medicine is still a “male value “dominated profession and shapes new physicians, but changes come about as more female physicians occupy posts in medical schools. Fourthly, still the large majority of lead physicians in general practice nationally are males, 75% (11,62). Finally, support staff and physicians have different paths for their recruitment and professional training which could also influence their gender perspective on leadership behaviour.

For *task style*, despite belonging to the same profession, there is a significant gender difference in perception of this style in the physician group. *Task style* is generally a more managerial, directive and administrative style which is considered a “typical male” behaviour which will be more congruent with male staff expectations and scored accordingly (72,98).

This study seems to support a gender difference in how “typical male leadership” is perceived by staff.

On the other hand, support staff (all females) has a different role identity, attributes different behaviour to their leader and might as a group represents to larger extent stereotypic female values. This must influence their perception of leadership differently from males, not only for *task style* as in the physician group, but also for *change* and *relation styles*. The theoretical basis for these reflections for all staff is found in attribution theory, substitute leadership, and social behaviour theory like identity/learning/congruence theories (99, 85-90).

This study has revealed that rural lead physicians are in many ways forced to practice task, problem and exception focused leadership which also could be enforced by a presumably traditionally task oriented and autocratic style as 78 % of lead physicians in the region were men at the time of the study (I,61). This leadership behaviour might consequently divert considerably from the female group expectation of a relational, democratic and considerate leadership style. This incongruence is then visible in our data (II).

Conclusion

A staff gender perspective is important for understanding leadership behaviour as well as for the lead clinician to understand staff attitudes. This has also increasing relevance in Norway as the gender distribution in general practice is slowly changing both at staff and leader levels, as more females are entering the medical profession. Lead clinicians must develop a sensitivity to gender differences in staffs perception of leadership behaviour as it is important in itself as research has shown, but also as an indicator of both value and culture differences in the PHC team. “Further attention to subordinate sex in future research on the linkages between sex, gender, and leadership is recommended to increase our understanding of such effects in different contexts” (96)

Maturity (age and work experience).

This study has revealed that both age and work experience, here as measures of maturity, are negatively correlated with both *change* and *relation styles* and will reduce staff’s attribution of leadership behaviour to lead clinician. Staff maturity could represent parts of their professional competency and will affect staffs’ ability to comply with their job description and leadership. This increase in compliance from staff will affect the leaders’ attitudes and

behaviours towards staff and influence to what degree the leader is involved in "active "leadership" (33,37).

Maturity, very often found in strong autonomous professions, could function as a direct substitute for some leadership behaviour, such as directive leadership as staff is competent and experienced and needs little involvement from superiors (39). It is a challenge for the leader to find a good balance and avoid conflicts between their own leadership authority, a positive leadership substitute and the common good for the team.

Support staff in Norway was older and had longer work experience compared to physician staff and as such should be in less need of involvement from the lead physician. Our data support this (II).

On the other hand, will those least mature staff members be in need of more attention from their leader and if so happens, they will give higher style scores. The non-significant difference between male and female physicians' scores on *change* and *relation style* could partly exemplify that less mature staff receives more attention which can reduce the overall difference between gender, as female physicians were significantly younger and less experienced compared to their male colleagues.

Conclusion

The lead clinician must be aware that different staff groups based on their characteristics will apply different frameworks for perceiving and understanding leadership behaviour. The leader must also be aware of his/her own perception of staff behaviour and how this perception can be influenced by the lead's own characteristics. Staff is at the center for all leadership and the relevance of their characteristics must be considered as indispensable for practicing effective leadership.

6.2.2.3 The situational perspectives

In the background section four situational leadership theories/models were presented to show how they defined the situational element in their model. "Theories that cannot explain the relationship between leadership and effectiveness without involving intermediate variables are called situational or contingency theories (Andersen 2010) (47). Andersen highlights that newer theories rather talk about "context" and "environment ", and that there is a weakness

with “older” theories because they only focused on internal variables. We should expect that leaders’ situation is affected by a wide range of variables in the environment. Yukl’s expanded 4 dimensional model, which added the *external* category, is an example. .

This thesis will summarize some both internal and external variables that influence the leadership behaviour.

Work load. Norwegian lead clinicians describe a very comprehensive work situation which is dominated by heavy clinical work load in addition to the public health and leadership/management responsibilities. They feel that lack of adequate leadership training under time constraints force them to practice leadership which becomes reactive and exception focused (I). Insufficient time for leadership leads to ad hoc solutions and less effective leadership (46).

Lead clinician integrated in the team. As a clinician the PHC lead physician will very often be an integrated member of the team and work hand in hand with colleagues and support staff. This will probably both facilitate and require a leadership behaviour that has a strong relational component. The merger of individual relational styles with *task style* might be examples of consequences of such an integration of the leader (I, II, III). The close relationship between the leader and staff will to a large degree influence how staff perceives the leadership. When the lead clinician is a “mixed lead”, this role will also include strategic responsibilities with an external focus, and staff should perceive more of the *relational style.* Our data did not confirm any significant difference in style score between “mixed lead” and none “mixed lead”. One explanation could be that the leadership in PHC frontline will be dominated by clinical leadership in any event. This was also found by others (9)

The team size. This study includes the size of the team as a situational variable of importance as different sizes of the organization will demand as well as facilitate different leadership behaviour (35). Research has shown that increasing the size of organizations demands a more task oriented and directive style, while smaller groups facilitate a relational style (33).The results did not confirm this, and this could be explained by the teams being relatively small with a narrow size range that made it difficult to catch a possible diversification of styles (II, III).

Municipal context. Lead physicians describe several elements in the municipal organization that they felt had impact on their leadership (I). Instability from high staff turnover, especially in the line of leaders and especially at superior level, was frustrating. This context was

unfortunate in a situation where they struggled with incomplete leadership training. They underlined, on the other hand, the importance of a good relationship with the whole municipal organization and other cooperating partners and its positive impact on their leadership performance. These relationships were explored quantitatively through asking to what degree lead physician encouraged staff to cooperate vertically and horizontally. This made up the *relation style* which from the physician staff perspective was perceived just as much as the *task style* (II).

Primary medical care is situated and operates in the midst of local community and the quality of this relationship is of crucial importance for the leadership to function effectively in providing good quality services (16). It is supported in this study through the focus interviews with lead physicians (I).

Rurality. The rural environment contains a wide range of challenges: making sufficient resources available; competing for human resources; health legislation and regulations which demands equal access to high quality services independent of location. Isolated/remote/rural communities challenge the professional work in that a few professionals must cover a wider range of tasks, have a large workload and are very much left alone in their professional work (I,9,27,). These conditions influence lead physicians' leadership performance as they reported the lack of such training, combined with time constraints, force them to be reactive and exception focused (I). Such leadership is shown to be less effective (46).

The data does not provide sufficient information to assess if leadership behaviour changes from centrally to remote centres. As only 5 out of 88 municipalities should be considered urban in a Norwegian understanding, we should be able to conclude that this study represents leadership in a decentralized and predominantly rural health care system.

National health directives and policies. The lead clinicians were complaining about demands from national health authorities that seemed irrelevant. Leaders were overburdened by leadership tasks that were not relevant for their rural context. They complained that national programs and projects to a large extent did not consider their special rural conditions and created a lot of extra work (I). This became a leadership burden and they felt forced to practice less effective leadership by taking short cuts and being reactive and exception focused. We could also anticipate that national health authorities and not at least the Norwegian Medical Association's focus on quality development and change, could have influenced lead physicians leadership behaviour in a *change style* direction (12,100).

Concluding remarks

This section demonstrated that the environment, context and situational conditions represent important factors that influence leadership behaviour. The *contingency theories* in leadership should be applicable to health care organizations and should represent a useful framework for understanding lead clinician behaviour (37,92).

This approach also highlights the fact that leaders at different levels of the health care system necessarily have different variables to relate to and consider. For nurses in hospital, "the contingency approach points to the importance of interpretation and analysis of situational variables and taking account of these in assessing the choice of leadership style" (101).

"Situational/contingency: GPs must display the ability to 'interpret and respond to the specific context of leadership" (101).

Skog et al. (2012) demonstrated in one study how different styles relating to different clinical settings in critically ill patients that the application of Hersey and Blanchard's theory is useful (102). This model may allow us to define leadership styles that correlate best with provision of optimal patient care.

The contingency approach shifts attention towards understanding the complexity of the leadership context or situation. To understand the performance of leaders, it is essential to understand the situations in which you lead. Effective leadership is contingent on matching a leader's style to the right setting (Northouse, 2007, p. 109) (103).

The complexity of health and health care systems is demanding, and for that reason it becomes paramount that leadership find support and understanding by applying situational leadership theories and models.

6.2.3 The Leadership styles in relation to Job satisfaction and key Service and Organizational variables (IV,V)

6.2.3.1 Leadership styles and Job satisfaction

Job satisfaction is a complex concept with many elements that will cover individual, directly job related and organizational/environmental variables. Still "in the past 80 years job satisfaction has been heavily researched but suffers from many meanings and interpretations , and the lack of a universal definition of the concept" (104). It seems to have gone through a development, but job satisfaction seems to have a core, "a kind of pleasant or positive affection state" (105). Among scholars there has been a development from taking a single *affection* perspective to a more complex perspective which also includes *cognition* in terms of

a logic and rational evaluation of a wider range of work related conditions (105). There is a debate going that focuses on measurement of job satisfaction; is using a wide range of variables giving a more correct picture of job satisfaction than only asking a few overall questions about how employees feel about their work?
This study has based information of job satisfaction from three general formulated questions:

- To what degree are you overall satisfied with your job?
- To what degree do you feel bad about going to work?
- To what degree are you proud of working at your centre?

This study revealed that the *change style* has the highest correlation with and best predictor of job satisfaction for both physicians and support staff. For support staff the other two styles are also positively and significantly correlated with job satisfaction but only *task style* as a significant predictor (III).

Practically all support staff are females (one male). The physician group had 42% females. When male and female physicians were analysed separately, no leadership style predicted job satisfaction significantly for either gender, perhaps indicating that for PHC physicians, professional belonging is more important than gender when assessing job satisfaction in relation to leadership style.
On this background, support staff and their experience of both *change* and *task style* being associated with and predicting job satisfaction, could be understood from their professional belonging and not their gender.
This study has shown that from staff perspective job satisfaction is positively associated with perceived leadership.
There is limited research on this topic from a PHC physician perspective as hospital setting has dominated. More attention has been given to the nursing profession in acute care and hospital settings (106).
In general there are many studies concluding with a positive association between leadership and job satisfaction. A hospital study from Taiwan found that for nurses “leadership behaviour was significantly (positively) correlated with job satisfaction” (107). Another study from health care in United Arab Emirates reports that leadership style contributed 50% and 59% (male versus female staff) to their job satisfaction (108).
Making a limited selection of studies is difficult in this regard, but we are left with a considerable support for the leadership behaviour’s importance for job satisfaction (33,35).

Change style best in relation to job satisfaction

Research has shown that a transformational leadership style which includes a relational, motivating, empowering, considerate behaviour also contributes to job satisfaction (46). The *change style* in our study could correspond to this transformational style (II,46). Both professional groups, physicians and support staff, rates this highest, high correlation and best predictor for job satisfaction. A study of nursing staff in Finland concludes that "...nursing leadership will have to evolve and take on a transformational role if general job satisfaction is to be raised.." (109). Another study in a mental health care institution in the Netherlands concludes that "the transformational leadership style is best suited for attaining employee satisfaction" (110).

On the other hand, our study also shown that the elements contributing to job satisfaction is not only dependent on an affection based perspective (change/transformational style) as our *task* and *relational* styles also correlate positively with support staff satisfaction. This could correspond with the more widened perspective on job satisfaction mentioned earlier in this section where a cognition based evaluation also is of importance. A recent study from physical education organizations employees concludes that both a transformational and a transactional (task oriented style) correspond positively with job satisfaction with Pearson coefficient of .79 and .74 respectively (111).

Conclusion

The overall conclusion should be that our study supports that leadership behaviour contributes to job satisfaction. It also indicates that an individual relational/change oriented style might be an overall style of importance in this regard. Our study also supports that job satisfaction is a complex concept where other leadership behaviours also contribute depending on staff groups' characteristics and their differences in leadership needs.

6.2.3.2 Leadership styles and Patient Satisfaction/Service associations as perceived by staff

Introduction

This section explores another aspect of how leadership behaviour in primary medicine is experienced. We want to see how perceived styles and perceived patient and service variables are associated in the view of the two staff groups; physicians and support staff. Any

differences or similarities in this regard must be of interest as it tells us something about how these two staff groups experience leadership behaviour.

Physicians

Physicians should assess how they perceived over all patients satisfaction with care and give the number of complaints received by the physician. There were no significant correlation between leadership and these variables, and regression analysis revealed *task style* as a negative predictor for these satisfaction experiences (III). These results might underline the general opinion between physicians that the relationship between the doctor and the patient to a large degree is primarily restricted to these two parties, and involvement of others are interfering in a negative way on this relationship. Despite this, we have to question if physicians in that way exclude other important elements in running a general practice from influencing positively on the patient satisfaction and health care outcomes. This might also explain why physicians to such a small degree want to be involved in practice management (112). As a strong autonomous profession, medicine, the development of teamwork concepts in family medicine requires a wider scope for understanding of contributing factors to patient satisfaction.

Support staff

On the other side, the support staff group perceived a positive association between leadership behaviour and overall service satisfaction, applying to both specifically perceived patient satisfactions as well as managing confidential patient information (records etc.) in the centre. This could be explained by support staff having a slightly different relationship to patients and might identified more with the whole team in their patient relationship and not to the same degree as a dyadic, one to one relationship, which is more typical for the GPs. As such they might experience leadership to be closer to and more involved in their daily work and perceive this as a positive association.

As the role of support staff is less autonomous and has more routine work, it will be more accessible for managerial involvement.

The wider perspective

Physicians and support staff perceive the association between leadership and some effect categories differently. The awareness of this difference is important for leadership, as well as trying to expand physicians' understanding of what leadership can add to the physician-patient relationship. It is a challenge for the lead clinician to promote and visualise these advantages.

As said by (Snell et al. 2011)"physicians are committed to make a difference in health for patients …but the commitment must extend beyond their patients, to the health care settings." (113).

Medicine focuses on decision making at the individual physician-patient level. Leadership necessarily involves stepping away …. from this dyadic relationship and examine problems at a system level, requiring the ability to view issues broadly and systematically (Collins-Nakai (2006) p. 68). (114).

It becomes important to "further involve doctors in roles that go beyond their clinical practice "(83).

A busy working day at a health centre is filled with one to one meetings between the physician and the patient, the consultation. Most activities are centred around this dyadic relationship, including support staff activities. This must necessarily affect the centre as an organization as well as its leadership. The struggle to develop and improve patient care will always have the consultation at its midst, but a wider scope and active involvement is needed to make real progress. This applies both to leadership and staff.

6.2.3.2 Leadership styles and Organization variables

Introduction

This section strives to shed more light on leadership behaviour by focusing on its association with some key organizational and quality improvement variables. Again we approach this association by asking staff to describe leadership behaviour as well as assess the perceived level of the outcome variables. By doing it from two different professional perspectives in the team, the similarities or differences on that background could be explored.

We can group the categories in two:

- Group 1 variables; Access and professional competency
- Group 2 variables; Quality system development.

Physicians

For the Group 1 categories, neither *change* nor *task* styles correlated with the variables, but they predicted outcomes for access and competency development respectively. In contrast to the specific patient satisfaction variables discussed in the previous section, it seems that physicians associate leadership with Group 1 variables. It could be that access and competency need an overall approach and as such involve the whole team at the centre. Partly in contrast, all styles had a strong correlation with the Group 2 variables as well predicting quality system development. For the improvement of care and the key role physicians have to play, this significant association with leadership is important to make a note of. Building a quality system involves the whole team in meetings, discussions about all the key activities in the centre. These processes are in themselves contributing to quality improvements.

Support staff

For *support staff* all styles were also strongly and positively correlated with the variables in both categories. This could still be explained by being a staff group that both experiences a need for leadership but also perceives organizational variables being associated with the same leadership. *Task oriented* style seems to dominate both as the highest correlating style as well as best predictor for these outcome variables. Support staff has a more routine and procedure dominated work situation, and *task style* addresses just such a work situation.

Conclusion

For the status of leadership in PHC, it becomes important that staff manages to perceive a relation between leadership behaviour and what happens in the organization. A positive association between leadership and key organizational outcome factors should be taken as a strong motivating factor for the lead clinicians to improve services in general practice.
It seems that the two staff groups agreed upon leadership's importance on the organizational variables compared to the more patient specific and patient directed satisfaction, where physicians did not to the same degree perceive an association. Perhaps it should encourage

physicians to increase the perspective outside the dyadic relationship, the consultation, for the sake of care quality.
At the system level the primary care team will be challenged by the "Coordination Reform" (18). The reform underlines the importance of leadership to succeed. It will demand even more comprehensive competency in the primary medical care team as more clinical cases will remain in PHC and not being referred to next level (18). Then it becomes very important that all efforts are being made to handle this, not at least by utilizing the contribution from leadership.

6.2.4 Leadership training

This study has argued (I) that there is a need for training that is relevant and tailored for lead clinicians in PHC. It is also a contribution to the much needed empirical knowledge base for developing this leadership. This study is just one of several scientific pieces in the leadership training puzzle, and this final section will try to bring this study into the specific training context.
The need for empirical based knowledge is underlined by Gabel (2013)."...there are numerous published observations, surveys and recommendations that provide insight and advice on how to become an effective leader in health care, although much of this literature is not empirically based" (115). Such knowledge is of crucial importance when leadership training is to be constructed for physicians.

There are several specific conditions that must be considered: one is the predominately clinical focus these physicians have, and another is the complexity of the lead role which very often includes both frontline and strategic leadership challenges. It should not be a surprise that motivation for such a role is low. Our study shows this (I) and is well formulated by Fulop (2010) "…many of these managers are reluctant recruits who have stumbled into their roles…"(73).
One explanation of this might be the poor exposure these physicians have had to leadership training during their career and especially in their undergraduate teaching.

System approach

The importance of this topic of physicians' leadership training is supported by many and they argue for a systematic approach, focusing all physicians. This is a strong argument for undergraduate training. Two authors are given as examples: "the concept of physician leadership will not and should not be taken seriously……until the physician community becomes as serious about leadership and management training as it is about clinical training…. In today's health care environment, a critical mass of physician leaders must be developed in a systematic fashion.." (116).

From an NHS quality of care perspective; "Good medical leadership has become increasingly vital to the provision of high quality care. Leadership development should be an essential component of the education of all medical staff….. This will not occur by accident but is the responsibility of every individual doctor ...the organization…the system." (117).

In Norway the development of leadership training in medical school is still in its infancy. Other countries have come further but still have a way to go like UK. A study exploring curricula in medical schools (UK) and students attitude towards leadership training is conclusive; "….students perceived a need for leadership and management education in the undergraduate medical curriculum." (118)

Team

Our study has described leadership within a relatively small group, 5-10 people (II). It becomes important that this perspective is taken when training is being performed. This is not a large multinational company but a small organization, a team, a group, a microsystem. This is a strategy that is supported nationally through The Norwegian medical associations' focus on leadership close to the patient (ref) and also in the NHS where it is argued that "clinical teams or microsystems need to develop leadership and skills in process improvement and develop routines that foster teamwork…"(83).

Physicians need to include an organizational perspective on clinical practice, especially when it comes to development of services that will include change (119).

Health care reforms have change at the core of its strategy, and this team, organisational and system perspective must be fully adopted. This requires leadership development as an overall responsibility, “not a program; it is an organizational commitment” (120).

Shared, distributed, collective, plural leadership

Quite often we have heard that GPs opt for a flat leadership structure where colleagues share this responsibility between them. This issue seems to have received more attention in the past years and might also be focused in the training we are discussing here.
Shared leadership occurs when group members actively and intentionally shift the role of a leader to one another as necessitated by the environment or circumstances in which the group operates...as such this is a departure from the traditional hierarchical understanding of leadership (121).
This diversion from concentration of authority, plural leadership, might be suitable in “diffuse power settings like professional organizations or inter-organizational partnerships “(122)
Fulop et al. (2010) state that “individual clinician leadership is at the forefront of health reforms in Australia and oversees” and that “development of individual leaders is focused” (73). They argue that a “collective and relational form of leadership” should be pursued. They do not dismiss individual approaches to leadership but recommend to “thinking of them differently and making them more relevant to the daily experiences of clinician managers”.

The shared leadership model could be interesting for primary medical care to evaluate. This could especially be a model when the span of leadership becomes too wide for the lead clinician as the “mixed leads” expressed in this study (I). There are obvious advantages in smaller municipalities and hence primary care organization, when the leader is in “control” of both the daily running of services as well as the strategic responsibilities. But there might be a breaking point where the municipality is so large, despite optimal leadership competency with the clinician, that shared leadership could be a good solution.

PHC context

Lead physicians (I) are asking for leadership competency that is directly applicable to their context, rural PHC. There are difficulties in finding studies specifically focusing rural medicine in this regard.

Markunset al (2010) concludes in a predominantly urban study among health centre medical directors that “the struggles of these physician leaders may signal a more significant deficit in

medical education regarding issues of physician leadership, ***particularly*** in primary care» (123). The same study also adds that "it seems likely that rural medical directors would share many of the same frustrations regarding training and overall leadership preparedness".
The special condition in PHC is also focused by Willcocks (101) who suggest that special attention should be paid to leadership in such context: " the context in primary care represents a specific challenge for leadership and, therefore due recognition is required in developing the leadership capacity and capability of GPs".

When constructing undergraduate training programs, it will be important to include the perspective of a decentralized and to a large extent rural context. This study suggests applying different situational, contingency, environmental and external focused theories with the intention to create leadership competency for rural health care.

What theory seems applicable?

This study is not in a position to say what the leadership training should cover and what leadership theory should be applied. There is a challenge to identify the theoretical basis for such leadership training.
20 years ago it was said that "leaders of our current and future health care environment need not be high charisma individuals who create followers through personal magnetism (124). They can be people who have developed skills of thinking and acting outside the strict clinical box." This statement is still valid.
It is not an easy operation to identify leadership theories suitable for medical staff. Fulop et al (2010) underlines that "clinician managers, especially in the ranks of doctors, are usually described as "hybrid-professional managers" as well as reluctant leaders for whom most leadership theories do not easily apply" (73).

Independent of what theoretical framework this training is based on, it has to be a continuous process all through medical school. This is supported by Abbas (2011) as he argues that this training should "… help students relate ongoing educational activities with relevant leadership and management education rather than running an isolated leadership and management course" (118).

Despite these reflections, some scholars have tried to identify leadership theories or models to be applied in health care.

Gabel (2013) argues in his article that among a wide range of theories and models in leadership, the *transformational leadership* has also shown its efficacy in a variety of settings (115). The same author illustrates "characteristics of transformational leadership that make it valuable for medical education and the health care system". This is also the conclusion in nurse leadership by Middleton (2013) who argues strongly for the transformational leadership as a model for health care (125). A doctoral thesis support this style (126) . Xirasagar et al (2005) found a positive correlation between *transformational* leadership style and effective physician leadership (82).

The Norwegian Medical Association argues for leadership close to the patient, though focusing mostly in a hospital setting. Leadership is already very close to the patient in PHC. This also brings leadership closer to the ultimate activity where services are provided, the consultation. This close relationship gives us an opportunity to make some reflections about links between theories in clinical practice and leadership theory. We have already seen in our study that lead clinicians argue that their way of leading is very much based on some of the core activities in their clinical work. Our use of a traditional behavioural model within a situational understanding of leadership has shown to be relevant and even more by applying the extended "Four dimensional model". These models have clear links into newer theories like transformational theory. The latter has shown to be applicable in health care. More research should focus specifically on how a mutual approach between clinical medicine and leadership theory could bring us forward.

Conclusion

This section has focused on some key aspects and reflections around leadership training that has evolved on the background of this study. In short, there are at least two important suggestions to bring forward. The selection of theory /model must put considerably focus on context, situation, and environment. The link between clinical practice and leadership behaviour must be explored to find mutual benefits to the best of patient care.

Conclusions

6. Working on this study has revealed the paucity in research that focuses on medical leadership in PHC, and specifically in a rural context. Undergraduate leadership training in medical schools is limited and might undermine the motivation and may have caused the reluctance among physicians to take on a leadership role. Lead physicians feel clinical training and experience partly compensate for that. They clearly express the need for tailored leadership competency.
7. This study has shown that the application of the three dimensional model (task, relational and change) has revealed two important aspects. Firstly, the leadership context in frontline PHC makes a shift of items from the *relational* to *task* metacategory. Secondly, our remaining *relational style* corresponds well to the "external" dimension presented in the new "four dimensional model". *Change style* is perceived the most as very promising concerning the professional development of primary medicine as well as handling major health reforms.
8. There are differences in associations between staff characteristics (gender, professional group and maturity) and perceptions of leadership behavior. These differences are important to make note of. The gender balance in primary medical care moves to more females, the staff will be more diversified because of health reforms and leadership substitutes, as maturity, are assets but also a challenge how to consciously incorporate it.
9. Styles and Job satisfaction. *Change style* is best associated with and a predictor for job satisfaction for all staff. For support staff, *task oriented* style is second best. Leadership works through the staff to achieve goals; hence, staff job satisfaction is of crucial importance. Identification of the best style in this regard is valuable.
10. *Styles and effect categories*. Leadership behavior is positively associated with effect categories, and is dominated by *task oriented style*. These associations are less prominent for physicians than for support staff and shows that leadership is perceived and experience differently by the two groups. It seems like the more autonomous the group, the less association between leadership and outcome measures. For all staff there is a strong association between all styles and the development of a quality system. This positive link can play a vital role for future health service development and reforms.

Recommendations

This study represents one of many bricks in the construction of leadership for primary medical care and the findings and conclusions will be channeled into the following recommendations:

- **Theory development**

  More has to be done to find a theoretical basis for understanding and developing leadership in primary care. This study suggests that the four dimensional model, transformational theory, change leadership and value based leadership, should be important contributions to this process.

  For medical leadership, the overlapping of clinical theory and leadership behavior theories should be explored as there might be mutual benefits.

- **The daily work.**

  The information created by this study on the relationship between leadership and staff gender, profession, maturity, job satisfaction and effect categories, can be considered by those lead clinicians already in action and in relevant ongoing training.

- **The span of leadership.**

  The leadership span in frontline primary care is wide. The model of shared, collective leadership should be considered. This has thought to be balanced between the expressed advantages of the mixed lead position and the total workload when the municipality exceeds a certain size. This model requires a general level of leadership competency in the whole physician group which in fact is an argument for undergraduate training.

- **Training**

  This study argues that leadership training must start in undergraduate teaching and not as a short program but as an ongoing activity throughout medical school. The training must have an approach that can provide competency directly applicable and relevant for primary care.

As was said 14 years ago, if the medical community should be taken seriously about leadership, leadership training has to become just as important as clinical training. To achieve this, there will be challenges and responsibilities in medical as well as the leadership community.

REFERENCES

1. Wilkinson D et al. The handbook of rural medicine in Australia. Oxford: Oxford University Press; 2004.

2. Lian OS, Merok E, editors. Mellom nostalgi og avant-garde. Distriktsmedisin i moderne tid [Between nostalgia and avant-garde. Rural medicine in modern times]. Kristiansand: Høyskoleforlaget AS; 2005.

3. Strasser R. Rural health around the world: Challenges and solutions. Fam Practice 2003;20:457 – 63.

4. Lian O S. Rural Doctors on a Global Stage: Do Local Communities Make a Difference? Social Theory& amp; Health, Volume 5, Number 1, February 2007, pp. 88-102(15) Palgrave Macmillan.

5. Scott W R. Organizations. Rational, Natural, and Open Systems. Prentice Hall. Fifth Edition 2003.

6. Strasser R. Rural health around the world: challenges and solutions. Family Practice 2003;20: 457-463.

7. Rygh EM, Hjortdahl P. Continuous and integrated health care services in rural areas. A literature study. *Rural and Remote Health* 7 (online), 2007: 766

8. Muula AS. How do we define 'rurality' in the teaching on medical demography? *Rural and Remote Health* 7: 653. (Online), 2007.

9. Pettersen BJ, Hofoss D. Are public health physicians fading out of management? *Eur J Public Health.*2007; 0: ckm031v1-4.

10. Aasland O G, Akre V. Fra distriktslege til resultatområdeleder. Leger som ledere i primærhelsetjenesten. http://www.legeforeningen.no/index.gan?id=21839

Oslo .Legeforeningens forskningsinstitutt. 2003.

11. Taraldset A. Samfunnsmedisin. Godkjente spesialister i samfunnsmedisin. Legeforeningen. 27.10.2007 http://www.legeforeningen.no/utskrift.gan?id=1746&subid00&printer=true

12. National Directorate for Health and Social Affairs. "… and it ' s going to get better! " – National strategy for Quality Improvement in Health and Social Services (2005 – 2015). Oslo: Directorate for Health and Social Affairs; 2005.

13. Sosial- og helsedirektoratet. Nasjonal strategi for kvalitetsforbedring i Sosial- og helsetjenesten (1995-2005).(National strategy for quality improvement in health and social services). Sosial- og helsedirektoratet. 2005.

14. World Health Organization. MAKER. Geneva: WHO; 2008.Available online at: http://www.who.int/management/streng then/en/index.html.

15. World Health Organization, (2000). The World Health Report 2000 – Health Systems: Improving performance.

16. World Health Organization. The World Health Report 2008:Primary health care now more than ever. Geneva: WHO;2008.

17. Kommunehelseloven. Lov om helsetjenesten i kommunene.(Act relating to the municipal health services).Helse- og omsorgsdepartementet.1982.

18. Report No. 47 (2008–2009) to the Storting. The coordination reform. Oslo: Norwegian Ministry of Health and Care Services; 2008 [Summary in English].
Full version in Norwegian: Stortingsmelding nr. 47 (2008–2009), Samhandlingsreformen. Rett behandling—på rett sted—til rett tid. Oslo: Helse- og omsorgs departementet; 2009.

19. Forskrift om fastlegeordningen i kommunene. (Regulation relating to a municipal regular GP scheme) .Sosial og Helse departmentet. Oslo 2000.

20. Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September, 1978.

21. Helse- og omsorgsdepartementet. Lov om kommunale helse- og omsorgstjenester m.m. (helse- og omsorgstjenesteloven). http://lovdata.no/dokument/NL/lov/2011-06-24-30?q=lov+om+helse+og+omsorg

22. Helse- og omsorgsdepartementet. Forskrift om fastlegeordning i kommunene. http://lovdata.no/dokument/SF/forskrift/2012-08-29-842?q=fastlegeforskriften

23. Forskrift om internkontroll i Sosial og Helsetjenesten. (Regulation relating to internal control in Social and Health services). Helse og omsorgs departementet. Oslo 2002 http://www.lovdata.no/cgi-wift/ldles?doc=/sf/sf/sf-20021220-1731.html

24. Helse og omsorgsdepatementet. Meld. St. 16 (2010–2011).Nasjonal helse- og omsorgsplan (2011–2015) .The National Health Plan. 2011-2015. http://www.regjeringen.no/nb/dep/hod/dok/regpubl/stmeld/2010-2011/meld-st-16-20102011.html?id=639794

25. The Norwegian Ministry of Health and Care Services. The Coordination Reform .Proper treatment – at the right place and right time .Report No. 47 (2008–2009) to the Storting. www.regjeringen.no/pages/2206374/PDFS/STM200820090047000DDDPDFS.pdf

26. Markuns JF, Culpepper L, Halpin Jr. WJ. A need for leadership in primary health care for the underserved: A call to action. Acad Med 2009:84.

27. Paliadelis PS. Rural nursing unit managers: Education and support for the role. Rural and Remote Health 2005;5:325.[Online], 2005:1 – 8.

28. Norwegian Medical Association. http://www.legeforeningen.no/id/18. http://legeforeningen.no/Emner/Andre-emner/Legestatistikk/

29. Den norske legeforening. Mürer-utvalget. Ledelse av sykehusavdelinger og kommunehelsetjeneste. Mål og strategier. 1996.

30. Universitetet i Oslo . Helseadministrasjon. http://www.uio.no/studier/program/erf-helseadm-master/

31. The Norwegian Medical Association. Policy note no.3/2013. Legeforeningen.no

32. NHS. Clinical governance. Clinical governance guidance. Department of Health. National Health Services . Published 19 September 2011 .

33. Bass BM, Bass R. The Bass Handbook of Leadership. Theory, Research & Managerial Applications. Fourth Edition. New York: Free Press. 2008

34. Rost J. Leadership for the twenty-first century. Praeger Publishers. CT. 1993.

35. Yukl G.Leadership in Organizations. Seventh Edition. New Jersey: Pearson .2010.

36. Burke Johnson B,. Onwuegbuzie AJ and Turner LA . Toward a Definition of Mixed Methods Research . Journal of Mixed Methods Research. 2007; 1; 112 .

37. Hersey P, Blanchard K H, Johnson DE. Management of Organizational Behavior. Leading Human Resources. Ninth Edition. Pearson International Edition .NJ 2008.

38. Costa PT, McCrae R R. THE FIVE-FACTOR MODEL OF PERSONALITY AND ITS RELEVANCE TO PERSONALITY DISORDERS. Journal of Personality Disorders. 6(4), 343-359, 1992.

39. Ekvall G, Arvonen J . Change-centered leadership: An extension of the two-dimensional model. Scandinavian Journal of Management, . 1991. Volume 7, Issue 1, Pages 17-26.

40. Yukl G. An Evaluative Essay on Current Conceptions of Effective Leadership. European Journal of Work and Organizational Psychology, 1999, 8(1), 33-48.

41. Avolio BJ, Bass BM, Jung DI. Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. Journal of Occupational and Organizational Psychology (1999), 72, 441-462.

42. Yukl G. Effective Leadership Behavior: What We Know and What Questions Need More Attention. Academy of Management Perspectives. November 1, 2012 vol. 26 no. 4. 66-85.

43. Kirkhaug R. Verdibasert ledelse.Betingelser for utøvelse av modern lederskap. Universitetsforlaget. 2013.

44. Bush T,Vanebo J O,Dehlin E. Organisasjon og organisering. 6 utg. Universitetsforlaget 2010.

45. Vroom VH, Jago AG. The Role of the Situation in Leadership. American Psychologist. 2007. Vol. 62, No. 1, 17–24.

46. Bass BM, Riggio RE. Transformational leadership. 2nd ed. Mahwah, NJ: Lawrence Erlbaum; 2006.

47. Andersen J A. Ledelsesteorier. Om ledelse skal lede til noe. Fagbokforlaget. 2011.

48. Hillestad T.Organisering og ledelse av kunnskapsvirksomhet. In Nordhaug O. Kunnskapsledelse. Trender og utfordringer. Universitetsforlaget. 2002.

49. Øgar P, Hovland T. Mellom kaos og kontroll. Leiing og kvalitetsutvikling i kommunehelsetjnesten. Gyldendal Akademiske. Oslo. 2004.

50. Mullins C, Constable G. Leadership and Teambuilding in Primary Care.Radcliffe Publishing Ltd. 2007.

51. Yukl G, Gordon A Taber T. A Hierarchical Taxonomy of Leadership Behavior: Integrating a Half Century of Behavior Research.Journal of Leadership and Organizational Studies, 2002.Vol.9, No.1

52. Parry KW. The New Leader: A Synthesis of Leadership Research in Australia and New Zealand. The Journal of Leadership Studies, (1998),Vol.5, No.4, 82-105.

53. Bryman A. (2004). Qualitative Research on Leadership: A critical but appreciative view. Leadership Quarterly, 15(6), 729-769.

54. Klenke, K. (2008). Qualitative research in the study of leadership. Emerald, Bingley.

55. Kvale S. Interviews: An introduction to qualitative research interviewing. Oslo: Gyldendal Norsk Forlag AS; 2001.

56. Malterud K. Kvalitative metoder i medisinsk forskning – en innføring. Universitetsforlaget. 2003.

57. Kitzinger J. Qualitative Research: Introducing focus groups. Education and debate. BMJ 1995;311:299-302 (29 July)

58. Krueger R A, Casey MA. Focus Groups. A practical guide for applied research. 3rd ed. Thousand Oaks. Sage Publications, Inc. 2000.

59. Elo S, Kyngä s HJ. The qualitative content analysis process. J Adv Nurs 2008;62:107 – 15.

60. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004;24:105 – 12.

61. Taraldset A. Synkende medlemstall i de minste yrkesforeningene. Tidsskr Nor Lægeforen.2004; 5;

62. Gaardsrud PØ. Styringsdata for fastlegeordningen 4. Kvartal 2011. Helsedirektoratet 2011. www.helsedirektoratet.no/finansiering/.../hovedtallsrapport%202011_4.doc

63. Taraldset A. Over 18 000 yrkesaktive leger I Norge. Tidsskr Nor Lægeforen 2005; 125:341. http://tidsskriftet.no/article/1143532

64. Pettersen B, Johnsen R. Legers oppfatning av samhandlingen mellom nivåene i helsetjenesten. Tidsskr Nor Lægeforen 2007;127(5):565-8.

65. Baruch Y. Response Rate in Academic Studies – A Comparative Analysis. Human Relations, Vol 52, No.4, 1999.

66. Baruch Y, Holtom C B. Survey response rate levels and trends in organizational research. Human Relations, Volum 61(8): 1139-1160.

67. Dillman DA, Phelps G, Tortora R, Swift K, Kohrell J, Berck J, Messer BL. Response rate and measurement differences in mixed-mode surveys using male, telephone, interactive voice response (IVR) and the Internet. Social Science Research, 38(2009) 1-18.

68. Kerlinger FN, Lee HB. Foundations of Behavioral Research. 4th Edition. USA. Wadsworth. Thomson Learning. 2000.

69. Creswell, J W, and Plano Clark VL. Chapter 1. Understanding mixed method research. In Designing and conducting mixed methods research. Thousand Oaks, CA: Sage publications, 2007.

70. Øvretveit, J. Comparative and cross-cultural research. A practical guide. Oxon UK Redcliff Medical Press.1998.

71. Bass B M. Handbook of leadership: A survey of theory and research. New York: Free Press. 1990.

72. Yukl, G. Effective leadership behavior: What we know and what questions needs more attention. Academy of Management Perspectives, (2012). 26, 66–85. doi:10.5465/amp2012.0088

73. Fulop L, Day GE. From leader to leadership: clinician managers and where to next? Australian Health Review, 2010, 34, 344–351.

74. Spehar I , Kjekshus L E. Medical Management in Norwegian Hospitals. Professions and Professionalism .Volume 2, No 1 (2012), pp. 42-59.

75. Rogers R. Leadership communication styles: a descriptive analysis of health care professionals. Journal of Healthcare Leadership 2012:4 47–57.

76. Huynh HP, Sweeny K. Clinician Styles of Care: Transforming Patient Care at the Intersection of Leadership and Medicine. J Health Psychol. published online 17 July 2013.

77. Casida J, Parker J. Staff nurse perceptions of nurse manager leadership styles and outcomes. Journal of Nursing Management. 2011. 19, 478–486

78. O'Riordan C, McDermott A. Clinical managers in the primary care sector: do the benefits stack up? J Health Organ Manag. 2012;26(4-5):621-40.

79. Yukl, G, Mahsud R .Why flexible and adaptive leadership is essential. Consulting Psychology Journal: Practice and Research, Vol 62(2), Jun 2010, 81-93.

80. Leggat S G, Balding C. "Achieving organisational competence for clinical leadership: The role of high performance work systems", Journal of Health Organization and Management, (2013) .Vol. 27 Iss: 3, pp.312 - 329..

81. Gabel S . Transformational Leadership in Medical Practice: Capturing and Influencing Principles-Driven Work. Journal of Ambulatory Care Management. Issue: Volume 35(4), October/December 2012, p 304–310.

82. Xirasagar S, Samuels ME , Stoskopf CH. Physician Leadership Styles and Effectiveness: An Empirical Study. Med Care Res Rev. 2005 62: 720.

83. Ross Baker G, Denis JL Medical leadership in health care systems: from professional authority to organizational leadership, Public Money & Management, (2011), 31:5, 355-362, DOI: 10.1080/09540962.2011.598349

84. Hana M. Samhandlingsreformen- Bare et ideal eller også en reslitet? En organisasjonsteoretisk studie av innføringen av samhandlingsreformen i tre nordnorske kommuner. Masteroppgave i Organisasjon og Ledelse STV-3091 . Mai 2013.

85. Peteraf M, Shanley M. Getting to know you: A Theory of Strategic Group Identity. Strategic Management Journal 1997; Vol.18 (Summer Special Issue):165-186.

86. Dutton JE, Dukerich JM, and Harquail CV. Organizational Images and Member Identification. Administrative Science Quarterly 1994; Vol.39, 2:239-263.

87. Hogg MA. A Social Identity Theory of Leadership. Personality and Social Psychology Review 2001; Vol.5, 3:184-200.

88. Allen SJ. Adult Learning Theory and Leadership Development. Leadership Review 2007; Vol.7, Spring:26-37.

89. Eagly AH, Karau SJ. Role Congruity Theory of Prejudice Toward Female Leaders. Psychological Review 2002; Vol.109, 3:573-598.

90. Wittmer CR. Leadership and Gender-Role Congruency: A Guide for Wilderness and Outdoor Practitioners. The Journal of Experiential Education 2001;Vol.24, 3:173-178.

91. Reichborn-Kjennerud K. Faste grep om helsa i hektiske kontor. En undersøkelse av helsesekretærenes arbeidsfohold ved fastlegekontor. Arbeidsforskningsinstituttet. Notat nr. 14. 2010.

92. Fiedler F E. A theory of leadership effectiveness. New York; McGraw-Hill, 1967.

93. Eagly AH, Carli LL. The female leadership advantage: An evaluation of the evidence. The Leadership Quarterly 2003;14:807-834.

94. Eagly AH, Johnson BT. Gender and Leadership Style: A Meta-Analysis. Psychological Bulletin 1990; Vol.108. 2:233-256.

95. Eagly AH, Johannesen-Schmidt MC, van Engen ML. Transformational, Transactional, and Laissez- Faire Leadership Styles: A Meta-Analysis Comparing Women and Men. Psychological Bulletin 2003; Vol.129, 4:569-591.

96. Douglas C. The moderating role of leader and follower sex in dyads on the leadership behavior–leader effectiveness relationships . The Leadership Quarterly. Volume 23, Issue 1, February 2012, Pages 163–175.

97. Cuadrado I et al. Gender Differences in Leadership Styles as a Function of Leader and Subordinates' Sex and Type of Organization. Journal of Applied Social Psychology, 2012, 42, 12, pp. 3083–3113.

98. Eagly AH, Johannesen-Schmidt MC, van Engen ML. Transformational, Transactional, and Laissez- Faire Leadership Styles: A Meta-Analysis Comparing Women and Men. Psychological Bulletin 2003; Vol.129, 4:569-591.

99. Kerr, S., Jermier, JM. Substitutes for leadership: Their meaning and measurement. Organizational Behavior and Human Performance, 1978, 22, 375-403.

100. The Norwegian Medical Association. Quality development at http://legeforeningen.no/Emner/Andre-emner/Kvalitet/ , September 2012.

101. Willcocks, SG. Exploring leadership effectiveness: nurses as clinical leaders in the NHS . Leadership in Health Services Vol. 25 No. 1, 2012 pp. 8-19.

102. Skog A et al. Assessing Physician Leadership Styles: Application of the Situational Leadership Model to Transitions in Patient Acuity, Teaching and Learning in Medicine: An International Journal, (2012) . 24:3, 225-230,

103. Northouse, P. G. Leadership: Theory and practice, 4th edition (p.109). Thousand Oaks, CA: Sage. 2007.

104. Pantouvakis A. Internal service quality and job satisfaction synergies for performance improvement: Some evidence from a B2B environment. Journal of Targeting, Measurement and Analysis for Marketing 19.1 (Mar 2011): 11-22.

105. Zhu Yanhan. A Review of Job Satisfaction. Asian Social Science; 2013. Vol. 9, No. 1;

106. Fiabane E et al. Occupational stress and jobsatisfaction of health care staff in rehabilitation units. Med Lav 2012; 103 , 6: 482-492.

107. Tsai Y. Relationship between Organizational Culture, Leadership Behavior and Job Satisfaction. BMC Health Services Research 2011, 11:98 .

108. Barhem B. Employee Satisfaction in the Health Care Sector. A Comparative Study of Private and Public Health Care Organisations in the UAE. Journal of Health Management January/April 2010 vol. 12 no. 1 19-38.

109. Eneh V. O. et al. Nursing leadership practices as perceived by Finnish nursing staff: high ethics, less feedback and rewards. Journal of Nursing Management, 2012. 20: 159–169. doi: 10.1111/j.1365-2834.2011.01373.x.

110. Elshout R et al. Understanding the link between leadership style, employee satisfaction, and absenteeism: a mixed methods design study in a mental health care institution .Neuropsychiatric Disease and Treatment 2013:9 823–837.

111. Rizi R M et al. Relationship between leadership styles and job satisfaction among physical education organizations employees .European Journal of Sports and Exercise Science, 2013, 2 (1):7-11.

112. Halvorsen et al. What professional activities do general practitioners find most meaningful? Cross sectional survey of Norwegian general practitioners. BMC Family Practice 2013, 14:41.

113. Snell AJ, Briscoe D, Dickson G. From the Inside Out: The Engagement of Physicians as Leaders in Health Care Settings. Qual Health Res, 2011 21: 952.

114. Collins-Nakai R. Leadership in medicine. MJM 2006 9:68-73

115. Gabel S. Transformational Leadership and Healthcare. Med Sci Educ .2013; 23(1): 55-60.

116. Schwartz R W. Poggea C. Physician leadership: essential skills in a changing environment. The American Journal of Surgery. Volume 180, Issue 3, September 2000, Pages 187–192.

117. Warren OJ, Carnall R. Medical leadership: why it's important, what is required, and how we develop it . Postgrad Med J 2011;87:27e32.

118. Abbas MR et al. Attitudes of medical students to medical leadership and management: a systematic review to inform curriculum development. BMC Medical Education 2011, 11:93.

119. Grol, R. (2002), Changing physicians' competence and performance: Finding the balance between the individual and the organization. J. Contin. Educ. Health Prof., 22: 244–251.

120. . Block L A.M, Mannin L J. A systemic approach to developing frontline leaders in healthcare. Leadership in Health Services Vol. 20 No. 2, 2007 pp. 85-96.

121. Pearce CL et al. New forms of management: Shared and distributed leadership in organizations. Journal of Personnel Psychology, Vol 9(4), 2010, 151-153.

122. Sergi, V, Denis, J.-L, Langley A. Opening Up Perspectives on Plural Leadership. Industrial and Organizational Psychology, (2012), 5: 403–407.

123. Markuns J F, Fraser B. Orlander J D. The Path to Physician Leadership in Community Health Centers: Implications for Training. (Fam Med 2010; 42(6):403-7.)

124. Porras, J. & Collins, J. Built to Last. Century Hutchinson, London, 1994.

125. Middleton R. Active learning and leadership in an undergraduate curriculum: How effective is it for student learning and transition to practice? Nurse Education in Practice. Volume 13, Issue 2, March 2013, Pages 83–88.

126. Smartt K A. Exploring the relationship between physician leader behavior and perceived organizational effectiveness. Doctoral thesis. Indiana Wesleyan University. 2010.

127. Hemphill J K, Coons A E. Development of the leader behaviour description questionnaire. In R M Stogdill & A E Coons (Eds.), Leader behaviour: Its description and measurement. Columbus: Bureau of Business Research, Ohio State University. 1957. pp 6-38.

PAPER III

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

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Jan Hana
Institutt for samfunnsmedisin
Universitetet i Tromsø
MH-bygget
9037 TROMSØ

Vår dato: 17.11.2005 Vår ref: 2005011184 SS /RH Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 05.07.2005. All nødvendig informasjon om prosjektet forelå i sin helhet 16.11.2005. Meldingen gjelder prosjektet:

13045	*Ledelse i primærlegetjenesten i Nord-Norge - kan den bli bedre*
Behandlingsansvarlig	*Universitetet i Tromsø, ved institusjonens øverste leder*
Daglig ansvarlig	*Jan Hana*

Etter gjennomgang av opplysninger gitt i meldeskjemaet og øvrig dokumentasjon, finner vi at prosjektet ikke medfører meldeplikt eller konsesjonsplikt etter personopplysningslovens §§ 31 og 33.

Dersom prosjektopplegget endres i forhold til de opplysninger som ligger til grunn for vår vurdering, skal prosjektet meldes på nytt.

Vedlagt følger vår vurdering. Prosjektet kan settes i gang.

Vennlig hilsen

Vigdis Kvalheim

Synnøve Serigstad

Kontaktperson: Synnøve Serigstad tlf: 55 58 35 42

Vedlegg: Prosjektbeskrivelse

Prosjektvurdering

Daglig ansvarlig

Jan Hana
Institutt for samfunnsmedisin
Universitetet i Tromsø
MH-bygget
9037 TROMSØ

13045 **Ledelse i primærlegetjenesten i Nord-Norge - kan den bli bedre**

Formålet med prosjektet er å få fram mest mulig kunnskap om lederskap utført av leger, og undersøke om det er sammenheng mellom tjenestekvaliter og lederskap. Man skal i tillegg identifisere sentrale lederskapskrav i en distriktsmedisinsk ramme/setting.

Utvalget består av kommuneleger i Nord-Norge. Prosjektkleder har selv foretatt rekruttering og opprettet førstegangskontakt. En del av kommunelegene er intervjuet i fokusgruppeintervju. De har fått muntlig og skriftlig informasjon. Det er også gjennomført en spørreundersøkelsen blant kommunelegene og hjelpepersonell. Også disse har fått muntlig og skriftlig informasjon.

Datamaterialet omhandler respondentenes erfaring med lederroller og egenvurdering av tjenestekvalitet ved kontoret de jobber ved. I fokusgruppeintervjuene benevnes informantene ved fornavn. Disse skrives om når de legges inn på pc. I spørreskjema registreres det profesjon, kjønn, alder, arbeidserfaring fra kontoret og opplysninger om kontoret og kommunen. Når dette legges inn på pc grupperes alder i aldersintervaller, slik at opplysningene som behandles elektronisk er helt anonyme. Prosjektslutt er satt til 31.12.2007. Da makuleres spørreskjema (ev. kan alder fjernes fra skjemaene) og lydopptak makuleres.

Prosjektvurdering

Daglig ansvarlig

Jan Hana
Institutt for samfunnsmedisin
Universitetet i Tromsø
MH-bygget
9037 TROMSØ

13045 **Ledelse i primærlegetjenesten i Nord-Norge - kan den bli bedre**

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12 SIDER

PROGRAM FOR ALLMENNMEDISINSK
FAGUTVIKLING OG FORSKNING I NORD-NORGE

DEN NORSKE LÆGEFORENING
KVALITETSSIKRINGSFOND I

LEDELSE I PRIMÆRLEGETJENESTEN I NORD-NORGE "KAN DEN BLI BEDRE ?"

SPØRRESKJEMA

Jan Hana
kommunelege/fastlege
Vestvågøy kommune

Spøreskjema

(utfyllingstid ca 15 min)

Føremålet med undersøkelsen

Landsdelen vår er prega av store distrikts- /utkant- utfordringar i primærlegetjenesten.
Vi som arbeider her, enten som lege eller hjelpepersonell, opplever ledelse som ein del av kvardagen vår. Vi har begrensa kunnskap om korleis ledarane, men også korleis dei "som vert leda", opplever denne situasjonen.
Denne undersøkelsen rettar seg mot hjelpepersonell og "underordna legar" . Parallelt med dette vert det gjennomført gruppeintervju (fokusgrupper) med ledende legar/kommunelege I i landsdelen.
Med denne undersøkelsen meiner vi å få eit betre utgangspunkt for å utvikle ledelseskompetansen i primærlegetjenesten.

Fortrolighet

All informasjon som vert samla inn vil bli utilgjengelig for uvedkomande.
All data vil bli statistisk behandla slik at tilbakesporing til enkeltpersonar, kontor eller kommune ikkje vil bli mulig.
Det ferdige materialet vil bli presentert slik at full fortrolighet vert tatt vare på. Dataene vil ikkje bli brukt til anna enn å auke kunnskapstilfanget innafor fagfeltet ledelse/organisasjon/helsetjenestekvalitet.
Databasen vert ikkje utlevert frå prosjektet.

Bakgrunn til prosjektleder

Jan Hana er kommunelege og fastlege i Vestvågøy kommune i Lofoten og har over 20 år bak seg i primærlegetjenesta i Nord Norge. Han er spesialist i samfunnsmedisin og MPH /internasjonal helse. Han har ei bistilling som universitetslektor i Ressurskommuneprosjektet ved ISM, UiTø og har jobba fleire år i bistilling som kvalitetsrådgiver i kommunehelsetjenesten i Troms og Nordland i regi av fylkeslegen.
Veiledere: Dr.med.Thoralf Hasvold UiTø og dr.philos Rudi Kirkhaug UiTø.

Om utfylling av skjemaet

Spørreskjemaet er laga slik at du skal sette kryss, angi tall eller sette ring rundt ein talverdi frå 1 til 5. Nokre spørsmål kan verke finurlege eller liknar på kvarandre . Det er likevel svært viktig at du svarar på alle enkeltspørsmål. Skjemaet vert sendt legar og hjelpepersonell.

Legar fyller ut Del A , C og D
Hjelpepersonell fyller ut Del A, B og D.

Ta gjerne kontakt på tlf 760 56200/212/ eller 90523780.
E-post janh@vestvagoy.nhn.no eller janhana@online.no

Retur av skjema

Legg utfylt skjema i vedlagt frankert svarkonvolutt til kommunelege Jan Hana , Legekontoret Origo, 8370 Leknes. Snarast og innan ~~30 juni 2003~~.
31. aug. 2003

TAKKAR SÅ MYKJE FOR AT DU TEK DEG TID TIL UTFYLLINGA.

A . PERSON OG KONTOR/KOMMUNE DATA

a1. Profesjon (set kryss):
❑Lege ❑Spesialist i allmennmedisin ❑Spesialist i samfunnsmedisin

Hjelpepersonell:
❑Helsesekretær ❑Sjukepleiar ❑Bioingeniør ❑Anna

a2. Kjønn (set kryss) : ❑Kvinne ❑Mann

a3. Alder: ..... år

a4. Arbeidserfaring fra dette kontoret: ..... år

a5. Kor mange helsesekretærer ved kontoret: .....

a6. Kor mange helsesekretærer totalt i kommunen: .....

a7. Kor mange legar (inkludert turnuslege) ved kontoret: .....

a8. Kor mange legar totalt (inkludert turnuslegar) i kommunen: .....

a9. Del av stillingen din (uavhengig av størrelse) som er kommunal/offentlig: ..... %

a10. Del av stillingen din som er privat: ..... %

a11. Kva fylke arbeider du i (set kryss): ❑Finnmark ❑Troms ❑Nordland

B. EGENVURDERING AV TJENESTEKVALITETEN VED KONTORET

For Hjelpepersonell:

I svært liten grad — **I svært stor grad**

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

b01. I kva grad meiner du at pasientane er fornøgde med tjenesten ved kontoret?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b02. I kva grad opplever du pasientar som gir uttrykk for misnøye med tilbudet ved kontoret?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b03. I kva grad opplever du at det er fagleg vanskeleg å gi råd til pasientar på telefon?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b04. I kva grad opplever du at det er lett for pasientane å kome fram på telefonen til kontoret?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b05. Kjenner du deg kompetent til å møte dei krav jobben set til deg?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b06. I kva grad opplever du det lett å finne time til pasientar som bestiller?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b07. I kva grad opplever du det vanskeleg å finne lege på kontoret til pasient som treng øyeblikkelig hjelp?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b08. I kva grad kjenner du til kva som er dine oppgaver/ditt ansvar ved kontoret?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b09. I kva grad opplever du at det er lett for pasientane å få telefonkontakt med fastlegen?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

b10. I kva grad opplever du at kontoret greier å leve opp til pasienten sin rett til taushetsplikt /konfidensialitet?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

I svært liten grad				I svært stor grad
O1	O2	O3	O4	O5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

b 11. I kva grad meiner du at det er fagleg kommunikasjon mellom lege og hjelpepersonell ved kontoret?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b12. I kva grad meiner du at pasientane ved kontoret får eit godt tilbud når det gjeld diagnostikk og behandling?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b13. I kva grad kjenner du deg fagleg oppdatert?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b14. I kva grad er kontoret, tilfredsstillande utstyrt, for din jobb?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b15. I kva grad opplever du at laboratoriet er tilfredsstillande utstyrt?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b16. I kva grad opplever du at viktig pasient-informasjon "kjem bort" ved kontoret?

O1 - - - O2 - - - O3 - - - O4 - - - O5

b17. I kva grad brukar du Internett for å holde deg fagleg oppdatert?

O1 - - - O2 - - - O3 - - - O4 - - - O5

C. EGENVURDERING AV TJENESTEKVALITETEN VED KONTORET

For Legar:

Heilt uenig **Heilt enig**

O1 - - - O2 - - - O3 - - - O4 - - - O5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

c01. Pasientane får lett kontakt med deg på telefon.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c02. Du har passe ventetid på ordinær time.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c03. Det er sjeldan at du er meir enn 20 min. "etter" på dagens pasientliste.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c04. Du opplever at pasientane er fornøgde med den tida du set av til konsultasjonen.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c05. Du forholder deg til alle problema pasienten tar opp i konsultasjonen.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c06. Pasienten har ein hovedgrunn for konsultasjonen. Kjem det opp andre problem må det bestilles ny time.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c07. Du går sjeldan utover oppsett tid for konsultasjonen.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c08. Du er fagleg oppdatert i forhold til ny medisinsk kunnskap og teknologi.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c09. Du les internasjonale medisinske tidsskrift.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c10. Du er under utdanning til spesialist i allmennmedisin.

O1 - - - O2 - - - O3 - - - O4 - - - O5

Heilt uenig **Heilt enig**

O1 - - - O2 - - - O3 - - - O4 - - - O5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

c11. Du har bevisst organisert " kontorinnredninga " slik at du kan gi pasienten best diagnostikk og behandling.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c12. Du har Internett-tilknytning på kontoret.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c13. Du bruker Internett for å holde deg fagleg oppdatert.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c14. Du har ikkje opplevd skriftlege klager på eiga virksomhet som lege.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c15. Du har opplevd at pasientane er fornøygde med deg som fastlege.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c16. Siste halve året har du gått på akkord med eigne faglege vurderingar etter truslar om å bli klaga på.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c17. Du har få eller ingen ledige plassar på di fastlegeliste.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c18. Du har tilfredsstillande utstyrt kontor/skiftestue og lab for å gi god diagnostikk og behandling.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c19. Du kommuniserer via tlf.,brev eller e-post med pasientane dine også utan at det primært er initiert av pasienten.

O1 - - - O2 - - - O3 - - - O4 - - - O5

c20. Kor mange gangar har du opplevd skriftlege klager.

O>5 - - O2-4 - - O1

D. LEDELSE - LEGEN SOM LEDER

Vi fokuserer her på ledelse utført av lege; "legelederen". Spørsmåla gjeld din nærmaste overordna legeledelse uavhengig om du er lege eller hjelpepersonell. Ofte i små og mellomstore kommunar har same lege (oftast kommunelege I) ledelsen både av kontor og legetjenesten som helhet. I andre kommunar er det delt.

Hjelpepersonell og lege skal svare:

d00. Hos deg er "legelederen" (set kryss): ❑komm.lege 1 ❑anna lege

I svært liten grad — **I svært stor grad**

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

d01. I kva grad opplever du at legelederen ønskjer å sikre fagleg forsvarleg drift ved kontoret

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d02. I kva grad opplever du at legelederen engasjerer seg i tilrettelegging og organisering av kontoret for å oppnå høg fagleg standard på tjenesten

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d03. I kva grad vert det fokusert på å utvikle nye rutiner og arbeidsmåtar ved kontoret ?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d04. I kva grad opplever du forbedring av din arbeidsprestasjon gjennom interne møter og intern kursaktivitet ?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d05. I kva grad opplever du forbedring av din arbeidsprestasjon gjennom møter og kurs utanfor kommunen ?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d06. I kva grad delegerer legelederen oppgaver til andre ved kontoret ?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d07. I kva grad opplever du at legelederen gir konstruktiv kritikk ?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d08. I kva grad opplever du at lederen bidrar til at du har ein klar rolle og funksjon ved kontoret?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

I svært liten grad — **I svært stor grad**

O1 - - - O2 - - - O3 - - - O4 - - - O5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

d09. I kva grad bidrar legelederen til at det vert sett mål for aktiviteten ved kontoret?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d10. I kva grad opplever du at legelederen din er mottageleg for nye idear ?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d11. I kva grad blir dine idear og forslag til forbedringar overført til praktiske tiltak ?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d12. I kva grad opplever du din legeleder mottakeleg for forbedringsforslag?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d13. I kva grad er din legeleder mottakeleg for konstruktiv kritikk?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d14. I kva grad opplever du at din overordna lege bruker sin rolle til å ta vare på deg som medarbeider?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d15. Opplever du at leger som er dyktige medisinsk fagleg, også er gode ledere?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d17. I kva grad har din legeleder eit aktivt forhold til konflikthandtering?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d18. I kva grad bidrar legelederen til regelmessige/faste møtar ved kontoret/i kommunen?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d19. Dersom faste møtar, i kva grad vert det skrive referat?

O1 - - - O2 - - - O3 - - - O4 - - - O5

I svært liten grad — **I svært stor grad**

O1 - - - O2 - - - O3 - - - O4 - - - O5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

d20. I kva grad formidler legeleder informasjon til deg frå andre på kontoret/legetjenesten i kommunen?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d21. I kva grad formidler legeleder informasjon til deg frå andre utanfor legetjenesten i kommunen?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d22. I kva grad stimulerer din legeleder til samarbeid med andre faggrupper i primærhelsetjenesten?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d23. I kva grad stimulerer din legeleder til samarbeid med 2.linje tjenesten?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d24. I kva grad vil du karakterisere din legeleder som ein som samordner og koordinerer?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d25. I kva grad opplever du at legelederen representerer/ er ansiktet utad for kontoret/ legetjenesten?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d26. I kva grad er det utvikla eit kvalitetssystem ved kontoret?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d27. I kva grad har kontoret nedskrivne rutiner for korleis krav i helselovgjevinga skal oppfyllast?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d28. I kva grad gjennomfører legelederen medarbeidersamtaler?

O1 - - - O2 - - - O3 - - - O4 - - - O5

d29. I kva grad skaper legelederen motivasjon og begeistring for jobben?

O1 - - - O2 - - - O3 - - - O4 - - - O5

I svært liten grad — **I svært stor grad**

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

(set kryss i det talet som passar best for deg ved alle spørsmåla)

d30. I kva grad er du tilfreds med jobben totalt sett?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d31. I kva grad gruar du deg for å gå på jobb?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d32. I kva grad er du stolt over å jobbe ved ditt kontor?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

d33. I kva grad er det andre forhold enn dei som er fokusert på her, som du vil framheve viktige for lederrollen?

○1 - - - ○2 - - - ○3 - - - ○4 - - - ○5

Du er velkommen til å komme med synspunkt og kommentarer til spørsmåla.
Kom gjerne med andre innspel til temaet ledelse slik du ser det.
Bruk ledig plass i skjemaet eller legg ved eige ark.

TAKK FOR HJELPA

2 SIDER

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24.06.02

Til
Kommunelege I

INVITASJON

"KOMMUNELEGE I og LEDELSE"

Kjære kollega

Du vert med dette invitert , saman med andre kommunelege I i regionen, til ein dialog omkring temaet ledelse av medisinsk virksomheit i kommunen.

I diskusjonen omkring kommunelege I si rolle har fokus i stor grad vore på oss som rådgivande/ansvarleg-lege , smittevern og miljøretta helsevern. Sentraladministrasjonen og politikere har behov for å ha ein person i linjeledelsen som dei kan forholde seg til ut fra sitt ståsted i organisasjonen.

Kommunelege I som leder for eiga avdeling , har på langt nær fått den same oppmerkosmheita.. Lite er skrive om det også.

Legeforeninga si lederopplæring (MEDLED) er avslutta. Innslaget i spesialistutdanninga i allmenn-/samfunns medisin er også begrensa. Det som står igjen er generelle lederopplæringskurs (10-20 vekttal) eller studier på masternivå..

Å være kommunelege I og leder av medisinsk virksomheit i distrikt og særleg i Nord Noreg, er ei stor utfordring. Tida er nå inne for å samle og om mulig systematisere ein del av den erfaringa og kompetansen som trufaste kollegaer set inne med. Kanskje kan dette bli eit av fleire bidrag til å bedre kvaliteten på medisinsk virksomheit i primærhelsetjenesta.

Tanken er å samle kollegaer og få fram :

1. Kva sentrale element ligg i vår rolle som leder i kommunen
2. Kva skal innholdet i desse elementa være
3. Korleis kan vi best møte dei krava som følgjer av dette.
4. Kva rammevilkår må vi ha for å få dette til.

Ein måte å få samla denne informasjonen på kunne være å sende ut (enda) eit spørreskjema. Det kunne være både tids- og ressurs-sparande. Likevel meiner eg at å samle 6-8 kommunelege I til ein dialog omkring dette temaet i 1 ½ - 2 t. vil gi oss viktig **kvalitativ** informasjon som eg håpar kan bli nyttig i det vidare arbeidet.
Difor denne "fokus-gruppe" tilnærminga.

I tillegg er det viktig i seg sjølv å samlast til diskusjon omkring dette temaet..

Heile samtalen vert tatt opp på bånd og skriven ut . Det heile vert anonymisert.
Eg har med ein assistent til å hjelpe meg.

Planen videre er å kunne samle materialet på ein slik måte at det kan bli til nytte for oss i vår rolle som leder.

Du vert med dette invitert til:

Sted: Alta , Helsesenteret
Tid: Fredag 30 august 2002, kl 12.30.

Det blir kaffe/te og litt å bite i.

Reiseutgifter: Dekkes etter staten sine satsar
Lønn /honorar: Dessverre, her kan vi ikkje bidra.

Eg kjem til å ta telefonisk kontakt i løpet av sommaren; på jobb eller etter kontortid.

Fint om dette tidspunktet vert sett av nå. Dersom det ikkje passar i det heile må eg be om å få beskjed snarast råd slik at ein annan kollega kan få tilbudet..

Håper at dette kan være av interesse og ser fram til møtet i august.

Med venleg helsing

Jan Hana
kommunelege I / fastlege

PS. Undertegnede har jobba som primærlege i Nord Noreg sidan i 1982, det meste av tida (fram til 1998) i Kvænangen kommune. Siste 4 åra i Vestvågøy, Lofoten. Har i 4-5 år jobba deltid med kvalitetsutviklingsarbeid i primærhelsetjenesta i Troms og Nordland.

Dette prosjektet er finansiert i hovudsak gjennom "Program for faglig utvikling og forskning i allmennmedisin i Nord Noreg" ISM, UiTø men også med bidrag fra Den norske lægeforening Fond II. .
Veileder er prof.dr.med Toralf Hasvold, ISM, UiTø.