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ANETTE EDIN-LILJEGREN, LAILA DAERGA,
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Psychosocial Perspectives on Working Conditions among Men and Women in Reindeer Breeding in Sweden

ABSTRACT *Objective:* The aim of this project was to describe the work organisation in the Sami communities and in reindeer-herding work and to explore the range of female duties and compare how men and women experience their psychosocial working conditions.

Design: A kind of intervention study was performed by means of a questionnaire sent out to 200 individuals from seven Sami communities. Questions were asked about work organisation, communication, personal relations, solitary work, support, participation and appreciation from colleagues and women's tasks. Meetings and discussions were held about what was perceived as being important in the life of the Sami communities. Notes from 16 group discussions were written down and analysed according to themes of topics relating to how men and women in the Sami communities experience their lives.

Results: Communication and relations were described as being inadequate and some respondents experienced a heavy workload. The women reported more troubled relations, less participation in decision-making and less appreciation from colleagues. Positive issues reported were the Sami identity and a strong connection to the reindeer and to nature.

Conclusions: This study indicates a need for a more systematic study of the psychosocial work conditions in the Sami communities in Sweden. Measures should be taken to develop the organisation of work, e.g. through developing communication strategies and conflict management, which has been requested by several Sami communities.

KEYWORDS reindeer-herding Sami, work organisation, gender, social support, work demand

Introduction

Swedish reindeer-herding Sami live and work under special conditions as a minority group governed by special legislation, Rennäringslag (1971:437) ['Reindeer husbandry act']. Under this Act, reindeer breeding is only permitted for persons of Sami origin belonging to a Sami community (*sameby* in Swedish). There are a total of 51 Sami communities in Sweden, from the very north to more than 1,000 kilometers further south in Idre, north-west of Dalarna County. The grazing land covers approximately half the area of Sweden. The number of persons belonging to reindeer-herding families in Sweden was 1,988 individuals, 1980 (recorded as reindeer breeders or husbands/wives and children of reindeer breeders; Hassler *et al.* 2004a). Working conditions in these communities are also regulated by traditional rights and duties (*Svensk rennäring* 1999; Nordin 2007).

A Sami community, *sameby*, is an administrative body for reindeer husbandry with its own governing board. It is an economic association for private entrepreneurs who have the right to use a geographically defined area of grazing land (Nordin 2007). There is a maximum limit to the number of reindeer a Sami community may herd, which is based on the size of the grazing land each community is allocated. Herders move their reindeer between grazing areas depending on season and access to pastures. In some areas, they can move their flock up to 400 km between winter and summer grazing lands. Sami communities are usually organized into small working groups (*siidas* in Sami) composed of households from one family, e.g. the father, his household and his grown-up children and their households, or other close relatives or friends (Amft 2002; Nordin 2007). A *sameby* is thus made up of several reindeer-herding enterprises, which are often family businesses, each involving an extended family as described above.

The Reindeer Husbandry Act (Rennäringslag [1971:437]) makes a distinction between males and females, giving the male partner in the family a special position as head of the unit (Amft 2002). Today, it is mainly males

who perform the work directly involving the reindeer, but historically men and women did the same kind of work. Since the motorisation of reindeer breeding, the work has become more technical and occasionally physically burdensome and stressful. While women have duties in the reindeer husbandry, they often also have other jobs in the majority society (Amft 2002; Nordin 2007). Since earlier studies have reported differences between men and women in variables connected to health, it is important to make the women's tasks visible also in the reindeer-breeding business (Edin-Liljegren *et al.* 2004; Sjölander *et al.* 2008a; Sjölander *et al.* 2008b).

The limited number of reindeer allowed to a Sami community and the restricted area where grazing is allowed may sometimes cause disagreement among the herders. This is also an obstacle for young Sami wanting to establish reindeer-herding enterprises, as this requires that other herders reduce or liquidate their businesses. While the different private herding businesses sometimes compete over available land, they also need to cooperate to optimize their reindeer-breeding activities. These factors, together with an uncertain economy due to a variety of factors such as weather conditions, competition for land access with forestry, mining, water and wind power companies, as well as tourism, sometimes cause disagreement between herders, working groups and Sami communities. In recent times, climate change has also contributed to increasing stress on the reindeer-herding communities (Furberg *et al.* 2011).

Earlier studies of the occupational conditions of reindeer herders have indicated a high prevalence of musculoskeletal disorders among men and women and a high frequency of accidents among reindeer-herding men (Pekkarinen *et al.* 1988; Pekkarinen *et al.* 1992; Näyhä *et al.* 1991; Daerga *et al.* 2004; Hassler *et al.* 2004b; Hassler *et al.* 2005; Sjölander *et al.* 2008a). High job demands, low job control, job strain, low social support and high effort and low reward are factors that increase the risk of musculoskeletal and cardiovascular diseases (Menzel 2007; Peter *et al.* 1998; Theorell 1997). Reindeer-herding women have reported experiencing lower demand, lower intellectual discretion, lower decision latitude and lower social support than reindeer-herding men (Edin-Liljegren *et al.* 2004; Sjölander *et al.* 2008a). These symptoms and experiences could be related to external factors such as those mentioned above and maybe also to unhealthy circumstances within the Sami communities. The differences in conditions for reindeer-herding men and women may have implications for health and especially for mental health. One thesis, *Challenging Adaptability. Analysing the Governance of Reindeer Husbandry in Sweden*, describes and discusses experiences of reindeer-herding Sami and the impact of state regulations on the conditions for reindeer herding (Löf 2014). There is an extensive literature on the histo-

ry of reindeer breeding in Sweden and the influence of external structural conditions. However, few studies focused on the psychosocial conditions among the reindeer herders in the Sami communities have been performed. To the best of our knowledge, the special work organisation in reindeer husbandry in Sweden has not previously been described from a psychosocial perspective. Furthermore, since men and women show different sensitivity to psychosocial factors and are exposed to different risk factors also in the Sami reindeer-herding context, it is necessary to highlight the psychosocial experience from a gender perspective (Hallman *et al.* 2001). The aim of this project was to describe the work organisation in the Sami communities and in reindeer-herding work and to explore the range of female duties and compare how men and women experience their psychosocial conditions in a work-related context.

Methods

This study was not originally planned as a research project, but as a kind of intervention. Data was collected between 2006 and 2008. Two of the authors were engaged for an initiative aimed at contributing to the development of working conditions in a number of Sami communities in Sweden (Jämtland, Härjedalen, Västerbotten and southern Norrbotten counties). The chairman and several members of the Sami communities involved had orally expressed an interest to participate together with the Sami community members in discussions about their internal life with a focus on internal relations and working conditions, which are sensitive subjects in this cultural context. To this end, a questionnaire concerning work organisation was sent to members of seven Sami communities and a series of meetings were held with five of these communities. These five Sami communities were chosen because they had asked for consultations and were thus more motivated for a change. An important aspect of this initiative was also to highlight the reindeer herders' experiences of psychosocial relations in reindeer-herding work. For this reason, a qualitative approach was added, and thus an element of "mixed method" was introduced into the study (Creswell & Plano Clark 2010).

The results from the questionnaires formed the basis for the thematic discussion guide.

Questionnaire

The questionnaire, which included questions on psychosocial work-related factors, was developed by the National Institute of Working Life in Sweden (Wikman 1999). In order to adapt the questionnaire to the cultural context, a pre-test involving two men and two women from two Sami communities

was performed. Some modifications were made to the wording of the questions following suggestions from these herders.

The questionnaire was sent by post to all members in five of the Sami communities, and in two communities, the members who attended the first meeting answered the questionnaires individually at the beginning of the meeting.

Out of a total of 200 individuals approached, 127 completed the questionnaire, 64 men and 63 women (64% response rate). The questionnaire contained six questions about job organisation (foremen, official functions in the community, work load and solitary work). Three questions concerned the communication within the working groups, nine questions dealt with participation and influence in decision-making and three with the possibility to be relieved and get support. Personal work relations were asked about in two questions and another two focused on appreciation from colleagues. Two questions addressed whether women are perceived as a threat or as a resource in the Sami community and whether their contributions were seen as indispensable. Additionally, two questions specifically addressed to the female respondents concerned their tasks in the Sami community and whether they felt that their views were respected by male herders. In total there were 29 questions. Twelve had dichotomous response alternatives and the remaining questions had three to six response alternatives each.

The Discussion Groups

All members in five of the Sami communities were invited to attend at meetings with discussion and between two and four meetings were held in each community. At least 80 individuals participated in the 16 discussion meetings. Both men and women participated in all the groups, which consisted of between 5 and 20 participants.

Meetings began with a presentation of the results from the questionnaire round and subsequent discussions were guided by open-ended questions. The ultimate purpose of the discussion groups was to create an open atmosphere conducive to reflection and giving participants an opportunity to talk about what they thought was essential in their lives. Notes from these meetings were written down and an attempt to summarize the texts according to themes, which could be seen as collective meanings, was made (Braun & Clarke 2006). Such collective statements and opinions were presented at subsequent meetings and re-discussed. The process continued during the 16 discussion meetings and the understanding deepened and in some cases the result could be described as collective opinions, relating, for example, to the extended family and the experience of many years of discrimination. An attempt was made to divide the topics or themes taken up

into negative and positive issues based on how they were perceived by the participants and their effect on the individuals in the Sami communities.

Ethical Issues

There has been an intense internal discussion about research involving indigenous populations including the Sami. Basic topics have been respect, trust in the researcher and the research, and mutual benefits. In our case, the study was initiated following requests for support from the participating Sami communities and we believe our study met these criteria. The questionnaire used was approved by the regional research ethics committee for another study (Daerga *et al.* 2008).

Statistics

The mean age and standard deviation among men and women was compared by t-test. The questions with three to six response alternatives were dichotomized to simplify testing in comparisons between men and women. The different alternatives can be seen in Table 1 and 2. All questions were compared by gender using Chi-square test. A p-value of <0.05 was considered significant. The statistical calculations were made using SPSS (PASW Statistics 18, 2009, Inc., USA).

Results

The Questionnaire

There were no significant differences in mean age or standard deviation between men (46 ± 17 years) and women (42 ± 15 years). The range among men was 20–77 years and among women 27–74 years. 53% of the male herders reported that they had an official function in the Sami community, as compared to 16% of the women. A large variety of such functions were reported, e.g. chairman, secretary, treasurer, accountant, community representative for hunting and forestry issues, for jointly-owned equipment or for constructions, buildings and vehicles. 71% of the herders reported that they had foremen responsible for organising the work in the Sami community. A large majority (79%) of the responders reported that some workers had a higher workload than others, and 36% of the males and 17% of the women indicated that one of the reasons for this was that those who took on more responsibility than others had a greater interest in reindeer work. Reindeer herders reported working together and being able to help and to speak to each other a considerable part of the time. However, 25–50% of their working time was spent on solitary tasks, even in rough terrain or in bad weather conditions.

Table 1 presents responses to questions about personal relations within

the Sami community. Even though 56% of the males reported that members of the community “get on well with each other,” only one third reported that they “listen to each other” and “respect each other.” Among the women, 35% stated that they “get on well with each other,” while only one tenth reported that they “listen to each other” and “respect each other.” The differences between men and women were significant.

Table 1. Yes-responses of aspects of personal relations, cooperation and organisation within Sami communities and in the reindeer-herding work among men and women.

Characterisation of personal relations	Men n=64		Women n=63		p
	%	95% CI	%	95% CI	
Listen to each other	30	18–41	11	3–20	<0.05
Respect each other	28	17–39	10	2–18	<0.05
Get on well with each other	56	44–69	35	23–47	<0.05
Are together during leisure hours	33	21–45	13	4–22	<0.01

Approximately half of the respondents (41% and 50% of the men and women, respectively) indicated that the communication between the foreman and the other herders could be improved. A larger proportion of the men reported frequent constructive discussions about developing the work, doing things faster, better and in a more clever way (Table 2). A majority of both men and women reported a low frequency of “constructive discussions” in the Sami community; 57% versus 80% reported that such discussions only occurred once a year or not at all. As regards the decision process, there were apparent differences between males and females. Men reported more often than women that everybody, or almost everybody, was invited to discussions and that decisions were taken jointly. The same pattern emerges as regards the amount of appreciation expressed. On the whole, the majority of both males and females reported getting limited appreciation from others for the work they do. Finally, a great majority of the males (89%) stated that they see the women as an asset, while the women to a large extent (45%) indicated that they were seen by the males as a threat rather than an asset in the work with the reindeer.

In Table 3 are listed the women’s functions and duties in the Sami communities. A large proportion of the women performed basic or service jobs

Table 2. Aspects of communication, decision processes and appreciation within the reindeer-breeding businesses and in the Sami communities.

Questions	Men n (%)	Women n (%)	p-value
Communication			
How often do you have constructive discussions in your Sami community?			
1. Not at all/once a year	34 (57)	43 (80)	<0.01
2. A few days a month/every day	26 (43)	11 (20)	
Decision processes			
How many persons are invited to discussions on important decisions?			
1. Everybody/almost everyone	47 (78)	25 (48)	<0.001
2. Half of the persons/only one person	13 (22)	27 (52)	
How are the main decisions reached within the Sami community?			
1. Without attention to disagreement	4 (7)	19 (37)	<0.001
2. Taken together	51 (93)	32 (63)	
Appreciation			
How much do your colleagues appreciate your effort at work?			
1. Low/middle	45 (74)	50 (93)	<0.01
2. Very much	16 (26)	4 (7)	
How often do your colleagues appreciate your efforts at work?			
1. Not at all/once a year	42 (74)	45 (94)	<0.01
2. A few days a month/every day	15 (26)	3 (6)	
Are the women a threat or an asset in the reindeer-herding work or in the Sami community?			
1. Threat or neither	7 (11)	24 (45)	<0.001
2. Asset	57 (89)	29 (55)	

(Drop out, men between 0–14%, women 14–24%.)

in the reindeer-herding society. However, more than 80% of the women reported participating in the marking of calves and in the separation, feeding and slaughter of the reindeer. Apparently, while women are engaged in the reindeer-herding work, their opinions are not respected among the men in the Sami communities. The women often have jobs in the majority community and contribute a stable income to the household. They generally have a kind of service function, as is evident from the list.

Table 3. Women's functions in the Sami community in reindeer-breeding businesses, percentage of women doing specific jobs.

Women's functions/jobs in the reindeer-breeding businesses	%
Joining the work in the enclosure (marking reindeer calves, separating reindeer, participating in slaughter)	95
Daily housework	92
Feeding the reindeer	80
Picking berries	80
Fishing	79
Keeping record when counting reindeer	77
Marking reindeer during counting	75
Vaccinating reindeer (against parasites)	72
Different facilities (e.g. order fodder, call in workers, guarding roads)	70
Slaughtering and butchery	64
Domestic handicraft	64
Loading/unloading reindeer for transportation	61
Transporting reindeer	57
Making and repairing enclosures, fencing	56
Gathering reindeer moss, cutting branches, making hay	56
Managing finance and accounts of the company	48
Hunting	41
Preparing hay for shoes	31
Representing the community in meetings with other Sami communities	21
Make handicraft for sale	21
Other	18

The Discussion Groups

The issues discussed in the groups are listed in Table 4. The poor economy of the reindeer-herding business was usually the first issue taken up. The lack of communication was often discussed spontaneously, as was the work organisation. The high occurrence of predatory animals and, more generally, various threats from the majority society were also common themes. Gender issues were regularly raised as well as generational issues, such as the fact that older members of the community often own many reindeer but are only to a limited extent personally involved in the actual herding. This results in a higher work load on young reindeer herders who have a considerably lower income, as they own fewer reindeer. The problems of building a reindeer herd for young Sami people were also often raised as an issue.

Table 4. Experiences of issues discussed at meetings in the Sami communities.

<i>Negative issues</i>	<i>Positive issues</i>
Bad organisation of labour	A strong Sami identity
Poor interpersonal relationships	Strong connection (love) to the reindeers
Poor economy	To feel connected to nature (place of birth)
Competition between reindeer herders inside the Sami community and between other Sami communities	The family and the relatives
Bad communication	Good personal relationship
Inequalities, gender issues	Belief in the future
Inequalities, generational issues	
The majority society	
A high occurrence of predators	

Usually such negative aspects were taken up in the early stages of the discussions. As discussions went on, more positive aspects would emerge, such as the strong feeling of Sami identity. Reindeer herding contribute to a feeling of belonging to the place and its nature and above all to a strong connection to the reindeer. "The reindeer is like a jewel" as one old herder said. In spite of recurring discussions about the lack of communication within the Sami

community, family, the extended family and personal relations were seen as positive issues. Paradoxically, the participants often also expressed a belief in the future of reindeer herding. Even though there are conflicts within and between Sami communities, they stick together against the majority society, which is very often experienced as threatening. The participants indicated that there were good relations among the young people and among full-time herders, and that the close relationships among the members of the Sami community provided a sense of security.

Discussion

General Discussion

Men and women from reindeer-herding households are exposed to psychosocial risk factors in their work, such as unequal workloads, insufficient communication and poor gender relations. The exposure of the Sami communities to psychosocial risk factors may contribute to an increased risk of mental health problems, which is also reported by Kaiser (2011), and maybe also to the increased suicide risk among reindeer-herding males reported by Hassler *et al.* (2004b). Due to physical and technical demands, reindeer-herding males mainly work in close physical contact with the reindeer, a job that also has the highest status in the Sami community. Women experience less appreciation, help and reward in their efforts in the reindeer-herding work compared to the males. They also report having less influence in decisions concerning the daily work in the community. Several of the differences between men and women reported in this study can probably be explained by their very different work situation and duties in the reindeer-herding businesses.

Women are to a lesser extent part of the “core” reindeer-herding activities in the grassing land. Instead, they are occupied with a number of activities that are important for the family household as a whole, but which are not easily perceived as such and thus not appreciated. This has been confirmed in other studies (Edin-Liljegren *et al.* 2004; Daerga *et al.* 2008). The reindeer-herding men usually use motor vehicles such as snowmobiles and motor cycles in their daily work with the reindeer (Daerga *et al.* 2004). It is interesting that the males almost unanimously stated that women are an asset to the Sami community, while only half of the women reported this experience. We cannot tell from the results of this study why women perceive that their contribution to the reindeer husbandry is not valued. Reindeer husbandry is and has always been a team work but the duties have changed over the years (Amft 2002). The major changes came with motorisation which led to increased operating costs, as a result of which the wom-

en had to work outside the Sami community to ensure a steady income to their own business. The women might be frustrated about having to work outside the reindeer husbandry and being unable to be as involved in the reindeer-breeding work as they would like to be. Further, being a member of a hierarchical family has been reported to contribute to a lack of well-being among both Sami and Roma women (Alex & Lehti 2013).

The fact that herd sizes differ so much among herders can cause problems. Herders that own only few reindeer have to earn their living from jobs outside the Sami community and are less able to participate in the work with the reindeer, as business operations are very costly due to the need for motor vehicles in the herding work. This makes them dependent on the full-time herders. Elderly persons who have many reindeer but are unable to be as active in the work as they used to be, are also dependent on full-time herders, which leads to a high work demand on active reindeer herders.

Reindeer husbandry is not just an occupation, it can also be regarded as a lifestyle. In the Sami culture, there is great respect for the elderly's traditional knowledge of reindeer and reindeer husbandry. Phasing out a reindeer husbandry company often takes a long time and involves several social, psychosocial and economic consequences for the individual. The individual loses their natural contacts with the reindeer herders and it is difficult to dispose of the reindeer that you love and have lived for. Moreover, the economic effects in terms of taxation are not beneficial. The reindeer industry wants to introduce a purge account, like a forest account, in order to allocate income. This would contribute to a smoother winding up of elderly people's businesses, thus making it easier for younger reindeer breeders to establish their own businesses. This proposal might contribute to reversing this negative issue.

In earlier studies, reindeer-herding men reported higher demands and a higher decision latitude than reindeer-herding women and Swedish blue collar workers. A significant association between high demands and a high prevalence of symptoms involving the neck and lower back has been demonstrated by Sjölander *et al.* (2008a). Reindeer-herding men also have an increased risk of dying from injuries, such as those caused by vehicle accidents, especially snowmobiles (Hassler *et al.* 2004b). This might partly be related to high demands and stress.

The internal communication was reported to be inadequate, both in the questionnaire responses and in the discussions, especially by the women. This might be explained by the fact that women have fewer functions/jobs in the core reindeer-herding work, being more often employed in the majority community and thus having less time for reindeer-herding work. This, together with their experience of being marginalised in the reindeer breeding, might result in psychosocial stress. One way to achieve better

communication might be to elect a coordinator at the annual meeting in the Sami community responsible for calling, planning meetings and communicating news to all the members in the community.

Limitations

This study was not originally planned as a research project, but as a kind of intervention. This meant that we had to make some kind of initial assessment, and that is why the questionnaire used was one that had been used in an earlier study on the quality of life among reindeer herders (Daerga *et al.* 2008).

The questionnaire was distributed before or during the first meeting and the fact that recruited participants had an interest in the topic might bias the results. The discussions held were conducted with a very open topic guide, based on the results from the questionnaire. The participants were free to express whatever they thought was of importance for them and for their understanding of their situation. The authors took notes of what was said. These notes were then organized according to topics raised and were used to report back together with the responses to the questionnaire at the following meeting.

This means that the qualitative data should not be seen as being systematic in the sense usually attached to this term when it comes to data obtained in qualitative studies, and it could be criticized for low reliability. However, in combination with the questionnaire responses and the way we collected them, we believe that this kind of data is interesting. The discussion groups supported the findings derived from the questionnaire and thought that they deepened their understanding. There are very few studies focusing on the internal relations and working conditions in the reindeer-herding communities. In Norway, a major study entitled “The daily life of reindeer herding” is under way in which reindeer-breeding Sami have responded to a large number of questions about internal and external factors influencing reindeer-herding life (Møllersen *et al.* 2016).

The questionnaire used was developed for ordinary Swedish workplaces and some of the questions had to be reformulated to fit reindeer-herding activities. A few questions were also added, such as one about female functions/jobs. A very limited pilot test involving two females and two male herders was performed which resulted in some modifications. However, no further validity tests were made. As the questionnaire targeted individuals involved in reindeer herding, they were not altogether relevant for those Sami women who also had jobs in the majority society. Their work outside reindeer herding is thus not included in this study.

There are some missing values in the responses to the questionnaire, especially in the female group—up to 24% compared to 14% in the male group.

This probably reflects the problems some women had with answering the questions, which might be due to the sensitivity of some of the questions or the fact that the women are not so involved in some aspects of the reindeer husbandry.

The lack of a validity test of the questionnaire, together with the non-existence of questions to the women about their work in the majority society, and also the way in which the participants were recruited, may reduce the possibility to generalise our results to all Sami communities. However, the aim was to use the data for further research and to increase the understanding of Sami communities.

Conclusion

The study indicates that distribution of workload, decision-making and internal relations and communication are experienced as problematic among reindeer herders. There are gender differences. The women in the Sami communities (*samebyar*) describe themselves as being less valued and less included in reindeer-herding activities, in spite of the fact that their contribution is important and decisive for the survival of the reindeer-herding culture.

This indicates a need for a more systematic study of the psychosocial work conditions in the Sami communities in the Swedish part of Sápmi (the land of the Sami) and a subsequent program to deal with problems identified. Working with issues such as work organisation, communication, work efforts, gender equality and generational issues within the Sami communities can result in positive changes. Discussions about norms and values aimed at highlighting the contributions of different kinds of work efforts to the reindeer husbandry are also important. Ideally, this should be organised as a joint project including the whole of Sweden; single Sami communities do not have the resources needed to do this, even though some communities have made attempts in this direction. The problems are complex because of the many external factors that interfere with reindeer herding, such as legislation and influences from majority communities. The different Sami communities are so burdened financially as well as psychologically that it is difficult for them to raise their heads above the daily grind. Since it is difficult to change external conditions, it might be easier to start with the internal conditions in the Sami communities. Some good initiatives have already been taken and the National Union of the Swedish Sami People, Sámiid Riikkasearvi (in Swedish: Svenska Samernas Riksförbund, SSR) has arranged seminars and set up working groups dealing with gender and generational issues. We conclude that more favourable conditions, external as well as internal, are essential if reindeer herders are to remain healthy.

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