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Ethnic identity and eating disorders in adolescence and mental health in young adulthood

A population based comparative study between Sami and non-Sami adolescents in Norway

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Preface

Indigenous adolescents health have many interesting topics simply waiting to be explored. The intricate relationship between ethnicity, ethnic factors and mental health have previously intrigued my interest and curiosity, and it seemed only fitting that I would write my master ´s thesis on these subjects.

This study came to life in the beginning of January 2020, when I asked Siv Kvernmo to be my supervisor and guide me through this project. I told her about my interests of adolescent and indigenous health, and she suggested that the NAAHS survey could be right for the purpose of this study. This study was written as my master´s thesis, and I received no funding's for the project. I want to thank Siv Kvernmo for all her patience, guidance and consistent presence throughout the whole process. It has truly been educational.

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Abstract

Background: How the Sami ethnicity, ethnic factors and ethnic discrimination are related to mental health has been investigated previously. An interesting, and as far as I know until now unexplored topic of research is the relationship between adolescence eating disorders, ethnic factors, and mental health outcome in young adulthood. The aims of the study was to investigate the relationship between ethnicity, ethnic factors, body image in adolescence and having an eating disorder in adolescence. Finally also investigating the relationship between the above mentioned factors and mental health outcomes in young adulthood.

Method: Data was collected from the Norwegian Arctic Adolescent Health Study (2003-2005) and participants were linked to the Norwegian Patient Registry (2008-2012), with 3987 participants. Eating disorders, ethnicity, ethnic factors, and body image in adolescence were based on self-report from the survey and use of mental health care in young adulthood from NPR. Analyses were carried out using independent t-tests, Chi-square test and multivariable regression.

Results: There were found no overall differences between Sami and non-Sami in prevalence of eating disorders in adolescence, or use of mental health care in young adulthood. A significant association was found between body image and dieting, and having an eating disorder in adolescence. An association was found between ethnic identity exploration and eating disorders in adolescence among Sami adolescents. No significant relationship was found between ethnic factors, nor eating disorders in adolescence, and use of mental health care in young adulthood.

Conclusion: Eating disorders in adolescence and use of mental health care in young adulthood were as common among Sami as non-Sami. Ethnic factors were more pronounced, and had more effect on the outcome of the Sami. Body image was associated with eating disorders. Ethnic factors, nor eating disorders in adolescence was a predictor for use of mental health care in young adulthood.

Background

Eating disorders and mental health

Indigenous health, and especially the health of indigenous adolescents and youth, have many not thoroughly addressed topics, among them eating disorders. Eating disorders in adolescents in indigenous groups have been described previously, with varying results from indigenous group to indigenous group (1-4). Some indigenous groups had no difference of eating disorders symptoms (1, 3, 5), some had a higher incidence of eating disorder symptoms (4), and some had lower incidence of eating disorders compared to their non-indigenous peers (2).

The literature search for this study found only two studies describing eating disorders in the Sami indigenous group, where one described adolescents specifically, and the other described a population ranging from the age of 40-69 (6, 7). The former describing that Sami females are more satisfied with their body, and reported fewer eating problems than their non-Sami counterparts. The Sami males on the other hand reported more eating disorders than the non-Sami counterparts. The possible explanation of the findings were different norms, values and body ideals in the Sami culture. The latter study described no significant difference in overall eating disorders between Sami and non-Sami.

Eating disorders are associated with high medical comorbidities, and can cause life threatening diseases (8-10). Studies have found an increase of eating disorders in adolescents, and also that most adolescents with eating disorders have a dissatisfaction with their own body and body shape (8, 9). A longitudinal study found a continuity of having an eating disorder in early life and having an eating disorder and eating disorder behavior later in life (11). Although there are many studies on adolescents and adolescent eating disorders, there is scarce information of the outcome of a previous history of eating disorders and a skewed body image on general mental health in young adulthood.

The Sami

The Sami is an indigenous group, mainly based in the geographical area of northern Norway, Sweden, Finland, and Kola Peninsula of Russia called *Sápmi* in Sami language. The estimated number of Sami is around 100 000, with the majority residing in Norway (6). Although the

Sami people are recognized as one indigenous group, there are several different languages, dialects, and subcultures within the group, influenced and separated by different geographical areas (7). Similar to other indigenous groups, the Sami have also been subject to forced assimilation policy. Different policies were inflicted on the Sami in the different countries of Sápmi. In Norway, the assimilation policy began in the 1830s and proceeded on well over the next hundred years. (12) The Sami people were denied speaking their mother tongue, forced to learn Norwegian language and were prohibited to practice their culture and their traditions. Children were taken away from the traditional nomad lifestyle to attend boarding schools, taught about the Norwegian racial superiority, and thus the Sami inferiority (13). Since then, Sami language has been recognized as an official language, and the Sami and the Norwegian are considered equal. All of this has led to a revitalization of language and cultural practice among the Sami youth (14). The majority of Sami are today integrated into the Norwegian society, and are not living solely through traditional lifestyles and traditions connected to reindeer herding, fishing and hunting. These cultural traits are still an important part of the survival and revitalization of the Sami culture in addition to the Sami languages.

Ethnicity and ethnic factors

The assimilation of the Sami belongs to fairly recent history, and there are still living Sami who remember it through first-hand experience. As a consequence of the experience it has left traces in them, and also in their descendants (6). Sami youth have been more exposed to ethnic discrimination compared to non-Sami youth (6, 12, 15, 16). Although discrimination may have negative effects on adolescents mental health, it seems that Sami with strong Sami ethnic identity show much resilience and have better health and wellbeing regardless of the discrimination (15).

The process that begins when different cultures come into contact with each other is known by the term acculturation. The consequence of acculturation is changing cultural patterns in one or both of the groups in contact (17). Different models have been made trying to describe how an individual´s ethnic identity is shaped by acculturation. One model suggests a one-dimensional relation where having a strong identification to one's ethnic culture means having a weak connection to the majority culture of the population, and the other way around. Berry and Sam suggested another model with a more accurate image, since many individual can have a connection with one culture and still have a relationship to another culture (18).

This model is two dimensional, where an individual can have a strong or weak connection to both one´s original ethnic culture and the culture of the majority of the population. (18, 19). Other authors have described how the relationship between different cultures can affect the formation of one´s ethnic identity on a individual level (19).

The search and establishment of an individual's ethnic identity among indigenous youth can be influenced by several factors. Even though the assimilation policy in Norway ended several decades ago, the Sami youth are still experiencing harassment and discrimination (20), adding to obstacles of exploring one´s ethnic identity. Phinney proposed a model of three stages in the process of exploring one´s ethnic identity (21). In the first stage individuals not yet exposed to the issues of ethnic identity are placed. Some individuals may not care for exploring their identity, may be at a preference of the dominant culture, or may not have had a reason to explore their ethnic identity yet. The second stage is characterized by being in a phase of exploration of one´s ethnic identity, often started by a particular experience that may force an awakening in the individual. The third stage is when an individual have a defined and achieved ethnic identity, and have a confident sense of own ethnicity (19).

How the Sami ethnicity, different ethnic factors and ethnic discrimination are related to mental health has been investigated previously. Having a strong ethnic identity has been linked as a protective factor for psychological distress in some adolescents, but for Sami adolescents it has been proven to be connected to more psychiatric problems (12, 22). An interesting, and as far as I know until now unexplored topic of research is the relationship between eating disorders and ethnic factors in adolescence and mental health outcome in young adulthood. These are the topics that this study will investigate further.

Aims of study

As formerly described, indigenous health, and especially the health of indigenous adolescents and youth have been sparsely investigated. Previous studies have described eating disorders and eating behaviors in other indigenous adolescent groups, but there are few in the Norwegian indigenous group, Sami. None of these have investigated how ethnic factors might be associated with eating disorders in adolescence and the mental health outcome in young adulthood.

The aims of the study is to investigate the relationship between ethnicity, ethnic factors, body image in adolescence and having an eating disorder in adolescence. I also want to examine how sociodemographic and psychosocial factors contribute to this context. Finally, I want to investigate how eating disorders in adolescence and ethnic factors in adolescence predict the use of mental health care in young adulthood.

Materials and methods

Study design

To answer the questions in the aims of the study, data from The Norwegian Arctic Adolescent Health Study (NAAHS) was used, and later linked to data from the National Patient Registry (NPR), making this study a longitudinal population based study.

NAAHS is a survey that was conducted in 2003-2005 among 10th graders in all except one junior high school (292 out of 293) in the three northernmost counties in Norway (23). The survey was administered in classrooms by project staff and completed during two school hours. Students who were absent on the day of the survey completed the survey at a later date. There were no specific exclusion criteria in this study.

The Norwegian Patient Registry is a detailed registry from 2008 which includes personal identification of specialized health care utilization and diagnosis (24). Available data from specialized health care from 2008 through 2012 were used, when the participants were 18-20 to 23-25 years old.

Data analysis

All data analyses were carried out using IBM SPSS Statistics version 26. To test for differences between groups, Chi-square analyses were used on categorical variables and independent t-test on continuous variables. For the multivariable analyses binary logistic regression was used as the dependent variables were dichotomous. In all analyses the statistical significance level was set to .05.

First, I tested for gender and ethnic differences in sociodemographic and psychosocial factors *(Table 1, Table 2)* The sociodemographic and psychosocial factors that were significant for ethnicity differences were used as adjusting variables in the multivariable analyses. Then, I tested for gender and ethnic differences in dieting, body image and eating disorders in adolescence *(Table 1)* and ethnic factors *(Table 2).*

For the multivariable analyses, logistic regression with block-analyses was used to investigate the relationship with eating disorders in adolescence and use of mental health care in young adulthood as outcome variables. In all, four multivariable analyses were carried out using block-wise analyses and by entering all variables simultaneously in the block. In advance, all the variables were checked for multicollinearity by Pearson's correlations, and none exceeded the value of 0.7.

In the first multivariable analysis eating disorders in adolescence was the dependent variable, and the analysis was carried out in the total population *(Table 3).* In the first model, bivariate analyses were carried out for all of the variables in the analyses. Model 2 was adjusted for Sami ethnicity, model 3 for gender, model 4 for ethnic factors, model 5 for sociodemographic factors, model 6 for psychosocial factors, and model 7 for body image and dieting.

In the second multivariable analysis eating disorders in adolescence was the dependent variable and the analyses were stratified by ethnicity *(Table 4)* In the first model, bivariate analyses were carried out for all variables in the analyses. Model 2 was adjusted for ethnic factors, model 3 was adjusted for sociodemographic factors, and model 4 was adjusted for psychosocial factors.

In the third multivariable analysis use of mental health care in young adulthood was the dependent variable, and the analysis was carried out in the total population *(Table 5)* In the first model, bivariate analyses were carried out for all the variables in the analyses. Model 2 was adjusted for Sami ethnicity, model 3 for gender, model 4 for ethnic factors, model 5 for sociodemographic factors, model 6 for psychosocial factors, and model 7 for body image, dieting and eating disorders, all in adolescence.

In the fourth multivariable analysis use of mental health care in young adulthood was the dependent variable and the analyses were stratified by ethnicity (*Table 6*). In the first model, bivariate analyses were carried out for all of the variables in the analyses. Model 2 was adjusted for ethnic factors, model 3 was adjusted for sociodemographic factors, model 4 was adjusted for psychosocial factors, and model 5 was adjusted for eating disorders in adolescence.

Ethics

The Norwegian Data Inspectorate and the school authorities approved the NAAHS. Both students and their parents were given written information about the study, and the students gave their written consent. The Regional Medical Ethical Committee approved the NAAHS and the registry linkage, and the Norwegian Institute of Public Health and Statistics Norway carried out the linkage. In Norway, data on ethnicity is prohibited to be recorded in Norwegian registers. This study was approved to use the survey data to identify Sami, and thus stratify the survey-population by ethnicity. This enabled us to investigate and compare health outcomes in Sami and non-Sami.

Measures

Outcome variables

Eating disorder in adolescence was measured by the question "have you ever been treated for eating disorders?", with the options "no" (1), "no, but I should have been" (2) and "yes" (3). Participants who answered one of the two last options were included as self-reported eating disorder. Participants who were classified as underweight, and answered that they thought they weighed too much, where also included as having an eating disorder. This means that this definition of *eating disorder* included self-reported of eating disorder of any kind, but included also non-reporters of eating disorders with an anorexic body image.

Mental healthcare outcomes in young adulthood was measured by the use of psychiatric healthcare in young adulthood. This was measured by patients recognized in the Norwegian psychiatric patient registry (NPR), including both public psychiatric healthcare and private specialists.

Independent variables

Ethnic variables

Sami ethnicity was defined by participants having one or more of the following criteria: Sami parentage or Sami language competence in the participants, parents, grandparents or Sami

self-labeling. Participants who did not have one or more of the criteria was defined as non-Sami.

From Phinneys theory (21) of ethnic identity development, the *Multigroup Ethnic Identity Measure (MEIM)* questionnaire has been developed (α= 0.89, for both Sami and non-Sami) (25). The questions in the questionnaire are summed up and a mean value calculated for an overall scale of ethnic identity. This scale can be split up into two subscales: one for the ethnic identity search *(ethnic identity exploration)* and another for achieved ethnic identity (*ethnic identity affirmation, belonging and commitment*). The MEIM questionnaire consists of the questions: 1: "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs", 2: "I am active in organizations or social groups that include mostly members of my own ethnic group", 3: "I have a clear sense of my ethnic background and what it means for me", 4: "I think a lot about how my life will be affected by my ethnic group membership", 5: "I am happy that I am a member of the group I belong to", 6: "I have a strong sense of belonging to my own ethnic group", 7: "I understand pretty well what my ethnic group membership means to me", 8: "In order to learn more about my ethnic background, I have often talked to other people about my ethnic group", 9: I have a lot of pride in my ethnic group", 10: "I participate in cultural practices of my own group, such as special food, music, or customs", 11: "I feel a strong attachment towards my own ethnic group", 12: "I feel good about my cultural or ethnic background". The responses from the participants were measured on a four-point Likert scale from "strongly agree" (4) to "strongly disagree" (1). Question number 1, 2, 4, 8 and 10 were used in the scale for the participants *ethnic identity search*, and question number 3, 5, 6, 7, 9, 11, and 12 in the scale for the participants *affirmation, belonging and commitment* to their ethnicity.

Ethnic discrimination (α= 0.82 in total, α= 0.81 for non-Sami and α= 0.83 for Sami) was measured by the questions "I feel others have behaved unfairly or negatively towards people from my culture", "I do not feel accepted by people from other cultures", "I feel that people from other cultures are against me/have something against me", " I have been teased and insulted based on my cultural background", "I have been threated or attacked based on my cultural background". The responses from the participants were measured on a four-point Likert scale from "strongly agree" (1) too "strongly disagree" (4).

Body image, eating and dieting

Body image. The participants were asked what they thought about their weight, with the options being "The weight is okay" (1), "Weighs a bit too much" (2), "Weighs way too much" (3), "Weighs a bit too little" (4), and "Weighs way too little" (5). The answers were recoded into "The weight is okay", "weighs too much", and "weighs too little". The participants also reported on the statement "I care about my weight", with the options "agreed" (1), "slightly agreed" (2), and "not agreed" (3). The answers where recoded into the values "agreed" and "not agreed".

BMI was calculated from the participants self-reported height and weight, and recoded into underweight (<18.5), normal weight (18.5-25), overweight (25-30) and obese (>30).

Dieting was examined by the question "Have you ever tried dieting?", with the options "no, never" (1), "yes, earlier" (2), "yes, now" (3), and "yes, all the time" (4). The answers where recoded into the values "yes" and "no".

Psychosocial factors

Self-efficacy/resilience (α= 0.77) was measured on a five-item version of the *General Perceived Self-Efficacy Scale*. The questions were "I always manage to solve difficult problems if I try hard enough", "if someone counteracts me, I can find ways for me to get what I want", "if I have a problem and I am completely stuck with it, I usually find a solution", "I feel safe that I would be able to handle an unforeseen event in an effective matter", and "I remain calm when I meet difficulties, because I trust my abilities to master things". Responses were scored on a four-point Likert scale from "completely wrong" (1), to "completely right" (4). Higher scores indicated higher self-efficacy.

School related stress (α= 0.66) was measured by asking if the participants had experienced the following "heavy workload at school", "heavy pressure from others to succeed/do well in school", "difficulties to concentrate in class", and "difficulties understanding the teachers when she/he teaches". Responses were scored on a three-point Likert scale from "no" (1), to "yes, often" (3).

Parental involvement (α= 0.78) was measured by the four-item of the *Parental Involvement Scale*. The questions were the following: "my parents know where I am and what I do on the weekends", "my parents know where I am and what I do on weekdays", "my

parents know who I am with on my leisure time", and "my parents like the friends I am with on my leisure time". The possible answers varied from "fully correct" (1) to "not at all" (4).

Parental support (α= 0.88) was measured by the four statements "I feel attached to my family", "I am taken seriously by my family", "my family values my opinion", "I mean a lot to my family", and "I can count on my family when I need help". The possible answers varied from "completely correct" (1) to "completely disagree" (4).

Parental conflicts were measured by asking the participant if they during the past 12 months had experienced "argues, or conflicts with your parents", on a scale from "no, never" (1) to "very often" (4).

Family meaning (α= 0.80) was measured by asking how important the following seven statements were for the participants: "satisfying the needs of your family even though your own needs are different from theirs", "avoiding arguing with other members of the family", "putting the family's needs above your own needs", "sharing your things (belongings) with other members in the family", "sharing your money with your family", "living up to your family´s expectations", and "being in touch with grandparents, aunts/uncles, godparents etc.". They were asked to range their answers importance from "very important" (1) to "not important at all" (2).

The Strengths and Difficulties Questionnaire (SDQ) was used as a measure of mental health. The version used in the NAAHS survey had 25 items, for 5 different scales. SDQ self-report version was used. In this study three of the scales were used; peer problems scale, conduct problems scale, and emotional symptoms scale (26, 27).

Peer problems (α=0.52) were measured by the following five questions "I am often by myself, I usually do things alone", "I have one or more good friends", "I am usually liked by my peers", "Other children and youth bothers or bullies me", "I get better along with ground ups than my peers". The possible answers varied from "not correct" (1), to "completely correct" (3).

Emotional symptoms (α= 0.70) were measured by the five questions "I often have a headache, stomachache or nausea", "I worry a lot", "I often feel sad, down or close to tears", "I feel nervous in new situations. I easily feel insecure", "I am scared of many things, and I am easily frightened". The possible answers varied from "not correct" (1), to "completely correct" (3).

Conduct problems (α=0.47) were measured by the five questions "I often get angry and have a short temper", "I usually do as am told", "I fight a lot. I can make others do as I

wish", "I am often accused of lying or cheating", "I take home things that are not mine, from school and other places". The possible answers varied from "not correct" (1), to "completely correct" (3).

Socioeconomic factors

Parental education. Parents highest education was collected from Statistics Norway´s education registry when the participants were 15-16 years old. The possible categories were "lower secondary", "higher secondary", "lower university degree" or "higher university degree". Later the categories were recoded into two categories "below university degree" and "university degree".

Parental employment status. Two variables were made, one for mother, and another for father. If one or both parents worked full-time or part-time, employment status were categorized as "employed". All other options were categorized as "other".

County. Although the municipalities in northern Norway now are merged into two different counties, Nordland county, and Troms- and Finnmark county, there were three existing counties at the time the data was collected, respectively Nordland county, Troms county and Finnmark county. The participants county was based on which county their junior high school was placed.

Ethnic context was based on the participants´ residence municipality. Municipalities where the majority of the inhabitants are Sami were defined as Sami core area. This included the municipalities Karasjok, Kautokeino, Tana and Nesseby.

Family structure. The participants where asked "who do you live with?", with the possible answers being "mother and father" (1), "only mother" (2), "only father" (3), "approximately the same amount of time with each parent" (4), "mother or father with new spouse" (5), "foster parents" (6) or "other" (7). The answers were recoded into "living with both parents" (from option 1) and "other" (from option 2-7).

Results

Body image, and eating disorder and use of mental health care

Table 1 shows descriptive analyses for categorical variables with differences between ethnicity and gender within the Sami and the non-Sami adolescents.

Approximately equally as many Sami as non-Sami adolescents reported having an eating disorder, showing no significant differences for ethnicity. Gender differences were found with more girls than boys having an eating disorder in both groups.

Among the non-Sami there were significantly more girls than boys that had used mental health care in young adulthood. No significant differences were found between Sami girls and boys.

None of the body image factors were significant for ethnicity, but a significant difference for gender was found in both groups *(Table 1).*

More girls than boys among the Sami adolescents thought that they weighed too much. The same gender difference was found among their non-Sami peers. For thoughts of underweight, more boys thought that they weighed too little compared to girls for both the Sami and the non-Sami adolescents. More girls than boys cared a lot about their weight, and had also tried dieting at some point. This gender difference was significant in both groups.

Ethnic factors in adolescence

Table 2 shows descriptive analyses for continuous variables, with differences between ethnicity, and gender within the Sami and the non-Sami adolescents.

Sami adolescents reported more discrimination than non-Sami *(Table 2).* Boys experienced more discrimination than girls in both groups. Sami adolescents scored higher on the ethnic identity exploration than their non-Sami peers. No significant difference was found between Sami and non-Sami on ethnic identity affirmation, belonging and commitment.

Sociodemographic factors and psychosocial differences in adolescence

More Sami than non-Sami lived in Sami core area. Most Sami lived in Finnmark county, and most non-Sami lived in Nordland county. There was also a difference in parental employment with more Sami fathers being unemployed *(Table 1).*

Sami parents were more involved in the participants lives compared to their non-Sami peers. Sami adolescents had a higher score of peer problems compared to non-Sami. A gender difference in peer problems occurred among the non-Sami group that was not found in the Sami group, indicating that non-Sami boys had more peer problems than non-Sami girls. Sami adolescents had a higher score of conduct problems compared to their non-Sami peers. There was also found a gender difference in both the Sami and the non-Sami group indicating that boys had more conduct problems compared to girls *(Table 2).*

Eating disorder in adolescence

Table 3 shows bivariate, and multiple regression for having an eating disorder in adolescence in the total population of the study. *Table 4* shows bivariate regression and multiple regression for having an eating disorder in adolescence, stratified by ethnic group.

The bivariate analyses in *Table 3*, model 1, shows that participants thinking they weighed too little or too much, cared a lot about their weight, dieted, was a girl or was living in Troms county had a significantly higher odds ratio (OR) for having an eating disorder in adolescence. Those having a strong ethnic identity achievement, and not having experienced ethnic discrimination, had a significantly lower OR for having an eating disorder in adolescence. Having a strong ethnic identity indicated lower OR for having an eating disorder in adolescence in all the models *(Table 3)* and remained significant in the adjusted models, until model 6 when it was adjusted for psychosocial factors, and model 7 when it also was adjusted for body image and dieting. Not having experienced ethnic discrimination followed the same pattern and had a lower OR in all of the models and remained significant until model 6 and 7.

In the final model in *Table 3*, participants thinking they weighed too much and too little, and having dieted, had a significantly increased OR for having an eating disorder in adolescence. Caring a lot about weight also had an increased OR in the final model for having an eating disorder in adolescence, but were no longer significant. Being a girl had a

significantly higher OR compared to boys in all of the adjusted models (*Table 3).* In the final model, adjusted for ethnicity, ethnic-, sociodemographic-, psychosocial factors and body image and dieting, girls had an OR almost three times as high as boys for having an eating disorder in adolescence.

In the stratified and bivariate analyses in model 1 in *Table 4*, none of the independent variables were significantly associated with having an eating disorder for the Sami group. Having a higher score in ethnic identity exploration had a higher OR for having an eating disorder in adolescence in all the models. Even though it was not significant in model 1, it became significant when adjusted for ethnic factors in model 2, when adjusted for sociodemographic factors in model 3, and also when adjusted for psychosocial factors in model 4.

In the non-Sami group having a strong ethnic affirmation, belonging and commitment and not having experienced ethnic discrimination, indicated a significantly lower OR for having an eating disorder in adolescence *(Table 4)*. It was not significant in any of the adjusted models.

For having an eating disorder in adolescence, living in Troms county had a significantly higher OR compared to the reference of living in Nordland in the unadjusted models *(Table 4).* It was not significant in the adjusted models.

For the Sami group more of the variation was explained by the independent variables in the adjusted models compared to the non-Sami with higher value of Nagelkerke´s R.

Mental health care use as young adult

Table 5 shows bivariate regression, and multiple regression for use of mental health care in young adulthood in the total population of the study. *Table 6* shows bivariate regression and multiple regression for use of mental health care in young adulthood, stratified by ethnic group.

The bivariate analyses in *Table 5,* model 1, shows that being a girl, having an eating disorder, thinking one weighs too much or too little and dieted in adolescence, indicated a significantly higher OR of using mental health care as a young adult. Living in Troms county or Sami core area had a significantly lower OR of using mental health care as a young adult.

Exploring one's ethnic identity had a higher OR throughout the models. Even though it was not significant in the unadjusted model, it turned significant when adjusted for ethnic

factors in model 4, and when adjusted for psychosocial factors in model 5. It was no longer significant after being adjusted for psychosocial factors in model 6, and being adjusted for body image, eating disorder and having dieted in adolescence in model 7 *(Table 5*). Having a strong ethnic affirmation, belonging and commitment had lower OR for using mental health care as a young adult. It was not significant in the unadjusted model, but was significant when adjusted in model 4, and 5. It was no longer significant in model 6 and 7. *(Table 5).*

Thoughts of underweight and having dieted in adolescence had a significantly higher OR for use of mental health care in young adulthood in the final model as well as in the unadjusted models (Table 5). Participants with thoughts of overweight still had a higher OR in the final model, but it was no longer significant. Having cared a lot about weight in adolescence was associated with a significantly lower OR for using mental health care in young adulthood.

Being a girl had a significantly higher OR throughout all the adjusted model. Living in Troms county had a significantly lower OR for use of mental healthcare throughout all of the models. Living in a Sami core area also had a lower OR throughout all the models, but was only significant in model 1 *(Table 5)*

In the bivariate analyses in *Table 6,* model 1, living in a Sami core area was the only significant variable for the Sami group with a significantly lower OR throughout all the models it was adjusted for. None of the ethnic variables were significant in the Sami group *(Table 6).*

For the non-Sami group, living in Troms county in adolescence had a significantly lower OR for use of mental health care in young adulthood *(Table 6).* The OR did not change much in the different models and stayed significant in all of its adjusted models (3, 4, 5). None of the ethnic variables were significant in the non-Sami group. Having an eating disorder in adolescence indicated a higher OR for use of mental health care in young adulthood, but was not significant in the adjusted models. For the Sami group more of the variation was explained by the independent variables in the adjusted models compared to the non-Sami with a value of Nagelkerke´s R almost twice the size.

Discussion

Main findings

This study showed no significant ethnic difference in the prevalence of either eating disorders in adolescence or use of mental health care in young adulthood between Sami and non-Sami. A significant association was found between body image factors and dieting, and having an eating disorder in adolescence. There was also found a higher OR for having an eating disorder in adolescence among Sami who had a higher score of ethnic identity exploration. No significant relationship was found between ethnic factors, nor eating disorders in adolescence, and use of mental health care in young adulthood.

Having dieted, thinking one weighs too much and caring a lot about weight was associated with use of mental health care in young adulthood for the population as a whole. Eating disorders in adolescence was more prevalent in females compared to males. Use of mental health care in young adulthood was more prevalent in females compared to males in the non-Sami population. No gender difference was found in their Sami peers for use of mental health care in young adulthood. Sami adolescents had a higher score of ethnic exploration compared to non-Sami, and had also experienced more discrimination.

Eating disorders in adolescence

There was no significant difference between Sami and non-Sami in rates of eating disorders in adolescence. This supports findings from another study of eating disorder in Sami compared to non-Sami, although in an older population (7), but it differs from a previous study two decades ago describing the mental health of Sami youth where Sami males reported more eating disorders, and Sami females reported less eating disorders compared to their non-Sami peers (6). This study, however, did not compare genders between the respective ethnic groups and might explain why the findings deviates from earlier findings. This study is also more recent, and Sami adolescents may be more similar to non-Sami adolescents. Most Sami live in non-Sami dominated areas and are more or less integrated into the Norwegian society.

For the ethnic factors investigated in this study, there was found no significant relationship between any of the ethnic factors and eating disorder in adolescence when

adjusted for psychosocial factors, and body image and dieting in the analyses of the total population. In the analyses where the population was stratified in Sami and non-Sami, ethnic identity exploration was associated with a higher OR for having an eating disorder in adolescence in the Sami group. Having a higher score for ethnic identity exploration have been described as being in a phase of exploration, and has been associated with a positive relationship with health and wellbeing in ethnic groups (19, 28). However for Sami it has been associated with internalizing (emotional) symptoms, and hypothesized that Sami youth may experience identity search as stressful, due to witnessing conflicts among ethnic groups in the local communities and experiencing racism and discrimination (12). It was suggested that this would make ethnic identity exploring distressing for many adolescents. Having this theory in mind it is not unlikely that Sami in a state of ethnic identity exploration might be more prone to other issues in adolescence, such as eating disorders. More studies on this topic would help to uncover the true relationship between ethnic factors and mental health among Sami adolescents.

Similar to other studies, this study show a higher amount of adolescent girls who thought they weighed too much, and a higher amount of adolescent boys who thought that they weighed too little (29, 30). This was significant in both the Sami and the non-Sami group. This fits the western image of girls expected to be thin, and boys expected to be big and muscular (30). This study indicated that both thinking one weighed too much and thinking one weighed too little was associated with having an eating disorder in adolescence, and that girls had almost three times as high OR for having an eating disorder in adolescence compared to boys. These findings were not unexpected given the already well known higher proportion of girls having eating disorders in adolescence compared to boys (4, 29-31).

Mental health care

No significant ethnic difference was found regarding use of mental health care in young adulthood between Sami and non-Sami.

When investigating the impact of ethnic factors on the use of mental health care in respectively Sami and non-Sami, no relationship was found. However, in the Sami population there was found a negative association between living in a Sami core area and using mental health care, with the OR being reduced by 80 % compared to Sami living in Sami minority areas. In this study, this difference was not investigated any further. One explanation can be

that in this part of Sápmi, the Sami population is the majority and may not be subject to the same discrimination that Sami living in a minority position are. Ethnic discrimination have previously been associated with higher levels of stress and psychological distress in the Sami (32). It has also been described that living in a strong Sami society in a majority area may have a protective effect against stress exposure (16). Ethnic discrimination had no significant effect in any of our analyses. It is worth mentioning that previous mentioned studies that had a different outcome of ethnic discrimination had a study-population based on adults and not adolescents.

No association was found when investigating the relationship between eating disorders in adolescence and having used mental health care in young adulthood. Eating disorders are conditions that frequently occur in adolescence, but for many continue into adulthood (33). For body image and dieting, there was found a relationship between thinking one weighed too little and having used mental health care as a young adult. The same goes for having dieted in adolescence. It is surprising that these two variables was associated with the use of mental health care in young adulthood, whilst having an eating disorder in adolescence was not. One theory may be that participants who had an eating disorder had been treated for this, and may not have needed mental health care in young adulthood. Although no ethnic differences occurred for the use of mental health care in young adulthood, an interesting finding was the lack of gender difference within the Sami population. Within the non-Sami population, a significant difference in gender was found, with more girls having used mental health care in young adulthood. To some degree, this can paint a picture of Sami being more gender-neutral compared to non-Sami, as there was no significant gender difference in Sami.

Our findings show that Sami adolescents have just as good mental health as their non-Sami peers. Previous studies of indigenous groups from Australia and America have results where the indigenous groups have worse mental health outcomes compared to their non-indigenous peers (2, 34). A study of Maori youth have more positive results, indicating that Maori youth with a strong cultural identity were more likely to experience good mental health outcomes (35). It seems that compared to some other indigenous groups, Sami adolescents have better outcomes regarding mental health.

Strengths and limitations

The main strength of this study is that it was a large longitudinal population based study. The survey included almost all of middle schoolers in North Norway, and is a good representation of the adolescent population of this area in Norway.

Research on minorities such as the Sami people is a challenge due to the population size. For low frequent disorders, this will influence the statistical power of the analyses, which is the case in this study. The results must therefore be interpreted with caution, particular in the multivariable analyses.

NAAHS is a self-report survey, and may be subject to information bias. For the study´s definition of eating disorder, self-report of having an eating disorder was used, as well as self-reports of height and weight and thoughts about weight. For some of the variables used in this study, such as ethnic discrimination, ethnic identity exploration and ethnic identity affirmation, belonging and commitment, the individuals´ experience and self-evaluation of situations was important for the outcome of the measures.

Although most of the measures used in this study had a high internal consistency, some of our measures had a low value of Cronbach´s alpha, indicating that there was a low internal consistency of the scale. This might have influenced the results for the particular scales, which must be interpreted with caution.

The development of an eating disorder or a condition that may be in need of mental health care, is multifactorial. Therefore, it is difficult to make a true model of explanatory variables. In the regression analyses, a block-model was chosen to investigate which adjusting factors influenced the relationship between the independent and dependent variables. The adjustments for the models were made trying to explain the relationship for the group as a whole, but also when the groups were stratified by ethnicity or gender. Due to the nature of a multi-ethnical population some models are better suited for some ethnical groups than others. In this study it seems that the models applied were more fitting for the Sami than the non-Sami with respect to the explained variance (R^2).

Conclusion

The findings of this study suggested that eating disorders in adolescence and use of mental health care in young adulthood were as common among Sami as their non-Sami peers. Ethnic factors were more pronounced, and seemed to have more effect on the outcome of the Sami adolescents. Body image was associated with eating disorders and use of mental health care among both Sami and non-Sami. There was found no connection between ethnic factors, nor eating disorders in adolescence, and use of mental health care in young adulthood.

Not surprisingly, and in agreement with previous research the Sami adolescents reported being subject of ethnic discrimination more compared to the non-Sami adolescents, but it did not have any association with eating disorder in adolescence or the use of mental health care in young adulthood. Another ethnic factor that was stronger for the Sami adolescents was ethnic identity exploration. Although it did not seem to predict the use of mental health care in young adulthood, it did however have an association with having an eating disorder in adolescence. As expected the results showed that more females had eating disorders in adolescence, and that body image and dieting behavior was associated with eating disorders in adolescence, for both Sami and no-Sami. Although having an eating disorder in adolescence was not a predictor of the use of mental health care as a young adult, adolescent body image and dieting did.

Interestingly males and females among Sami adolescents used mental health care as young adults just as much, whereas in the non-Sami population there were more females than males who used mental health care. Another interesting find was that Sami residing in Sami majority municipalities used mental health care 80 % less compared to Sami living in minority areas. This may be a supportive finding of the theory that being part of the majority population is a protective factor for Sami regarding mental health.

The results suggested that Sami adolescents in an explorative phase of their ethnic identity could be more prone to also having an eating disorder in adolescence. It would be interesting to investigate whether or not this was true for other issues in adolescence too, and more studies on this topic would help to uncover the true relationship between ethnic factors and mental health among Sami adolescents.

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Attachments

Tables

Table 1: Descriptive statistics for adolescent sociodemographic and psychosocial factors, eating disorders in adolescence and young adulthood, and body weight image in adolescence by ethnicity and gender

		Sami N = 365							**Non-Sami N = 3622**							**Effect of ethnicity**
		Female		***Male***		***Total***		**Effect of gender**	***Female***		***Male***		***Total***		**Effect of gender**	$X^{2\,(p)}$
		N	***(%)***	***N***	***(%)***	***N***	***(%)***	$X^{2\,(p)}$	***N***	***(%)***	***N***	***(%)***	***N***	***(%)***	$X^{2\,(p)}$	
County	*Nordland*	39	(20.9)	50	(28.1)	89	(24.4)	$2.67^{p=.26}$	994	(55.1)	1021	(56.2)	2015	(55.6)	$1.39^{p=.50}$	**290.71** $^{p=<.001}$
	Troms	65	(34.8)	54	(30.3)	119	(32.6)		609	(33.8)	582	(32.0)	1191	(32.9)		
	Finnmark	83	(44.4)	74	(41.6)	157	(43.0)		201	(11.1)	215	(11.8)	416	(11.5)		
Sami core area	*Not core*	159	(85.0)	148	(83.1)	307	(84.1)	$.24^{p=.63}$	1797	(99.6)	1806	(99.3)	3603	(99.5)	$1.28^{p=.26}$	**413.36** $^{p=<.001}$
	Core area	28	(15.0	30	(16.9)	58	(15.9)		7	(0.4)	12	(0.7)	19	(0.5)		
Parental education	*Below university degree*	114	(61.0)	104	(58.8)	218	(59.9)	$.18^{p=.67}$	1085	(60.3)	1049	(58.0)	2134	(59.1)	$2.01^{p=.16}$	$.08^{p=.77}$
	University degree	73	(39.0)	73	(41.2)	146	(40.1)		715	(39.7)	761	(42.0)	1476	(40.9)		
Parental employment	*Father Employed*	138	(78.9)	145	(84.8)	283	(81.8)	$2.05^{p=.15}$	1530	(87.8)	1527	(87.0)	3057	(87.4)	$.54^{p=.46}$	**8.76** $^{p=<.001}$
	Father Unemployed	37	(21.1)	26	(15.2)	63	(18.2)		212	(12.2)	228	(13.0)	440	(12.6)		
	Mother Employed	148	(81.3)	147	(84.5)	295	(82.9)	$.63^{p=.43}$	1434	(81.1)	1439	(81.5)	2873	(81.3)	$.08^{p=.78}$	$.53^{p=.47}$
	Mother Unemployed	34	(18.7)	27	(15.5)	61	(17.1)		334	(18.9)	327	(18.5)	661	(18.7)		

Family structure	*Two parent home*	120	(64.9)	105	(59.7)	225	(62.3)	1.04$^{p=.31}$	1130	(63.1)	1160	(64.8)	2290	(63.9)	1.14$^{p=.29}$	.37$^{p=.54}$
	Other	65	(35.1)	71	(40.3)	136	(37.7)		661	(36.9)	630	(35.2)	1291	(36.1)		
Family income	*Low income*	8	(4.4)	2	(1.1)	10	(2.8)	**6.44$^{p=.04}$**	76	(4.3)	50	(2.8)	126	(3.5)	**122.30** $^{p=<.001}$	2.11$^{p=.35}$
	Middle income	76	(41.5)	59	(33.9)	135	(37.8)		642	(36.0)	578	(32.5)	1220	(34.3)		
	High income	99	(54.1)	112	(64.9)	212	(59.4)		1063	(59.7)	1152	(64.7)	2215	(62.2)		
Conflicts with parents	*No*	31	(16.8)	51	(28.7)	82	(22.6)	**7.34$^{p=.01}$**	203	(11.4)	478	(26.8)	681	(19.1)	**136.88** $^{p=<.001}$	2.57$^{p=.11}$
	Yes	154	(83.2)	127	(71.3)	281	(77.4)		1579	(88.6)	1306	(73.2)	2885	(80.9)		
Eating disorders in adolescence	*No*	176	(94.1)	176	(98.9)	352	(96.4)	**6.01$^{p=.01}$**	1695	(94.0)	1790	(98.5)	3485	(96.2)	**50.43** $^{p=<.001}$	.05$^{p=.83}$
	Yes	11	(5.9)	2	(1.1)	13	(3.6)		109	(6.0)	28	(1.5)	137	(3.8)		
Thoughts about weight	*Weight is okay*	74	(40.4)	105	(59.3)	179	(49.7)	**31.98** $^{p=<.001}$	670	(37.7)	1023	(57.1)	1693	(47.4)	**447.92** $^{p=<.001}$	.70$^{p=.71}$
	Weighs too much	91	(49.7)	38	(21.5)	129	(35.8)		960	(54.0)	373	(20.8)	1333	(37.3)		
	Weighs too little	18	(9.8)	34	(19.2)	52	(14.4)		147	(8.3)	397	(22.1)	544	(15.2)		
Cares a lot about weight	*Disagree*	31	(16.9)	62	(35.0)	93	(25.8)	**15.37** $^{p=<.001}$	311	(14.4)	648	(36.1)	959	(26.8)	**159.67** $^{p=<.001}$	.15$^{p=.70}$
	Agree	152	(83.1)	115	(65.0)	267	(74.2)		1476	(82.6)	1147	(63.9)	2623	(73.2)		
Dieting	*No*	87	(47.5)	152	(85.9)	239	(66.4)	**59.26** $^{p=<.001}$	804	(45.0)	1495	(83.1)	2299	(64.1)	**566.67** $^{p=<.001}$	.75$^{p=.39}$
	Yes	96	(52.5)	25	(14.1)	121	(33.6)		984	(55.0)	304	(16.9)	1288	(35.9)		
Use of mental health care in young adulthood	*No*	163	(87.2)	160	(89.9)	323	(88.5)	.66$^{p=.42}$	1525	(84.5)	1626	(89.4)	3151	(87.0)	**19.25** $^{p=<.001}$	.66$^{p=.42}$
	Yes	24	(12.8)	18	(10.1)	42	(11.5)		279	(15.5)	192	(10.6)	471	(13.0)		

Statistical analyses: Chi-square test (X^2)

Table 2: Descriptive statistics for adolescent psychosocial and ethnic factors by ethnicity and gender

	Sami							**Non-Sami**							
	Female		***Male***		***Total***		**Effect of gender**	***Female***		***Male***		***Total***		**Effect of gender**	**Effect of ethnicity**
	Mean	***(SD)***	***Mean***	***(SD)***	***Mean***	***(SD)***	*t-test*[p]	***Mean***	***(SD)***	***Mean***	***(SD)***	***Mean***	***(SD)***	*t-test*[p]	*t-test*[p]
Parental support	3.54	(.54)	3.58	(.60)	3.56	(.57)	-.71[p=.48]	3.53	(.60)	3.59	(.60)	3.56	(.57)	**-3.17**[p=<.001]	-0.74[p=.94]
Parental involvement	6.53	(2.34)	6.95	(2.68)	6.74	(2.52)	-1.58[p=.12]	6.37	(2.16)	6.47	(2.31)	6.42	(2.23)	-1.40[p=.16]	**-2.53**[p=.01]
Family meaning	2.28	(.56)	2.23	(.57)	2.25	(.56)	1.14[p=.26]	2.22	(.57)	2.24	(.63)	2.23	(.60)	15.85[p=.26]	-.63[p=.53]
Peer problems	2.01	(1.60)	2.11	(1.70)	2.05	(1.65)	-.59[p=.56]	1.75	(1.60)	1.89	(1.57)	1.82	(1.59)	**1.85**[p=.01]	**-2.71**[p=.01]
School related stress	7.47	(1.91)	7.13	(2.03)	7.31	(1.98)	1.63[p=.10]	7.46	(1.97)	6.98	(1.96)	7.22	(1.98)	**7.29** [p=<.001]	-.80[p=.42]
Conduct problems	2.06	(1.48)	2.84	(1.91)	2.44	(1.75)	**-4.38** [p=<.001]	1.99	(1.41)	2.23	(1.64)	2.11	(1.53)	**-4.62** [p=<.001]	**-3.92** [p=<.001]
Emotional problems	3.20	(2.06)	1.80	(1.77)	2.52	(2.05)	**6.97** [p=<.001]	3.48	(2.28)	1.68	(1.72)	2.58	(2.21)	**26.62** [p=<.001]	.52[p=.60]
Resilience	14.51	(2.64)	15.09	(2.68)	14.79	(2.67)	**-2.07**[p=.04]	14.31	(2.53)	15.18	(2.61)	14.75	(2.60)	**-10.15** [p=<.001]	-.33[p=.74]
Ethnic identity exploration	2.17	(.81)	2.06	(.86)	2.11	(.84)	1.20[p=.23]	1.90	(.79)	1.94	(.83)	1.92	(.81)	-1.19[p=.24]	**-4.09**[p=<.001]
Ethnic identity affirmation, belonging and commitment	3.09	(.74)	2.94	(.89)	3.01	(.82)	1.62[p=.11]	3.06	(.81)	3.00	(.89)	3.03	(.85)	16.43[p=.10]	.29[p=.78]
Ethnic discrimination	3.37	(.59)	3.12	(.81)	3.24	(.72)	**3.24** [p=<.001]	3.62	(.54)	3.42	(.69)	3.52	(.63)	**8.82** [p=<.001]	**7.52**[p=<.001]

Statistical analyses: independent t-test

Table 3: Relationship between ethnic factors, body weight image and having an eating disorders in adolescence

		Eating disorders in adolescence						
		Model 1[a]	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***	***Model 5[e]***	***Model 6[f]***	***Model 7[g]***
Sami		.94 (.53-1.68)$^{p=.83}$	.76 (.38-1.53)$^{p=.44}$	.76 (.38.1.52)$^{p=.43}$	.69 (.34-1.39)$^{p=.30}$	.69 (.33-1.46)$^{p=.33}$	.68 (.32-1.45)$^{p=.32}$	.66 (.31-1.43)$^{p=.30}$
Girl		**4.20(.2.80-6.30)$^{p=<.001}$**		**5.31 (3.18-8.88) $^{p=<.001}$**	**6.03 (3.57-10.20) $^{p=<.001}$**	**6.04 (2.57-10.22) $^{p=<.001}$**	**6.48 (3.81-11.02) $^{p=<.001}$**	**2.99 (1.68-5.34)$^{p=<.001}$**
Ethnic identity exploration		.97 (.77-1.22)$^{p=.80}$			1.11 (.80-1.55)$^{p=.52}$	1.11 (.80-1.54)$^{p=.53}$	1.06 (.76-1.46)$^{p=.74}$	1.03 (.74-1.45)$^{p=.85}$
Ethnic identity affirmation, belonging and commitment		**.81 (.65-.99)$^{p=.04}$**			**.74 (.54-.99)$^{p=.05}$**	**.74 (.55-.995)$^{p=.05}$**	.83 (.61-1.13)$^{p=.24}$	.84 (.61-1.15)$^{p=.27}$
Ethnic discrimination		**.76 (.59-.98)$^{p=.04}$**			**.68 (.50-.93)$^{p=.02}$**	**.68 (.50-.93)$^{p=.02}$**	.81 (.59-1.12)$^{p=.20}$	.81 (.58-1.13)$^{p=.21}$
County	*Nordland*	1 (ref.)						
	Troms	**1.51 (1.05-2.15)$^{p=.03}$**				1.19 (.77-1.85)$^{p=.44}$	1.17 (.75-1.82)$^{p=.50}$	1.19 (.76-1.88)$^{p=.44}$
	Finnmark	1.43 (.89-2.29)$^{p=.14}$				1.16 (.63-2.16)$^{p=.63}$	1.10 (.59-2.05)$^{p=.77}$	1.17 (.62-2.21)$^{p=.63}$
Sami core area		.68 (.17-2.79)$^{p=.59}$				.54 (.07-4.49)$^{p=.57}$	.54 (.06-4.47)$^{p=.56}$	.55 (.06-4.82)$^{p=.59}$
Thoughts about weight	*Weight is okay*	1 (ref.)						
	Weighs too much	**8.09 (4.95-13.23) $^{p=<.001}$**						**3.75 (1.78-7.92) $^{p=<.001}$**
	Weighs too little	**3.21 (1.69-6.11) $^{p=<.001}$**						**7.09 (2.96-16.97) $^{p=<.001}$**
Cares a lot about weight		**4.35 (2.40-7.87) $^{p=<.001}$**						1.99 (.88-4.50)$^{p=.10}$
Dieting		**6.61 (4.48-9.74) $^{p=<.001}$**						**4.97 (2.13-7.81) $^{p=<.001}$**
			R = .001	R=.072	R=.086	R=.09	R=.115	R=.211

Statistical analyses: Univariate and multivariate logistic regression. Significant findings in bold text. [a]Unadjusted. [b]Adjusted for Sami ethnicity. [c]Adjusted for gender. [d]Adjusted for ethnic factors; ethnic identity exploration, ethnic identity affirmation, belonging and commitment and ethnic discrimination. [e]Adjusted for sociodemographic factors: county, Sami core area, and parental employment status. [f]Adjusted for psychosocial factors: parental involvement, peer problems, and conduct problems. [g]Adjusted for thoughts about weight, caring a lot about weight and dieting

Table 4: Relationship between ethnic factors and having an eating disorders in adolescence, stratified by ethnicity

		Eating disorders in adolescence							
		Sami				**Non- Sami**			
		Model 1[a]	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***	***Model 1[a]***	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***
Ethnic identity exploration		1.79 (.90-3.53)$^{p=.10}$	**4.83 (1.22-17.61)$^{p=.02}$**	**5.23 (1.42-19.28)$^{p=.01}$**	**4.57 (1.22-17-08)$^{p=.02}$**	.90 (70-1.15)$^{p=.40}$	.99 (.70-1.38)$^{p=.93}$	.98 (.70-1.38)$^{p=.92}$	.94 (.67-1.32)$^{p=.73}$
Ethnic identity affirmation, belonging and commitment		.79 (.40-1.56)$^{p=.49}$	.34 (.10-1.18)$^{p=.09}$	.35 (.10-1.29)$^{p=.12}$	.55 (.13-2.10)$^{p=.38}$	**.81 (.65-1.00)$^{p=.05}$**	.84 (-62-1.11)$^{p=.21}$	.83 (.62-1.12)$^{p=.22}$	.92 (.68-1.24)$^{p=.56}$
Ethnic discrimination		.76 (.35-1.65)$^{p=.49}$	1.28 (.51-3.18)$^{p=.60}$	1.10 (.44-2.79)$^{p=.84}$	1.38 (.48-3.96)$^{p=.55}$	**.75 (.57-.98)$^{p=.04}$**	.82 (.60-1.23)$^{p=.22}$	.83 (.60-1.14)$^{p=.25}$	.94 (.68-1.31)$^{p=.73}$
County	*Nordland*	1 (ref.)				1 (ref.)			
	Tromsø	4.67 (.55-39.53)$^{p=.16}$		2.72 (.26-28.91)$^{p=.41}$	2.67 (.23-30.70)$^{p=.43}$	**1.45(1.00-2.10)$^{p=.05}$**		1.21 (.77-1.89)$^{p=.41}$	1.19 (.76-1.87)$^{p=.44}$
	Finnmark	.50 (.41-29.52)$^{p=25}$		4.89 (.49-49.21)$^{p=.18}$	4.38 (.40-48.11)$^{p=.23}$	1.46 (.87-2.46)$^{p=.16}$		1.09 (.56-2.14)$^{p=.80}$	1.06 (.54-1.08)$^{p=.87}$
Sami core area		.96 (.21-4.45)$^{p=.96}$		.27 (.03-2.76)$^{p=.27}$	.29 (.03-3.10)$^{p=.30}$	.00 (.00-.)$^{p=1.00}$		.00 (.00-.)$^{p=1.00}$	.00 (.00-.)$^{p=1.00}$
			R =.097	R =.147	R =.283		R = .006	R =.010	R =.026

Statistical analyses: Univariate and multivariate logistic regression. Significant findings in bold tex t.[a]Unadjusted. [b]Adjusted for ethnic factors; ethnic identity exploration, ethnic identity affirmation, belonging and commitment and cultural discrimination. [c]Adjusted for sociodemographic factors: county, Sami core area, and parental employment status. [d]Adjusted for psychosocial factors: parental involvement, peer problems, and conduct problems.

Table 5: Ethnic factors, eating disorders and body weight image in adolescence as predictors for use of mental health care in young adulthood

		Mental health care use as young adult						
		Model 1[a]	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***	***Model 5[e]***	***Model 6[f]***	***Model 7[g]***
Sami		.87 (.62.1.22)$^{p=.42}$	.94 (.65-1.36)$^{p=.74}$	.94 (.65-1.36)$^{p=.74}$	.88 (.60-1.27)$^{p=.49}$	1.02 (.69-1.52)$^{p=.92}$	.97 (.65-1.45)$^{p=.88}$	.98 (.66-1.48)$^{p=.94}$
Girl		**1.53 (1.27-1.84) $^{p=<.001}$**		**1.50 (1.19-1.88)$^{p=<.001}$**	**1.57 (1.24-1.98)$^{p=<.001}$**	**1.59 (1.26-2.01)$^{p=<.001}$**	**1.69 (1.33-2.15)$^{p=<.001}$**	**1.54 (1.17-2.02)$^{p=<.001}$**
Ethnic identity exploration		1.11 (.98-1.27)$^{p=.10}$			**1.21 (1.01-1.45)$^{p=.04}$**	**1.21 (1.01-1.45)$^{p=.04}$**	1.14 (.05-1.37)$^{p=.16}$	1.15 (.96-1.38)$^{p=.14}$
Ethnic identity affirmation, belonging and commitment		.96 (.85-1.09)$^{p=.50}$			**.84 (.71-.99)$^{p=.05}$**	**.83 (.70-.99)$^{p=.04}$**	.94 (.79-1.12)$^{p=.51}$	.94 (.79-1.12)$^{p=.50}$
Ethnic discrimination		.88 (.75-1.02)$^{p=.10}$			.87 (.73-1.05)$^{p=.15}$	.88 (.73-1.05)$^{p=.15}$	1.06 (.88-1.29)$^{p=.53}$	1.06 (.88-1.29)$^{p=.54}$
County	*Nordland*	*1 (ref.)*						
	Troms	**.78 (.64-.97)$^{p=.02}$**				**.71 (.55-.02)$^{p=.01}$**	**.71 (.54-.92)$^{p=.01}$**	**.71 (.54-.92)$^{p=.01}$**
	Finnmark	.92 (.70-1.21)$^{p=.55}$				.82 (.57-1.18)$^{p=.27}$	.80 (.55-1.16)$^{p=.23}$	.80 (.55-1.17)$^{p=.25}$
Sami core area		**.37 (.13-1.01)$^{p=.05}$**				.38 (11-1.32)$^{p=.13}$	.35 (.10-1.23)$^{p=.10}$	.36 (.10-1.26)$^{p=.11}$
Eating disorders in adolescence		**1.74 (1.15-2.62)$^{p=.01}$**						1.11 (.65-1.88)$^{p=.70}$
Thoughts about weight	*Weight is okay*	*1 (ref.)*						
	Weighs too much	**1.62 (1.32-1.99) $^{p=<.001}$**						1.12 (.82-1.54)$^{p=.46}$
	Weighs too little	**1.48 (1.13-1.95)$^{p=.01}$**						**1.51 (1.07-2.13)$^{p=02}$**
Cares a lot about weight		1.09 (.88-1.35)$^{p=.43}$						**.69 (.52-.92)$^{p=01}$**
Dieting		**1.73 (1.44-2.09) $^{p=<.001}$**						**1.52 (1.11-2.06)$^{p=.01}$**
			R=.00	R=.008	R=.015	R=.026	R=.081	R=.092

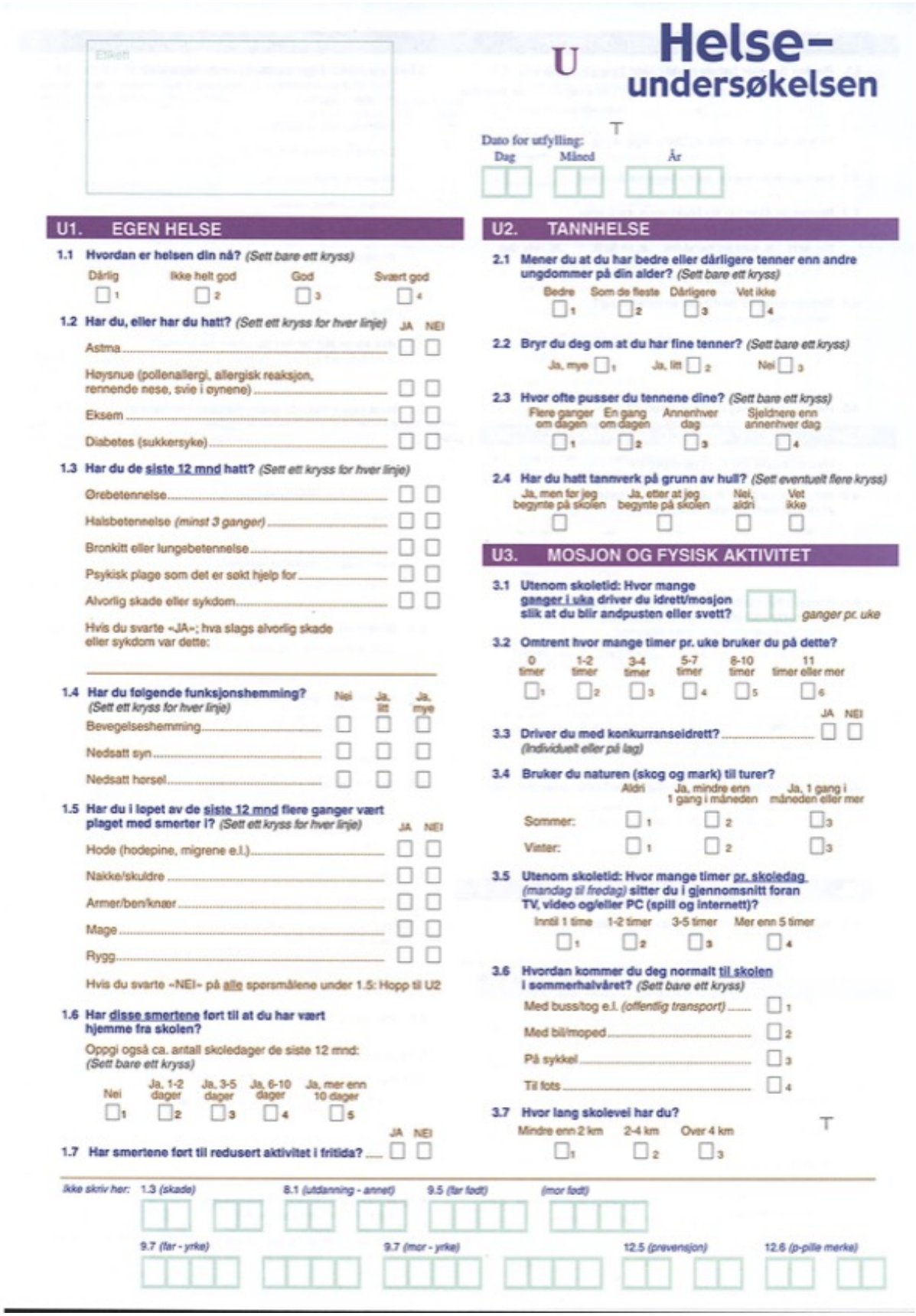
Statistical analyses: Univariate and multivariate logistic regression. Significant findings in bold text. [a]Unadjusted. [b]Adjusted for Sami ethnicity. [c]Adjusted for gender. [d]Adjusted for ethnic factors; ethnic identity exploration, ethnic identity affirmation, belonging and commitment and ethnic discrimination . [e]Adjusted for sociodemographic factors: county, Sami core area, and parental employment status. [f]Adjusted for psychosocial factors: parental involvement, peer problems, and conduct problem. [g]Adjusted for thoughts about weight, caring a lot about weight, dieting and eating disorders in adolescence

Table 6: Ethnic sociodemographic factors and adolescent eating disorders as predictors for use of mental health care in young adulthood, stratified by ethnicity

		Mental health care use as young adult									
		Sami					**Non- Sami**				
		Model 1[a]	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***	***Model 5[e]***	***Model 1[a]***	***Model 2[b]***	***Model 3[c]***	***Model 4[d]***	***Model 5[e]***
Ethnic identity exploration		1.14 (.77-1.70)$^{p=.51}$	1.26 (.73-2.20)$^{p=.41}$	1.32 (.76-2.31)$^{p=.33}$	1.22 (.71-2.11)$^{p=.48}$	1.14 (.65-2.00)$^{p=.64}$	1.12 (.97-1.28)$^{p=.11}$	1.20 (.99-1.45)$^{p=.06}$	1.19 (.98-1.44)$^{p=.07}$	1.13 (.93-1.3&)$^{p=.23}$	1.13 (.93-1.36)$^{p=.23}$
Ethnic identity affirmation, belonging and commitment		.95 (.64-1.40)$^{p=.79}$	.76 (.46-1.31)$^{p=.34}$	.79 (.46-1.35)$^{p=.39}$	.91 (.53-1.57)$^{p=.74}$	.94 (.54-1.62)$^{p=.82}$	.96 (.84-1.09)$^{p=.53}$	.86 (.72-1.03)$^{p=.10}$	.85 (.71-1.02)$^{p=.08}$	.96 (.80-1.15)$^{p=.67}$	.96 (.80-1.15)$^{p=.67}$
Ethnic discrimination		.83 (.54-1.28)$^{p=.40}$	.89 (.54-1.46)$^{p=.64}$	.89 (.54-1.46)$^{p=.63}$	1.12 (.67-1.87)$^{p=.66}$	1.10 (.66-1.85)$^{p=.71}$	.88 (.74-1.04)$^{p=.13}$	.93 (.77-1.13)$^{p=.45}$	.94 (.77-1.14)$^{p=.51}$	1.14 (.93-1.39)$^{p=.22}$	1.13 (.93-1.39)$^{p=.22}$
County	*Nordland*										
	Tromsø	.66 (.28-1.52)$^{p=.32}$		.62 (.25-1.55)$^{p=.31}$	.67 (.26-1.71)$^{p=.40}$	.64 (.25-1.64)$^{p=.35}$	**.80 (.64-.99)$^{p=.04}$**		**.73 (.55-.95)$^{p=.02}$**	**.72 (.54-.95)$^{p=.02}$**	**.71 (.54-.94)$^{p=.02}$**
	Finnmark	.71 (.33-1.54)$^{p=.39}$		1.00 (.42-2-40)$^{p=1.00}$	1.09 (.44-2.70)$^{p=.86}$	1.01 (.40-2.55)$^{p=.98}$	.99 (.73-1.34)$^{p=.94}$		.77 (.51-1.16)$^{p=.22}$	.76 (.50-1.15)$^{p=.19}$	.76 (.50-1.14)$^{p=.19}$
Sami core area		**.24 (.06-1.02)$^{p=.05}$**		**.20 (.04-.97)$^{p=.05}$**	**.19 (.04-.93)$^{p=.04}$**	**.20 (.04-.97)$^{p=.05}$**	.79 (.18-3.41)$^{p=.75}$		.94 (.11-7.70)$^{p=.95}$	.78 (.09-7.46)$^{p=.83}$	.80 (.08-7.58)$^{p=.84}$
Eating disorders in adolescence		2.41 (.64-9.13)$^{p=.20}$				2.84 (.60-13.50)$^{p=.19}$	**1.68 (1.09-3.59)$^{p=.02}$**				1.40 (.81-2.42)$^{p=.23}$
			R=.010	R=.065	R =.126	R =.135		R =.005	R =.016	R = .067	R = .068

Statistical analyses: Univariate and multivariate logistic regression. Significant findings in bold text. [a]Unadjusted. [b] Adjusted for ethnic factors; ethnic identity exploration, ethnic identity affirmation, belonging and commitment and ethnic discrimination . [c]Adjusted for sociodemographic factors: county, Sami core area, and parental employment status. [d]Adjusted for psychosocial factors: parental involvement, peer problems, and conduct problems. [e]Adjusted for eating disorders in adolescence.

The Norwegian Arctic Adolescent Health Study



U Helse–undersøkelsen

Etikett

Dato for utfylling: Dag Måned År

U1. EGEN HELSE

1.1 Hvordan er helsen din nå? *(Sett bare ett kryss)*
Dårlig 1 | Ikke helt god 2 | God 3 | Svært god 4

1.2 Har du, eller har du hatt? *(Sett ett kryss for hver linje)* JA NEI
Astma
Høysnue (pollenallergi, allergisk reaksjon, rennende nese, svie i øynene)
Eksem
Diabetes (sukkersyke)

1.3 Har du de siste 12 mnd hatt? *(Sett ett kryss for hver linje)*
Øresmerter
Halsbetennelse *(minst 3 ganger)*
Bronkitt eller lungebetennelse
Psykisk plage som det er søkt hjelp for
Alvorlig skade eller sykdom
Hvis du svarte «JA»; hva slags alvorlig skade eller sykdom var dette:

1.4 Har du følgende funksjonshemming? *(Sett ett kryss for hver linje)* Nei | Ja, litt | Ja, mye
Bevegelseshemming
Nedsatt syn
Nedsatt hørsel

1.5 Har du i løpet av de siste 12 mnd flere ganger vært plaget med smerter i? *(Sett ett kryss for hver linje)* JA NEI
Hode (hodepine, migrene e.l.)
Nakke/skuldre
Armer/ben/knær
Mage
Rygg
Hvis du svarte «NEI» på alle spørsmålene under 1.5: Hopp til U2

1.6 Har disse smertene ført til at du har vært hjemme fra skolen?
Oppgi også ca. antall skoledager de siste 12 mnd: *(Sett bare ett kryss)*
Nei 1 | Ja, 1-2 dager 2 | Ja, 3-5 dager 3 | Ja, 6-10 dager 4 | Ja, mer enn 10 dager 5

1.7 Har smertene ført til redusert aktivitet i fritida? JA NEI

U2. TANNHELSE

2.1 Mener du at du har bedre eller dårligere tenner enn andre ungdommer på din alder? *(Sett bare ett kryss)*
Bedre 1 | Som de fleste 2 | Dårligere 3 | Vet ikke 4

2.2 Bryr du deg om at du har fine tenner? *(Sett bare ett kryss)*
Ja, mye 1 | Ja, litt 2 | Nei 3

2.3 Hvor ofte pusser du tennene dine? *(Sett bare ett kryss)*
Flere ganger om dagen 1 | En gang om dagen 2 | Annenhver dag 3 | Sjeldnere enn annenhver dag 4

2.4 Har du hatt tannverk på grunn av hull? *(Sett eventuelt flere kryss)*
Ja, men før jeg begynte på skolen | Ja, etter at jeg begynte på skolen | Nei, aldri | Vet ikke

U3. MOSJON OG FYSISK AKTIVITET

3.1 Utenom skoletid: Hvor mange ganger i uka driver du idrett/mosjon slik at du blir andpusten eller svett? ganger pr. uke

3.2 Omtrent hvor mange timer pr. uke bruker du på dette?
0 timer 1 | 1-2 timer 2 | 3-4 timer 3 | 5-7 timer 4 | 8-10 timer 5 | 11 timer eller mer 6

3.3 Driver du med konkurranseidrett? JA NEI
(Individuelt eller på lag)

3.4 Bruker du naturen (skog og mark) til turer?
Aldri | Ja, mindre enn 1 gang i måneden | Ja, 1 gang i måneden eller mer
Sommer: 1 | 2 | 3
Vinter: 1 | 2 | 3

3.5 Utenom skoletid: Hvor mange timer pr. skoledag *(mandag til fredag)* sitter du i gjennomsnitt foran TV, video og/eller PC (spill og internett)?
Inntil 1 time 1 | 1-2 timer 2 | 3-5 timer 3 | Mer enn 5 timer 4

3.6 Hvordan kommer du deg normalt til skolen i sommerhalvåret? *(Sett bare ett kryss)*
Med buss/tog e.l. *(offentlig transport)* 1
Med bil/moped 2
På sykkel 3
Til fots 4

3.7 Hvor lang skolevei har du?
Mindre enn 2 km 1 | 2-4 km 2 | Over 4 km 3

Ikke skriv her: 1.3 *(skade)* 8.1 *(utdanning - annet)* 9.5 *(far født)* *(mor født)*
9.7 *(far - yrke)* 9.7 *(mor - yrke)* 12.5 *(prevensjon)* 12.6 *(p-pille merke)*

U4. RØYKING, RUSMIDLER OG DOP

4.1 Røyker du, eller har du røykt? *(Sett bare ett kryss)*

Nei, aldri ☐ 1 | Ja, men jeg har sluttet ☐ 2 | Ja, av og til ☐ 3 | Ja, hver dag ☐ 4

Hvis du har svart «NEI, ALDRI»; hopp til pkt. 4.3

4.2 Hvor gammel var du da du begynte å røyke? ☐☐ år

4.3 Bruker du eller har du brukt snus, skrå eller lignende? *(Sett bare ett kryss)*

Nei, aldri ☐ 1 | Ja, men jeg har sluttet ☐ 2 | Ja, av og til ☐ 3 | Ja, hver dag ☐ 4

4.4 Røyker noen av de du bor sammen med? *(Sett ett eller flere kryss)*

Ja, mor ☐ | Ja, far ☐ | Ja, søsken ☐ | Ja, andre ☐ | Nei ☐

	JA	NEI
4.5 Har du noen gang drukket alkohol? *(f.eks. alkoholholdig øl, rusbrus, vin, brennevin eller hjemmebrent)*	☐	☐

Hvis du svarte «NEI»; hopp til pkt. 4.8

4.6 Har du noen gang drukket så mye alkohol at du har vært beruset (full)? *(Sett bare ett kryss)*

Nei, aldri ☐ | Ja, en gang ☐ | Ja, 2-3 ganger ☐ | Ja, 4-10 ganger ☐ | Ja, mer enn 10 ganger ☐

4.7 Omtrent hvor ofte har du i løpet av det siste året drukket alkohol? *(Sett bare ett kryss)*
(Lettøl og alkoholfritt øl regnes ikke med)

4-7 ganger i uka ☐ 1 | 2-3 ganger i uka ☐ 2 | ca. 1 gang i uka ☐ 3 | 2-3 ganger pr. måned ☐ 4

Omtrent 1 gang i måneden ☐ 5 | Noen få ganger siste år ☐ 6 | Har ikke drukket alkohol siste år ☐ 7 | Har aldri drukket alkohol ☐ 8

4.8 Har du noen gang prøvd dopingmidler? *(Sett bare ett kryss)*

Nei, aldri ☐ 1 | Ja, en gang ☐ 2 | Ja, flere ganger ☐ 3 | Ja, jeg bruker det regelmessig ☐ 4

U5. MAT, DRIKKE OG SPISEVANER

5.1 Hvor ofte spiser du vanligvis disse matvarene?
(Sett ett kryss for hver linje)

	Sjelden /aldri	1-3 g. pr.mnd	1-3 g. pr.uke	4-6 g. pr.uke	1-2 g. pr.dag	3 g. el. mer pr.dag
Frukt, bær	☐	☐	☐	☐	☐	☐
Ost *(alle typer)*	☐	☐	☐	☐	☐	☐
Poteter	☐	☐	☐	☐	☐	☐
Kokte grønnsaker	☐	☐	☐	☐	☐	☐
Rå grønnsaker/salat	☐	☐	☐	☐	☐	☐
Feit fisk *(f.eks. laks, ørret, makrell, sild)*	☐	☐	☐	☐	☐	☐
Sjokolade/smågodt	☐	☐	☐	☐	☐	☐
Chips, potetgull	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6

U5. Mat, drikke og spisevaner (fortsettelse)

5.2 Hvor mye drikker du vanligvis av følgende?
(Sett ett kryss pr. linje)
(1/2 liter = 3 glass)

	Sjelden /aldri	1-6 glass pr.uke	1 glass pr.dag	2-3 glass pr.dag	4 glass el. mer pr.dag
Helmelk, kefir, yoghurt	☐	☐	☐	☐	☐
Lettmelk, cultura, lettyoghurt	☐	☐	☐	☐	☐
Skummet melk (sur/søt)	☐	☐	☐	☐	☐
Cola/brus med sukker	☐	☐	☐	☐	☐
Cola/brus «light»	☐	☐	☐	☐	☐
Fruktjuice	☐	☐	☐	☐	☐
Saft	☐	☐	☐	☐	☐
Vann	☐	☐	☐	☐	☐
	1	2	3	4	5

5.3 Hva slags fett bruker du oftest på brødet?
(Sett bare ett kryss)

Smør/hard margarin ☐ 1 | Myk/lett margarin ☐ 2 | Oljer ☐ 3 | Bruker ikke ☐ 4

5.4 Hvor ofte spiser du disse måltidene en vanlig uke?
(Sett ett kryss for hver linje)

	Sjelden /aldri	1-2 ganger pr.uke	3-4 ganger pr.uke	5-6 ganger pr.uke	Hver dag
Frokost	☐	☐	☐	☐	☐
Formiddagsmat/matpakke	☐	☐	☐	☐	☐
Middag	☐	☐	☐	☐	☐
	1	2	3	4	5

5.5 Hvor mye penger bruker du i uka på snop, snacks, cola/brus og gatekjøkkenmat? *(Sett bare ett kryss)*

0-25 kr ☐ 1 | 26-50 kr ☐ 2 | 51-100 kr ☐ 3 | 101-150 kr ☐ 4 | 151-200 kr ☐ 5 | over 200 kr ☐ 6

5.6 Bruker du følgende kosttilskudd:

	Ja, daglig	Iblant	Nei
Tran, trankapsler, fiskeoljekapsler?	☐	☐	☐
Vitamin- og/eller mineraltilskudd?	☐	☐	☐

5.7 Har du noen gang prøvd å slanke deg? *(Sett bare ett kryss)*

Nei, aldri ☐ 1 | Ja, tidligere ☐ 2 | Ja, nå ☐ 3 | Ja, hele tiden ☐ 4

Hvis du svarte «NEI, ALDRI»; hopp til pkt. 5.9:

5.8 Hva har du gjort for å slanke deg?
(Sett ett kryss for hver linje)

	Aldri	Sjelden	Ofte	Alltid
Jeg spiser mindre	☐	☐	☐	☐
Jeg faster	☐	☐	☐	☐
Jeg trener mer	☐	☐	☐	☐
Jeg kaster opp	☐	☐	☐	☐
Jeg bruker avføringspiller eller vanndrivende midler	☐	☐	☐	☐
Jeg tar mettende eller sult-dempende piller	☐	☐	☐	☐

5.9 Hva veide du sist du veide deg? ☐☐☐ *hele kg*

5.10 Hvor høy var du sist du målte deg? ☐☐☐ *hele cm*

5.11 Hva synes du om vekta di? *(Sett bare ett kryss)*

Vekta er OK ☐ 1 | Veier litt for mye ☐ 2 | Veier alt for mye ☐ 3 | Veier litt for lite ☐ 4 | Veier alt for lite ☐ 5

5.12 Jeg bryr meg mye om vekta mi. *(Sett bare ett kryss)*

Enig ☐ | Litt enig ☐ | Ikke enig ☐

5.13 Hvilken vekt ville du vært tilfreds med nå (din «trivselsvekt»)? ☐☐☐ *hele kg*

5.14 Har du noen gang vært til behandling for spiseforstyrrelser?

Nei ☐ 1 | Nei, men jeg burde vært ☐ 2 | Ja ☐ 3

U6. PÅKJENNINGER OG MESTRING

6.1 Under finner du en liste over ulike plager. Har du opplevd noe av dette den siste uken (til og med i dag)?
(Sett ett kryss for hver linje)

	Ikke plaget	Litt plaget	Ganske mye	Veldig mye
Plutselig frykt uten grunn	☐	☐	☐	☐
Føler deg redd eller engstelig	☐	☐	☐	☐
Matthet eller svimmelhet	☐	☐	☐	☐
Føler deg anspent eller oppjaget	☐	☐	☐	☐
Lett for å klandre deg selv	☐	☐	☐	☐
Søvnproblemer	☐	☐	☐	☐
Nedtrykt, tungsindig (trist)	☐	☐	☐	☐
Følelse av å være unyttig, lite verd	☐	☐	☐	☐
Følelse av at alt er et slit	☐	☐	☐	☐
Følelse av håpløshet mht. framtida	☐	☐	☐	☐
	1	2	3	4

6.2 Under finner du noen påstander.
(Sett ett kryss for hver linje)

	Helt galt	Nokså galt	Nokså riktig	Helt riktig
Jeg klarer alltid å løse vanskelige problemer hvis jeg prøver hardt nok	☐	☐	☐	☐
Hvis noen motarbeider meg, så kan jeg finne måter og veier for å få det som jeg vil	☐	☐	☐	☐
Hvis jeg har et problem og står helt fast, så finner jeg vanligvis en vei ut	☐	☐	☐	☐
Jeg føler meg trygg på at jeg ville kunne takle uventede hendelser på en effektiv måte	☐	☐	☐	☐
Jeg beholder roen når jeg møter vanskeligheter, fordi jeg stoler på mine evner til å mestre/få til ting	☐	☐	☐	☐
	1	2	3	4

6.3 Har du i løpet av de siste 12 mnd selv opplevd noe av følgende?
(Sett ett kryss for hver linje)

	JA	NEI
Foreldre (foresatte) har blitt arbeidsløse eller uføretrygdet	☐	☐
Alvorlig sykdom eller skade hos deg selv	☐	☐
Alvorlig sykdom eller skade hos noen som står deg nær	☐	☐
Dødsfall hos noen som sto deg nær	☐	☐
Seksuelle overgrep *(f.eks. blotting, befaling, ufrivillig samleie m.m.)*	☐	☐

6.4 Har du opplevd noe av følgende?
(Sett ett kryss for hver linje)

	Nei	Ja, av og til	Ja, ofte
Stort arbeidspress på skolen	☐	☐	☐
Stort press fra andre for å lykkes/ gjøre det bra på skolen	☐	☐	☐
Store vansker med å konsentrere deg i timen	☐	☐	☐
Store vansker med å forstå læreren når hun/han underviser	☐	☐	☐

6.5 Har fagpersonell sagt at du har eller har hatt lese- og skrivevansker. *(Sett bare ett kryss)*

Ja, store	Ja, middels	Ja, lette	Nei
☐ 1	☐ 2	☐ 3	☐ 4

6.6 Har du i løpet av de siste 12 mnd. opplevd problemer med mobbing på skolen/skoleveien?
(Sett bare ett kryss)

Aldri	Av og til	Omtrent en gang i uka	Flere ganger i uka
☐ 1	☐ 2	☐ 3	☐ 4

U7. BRUK AV HELSETJENESTER

7.1 Har du de siste 12 mnd. selv brukt?:
(Sett ett kryss for hver linje)

	Ingen ganger	1-3 ganger	4 ganger eller mer
Skolehelsetjenesten	☐	☐	☐
Helsestasjon for ungdom	☐	☐	☐
Vanlig lege (Allmennpraktiserende lege)	☐	☐	☐
PP-tjenesten	☐	☐	☐
Psykolog eller psykiater *(privat eller på poliklinikk)*	☐	☐	☐
Familierådgivning	☐	☐	☐
Annen spesialist *(privat eller på poliklinikk)*	☐	☐	☐
Legevakt *(privat eller offentlig)*	☐	☐	☐
Sykehusinnleggelse	☐	☐	☐
Sosialtjenesten i kommunen	☐	☐	☐
Fysioterapeut	☐	☐	☐
Tannlege/skoletannlege	☐	☐	☐
Alternativ behandler	☐	☐	☐

U8. UTDANNING OG UTDANNINGSPLANER

8.1 Hva er den høyeste utdanning du har tenkt å ta?
(Sett bare ett kryss)

- Universitet eller høyskoleutdanning av høyere grad *(F.eks. lektor, advokat, sivilingeniør, tannlege, lege, psykolog, siviløkonom)* ☐ 1
- Universitet eller høyskoleutdanning på mellomnivå *(F.eks. cand.mag., lærer, sosionom, sykepleier, politi, ingeniør, journalist)* ☐ 2
- Videregående allmennfaglig/økonomisk administrative fag ☐ 3
- Yrkesfaglig utdanning på videregående skole *(kokk, frisør, byggfag, elektrofag, helse- og sosialfag o.l.)* ☐ 4
- Ett år på videregående skole ☐ 5
- Annet: _____ ☐ 6
- Har ikke bestemt meg ☐ 7

8.2 Hvor mye egne penger brukte du siste uke? kr ☐☐☐☐☐
(Småinnkjøp pluss større gjenstander som f.eks. musikkanlegg o.l.)

	JA	NEI
8.3 Har du lønnet arbeid i løpet av skoleåret?	☐	☐

Hvis du svarte «JA»:
Hvor mange timer i uka arbeider du? *ca.* ☐☐ hele timer
Hvor mye tjener du i gjennomsnitt pr. måned på dette arbeidet? kr ☐☐☐☐☐

8.4 Hvilken karakter fikk du siste gangen i karakterboken? *(Sett bare inn hele tallkarakterer)*

Matte	Norsk skriftlig	Engelsk	Samfunnsfag
☐	☐	☐	☐

U9. OPPVEKST OG TILHØRIGHET

9.1 Hvor lenge har du bodd i Norge? ☐☐ hele år

9.2 Hvor lenge har du bodd der du bor nå? ☐☐ hele år

9.3 Har du flyttet i løpet av de siste 5 årene? *(Sett bare ett kryss)*

Nei	Ja, en gang	Ja, 2-4 ganger	Ja, 5 ganger eller flere
☐ 1	☐ 2	☐ 3	☐ 4

9.4 Mine foreldre er: *(Sett bare ett kryss)*

Gift/samboere	Ugift	Skilt/separert	En eller begge er døde	Annet
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

9.5 Hvor er dine foreldre født?

	Norge	Annet land	Hvilket land:
Far:	☐	☐	Far: _____
Mor:	☐	☐	Mor: _____

U9. Oppvekst og tilhørighet (fortsettelse)

9.6 Jeg tror vår familie, sett i forhold til andre i Norge, har:
(Sett bare ett kryss)

Dårlig råd	Middels råd	God råd	Svært god råd
☐ 1	☐ 2	☐ 3	☐ 4

9.7 Er far og/eller mor i arbeid nå?

	Ja, heltid	Ja, deltid	Arbeidsløs/ trygdet	Hjemme-værende	Går på skole/ studerer	Død
Far:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6
Mor:	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6

Hvis far og/eller mor er i arbeid, hvilket yrke har de?

Far: _____
Skriv kort hva han gjør på jobben:
_____

Mor: _____
Skriv kort hva hun gjør på jobben:
_____

U10. FAMILIE OG VENNER

10.1 Hvem bor du sammen med nå? *(Sett bare ett kryss)*
(Ta ikke med søsken og halvsøsken.)

Mor og far	Bare mor	Bare far	Omtrent like mye hos mor og far
☐ 1	☐ 2	☐ 3	☐ 4

Mor el. far og ny samboer el. ektefelle	Fosterforeldre	Andre
☐ 5	☐ 6	☐ 7

10.2 Hvor mange søsken eller halvsøsken bor du sammen med? *Antall søsken* ☐☐

10.3 Hvor mange av disse er like gamle eller eldre enn deg? *Antall søsken* ☐☐

10.4 Når du tenker på familien din, vil du si at:
(Sett ett kryss for hver linje)

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg føler meg knyttet til familien min	☐	☐	☐	☐
Jeg blir tatt på alvor i familien min	☐	☐	☐	☐
Familien legger vekt på mine meninger	☐	☐	☐	☐
Jeg betyr mye for familien min	☐	☐	☐	☐
Jeg kan regne med familien min når jeg trenger hjelp	☐ 1	☐ 2	☐ 3	☐ 4

10.5 Hvilket forhold har du til dine foreldre?
(Sett ett kryss for hver linje)

	Stemmer meget godt	Stemmer ganske godt	Stemmer ikke særlig godt	Stemmer ikke i det hele tatt
Foreldrene mine vet hvor jeg er og hva jeg gjør i helgene	☐	☐	☐	☐
Foreldrene mine vet hvor jeg er og hva jeg gjør på hverdagene	☐	☐	☐	☐
Foreldrene mine vet hvem jeg er sammen med i fritida	☐	☐	☐	☐
Foreldrene mine liker vennene jeg er sammen med på fritida	☐ 1	☐ 2	☐ 3	☐ 4

10.6 Når du tenker på vennene dine, vil du si at: *(Sett ett kryss for hver linje)*

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg føler meg nært knyttet til vennene mine.	☐	☐	☐	☐
Vennene mine legger vekt på mine meninger.	☐	☐	☐	☐
Jeg kan bidra/være til støtte for vennene mine.	☐	☐	☐	☐
Jeg kan regne med vennene mine når jeg trenger hjelp.	☐ 1	☐ 2	☐ 3	☐ 4

10.7 Hvor mange personer utenfor din nære familie står deg så nær at du kan regne med å få hjelp hvis du:

Har personlige problemer *Antall personer* ☐☐

Har praktiske problemer *(f.eks. m/ skolearbeidet)* *Antall personer* ☐☐

10.8 Har du selv vært utsatt for vold (blitt slått, sparket e.l.) de siste 12 mnd.? *(Sett bare ett kryss)*

Aldri	Ja, bare av ungdom	Ja, bare av voksne	Ja, av både ungdom og voksne
☐ 1	☐ 2	☐ 3	☐ 4

U11. SEKSUELL ADFERD OG PREVENSJON

11.1 Har du noen gang hatt samleie?

Ja, med en partner	Ja, med flere partnere	Nei
☐	☐	☐

Hvis du svarte «NEI»; hopp til U12

11.2 Alder første gang? ..... Jeg var ☐☐ år

11.3 Brukte du/dere prevensjon ved siste samleie?

Nei	Ja, kondom	Ja, p-pille/p-sprøyte	Ja, annet	Vet ikke
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

	JA	NEI	Vet ikke
11.4 Har du noen gang blitt gravid/gjort ei jente gravid?	☐	☐	☐

Hvis du svarte «JA»;

Hvor gammel var du da dette skjedde? Jeg var ☐☐ år

	JA	NEI	Vet ikke
Ble det utført abort?	☐	☐	☐

U12. BRUK AV MEDISINER M.M

12.1 Hvor ofte har du i løpet av de 4 siste ukene brukt følgende medisiner? *(Sett ett kryss for hver linje)*
Med medisiner mener vi her medisiner kjøpt på apotek.
Kosttilskudd og vitaminer regnes ikke med her.

	Aldri	Daglig	Hver uke, men ikke daglig	Sjeldnere enn hver uke	Ikke brukt siste 4 uker
Smertestillende uten resept	☐	☐	☐	☐	☐
Smertestillende på resept	☐	☐	☐	☐	☐
Allergi-medisin	☐	☐	☐	☐	☐
Astma-medisin	☐	☐	☐	☐	☐
Sovemedisin	☐	☐	☐	☐	☐
Beroligende medisin	☐	☐	☐	☐	☐
Medisin mot depresjon	☐	☐	☐	☐	☐
Annen medisin på resept	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

12.2 Skriv navnet på medisinene som du har krysset av for ovenfor, og hva grunnen var til at du tok medisinene (sykdom eller symptom):
(Kryss av for hvor lenge du har brukt medisinen)

Navn på medisinen: *(ett navn pr. linje):*	Grunn til bruk av medisinen:	Hvor lenge har du brukt medisinen? Inntil 1 år	Ett år eller mer
		☐	☐
		☐	☐
		☐	☐

Dersom det ikke er nok plass her, kan du fortsette på eget ark som du legger ved.

SPØRSMÅL TIL JENTENE

	JA	NEI
12.3 Har du fått menstruasjon («mensen»)?	☐	☐

Hvis du svarte «NEI»; hopp til 12.5

12.4 Hvor gammel var du da du fikk din første menstruasjon?

Jeg var ☐☐ år

12.5 Bruker du, eller har du brukt:
(Sett ett kryss for hver linje)

	Nå	Før, men ikke nå	Aldri
P-pille/minipille/ p-sprøyte	☐	☐	☐
Annen prevensjon	☐	☐	☐

Hvilken type prevensjon?:
_____

12.6 Til deg som bruker p-pille/minipille: Hvilket merke bruker du nå?:
_____

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U/T1. DINE STERKE OG SVAKE SIDER

1.1 Svar på grunnlag av slik du har hatt det de siste 6 månedene.
(Sett ett kryss for hver linje)

	Stemmer ikke	Stemmer delvis	Stemmer helt
Jeg prøver å være hyggelig mot andre. Jeg bryr meg om hva de føler	☐	☐	☐
Jeg er rastløs. Jeg kan ikke være lenge i ro	☐	☐	☐
Jeg har ofte hodepine, vondt i magen eller kvalme	☐	☐	☐
Jeg deler gjerne med andre (mat, spill, andre ting)	☐	☐	☐
Jeg blir ofte sint og har kort lunte	☐	☐	☐
Jeg er ofte for meg selv. Jeg gjør som regel ting alene	☐	☐	☐
Jeg gjør som regel det jeg får beskjed om	☐	☐	☐
Jeg bekymrer meg mye	☐	☐	☐
Jeg stiller opp hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
Jeg er stadig urolig eller i bevegelse	☐	☐	☐
Jeg har en eller flere gode venner	☐	☐	☐
Jeg slåss mye. Jeg kan få andre til å gjøre det jeg vil	☐	☐	☐
Jeg er ofte lei meg, nedfor eller på gråten	☐	☐	☐
Jeg blir som regel likt av andre på min alder	☐	☐	☐
Jeg blir lett distrahert, jeg synes det er vanskelig å konsentrere meg	☐	☐	☐
Jeg blir nervøs i nye situasjoner. Jeg blir lett usikker	☐	☐	☐
Jeg er snill mot de som er yngre enn meg	☐	☐	☐
Jeg blir ofte beskyldt for å lyve eller jukse	☐	☐	☐
Andre barn eller unge plager eller mobber meg	☐	☐	☐
Jeg tilbyr meg ofte å hjelpe andre (foreldre, lærere, andre barn/unge)	☐	☐	☐
Jeg tenker meg om før jeg handler (gjør noe)	☐	☐	☐
Jeg tar ting som ikke er mine hjemme, på skolen eller andre steder	☐	☐	☐
Jeg kommer bedre overens med voksne enn de på min egen alder	☐	☐	☐
Jeg er redd for mye, jeg blir lett skremt	☐	☐	☐
Jeg fullfører oppgaver. Jeg er god til å konsentrere meg	☐	☐	☐
	1	2	3

1.2 Samlet, synes du at du har vansker på ett eller flere av følgende områder: med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker?

Nei ☐ 1 | Ja, små vansker ☐ 2 | Ja, tydelige vansker ☐ 3 | Ja, alvorlige vansker ☐ 4

Hvis du har svart JA, vennligst svar på følgende spørsmål:

Hvor lenge har disse vanskene vært tilstede?

Mindre enn en måned ☐ 1 | 1-5 måneder ☐ 2 | 6-12 måneder ☐ 3 | Mer enn ett år ☐ 4

Forstyrrer eller plager vanskene deg?

Ikke i det hele tatt ☐ 1 | Bare litt ☐ 2 | En god del ☐ 3 | Mye ☐ 4

Virker vanskene inn på livet ditt på noen av disse områdene?

	Ikke i det hele tatt	Bare litt	En god del	Mye
Hjemme/ i familien	☐	☐	☐	☐
Forhold til venner	☐	☐	☐	☐
Læring på skolen	☐	☐	☐	☐
Fritidsaktiviteter	☐	☐	☐	☐
	1	2	3	4

U/T

Er vanskene en belastning for de rundt deg (familie, venner, lærere osv.)?

Ikke i det hele tatt ☐ 1 | Bare litt ☐ 2 | En god del ☐ 3 | Mye ☐ 4

U/T2. BEKYMRINGER OG PROBLEMER

Har du i løpet av de siste 12 månedene hatt noen av disse problemene?
(Sett ett kryss for hver linje)

	Nei, aldri	Ja, av og til	Flere ganger	Svært ofte
Krangler, eller konflikter med foreldrene dine	☐	☐	☐	☐
Bekymringer i forhold til seksualitet	☐	☐	☐	☐
Psykiske problemer hos foreldre/ foresatte	☐	☐	☐	☐
Problemer i forhold til venner	☐	☐	☐	☐
Økonomiske problemer hos foreldre/foresatte	☐	☐	☐	☐
Rusproblemer hos foreldre/ foresatte	☐	☐	☐	☐
	1	2	3	4

U/T3. LITT OM RØYK, RUSMIDLER OG HOLDNINGER

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Det er lett for ungdom å få tak i sigaretter/tobakk	☐	☐	☐	☐
Det er lett for ungdom å få tak i øl	☐	☐	☐	☐
Det er lett for ungdom å få tak i vin/brennevin	☐	☐	☐	☐
Det er lett for ungdom å få tak i hasj	☐	☐	☐	☐
Det er lett for ungdom å få tak i «partydop»,(ecstasy, amfetamin, GHB, kokain osv)	☐	☐	☐	☐
Det er lett for ungdom å få tak i «dopingmidler» (anabole steroider, testosteron osv)	☐	☐	☐	☐
Det er OK for ungdom på min alder å røyke	☐	☐	☐	☐
Det er OK for ungdom på min alder å drikke alkohol på fest	☐	☐	☐	☐
Det er OK for ungdom på min alder å røyke hasj	☐	☐	☐	☐
Det burde være lovlig å bruke hasj	☐	☐	☐	☐
	1	2	3	4

U/T4. HVEM KAN DU SNAKKE MED

4.1 Hvis du har personlige problemer, hvem føler du at du kan snakke med om dette? *(Kryss av ett alternativ i hver linje)*

	Ja	Nei	Vet ikke
Ingen	☐	☐	☐
Venn/venninne(r)	☐	☐	☐
Kamerater/gjengen	☐	☐	☐
Søsken	☐	☐	☐
Foreldre	☐	☐	☐
Lærer	☐	☐	☐
Helsesøster	☐	☐	☐
	1	2	3

	Ja	Nei	Vet ikke
Egen lege	☐	☐	☐
Andre slektninger	☐	☐	☐
Andre voksne	☐	☐	☐
	1	2	3

U/T5. SKOLESITUASJONEN DIN

5.1 Hvordan har du det på skolen? *(Sett ett kryss for hver linje)*

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg trives på skolen	☐	☐	☐	☐
Jeg har mye til felles med andre i klassen	☐	☐	☐	☐
Jeg føler meg knyttet til klassen	☐	☐	☐	☐
Jeg syns jeg har gode muligheter til å snakke mitt morsmål med mine medelever på skolen	☐	☐	☐	☐
Jeg føler at jeg har et språkproblem (fordi jeg har et annet morsmål enn norsk)	☐	☐	☐	☐
Klassen legger vekt på mine meninger	☐	☐	☐	☐
Lærerne legger vekt på meningene mine	☐	☐	☐	☐
Lærerne mine setter pris på meg	☐	☐	☐	☐
Lærerne hjelper meg med fagene når jeg trenger det	☐	☐	☐	☐
Lærerne hjelper meg med personlige problemer hvis jeg trenger det	☐	☐	☐	☐
	1	2	3	4

5.2 Hvor lett er det for deg å få nye venner på skolen?
(Sett ett kryss for hver linje)

	Alltid lett	Som regel lett	Som regel vanskelig	Alltid vanskelig
Blant ungdom med samme kulturelle bakgrunn som meg	☐	☐	☐	☐
Blant ungdom med en annen bakgrunn enn meg	☐	☐	☐	☐

	Ja	Nei	Hvis «ja», hvor fra? (Spesifiser)
Er du adoptert?	☐	☐	.....

5.3 Ønsker du å bosette deg på hjemstedet ditt når du er ferdig med utdanningen din?

1 ☐ Ja, svært gjerne
2 ☐ Ja, dersom det faller seg slik
3 ☐ Usikker
4 ☐ Nei, jeg ønsker å bosette meg et annet sted

U/T6. FORHOLDET TIL FAMILIEN DIN

6.1 Hvor viktig er det for deg: *(Sett ett kryss for hver linje)*

	Meget viktig	Ganske viktig	Litt viktig	Ikke viktig i det hele tatt
Å tilfredsstille behovene til familien din, selv om dine egne behov er forskjellige fra deres	☐	☐	☐	☐
Å unngå krangling med andre medlemmer av familien	☐	☐	☐	☐
Å sette familiens behov foran dine egne	☐	☐	☐	☐
Å dele tingene (eiendelene) dine med andre i familien	☐	☐	☐	☐
Å dele pengene dine med familien din	☐	☐	☐	☐
Å leve opp til forventningene fra familien din	☐	☐	☐	☐
Å ha kontakt med besteforeldre, tanter/onkler, gudforeldre osv	☐	☐	☐	☐
	1	2	3	4

U/T7. KULTUR OG KONTAKT

Du kan føle deg som medlem av ulike etniske eller kulturelle grupper, som samisk, finsk, kvensk, russisk, tamilsk osv, og du kan samtidig føle at du er en del av et større samfunn som for eksempel det norske.

7.1 Her følger noen utsagn om kontakt mellom etniske grupper.
(Sett ett kryss for hver linje)

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg liker meg like godt blant nordmenn som blant folk fra andre etniske grupper og kulturer	☐	☐	☐	☐
Jeg foretrekker å være sammen med folk fra samme etniske gruppe som meg selv	☐	☐	☐	☐
Jeg synes at folk fra andre etniske grupper og kulturer burde tilpasse seg norske kulturtradisjoner og *ikke* holde på sine egne	☐	☐	☐	☐
Jeg har like godt forhold til nordmenn som til folk fra min egen kultur	☐	☐	☐	☐
Siden jeg bor i Norge, er det best jeg lever helt som norsk	☐	☐	☐	☐
Jeg synes at folk med en annen kulturell bakgrunn skal leve som de gjør i sin gruppe/kultur, selv om de bor i Norge	☐	☐	☐	☐
Jeg synes det er vanskelig å velge om jeg skal leve som norsk, eller i tråd med min egen etniske gruppe/kultur	☐	☐	☐	☐
Jeg føler meg like trygg sammen med nordmenn som folk fra min egen gruppe/ kultur	☐	☐	☐	☐
	1	2	3	4

7.2 Hvordan ser du på deg selv? *(Sett ett kryss for hver linje)*

Jeg oppfatter meg selv som:	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Norsk	☐	☐	☐	☐
Samisk	☐	☐	☐	☐
Kvensk	☐	☐	☐	☐
Finsk	☐	☐	☐	☐
Annet (hva)	☐	☐	☐	☐
	4	3	2	1
Jeg har brukt tid til å prøve å finne ut mer om min etniske gruppe, slik som historie, tradisjoner og skikker	☐	☐	☐	☐
Jeg deltar aktivt i organisasjoner eller sosiale sammenhenger som hovedsakelig har medlemmer fra min egen etniske gruppe	☐	☐	☐	☐
Jeg har en klar oppfatning av min etniske bakgrunn og hva den betyr for meg	☐	☐	☐	☐
Jeg tenker mye på hvordan min etniske tilhørighet vil påvirke livet mitt	☐	☐	☐	☐
Jeg er glad for å tilhøre den gruppen jeg tilhører	☐	☐	☐	☐
Jeg har en sterk følelse av å tilhøre min etniske gruppe	☐	☐	☐	☐
Jeg har en ganske god forståelse av hva min etniske tilhørighet betyr for meg	☐	☐	☐	☐
For å lære mer om min bakgrunn, har jeg ofte snakket med andre om min etniske tilhørighet	☐	☐	☐	☐
Jeg er veldig stolt over min etniske gruppe	☐	☐	☐	☐
Jeg deltar i kulturelle aktiviteter og tradisjoner innen min etniske gruppe slik som f.eks tradisjonell matlaging, musikk eller andre skikker	☐	☐	☐	☐
Jeg føler en sterk tilknytning til min egen etniske gruppe	☐	☐	☐	☐
	4	3	2	1

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg er fornøyd med min etniske eller kulturelle bakgrunn	☐	☐	☐	☐
Jeg er glad for å være norsk	☐	☐	☐	☐
Jeg føler at jeg er en del av den norske kulturen	☐ 4	☐ 3	☐ 2	☐ 1

Min etnisitet er (skriv ett eller flere av tallene nedenfor):
1=Norsk, 2=Samisk, 3=Kvensk, 4=Finsk, 5=Annet
(skriv hvilken): .....

Fars etnisitet er (bruk tallene ovenfor): .....

Mors etnisitet er (bruk tallene ovenfor): .....

7.3 Hvilket språk snakker du og familien din?
(Sett ett eller flere kryss)

	Norsk	Samisk	Kvensk/finsk	Annet språk
Hjemme har jeg lært	☐	☐	☐	☐
1. språk på skolen	☐	☐	☐	☐
2. språk på skolen	☐	☐	☐	☐
Far snakker	☐	☐	☐	☐
Mor snakker	☐	☐	☐	☐
Farmor snakker(t)	☐	☐	☐	☐
Farfar snakker(t)	☐	☐	☐	☐
Mormor snakker(t)	☐	☐	☐	☐
Morfar snakker(t)	☐	☐	☐	☐

7.4 Har du, dine foreldre /foresatte og besteforeldre tilhørighet til noe spesielt trossamfunn?
(Kryss av det som passer for deg, dine foreldre/foresatte og besteforeldre)

	Meg selv	Mor	Far	Besteforeldre
Statskirken	☐	☐	☐	☐
Læstadianismen	☐	☐	☐	☐
Annet (feks. Pinsemenigheten, Jehovas vitner)	☐	☐	☐	☐

7.5 Når folk med forskjellig bakgrunn er sammen, kan noen føle seg urettferdig behandlet. Følgende utsagn handler om dette.
(Sett ett kryss for hver linje)

	Helt enig	Delvis enig	Delvis uenig	Helt uenig
Jeg synes at andre har oppført seg urettferdig eller negativt ovenfor folk fra min kultur	☐	☐	☐	☐
Jeg føler meg ikke akseptert av folk fra andre kulturer	☐	☐	☐	☐
Jeg føler at folk fra andre kulturer har i mot meg	☐	☐	☐	☐
Jeg har blitt ertet og fornærmet på grunn av min kulturelle bakgrunn	☐	☐	☐	☐
Jeg har blitt truet eller angrepet på grunn av min kulturelle bakgrunn	☐ 1	☐ 2	☐ 3	☐ 4

U/T8. KOSTHOLD

Hvor ofte spiser du disse matvarene? *(Sett kryss for hver linje)*

	Sjelden/ aldri	1-3 g. mnd.	1-2 g. pr. uke	2-4 g. pr. uke	5-7 g.pr. pr. uke
Kokt fisk	☐	☐	☐	☐	☐
Fisk (uansett type)	☐	☐	☐	☐	☐
Stekt kjøtt (alle slag, inkl. hamburgere, pølser, kjøttkaker)	☐	☐	☐	☐	☐
Reinkjøtt	☐	☐	☐	☐	☐
Tørket kjøtt	☐	☐	☐	☐	☐
Jerntabletter	☐	☐	☐	☐	☐
Vitamintabl. som inneholder jern	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

U/T9. MAGE-/TARM SYMPTOMER

9.1 Har du noen gang hatt smerter eller «verk» i magen som har vart i minst 3 måneder? ☐ Ja ☐ Nei

9.2 Hvis Ja, hvor i magen sitter smertene?
☐ Øvre del ☐ Nedre del ☐ Hele magen

9.3. Er smerten eller «verken» jevnt over tilstede:
1 ☐ I perioder på en til flere dager? 2 ☐ I perioder av ukers varighet?
3 ☐ I perioder på måneders varighet? 4 ☐ Bestandig?
5 ☐ Etter måltider? 6 ☐ Om natten?

9.4 Er du ofte plaget av oppblåsthet, rumling i magen eller rikelig luftavgang? ☐ Ja ☐ Nei

9.5 Er avføringen din vanligvis:
1 ☐ Normal 2 ☐ Vekslende hard og løs 3 ☐ Løs
4 ☐ Hard og perlete 5 ☐ Illeluktende 6 ☐ Fettaktig og glinsende

9.6 Har du i perioder 3 eller flere avføringer daglig:
☐ Ja ☐ Nei

9.7 Har du hatt plager i mage/tarm etter inntak av melk:
☐ Ja ☐ Nei

9.8 Er det andre i familien som har de samme mage symptomene:
☐ Mor ☐ Far ☐ Søsken ☐ Ingen ☐ Vet ikke

9.9 Har du vært undersøkt hos lege på grunn av:	Ja	Nei
Magesmerter i lengre tid (> 3 mndr)?	☐	☐
Avføringsproblemer ?	☐	☐
Halsbrann/sure oppstøt?	☐	☐
Lav blodprosent eller dårlig jernlagre ?	☐	☐

U/T10. SELVSKADING

10.1 Kjenner du noen som har tatt sitt eget liv? ☐ Ja ☐ Nei

10.2 Hvis «ja», var det: *(Sett ett eller flere kryss)*
1 ☐ Nær familie? 2 ☐ Slekt? 3 ☐ Venn/venninne?
4 ☐ Medelev? 5 ☐ Kjæreste? 6 ☐ Noen i nærmiljøet?

	Ja	Nei
10.3 Har du noen gang tenkt på å ta livet ditt?	☐	☐
10.4 Har du noen gang forsøkt å ta ditt eget liv?	☐	☐
10.5 Har du skadet deg selv med vilje noen gang?	☐	☐

Hvis du har svart «Nei» på alle de tre spørsmålene ovenfor, hopp til punkt U/T11. RISIKOATFERD.

	Ja	Nei
10.6 Har du i løpet av de siste 12 månedene tenkt på å ta livet ditt?	☐	☐
10.7 Har du i løpet av de siste 12 månedene forsøkt å ta ditt eget liv?	☐	☐

DERSOM DU ALDRI HAR FORSØKT Å TA DITT EGET LIV, HOPP TIL SPØRSMÅL 10.13.

10.8 På hvilken måte forsøkte du å ta ditt eget liv?
1 ☐ Henging 2 ☐ Ved hjelp av piller/medikamenter
3 ☐ Skarp gjenstand 4 ☐ Skytevåpen
5 ☐ Annet

	Ja	Nei
10.8.1 Var du beruset/rusa da du forsøkte å ta ditt eget liv?	☐	☐

10.9 Hvor gammel var du første gang du forsøkte å ta ditt eget liv? ..... Jeg var ☐☐ år

10.10 Hvor mange ganger har du forsøkt å ta ditt eget liv? ..... ☐☐ Antall ganger

10.11 Fortalte du til noen andre om selvmordsforsøket? ☐ Ja ☐ Nei

10.12 Har du vært i kontakt med helsepersonell, lege, helsesøster og /eller politi i forbindelse med selvmordsforsøket/ene? ☐ Ja ☐ Nei

10.12.1 Hva var årsaken til at du forsøkte å ta ditt eget liv?

.....

10.13 Har du i løpet av de siste 12 månedene skadet deg selv med vilje?	**Ja**	**Nei**
	☐	☐

10.14 På hvilken måte skadet du deg selv?

1 ☐ Brenning 2 ☐ Kutting, skjæring, risping med skarp gjenstand
3 ☐ Slag mot kroppsdeler, hodedunking 4 ☐ Annet

U/T11. RISIKOATFERD

11.1 Har det i løpet av de siste 12 månedene hendt at du i forbindelse med din egen bruk av alkohol *(Sett ett kryss for hver linje)*

	Nei	**Ja, 1-2 ganger**	**Ja, flere ganger/alltid**
– Har følt deg mer ovenpå (hatt større selvtillit)	☐ 1	☐ 2	☐ 3
– Har hatt ubeskyttet samleie (ikke brukt kondom) mens du har vært påvirket?	☐ 1	☐ 2	☐ 3
– Har havnet i bråk eller slagsmål?	☐ 1	☐ 2	☐ 3
– Har følt at din alkoholbruk går utover din fysiske helse?	☐ 1	☐ 2	☐ 3
– Har følt at din alkoholbruk går utover din psykiske helse?	☐ 1	☐ 2	☐ 3

11.2 Har du noensinne vært passasjer i kjøretøy der sjåføren har vært i alkoholpåvirket tilstand? *(Sett ett eller flere kryss)*

1 ☐ Nei, aldri 2 ☐ Ja, motorsykkel 3 ☐ Ja, snøscooter 4 ☐ Ja, bil

U/T12. FORELSKELSE OG SEKSUALITET

12.1 Har du fast kjæreste?

1 ☐ Ja, har kjæreste nå, han/hun er ☐☐ år
2 ☐ Nei, men jeg har hatt kjæreste tidligere
3 ☐ Nei, jeg har aldri hatt fast kjæreste

12.2. Har du noen gang vært forelsket	**Nei**	**Ja**	**Usikker**
i en jente?	☐	☐	☐
I en gutt?	☐	☐	☐

12.3. Har du hatt noen form for seksuelt omgang med personer av samme kjønn som deg selv (klining, beføling, samleie og lignende)?

☐ Ja ☐ Nei

12.4. Hva regner du som din seksuelle legning/orientering?

1 ☐ Heterofil 2 ☐ Lesbisk/homofil 3 ☐ Biseksuell/bifil 4 ☐ Usikker

U/T13. OM VENNER

13.1 Omtrent hvor mange nære venner har du? *(Ta ikke med søsken)*	**Ingen**	**1**	**2-3**	**4 eller flere**
	☐ 1	☐ 2	☐ 3	☐ 4

13.2 Omtrent hvor mange ganger i uka er du sammen med dem utenom skolen?	**Færre 1 gang**	**1 eller 2 ganger**	**3 eller flere ganger**
	☐ 1	☐ 2	☐ 3

13.3 Er noen av dine beste venner eldre enn deg?

1 ☐ Ingen 2 ☐ Noen
3 ☐ Omtrent halvparten 4 ☐ Alle eller nesten alle

U/T14. PUBERTETSUTVIKLING

Når man er tenåring er det perioder da man vokser raskt.

14.1 Har du merket at kroppen din har vokst fort (blitt høyere)?

1 ☐ Har ikke begynt
2 ☐ Har så vidt begynt å vokse raskt
3 ☐ Har helt tydelig begynt å vokse rask
4 ☐ Det virker som om jeg er ferdig å vokse raskt

14.2 Og hva med hår på kroppen (under armene og i skrittet?) Vil du si at hår på kroppen din har:

1 ☐ Ikke begynt å vokse enda 2 ☐ Har så vidt begynt
3 ☐ Helt tydelig begynt å vokse 4 ☐ Det virker som om håret på kroppen er utvokst

14.3 Har du begynt å få uren hud, f.eks kviser?

1 ☐ Ikke merket noe enda 2 ☐ Har så vidt begynt
3 ☐ Har helt tydelig begynt 4 ☐ Har hatt uren hud en god stund

BARE FOR JENTER:

14.4 Har du begynt å få bryster?

1 ☐ Har ikke begynt ennå 2 ☐ Har så vidt begynt
3 ☐ Har helt tydelig begynt 4 ☐ Det virker som om brystene er fullt utviklet

BARE FOR GUTTER:

14.5 Har du begynt å komme i stemmeskiftet?

1 ☐ Har ikke begynt ennå 2 ☐ Har så vidt begynt
3 ☐ Har helt tydelig begynt 4 ☐ Det virker som om stemmeskiftet er helt ferdig

14.6 Har du begynt å få bart eller skjegg?

1 ☐ Har ikke begynt ennå 2 ☐ Har så vidt begynt
3 ☐ Har helt tydelig begynt 4 ☐ Har fått en god del skjeggvekst

U/T 15. HVORDAN ER DU?

Nedenfor er en liste over egenskaper folk kan ha. Vennligst kryss for det som stemmer eller ikke stemmer for deg.

	Stemmer ikke i det hele tatt	**Stemmer nokså dårlig**	**Stemmer omtrent**	**Stemmer nokså godt**	**Stemmer helt**
Forsvarer mine meninger	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Tar hensyn til andre	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sterk personlighet	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Forståelsesfull	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Har lederegenskaper	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Trøster gjerne andre	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Villig til å ta sjanser	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Varm	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Sier hva jeg mener	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Vennlig	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

TIL SLUTT VIL VI SPØRRE DEG OM DITT SAMTYKKE TIL Å KONTAKTE DEG IGJEN FOR EVT. VIDERE UNDERSØKELSER: ☐ JA ☐ NEI

GRADE

Referanse:
Kvaløy K, Melhus M, Silviken A, Brustad M, Sørlie T, Broderstad AR. Disordered eating in Sami and non-Sami Norwegian populations: the SAMINOR 2 Clinical Survey. Public Health Nutr. 2018;21(6):1094-105.

Studiedesign: Cross-sectional

Grade - kvalitet: III (lav)

Aims	Materials and methods	Results	Discussion/comments/checklist

Aims

Investigate disordered eating (DE) among Sami compared with non-Sami in northern Norway

Conclusion

No significant difference in overall DE comparing Sami and non-Sami, although Sami more often reported comfort eating.
There were significant sex and ethnic differences related to DE and physical activity, snacking and education level.

Country

Norway

Year of data sampling

2012-2014

Materials and methods

Population:
1811 Sami (844 male, 967 female), 2578 non-Sami (1180 male, 1398 female) from municipalities with a large proportion of Sami inhabitants from 40-69 years old.

Measures:
SAMINOR-2 clinical survey. Questions involved disordered eating, ethnicity, anxiety and depression, education, physical activity and dietary intake. Anthropometry-measures by trained personnel.

Statistical analyses
Pearson´s Chi-square tests were used for ethnic differences, and characteristics were presented as numbers and percentages. Linear regression with adjustments for age and education were used to assess the effect various factors had on the EDS-5 score.

Ethics:
The study was conducted according to the guidelines laid down in the Decleration of Helsinki. Procedures involving human subjcts were approved by the Regional Committee for Medical and Health Research Ethics North Norway. All subjects gave their written informed consent.

Results

Main findings:
No significant ethnic difference was found for EDS-5 score (mean score: 11.3 and 11.1 in Sami and non-Sami men, respectively; 13.8 and 13.5 in Sami and non-Sami women respectively) Mean EDS-5 scores were significantly higher in woman compared with men.

Sami scored significantly higher on the comfort eating item compared with the non-Sami: Sami men (mean score =1.8 95% CI 1.8-1.9) vs non-Sami men (mean score 1.7, 95% CI 1.7-1.8), and Sami women (mean score =2.3, 95% CI, 2.2-2.4) vs. non-Sami women (mean score = 2.1, 95% CI 2.0-2.2)

OR for DE was increased in the low physical activity group compared to moderately active group, and was significant for both Sami and non-Sami men. For women, it was only significant for non-Sami women. High degree of snacking was significantly associated with DE in both Sami and non-Sami men, but only for non-Sami women.

Table 2 Items included in the EDS-5 score and total EDS-5 score, presented as means and 95 % CI, together with dichotomized EDS-5 score presented as number and percentage above/below the 90th percentile, by sex and ethnic group, in the sample of Sami and non-Sami Norwegian adults aged 40–69 years (*n* 4389); SAMINOR 2 Clinical Survey (2012–2014)

	Men (*n* 2024)					Women (*n* 2365)				
	Sami (*n* 844)		Non-Sami (*n* 1180)			Sami (*n* 967)		Non-Sami (*n* 1398)		
	Mean	95 % CI	Mean	95 % CI	*t*(df), *P* value*	Mean	95 % CI	Mean	95 % CI	*t*(df), *P* value*
Eating habits	2·8	2·7, 2·9	2·8	2·7, 2·8	*t*(2022) = 0·37, *P* = 0·71	2·9	2·8, 3·0	2·9	2·9, 3·0	*t*(2363) = − 0·73, *P* = 0·48
Comfort eating	1·8	1·8, 1·9	1·7	1·7, 1·8	*t*(2022) = 2·50, *P* = 0·01	2·3	2·2, 2·4	2·1	2·0, 2·2	*t*(2363) = 2·60, *P* = 0·01
Felt guilty	1·8	1·8, 1·9	1·8	1·7, 1·9	*t*(2022) = 1·07, *P* = 0·28	2·4	2·3, 2·5	2·4	2·3, 2·5	*t*(2363) = − 0·15, *P* = 0·88
Eating rituals	2·0	1·9, 2·1	2·0	1·9, 2·1	*t*(2022) = 0·57, *P* = 0·57	2·5	2·4, 2·6	2·4	2·3, 2·5	*t*(2363) = 1·09, *P* = 0·28
Too fat	2·9	2·7, 3·0	2·9	2·8, 3·0	*t*(2022) = − 0·45, *P* = 0·65	3·7	3·6, 3·9	3·7	3·6, 3·8	*t*(2363) = 0·47, *P* = 0·64
EDS-5 score	11·3	11·0, 11·7	11·1	10·8, 11·4	*t*(2022) = 0·94, *P* = 0·35	13·8	13·4, 14·1	13·5	13·2, 13·9	*t*(2363) = 0·86, *P* = 0·39
	n	%	*n*	%	χ^2(df), *P* value†	*n*	%	*n*	%	χ^2(df), *P* value†
EDS-5 ≥19 (m)/≥23 (w)	104	12·3	128	10·8	$\chi^2(1) = 1·06$, *P* = 0·30	104	10·8	139	9·9	$\chi^2(1) = 0·41$, *P* = 0·52
EDS-5 <19 (m)/<23 (w)	740	87·7	1052	89·2		863	89·2	1259	90·1	

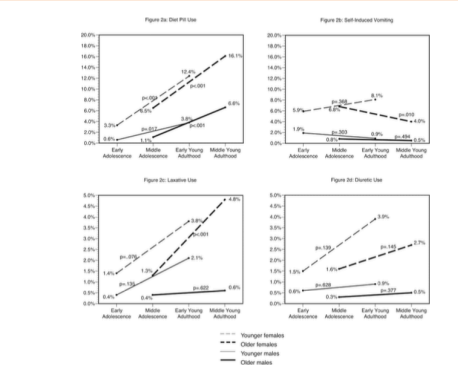
EDS-5, Eating Disturbance Scale; m, men; w, women.
*Ethnic difference tested by two-sample *t* test with equal variances assumed.
†Ethnic difference tested by Pearson's χ^2 test.

Discussion/comments/checklist

Checklist:
- Is the aim of the study clearly formulated? **Yes**
- Is a prevalence study suitable to answer the aim of the study? **Yes**
- Is the population clearly defined? **Yes**
- Is the selection included in a satisfactory way? **Yes**
- Was the inclusion criteria for the selection clearly defined? **Yes**
- Was any drop-out analyses done? **Yes**
- It is accounted for whether the respondents differ from those who have not responded? **No**
- Were valid measures used? **Yes**
- Was the data collection standardized? **Yes**
- Can the results be due to coincidences? **No**
- Can the results be transferred into practice? **Unclear**
- Does the results have plausible explanations? **Yes**

Strengths
- Large population-based study in municipalities with a large proportion of Sami inhabitants.
- Anthropometric clinical measurements were measured electronically by trained personnel.

Limitations
- High age of the participants, concidering ED are more prevalent in younger age is considered a limitation, but the results apply for the age group of the population in the study.
- Data collection in each municipality was carried out within 2-7 weeks, limiting invitees opportunity to attend.
- Higher participation by women and elderly, making it more uncertain for men and younger groups.
- Definition of ethnicity is based on self-report.

Referanse: Neumark-Sztainer D, Wall M, Larson NI, Eisenberg ME, Loth K. Dieting and disordered eating behaviors from adolescence to young adulthood: findings from a 10-year longitudinal study. J Am Diet Assoc. 2011;111(7):1004-11.			**Studiedesign: Cohort** Grade - kvalitet: III (lav)
Aims	**Materials and methods**	**Results**	**Discussion/comments/checklist**
To examine the prevalence and tracking of dieting, unhealthy and extreme weight control behaviours, and binge eating from adolescence to young adulthood. Conclusion Disordered eating behaviours are not just an adolescent problem, but was also prevalent amoung young adults. Findings suggest a need for early prevention effort prior to onset, as well as ongoing prevention and treatment interventions to address the high prevalence of disorderd eating throughout adolescence and young adulthood. Country USA Year of data sampling 1999-2010	**Population:** In the first survey, 4746 junior and senior high school students, where 1030 men, and 1257 women participated in the 10-year follow up (48.2% from the first survey). One thirds was younger (mean age = 12.8+- 0.7 years in adolescence, and mean age =23.2 +-1.0 years in young adulthood), two thirds were older (mean age =15.9+-0.8 years in adolescence, and mean age 26.2+-0.9 years in young adulthood). **Measures:** In 1998-1999 in-class surveys and anthropometric measures. Followed up in 2008-2009 with a survey. Questions of dieting, unhealthy and extreme right control behaviors, binge eating, weight loss, gender, socioeconomic and sociodemographic background, based on self-report. **Statistical analyses** Generalized estimating equations. Regression-adjusted log binominal models. **Ethics:** All study protocols were approve by the University of Minnesota´s Institutional Review Board Human Subjects Committee. Parental consent and written assent from participants was obtained at baseline. Participants reviewed a consent form as part of the online survey at the follow-up.	**Main findings** Half of females reported dieting in the past year, compared to males where one forth agreed to dieting in the past year. Among the younger females unhealthy weight control behaviors remained constant from adolescence to young adulthood, while among the older females there was observed a decrease in young adulthood. The prevalence of dieting stayed constant over time in the younger male cohort, but increased in the older male cohort. Binge eating increased in the older cohorts for both genders. A significant increase in diet pill use for all age and gender groups over the 10-year study period was found. Dieting and disordered eating tended to continue from adolescence to young adulthood, particularly among the older females and males.  **Figure 2.** Prevalences of specific extreme weight control behaviors from adolescence to young adulthood, by age cohort and gender* *Adjusted for socioeconomic status, and ethnicity/race. P-values test change over time.	**Checklist:** - Was the aims of the study clearly formulated? **Yes** - Was the groups recruited from the same population? **Yes** - Was the exposed individuals representative for the population? **Yes** - Was the study prospective? **Yes** - Was exposition and outcome measures equally and reliably in the two groups? **Yes** - Was enough individuals in the cohort followed up? **48.2%** - Was any drop-out analyses done? **Yes** - Was the follow up long enough to detect positive/negative outcomes? **Yes** - Was important confounding factors considered in the study? **No** - Was the one judging results of outcomes blinded group affiliation? **Unclear** - Were valid measures used? **Yes** - Was the data collection standardized? **Yes** - Can the results be due to coincidences? **No** - Can the results be transferred into practice? **Unclear** **Strengths** - Large population based - Diversity of gender, ethnicity/rase and socio-economic status - Two age cohorts - Long follow up period **Limitations** - Self-reported measures for dieting and disordered eating - Drop out between the surveys.

Referanse:
Bals M, Turi AL, Skre I, Kvernmo S. Internalization symptoms, perceived discrimination, and ethnic identity in indigenous Sami and non-Sami youth in Arctic Norway. Ethnicity & health. 2010;15(2):165-79.

Studiedesign: Cross-sectional

Grade - kvalitet: III (lav)

Aims	Materials and Methods	Results	Discussion/comments/checklist

Aims

To compare symptoms of anxiety and depression among Sami and non-Sami youth in the Arctic part of Norway, and to examine the influence of perceived discrimination and ethnic identity on these symptoms.

Conclusion

No differences in symptoms of anxiety and depression between Sami and non-Sami youth. There was found a relationship between internalization symptoms and ethnic identity, perceived discrimination and language loss.

Country

Norway

Year of data sampling

2003-2005

Materials and Methods

Population:
4449 adolescents from junior high schools in North Norway. 450 Sami, and 3999 non-Sami.

Measures:
The Norwegian Arctic Adolescent Health Study questionnaire. Self-reported questions that involved Hopkins Symptom Checklist-10, Sami ethnicity, use of Sami language, perceived discrimination, The Multigroup Ethnic Identity Measure (MEIM), socioeconomic and urban or rural area.

Statistical analyses
Chi-square tests and t-tests for differences between Sami and non-Sami. Hierarchical multiple regression models were carried out separately between Sami and non-Sami to identify predictors of internalization symptoms in each group.

Ethics:
The study had approval and consent from the Regional Medical Ethical Committee, the Norwegian Data Inspectorate, and the school authorities.

Results

Main findings:
There were found no differences in the mean score on the HSCL-10 between Sami and non-Sami adolescents, although there were found gender differences in both groups.

On perceived discrimination Sami youth had a significantly higher mean score compared to non-Sami (M=1.50 for Sami, M =1.47 for non-Sami). No differences were found on MEIM score between the ethnic groups.

In the last steps of the hierarchical multiple regression, Sami language had a negative association with internalization symptoms.

Table 2. Means and standard deviations of internalization symptoms, perceived discrimination, and MEIM in non-Sami and Sami adolescents.

	Sami		Non-Sami		
	M	SD	*M*	SD	*t*
HSCL-10	1.50	0.52	1.47	0.51	−1.23
Perceived discrimination	1.78*	0.74	1.47	0.61	−9.35
MEIM	2.39	0.71	2.46	0.73	1.82

*p <0.001.

Discussion/comments/checklist

Checklist:
- Is the aim of the study clearly formulated? **Yes**
- Is a prevalence study suitable to answer the aim of the study? **Yes**
- Is the population clearly defined? **Yes**
- Is the selection included in a satisfactory way? **Yes**
- Was the inclusion criteria for the selection clearly defined? **Yes**
- Was any drop-out analyses done? **Not relevant**
- It is accounted for whether the respondents differ from those who have not responded? **Not relevant**
- Were valid measures used? **Yes**
- Was the data collection standardized? **Yes**
- Can the results be due to coincidences? **No**
- Can the results be transferred into practice? **Not relevant**
- Does the results have plausible explanations? **Yes**

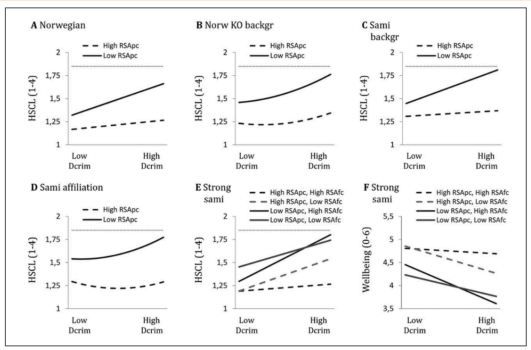
Strengths
- Population-based design
- High response rate
- Representability of adolescents aged 15-16

Limitations
- Heterogenic Sami category, which can hide ethnic-specific differences.
- The instruments used are standardized and widely used in research, but are not culture-specific to this context.

Referanse:
Friborg O, Sørlie T, Hansen KL. Resilience to Discrimination Among Indigenous Sami and Non-Sami Populations in Norway: The SAMINOR2 Study. Journal of Cross-Cultural Psychology. 2017;48(7):1009-27.

Studiedesign: Cross-sectional

Grade - kvalitet: III (lav)

Aims	Materials and methods	Results	Discussion/comments/checklist
To examine the factorial variance of the resilience between Sami and non-Sami and examine its protective effects against discrimination. Conclusion Discrimination in general was more negative for the outcome measures than exposure to ethnic discrimination. High scores of resilience almost canceled out the negative effect completely. Country Norway Year of data sampling 2012	**Population:** 10 065 participants (18-69 years old) from inhibitants in areas of mixed Sami and Norwegian culture. Originally it was 11 600 participants, but 95 were dropped out because of missing data about ethnicity, 181 due to missing data about recilience, 515 due to missing data about discrimination and 744 due to missing background information. **Measures:** SAMINOR-2 clinical survey. Hopkins Symptom Checklist-10, well-being scored by the well-being index (WHO-5) of the World Health Organization, Sami ethnicity, discrimination, 10-item version of the original Resilience Scale for Adults (RSA). **Statistical analyses** Psychometric analyse, hierarchical regression analyses, stepwise regression analyses, and mean score analyses.	**Main findings:** Ethnic discrimination correlated positively with all types of discrimination. The correlation was stronger in the Sami affiliation group and in the Sami strong group. The well-being and mental health were worse among participants experiencing any types of discrimination. Dcrim (total discrimination index) was positively related with mental distress across all ethnic groups. In the strong Sami group, the protective effect of resilience was strongest if combined with a high degree of RSA family cohesion, whereas this factor did not add protection for the other groups. For the Sami strong group scoring high on both RSA personal strength and RSA family cohesion maintained their well-being very well despite discrimination  **Figure 1.** Illustration of the moderating role of resilience on the association between discrimination and mental distress/well-being. *Note.* The horizontal line at HSCL-10 = 1.85 is cutoff for mental health problems. The low and high lines represent −1.5 and +1.5 *SD*. HSCL = Hopkins Symptom Check List.	**Checklist:** - Is the aim of the study clearly formulated? **Yes** - Is a prevalence study suitable to answer the aim of the study? **Yes** - Is the population clearly defined? **Yes** - Is the selection included in a satisfactory way? **Yes** - Was the inclusion criteria for the selection clearly defined? **Yes** - Was any drop-out analyses done? **No** - It is accounted for whether the respondents differ from those who have not responded? **No** - Were valid measures used? **Yes** - Was the data collection standardized? **Yes** - Can the results be due to coincidences? **No** - Can the results be transferred into practice? **Unclear** - Does the results have plausible explanations? **Yes** **Strengths** - Epidemiological design - Broad coverage of communities - Rigorous measurements of ethnicity **Limitations** - Low participation rate.

Referanse:
Hansen KL. Ethnic discrimination and health: the relationship between experienced ethnic discrimination and multiple health domains in Norway's rural Sami population. International journal of circumpolar health. 2015;74:25125-.

Studiedesign: Cross-sectional

Grade - kvalitet	III (lav)

Aims	**Materials and methods**	**Results**	**Discussion/comments/checklist**
To examine associations between self-reported ethnic discrimination and health outcomes in the rural Sami population of Central and North Norway. Conclusion Ethnic discrimination affects a wide range of health outcomes. Findings highlight the importance of ensuring freedom from discrimination for the Sami people in Norway Country Norway Year of data sampling 2003/2004	**Population:** 4389 participants aged between 36 and 79 from 24 rural municipalities of Central and North Norway. **Measures:** The SAMINOR was a self-administered questionnaire. Questions about ethnicity, ethnic discrimination, physical activity and self-reported health variables. Questions regarding socioeconomic status, and sociodemographic status were also asjed. Blood samples and waist circumferences were measured on the participants. **Statistical analyses** Fisher´s exact Chi-square tests were applied to compare exposed and unexposed groups. Logistic regression was used to evaluate the association between ethnic discrimination in Sami majority/minority areas and health outcomes/risk factors **Ethics:** The Regional Committee for Medical and Health Research Ethics of North Norwas approved this study and participants provided written, informed consent.	**Main findings** 1025 respondents reported having experienced discrimination. Males reported experience of discrimination were more likely to report self-perceived Sami ethnicity, and were more likely to use the Sami language at home. Younger participants more frequently reported having experienced discrimination. Sami males in minority areas who reported self-perceived discrimination showed higher rates of CVD, diabetes and metabolic syndrome. Males living in Sami majority areas reporting exposure to discrimination were more likely to be obese and suffer from chronic muscle pain compared to the unexposed group. Sami females exposed to discrimination living in a minority area show elevated rated of occurrence of diabetes, obesity and metabolic syndrome in comparison to females unexposed to discrimination in the same area. No differences of health outcomes were found in Sami females living in majority areas compared to unexposed groups. *Table II.* Characteristics of the females study sample by minority/majority area and discriminated against status[a] Minority: Exposed (n = 195) / Unexposed (n = 966) % / n / % / n / P[b] Mean age (μ, sd): 53.6 (11.0) 53.7 (11.7) 0.80[c] Marital status (married): 57.9 113 62.0 599 0.29 Education ≥ 13 years: 37.4 67 30.5 277 0.05 Alcohol conception (≥ 1 times/week): 10.3 19 17.5 163 0.01 Never smoking: 34.0 66 34.6 333 0.88 Physical activity ≤ 1 hour per week: 24.0 40 19.8 169 0.23 Self-perceived Sami ethnicity: 70.3 137 27.4 256 <0.001 Sami speaking at home: 46.1 89 13.8 132 <0.001 Majority: Exposed (n = 286) / Unexposed (n = 793) Mean age (μ, sd): 52.2 (10.8) 52.8 (11.2) 0.20[c] Marital status (married): 56.3 161 55.0 436 0.70 Education ≥ 13 years: 42.3 112 36.7 274 0.07 Alcohol conception (≥ 1 times/week): 12.6 35 12.9 100 0.28 Never smoking: 38.2 109 39.3 309 0.64 Physical activity ≤ 1 hour per week: 22.8 60 26.1 193 0.29 Self-perceived Sami ethnicity: 91.4 254 75.6 589 <0.001 Sami speaking at home: 83.9 234 67.7 531 <0.001 [a]*Exposed* (exposed to discrimination "Very often" or "Sometimes") and *Unexposed* ("Rarely" or "Never" exposed to discrimination). [b]p Value from Likelihood Ratio Fisher's Exact Test for difference between Unexposed and Exposed groups. [c]Two-sample t-test with unequal variances. Subgroups might not be total due to missing values.	**Checklist:** - Is the aim of the study clearly formulated? **Yes** - Is a prevalence study suitable to answer the aim of the study? **No.** - Is the population clearly defined? **Yes** - Is the selection included in a satisfactory way? **Yes** - Was the inclusion criteria for the selection clearly defined? **Yes** - Was any drop-out analyses done? **No** - It is accounted for whether the respondents differ from those who have not responded? **No** - Were valid measures used? **Yes** - Was the data collection standardized? **Yes** - Can the results be due to coincidences? **No** - Does the results have plausible explanations? **Yes** **Strengths** - Large sample - Empirical evidence to the understanding of the relationship between ethnic discrimination and multiple health outcomes. **Limitations** - Cross-sectional design, causality cannot be taken for granted - Some of the outcomes had different time frame (some a lifetime, other a 12-month span), and may have been biased by the writers estimate of the association between ethnic discrimination and health - Other definitions of Sami could affect the risk estimates. - Single-item measurement in the assessment of the life course experienced ethnic discrimination.