Ethnic discrimination and mental health in the Sámi population in Sweden: the SámiHET study.

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Abstract

Aims: To assess the association between experiences of discrimination and mental health among the Sámi population in Sweden.

Methods: Cross-sectional study among the self-identified Sámi population living in Sweden in 2021, registered in the electoral roll of the Sámi Parliament, the reindeer mark register and the “Labour statistics based on administrative sources”. The analysis was based on a final sample of 3,658 respondents aged between 18-84 years. Adjusted prevalence ratios (aPR) for psychological distress (Kessler scale), self-reported anxiety and depression were estimated for four different forms of discrimination.

Results: Higher aPRs of psychological distress, anxiety, and depression were observed in women experiencing direct discrimination because of their ethnicity, having been offended because of their ethnicity and those with a family history of discrimination. Among men, higher aPRs for psychological distress were observed in those experiencing the four different forms of discrimination, but not for anxiety. Regarding depression, this was only detected in the case of having been offended. Adding experiences of discrimination was associated with higher prevalences of negative outcomes for all the indicators in women and for psychological distress in men.

Conclusions: The observed association between experiences of discrimination and mental health problems would support a gender approach when considering ethnic discrimination in public health policies concerning the Sámi in Sweden.

Keywords

Mental health, ethnicity, Sámi, social discrimination, racism, anxiety, depression, psychological distress

Introduction

Individual racism (also known as direct racism or interpersonally mediated racism) is one of the most visible forms of racism and is defined as differential individual actions toward others because of their ethnicity. Nevertheless, racism also acts at historical and structural levels (indirect racism, systemic racism or structural racism), determining the access to goods, services and opportunities in a society by an ethnic group [1]. Experiences of racism and discrimination are increasingly recognised in scientific literature as key determinants of inequities in health [2]. Direct experiences of discrimination contribute to the generally poorer health outcomes, especially mental health [4-5]. Historical trauma ("refers to a complex and collective trauma experienced over time and across generations by a group of people who share an identity, affiliation, or circumstance", for instance, related to land expropriation, forced relocation and others) [3] has been linked to ongoing somatic and mental health consequences [6-9].

The Sámi are an Indigenous people that have inhabited their homelands (Sápmi), in northern parts of Norway, Sweden, Finland and north-western Russia, since before establishment of present state borders. Historically, the Sámi have faced cultural and religious oppression, resulting in many Sámi assimilating into the majority populations. However, remaining Sámi are still a distinct people with their own culture(s) and language(s). During the last decades, the Sámi situation in Sweden has improved; the government acknowledged Sámi as Indigenous in 1977, established the Sámi Parliament in 1993, and enshrined protection of the Sámi into the Swedish constitution

in 2011. In the absence of official data, the number of Sámi people is unknown , but a common assumption estimates a total between 20,000 and 40,000 in Sweden [10]. The only population-based large scale study in Sweden reporting experiences of discrimination and racism, without linking them to health, among the Sámi in the electoral roll was conducted in 1997 [11]. At that time, the Sámi reported to experience less discrimination and racism compared to groups of migrants in Sweden, although more than two-thirds of the Sámi agreed that “Sweden was an anti-Sámi country” [11].

The available information about experiences of discrimination impacting health in the Sámi population in Sweden, and among the Sámi populations elsewhere in the Fennoscandian Peninsula, are scarce. Overall, research on mental health among the Sámi is also limited and most studies concerning the link between mental ill-health and experiences of ethnic discrimination and racism among the Sámi originate in Norway [12-15]. In these studies, the Sámi present similar mental health indicators as the general population, but with those reporting to have been frequently discriminated against being more likely to report poorer health than the Norwegian majority population. This evidence cannot be directly translated to the Sámi population living in Sweden because of historical, institutional and sociodemographical differences. For example, while Sámi in Sweden are a small minority throughout their homelands, in Sámi core areas in Norway, Sámi is the main language and Sámi are still the majority population. Studies conducted in 2007-08 in Sweden among young Sámi documented that about half of the Sámi adolescents and young adults reported being subjected to some form of negative treatment due to their ethnic background, with higher prevalence

among young Sámi with strong identity and cultural practices (i.e., speaking Sámi language and/or being involved in reindeer herding) [16,17]. Furthermore, reporting having experienced ethnic discrimination was associated to more seldom feeling calm and more often worrying among Sámi adolescents, and to having planned to take ones one life among young adults Sámi [17].

Given the lack of studies in the Swedish context, the aim of this paper was to estimate the prevalence of mental health outcomes and to assess the association of discrimination (direct and historical) with three self-reported mental health indicators (psychological distress, anxiety, and depression) in the Sámi population of Sweden.

Research design and methods

The present cross-sectional study is based on data from the SámiHET 2021 study, a population-based public health survey conducted among the Sámi population in Sweden in 2021. The SámiHET was commissioned jointly by the Public Health Agency of Sweden (PHAS) and the *Sámediggi* (Sámi Parliament). The research team in charge of the survey continuously consulted members of the board of the *Sámediggi* throughout the process. The Swedish Ethical Review Authority approved this study (Dnr 2020-04803 and Ö 70-2020/3.1).

Data collection

The Sámi population was identified through three official registers: the *Sámediggi* electoral roll (SER), the reindeer mark register (RMR) and the

“Labour statistics based on administrative sources” (RAMS, administered by Statistics Sweden). The SER is a voluntary register for the Sámi (applicants assure being Sámi and either themselves having grown up in a household where Sámi was a spoken language or having relatives within two generations that did). In Sweden, as per the Reindeer Herding Act (1971:437), reindeer herding is a Sámi specific livelihood. The RMR includes those owning a reindeer mark and the RAMS (SNI-code 01491) identifies individuals with income from reindeer husbandry. A detailed description of the methodology has been published elsewhere [18].

The questionnaire included questions on general and somatic health, mental health, behavioural health, experiences during the COVID-19 pandemic as well as background and socioeconomic factors. Furthermore, a set of Sámi-specific questions including questions related to discrimination and racism, violence, identity, language and access to health care were also included. The Sámi questions were developed by a Sámi health research team at Umeå University, in collaboration with other Sámi health researchers and Sámi civil society (including the *Sámediggi*, the Knowledge network for Sámi health and Sámi non-governmental local and national organisations including *Såhkie* and *Sámiid Riikkasearvi*).

Participants were invited through (a maximum of) four letters sent in spring 2021 by Statistics Sweden on behalf of the *Sámediggi* and the research group at Umeå University, with information about the study in Swedish and Sámi languagesThe self-administered questionnaire was available in both paper and online forms in Swedish.

Sample

The questionnaire was sent to the whole sampling frame obtained from the above mentioned registers (9,249 were invited to participate), and a total of 3,779 respondents living in Sweden participated (40.9% response rate). However, of these, 121 people did not unequivocally self-identify as Sámi; that is, when answering the first survey question - “how do you define yourself?” - they did not tick the box for having a Sámi identity and they were excluded from further analysis. Therefore, Sámi ethnicity in this survey is based on self-identification as a Sámi. A total of 3,658 individuals constituted the final analytical sample. Most participants (92.92%) were in the SER, 40.05% in the RMR and 6.45% were registered as receiving income from reindeer husbandry. Individual weights were calculated to account for systematic response biases by age, sex, accommodation, belonging to the SER and education.

Variables

The variables included in the SámiHET questionnaire were largely based on the same questions as the Swedish Health of Equal Terms 2021 (HET 2021) survey, conducted by the PHAS [19]. However, Sámi-specific sections were added including questions on access to health care, exposure to violence, discrimination and racism, as well as Sámi identity and language.

The following self-reported mental health outcomes were included in this study: psychological distress, anxiety and depression. In order to identify psychological distress, the Kessler Psychological Distress Scale (K6+) [20], a 6-item self-reported measure to assess the risk for serious mental illness in

the general population, was used. The respondents indicate how often they have had six different feelings or experiences (“nervous”, “hopeless”, “restless or fidgety”, “so depressed that nothing could cheer you up”, “everything was an effort” and “worthless”) during the past 30 days using a 5-point Likert scale: 4 (All of the time), 3 (Most of the time), 2 (Some of the time), 1 (a little of the time), and 0 (None of the time). The six items are added up (ranging from 0 to 24) and those with a total score of 5 or more were considered psychologically distressed, as in the Swedish National Health Survey 2021 [19]. Anxiety prevalence was obtained from the question “Do you have any of the following symptoms? (Worrying or anxiety)”. Those who responded “yes, slight discomfort” or “yes, severe discomfort” were classified as cases. Self-reported depression was captured with a question about having “ever been diagnosed with depression by a doctor”. The available answers were “no, never”, “yes, more than 12 months ago” and “yes, in the last 12 months”, being the last two replies merged to indicate depression.

The individual experiences of discrimination were obtained from three different survey questions (two for interpersonally mediated racism and one for historical trauma). The first one, referred to in this paper as “direct discrimination/racism” was derived from the question “Have you ever experienced discrimination or racism because of you being Sámi?”. The *responses were dichotomised into “yes” (yes, in the last 12 months and yes, more than 12 months ago), and “no” (including no and “do not know”). The second form of interpersonal mediated racism, referred to in the paper as “offended because of ethnicity”, was identified with the question: “have you

been treated in a way that you felt offended in the last 3 months because of your ethnicity"). Responses were also dichotomised into yes ("yes, sometimes" and "yes, several times") or no. Finally, the third variable, "historical trauma", was represented with the following question: "Have you or someone in your immediate family experienced difficult events because of being Sámi that led to injury/damage? For instance, to be forcibly relocated, lose rights, undergo racial biology investigations or being punished because of using the Sámi language". The variable was dichotomised as "yes" or "no".

A fourth variable was created to combine the three different forms of discrimination in a single variable that accounts for the combination of the mentioned experiences of discrimination in the same individual (from value 0, when the respondent had any experience of discrimination to value 3, when the three categories were present, simultaneously).

Age in four groups (18-29, 30-44, 45-64 and 65-84), marital status (married, divorced/widow and unmarried), education level (primary, secondary and tertiary) and income quintiles were used as control variables.

Statistical analyses

Descriptive statistics are presented as percentages. Bivariate analyses, included in the descriptive table, were carried out to obtain the prevalence of the outcome measures in the different variables included in the models. In those cases, chi-square tests for the difference between proportions were used to identify statistically significant differences between the compared groups.

A total of 24 models analysing the relationship between the independent variables (three different forms of discrimination and combined discrimination) and mental health (three different indicators) were used to estimate prevalence ratios and their 95% confidence intervals using Poisson-binomial regression models. All estimates of the regression analyses included weights to incorporate non-response bias and sample representativity, and were stratified for men and women.

Results

Descriptive data and prevalence of psychological distress, anxiety and diagnosed depression

The resulting sample was balanced in terms of gender composition but not age, with higher percentages in the eldest age groups (26.1%) compared to the youngest one (12.6%). Most participants had secondary levels of education (61.8%) and were unmarried (46.3%). Historical trauma was the most prevalent form of discrimination (56.1%), followed by having experienced discrimination because of being Sámi (41.0%) and having been treated in an offensive way in the last 3 months because of their Sámi ethnicity (12.6%). A third of the individuals did not report any form of discrimination (32.1%) while one out of ten (8.9%) reported all three forms of discrimination (table 1).

The three mental health indicators showed higher levels in women than in men (table 1). The prevalence of psychological distress in the last 30 days was 46.7% in women and 39.2% in men. Self-reported current anxiety levels were lower, but with an important gap between women and men (20.1% and

8.3%, respectively). Finally, the prevalence of self-reported depression (during their lifetime) was 27.4% for women and 12.1% for men.

In addition to the gender gap, the bivariate analyses showed statistically significant differences in prevalence for every age group (with lower differences in the case of diagnosed depression), civil status (divorced and widowed people perform worse than the other groups in the three indicators considered) and income levels (higher prevalence in the lower income quintiles) (table 1).

The bivariate analysis, not stratified by sex, in table 1, shows higher prevalence levels of psychological distress and depression, but not for anxiety, in those who had experienced discrimination.

Table 1. Population characteristics and proportion of self-perceived psychological distress (K6≥5), anxiety and diagnosed depression. SámiHET 2021 (n=3658).

	n	Percent individuals	Psychological distress (K6≥5)	Anxiety	Diagnosed depression
Gender			***	***	***
Women	1860	50.9	46.7	20.1	27.4
Men	1798	49.1	39.2	8.3	12.1
Age			***	***	***
18-29	463	12.6	70.2	3.9	23.4
30-44	861	23.5	55.3	9.9	25.6
45-64	1381	37.7	37.9	14.8	21.1
65-84	954	26.1	25.1	22.9	11.2
Civil status			***	***	***
Married	1377	37.6	33.6	15.5	14.6
Divorced/Widow	586	16.0	40.1	21.5	26.6
Single	1695	46.3	51.7	10.9	21.8
Education				***	
Tertiary	864	23.6	42.0	18.2	21.7
Secondary	2257	61.8	43.2	12.6	19.9
Primary	528	14.5	43.8	15.4	16.6
Income quintile			***	*	***
Q1 (richest)	709	19.4	34.1	12.7	13.0
Q2	716	19.6	43.6	12.4	17.4
Q3	722	19.7	43.9	13.1	23.0
Q4	718	19.6	42.5	16.7	23.2

Q5 (poorest)	790	21.6	50.6	16.4	22.6
Direct experience of discrimination			***		***
No	2157	59.0	34.5	13.6	16.0
Yes	1501	41.0	55.3	15.4	25.4
Offended because of ethnicity			***		***
No	3193	87.4	39.3	14.0	18.4
Yes	462	12.6	68.4	16.3	30.3
Historical trauma			***		***
No	1555	43.9	33.5	12.8	14.3
Yes	1985	56.1	50.8	14.9	24.5
Combined discrimination					
0			***		***
	1138	32.1	28.3	12.7	14.3
1	1234	34.9	41.6	13.9	18.7
2	853	21.1	55.2	13.9	25.6
3	316	8.9	71.1	18.8	34.7

*** p> 0.001 ** p <0.01 * p < 0.05 chi-square tests.

Adjusted prevalence rates between forms of discrimination and mental health indicators

In the adjusted models, all specific forms of discrimination were positively associated with psychological distress both in women and men. Both in women and men the highest risk of psychological distress was found among those who were exposed to the three forms of discrimination (aPR 1.94; 95% CI: 1.64, 2.31, and 2.02; 95% CI: 1.69, 2.42, respectively) (tables 2 and 3).

Self-perceived anxiety reproduced a similar pattern to psychological distress for women, but not for men (tables 2 and 3). Among men, discrimination indicators were not associated with currently reporting being anxious. A singular effect was observed in men where those with two forms of discrimination presented a lower aPR for anxiety (aPR 0.49; 95% CI: 0.27, 0.87). The higher the number of discriminatory experiences, the higher the prevalence of anxiety in women (aPR 2.33; 95% CI: 1.72, 3.15), and in men (aPR 1.65; 95% CI: 0.96, 2.82), though not significant in the latter.

Table 2. Women. Crude and adjusted prevalence ratios (95% confidence interval) showing associations between forms of discrimination and psychological distress K6≥5, anxiety, and diagnosed depression stratified by sex. SámiHET 2021.

	Psychological distress K6≥5	**Anxiety**	**Diagnosed depression**
Crude			
Direct experience of discrimination			
No	1	1	1
Yes	**1.59 (1.44, 1.76)**	1.17 (0.98, 1.39)	**1.50 (1.29, 1.73)**
Offended because of ethnicity			
No	1	1	1
Yes	**1.64 (1.78, 1.81)**	1.25 (0.98, 1.57)	**1.56 (1.31, 1.85)**
Historical trauma			
No	1	1	1
Yes	**1.61 (1.42, 1.82)**	**1.56 (1.31, 1.85)**	**1.56 (1.31, 1.85)**
Combined discrimination			
0	1	1	1
1	**1.50 (1.27, 1.77)**	1.16 (0.91, 1.48)	**1.26 (1.01, 1.58)**
2	**2.04 (1.74, 2.40)**	1.27 (0.99, 1.64)	**1.71 (1.38, 2.13)**
3	**2.54 (2.15, 3.01)**	**1.51 (1.11, 2.05)**	**2.26 (1.77, 2.88)**
Adjusted			
Direct experience of discrimination			
No	1	1	1
Yes	**1.38 (1.25, 1.52)**	**1.39 (1.17, 1.64)**	**1.35 (1.16, 1.56)**
Offended because of ethnicity			
No	1	1	1
Yes	**1.39 (1.25, 1.54)**	**1.58 (1.26, 1.99)**	**1.39 (1.16, 1.66)**
Historical trauma			
No	1	1	1
Yes	**1.42 (1.26, 1.60)**	**1.43 (1.17, 1.74)**	**1.41 (1.18, 1.68)**
Combined discrimination			
0	1	1	1
1	**1.36 (1.15, 1.60)**	**1.33 (1.04, 1.70)**	1.18 (0.94, 1.47)
2	**1.73 (1.47, 2.03)**	**1.59 (1.24, 2.05)**	**1.51 (1.20, 1.88)**
3	**1.94 (1.64, 2.31)**	**2.33 (1.72, 3.15)**	**1.86 (1.45, 2.39)**

Adjusted prevalence ratios (aPRs) by age group, civil status, education and income level.

Table 3. Men. Crude and adjusted prevalence ratios (95% confidence interval) showing associations between forms of discrimination and psychological distress K6≥5, anxiety, and diagnosed depression stratified by sex. SámiHET 2021.

	Psychological distress K6≥5	**Anxiety**	**Diagnosed depression**
Crude			
Direct experience of discrimination			
No	1	1	1
Yes	**1.62 (1.44, 1.82)**	0.93 (0.67, 1.28)	**1.40 (1.09, 1.81)**

Offended because of ethnicity			
No	1	1	1
Yes	**1.86 (1.65, 2.11)**	0.85 (0.51, 1.43)	**1.84 (1.35, 2.51)**
Historical trauma			
No	1	1	1
Yes	**1.41 (1.24, 1.59)**	**0.68 (0.49, 0.94)**	**1.36 (1.04, 1.77)**
Combined discrimination			
0	1	1	1
1	**1.40 (1.19, 1.65)**	0.86 (0.60. 1.23)	1.29 (0.93, 1.80)
2	**1.84 (1.56, 2.17)**	**0.38 (0.21, 0.68)**	**1.50 (1.05, 2.15)**
3	**2.48 (2.08, 2.96)**	1.23 (0.71, 2.11)	**2.44 (1.59, 3.67)**
Adjusted			
Direct experience of discrimination			
No	1	1	1
Yes	**1.44 (1.28, 1.62)**	1.01 (0.75, 1.37)	1.17 (0.91, 1.52)
Offended because of ethnicity			
No	1	1	1
Yes	**1.59 (1.40, 1.81)**	1.18 (0.71, 1.96)	**1.44 (1.05, 1.98)**
Historical trauma			
No	1	1	1
Yes	**1.27 (1.12, 1.43)**	0.83 (0.60, 1.15)	1.20 (0.93, 1.56)
Combined discrimination			
0	1	1	1
1	**1.31 (1.12, 1.54)**	0.95 (0.68, 1.34)	1.22 (0.88, 1.69)
2	**1.57 (1.33, 1.85)**	**0.49 (0.28, 0.87)**	1.23 (0.85, 1.75)
3	**2.02 (1.69, 2.42)**	1.65 (0.96, 2.82)	**1.74 (1.13, 2.70)**

Adjusted prevalence ratios (aPRs) by age group, civil status, education and income level.

A similar pattern to the previous one was also observed for depression in the case of women. However, in men, in this case, having been offended because of ethnicity during the last 3 months (aPR 1.44; 95% CI: 1.05, 1.98) and the combination of all three forms of discrimination (aPR 1.74; 95% CI: 1.13, 2.70) were positively associated with depression.

Discussion

The observed results are coherent with the main hypothesis of a positive association of the different forms of discrimination on the three mental health indicators considered in the analysis. When the three forms of discrimination

were present in the same individual, the risk of poor mental health was almost doubled. This pattern was observed in all the models for women, but for men only in relation to psychological distress (and partially, in the case of depression).

These findings are in line with the published literature on associations between discrimination and self-perceived mental health problems among the Sámi in Norway [12-15] and other Indigenous populations all over the world [4-9]. The observed patterns show some differences between men and women. Although further studies may advance our understanding, a potential explanation could be certain Sámi upbringing techniques, such as “teasing”, to support the development of mental hardiness and self-control [21]. This hardening during upbringing may contribute to suicide among the Sámi, especially Sámi men, since hardening may result in the Sámi not asking for help (from social networks and/or health care system) [22]. In this case, however, it may be that the hardening-training might have strengthened resilience towards interpersonal discrimination among Sámi men. All these complexities point towards further research with a gender lens to understand the specific processes affecting men and women. This would be in line with a strong tradition in gender and ethnic studies, advocating an integrated analysis of the different forms of social stratification, also in the study of mental health [23,24].

One of the main novelties of this study is the observed association of historical trauma on current mental health in the Sámi population. Though this relationship has been described in other Indigenous groups [25-27], the

lack of previous evidence about structural forms of discrimination in this population can be explained by its difficulty to be captured in surveys, but also by the fact that minority populations are often studied with the tools that were developed to study the majority population [5]. In fact, Indigenous peoples in the Arctic do not often participate in designing instruments and research protocols [28]. In the case of the SámiHET survey, different stakeholders from the Sámi community were consulted and, consequently, the questionnaire contains a question, explained in the methods section, that is useful to analyse if historical forms of racism affected the respondents' family (for instance, the question mentions forced relocation, losing rights -like water, land, fishing, or hunting- among others).

Methodological considerations

The main limitation of this study is related to the cross-sectional design, with a general health questionnaire which allows to explore associations, but not causality. The interpretation of these results is determined by the time frames considered according to the variables under study (current situation for anxiety, last month for psychological distress and lifetime for depression) and likewise for the discrimination variables: lifetime for being subjected to discrimination due to ethnicity, last three months for been offended because of ethnicity and across generations for historical trauma. The specific effects of the different forms of discrimination and the increased prevalence for the combination of experiences of discrimination would be coherent with the hypothesis of increased risk of poor mental

health because of exposure to discrimination. An alternative interpretation of these results is constrained by the cross-sectional nature of the survey, as reverse causation is possible: mental health problems (like having been diagnosed with depression) may explain vulnerability to acute experiences of discrimination (for instance offended in the last three months). This can also produce reporting bias by gender, for instance, men may be less likely to self-report anxiety symptoms and to seek help for depressive symptoms. In addition, the questionnaire was only available in Swedish which may partially explain the non-response rate. Furthermore, although the psychometric scales are validated for the general population in Sweden, they are not specifically for the Sámi. In addition, the use of dichotomic variables to explore both experiences of discrimination and mental health may oversimplify the described associations [29]. Finally, though this study is representative of the Sámi in Sweden that currently can be identified through registers the lack of information regarding the demography of Sámi in Sweden means it is not possible to generalize the study results to all Sámi in Sweden.

Conclusion

This study has displayed that the four measures of discrimination were associated with psychological distress, anxiety and depression among Sámi women and with psychological distress, and partially with depression, among Sámi men. These findings support the need to consider ethnic discrimination, combined with a gender perspective, as part of the public health policies concerning the Sámi in Sweden.

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Declarations

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Ethics approval and consent to participate

The present study was conducted using secondary data. The data were previously anonymized by the statistical offices that produced them. All our statistics follow the national legislation procedures for ethical data usage, data protection, and publication criteria. The Swedish Ethical Review Authority approved this study (Dnr 2020-04803 and Ö 70-2020/3.1).

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests

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