
Introduction

Nearly ten years ago, researchers in leading institutions within social sciences and social medicine were invited to publish articles in a special issue of this journal about youth and health. 12 articles in addition to an editorial and two articles on other themes, were published. The concept of health was and continues to be broadly defined – as in this new issue on the same topic. The concept covers both mental and somatic health, as well as conditions related to life style, social network and marginalisation. Research still documents the interrelationship between life style illnesses and marginalisation. Young people's traumatic experiences, risk behaviour and life style are decisive for their future life. The need for prevention of bad health and damaging social conditions is important, both for those groups who are prone for risks and for those who may not currently be at risk.

In January 2018 the chief editor of this journal launched the idea of publishing a similar issue anew, as a follow up of the issue from 2009, and to present new and updated research on youth and their socio-medical situations. The perspective in this current issue is to some extent widened. We as guest editors have called the present issue *Youth, health and welfare*. Thus we are pleased to present 10 articles on this important theme and one article on another theme (methodological issues).

Several articles deal with various aspects of mental problems and mental diseases. Others look into youth welfare and social conditions through the lens of the education system and youth choice of education in general.

The studies are mainly based on quantitative approaches and various statistical methods. However, a few researchers also present articles based on qualitative data. Data from the Young in North (Ung i Nord) and the HUNT studies are used in several of the articles, whereas Youth Data (Ungdata) is a central reference to all of the authors.

Both health and welfare are comprehensive concepts that may be interpreted in many ways. All the articles in this issue refer to a Norwegian context and thus must be understood within the specific frame of the Norwegian welfare state and its governing of its population. This context of governance of youth, health and welfare is handled in the first article on the epistemological questions concerning epidemiology as a research and practice field. The other articles are more specifically concerned with two or three main issues; related to mental health, school, education and drop-out of school. In addition, there are three articles related to theories of knowledge within epidemiology and research methods. What kind of knowledge *is* epidemiology – in general and concerning youth, their

health and welfare in particular? This issue is both an update of epidemiological research on these topics and also questioning some of the circumstances of the research as such.

Hydle has in her introductory article *Epistemology of epidemiology: The case of Ungdata* reflected upon Ungdata, Youth Data, as one of the most significant epidemiological tools for the perceived truth about contemporary Norwegian youth. Ungdata is a continuous online-based survey grounded upon several and varying investigations of youth in Norwegian high schools, now extending to primary schools as well. The knowledge bases, epidemiological practices, technicalities, economic premises for the work and data publishing is handled by social scientists at Norwegian Social Research, NOVA, located at Oslo Metropolitan University. State bureaucracies, e.g. ministries and directorates, municipalities etc. can ask for investigations and overviews. NOVA has an annual income for running the Youth Data through the Norwegian Directorate of Health of 3.3 mill. NOK (2018). The Youth Data registry has become a leading force in opinions, policies, politics and resource allocations for youth at municipal and state levels for several intended purposes. Based upon NOVA reports, media comments and interviews this article reflects upon some theoretical and methodological approaches to this unique epidemiological tool concerning youth, health and welfare. Questions arise such as: Is epidemiology a taken for granted neutral and objective kind of knowledge? Should there be ethical concerns for youth and their researchers as creators of knowledge, theory and policy – other than the normal ethical rules of scientific conduct?

In the article *The prevalence of anxiety- and depression symptoms in Sami and non-Sami high school students in Finnmark county in 1994 and 2014*, Kvernmo and Bye claim that as much as 15-20% of children and adolescents in Norway, aged 3-18 years, are suffering from anxiety, depressive or behavioural problems. Recent studies have shown an increase in the prevalence of emotional problems among adolescents during the last decades. The aim of their study is to examine the prevalence and the socio-demographic and psychosocial predictors of anxiety and depression symptoms in Indigenous Sámi and non-Sámi adolescents in 1994 to 2014. Data from 1655 high school students in the Young in North (Ung i Nord) study from 1994 was compared to data from 1856 high school students in Ungdata, conducted in 2014 in the same area. The results showed an increase in the prevalence of depression and anxiety symptoms from 1994 compared to 2014, but a decrease in beha-

vioural problems. In both years females reported more problems. No significant ethnic differences occurred in rates of problems between indigenous Sámi and non-Sámi adolescents at any time point. Across gender and ethnic groups, self-esteem and the students' relationship to the school were the two strongest predictors. This study confirmed findings from other studies of an increase of rates of anxiety and depression symptoms in older adolescents over the last decades, but also in types of significant predictors.

Lund, Andersen and Haugland have for their article *The social gradient in stress and depressive symptoms among adolescent girls*, conducted a systematic review to investigate whether socioeconomic status is associated with stress and/or depressive symptoms in the general population of adolescent girls aged 13-18. As girls report consistently more depressive symptoms than boys do, this systematic review specifically investigates whether socioeconomic status is associated with stress and depressive symptoms among adolescent girls in the general population. The results show that socioeconomic inequality negatively influence mental health. The authors claim that studies investigating the relationship between socioeconomic status (SES) and specific common mental health problems such as stress and depressive symptoms in the general adolescent population are needed. Moreover, gender gaps in mental health among adolescents are evident, but there is a lack of studies that investigate socioeconomic differences and mental health within genders.

Comparison of risk-behaviors among young people who are not in education, employment or training (NEET) versus high school students is at stake in the article of Stea, de Ridder and Haugland from their cross sectional study. Young people who are not in education, employment or training (NEET) have been identified as a vulnerable group at risk of poor social functioning, lower educational achievement, limited job opportunities and financial hardship. Being NEET has also been associated with increased risk of mental and physical health problems, but only a few studies have identified the prevalence of certain health-risk behaviours among NEET youth. The present study contributes to filling the existing knowledge gaps by investigating a broad range of risk behaviours in this vulnerable group compared to their high school peers. NEET youth have higher odds of using tobacco, short sleep duration on weekends and lower consumption of healthy food items including vegetables, fruit and fish compared to high school students. These results contribute to identify risk behaviours that are more prevalent among NEET youth compared to students and needs to be addressed through targeted intervention studies.

Brandseth, Håvarstein, Urke, Haug and Larsen have in their cross-sectional study analysed *Mental well-being among students in Norwegian upper secondary schools: the role of teacher support and class belonging*. Knowledge about factors in school that can promote adolescents mental health is of great value for

national health policies and health promotion work. The authors in this cross-sectional study investigated levels of mental well-being measured with The Warwick-Edinburgh Mental Well-being Scale and the relationship with teacher support and class belonging among 574 Norwegian high school students, aged 16-17 (55.1% boys). The data stem from the COMPLETE-project. Results showed that students reported an average mental well-being of 3.50 (SD 0.88, range 1-5), with significant differences across gender, study specialization area and socioeconomic status groups. Class belonging partially mediated the observed relationship between teacher support and mental well-being after adjusting for covariates. The findings indicate that a supportive teacher may be a significant factor for both students' class belonging and mental well-being, and suggest that school policies and programs should include a focus on promoting teachers' supportive behaviour.

Moksnes and Reidunsdatter have examined *Self-esteem and mental health in adolescents – level and stability during a school year*. Adolescence represents an important period for positive mental health development. The aim of the study was to investigate gender differences as well as the level, stability and predictive role of mental health (symptoms of depression/anxiety and mental well-being) and self-esteem in adolescents during a school year. The study sample consisted of a cohort of 351 students aged 15-21 years in Mid-Norway. In a survey administrated at the beginning and end of the 2016/2017 school year, mental well-being was assessed with the Warwick Edinburgh Mental Well Being Scale, depression/anxiety with the Hopkins Symptom Checklist and self-esteem with the Rosenberg Self-Esteem Scale. Two models were tested for prediction; self-esteem on mental health (vulnerability model) and mental health on self-esteem (scar model). Girls reported significantly higher depression/anxiety than boys and showed a slightly significant increase in depression/anxiety, stress and self-esteem during the two assessments. Boys scored significantly higher on mental well-being and self-esteem and reported stable mental health during the school year. Self-esteem significantly predicted depression/anxiety and mental well-being. Mental well-being and depression/anxiety also significantly predicted self-esteem. The results suggest that self-esteem and mental health are reciprocally associated. The results underline the gender differences in overall mental health in adolescents and thus the potential importance of acknowledging gender when working on universal strategies for positive mental health development.

Three articles have education, drop-out and mental health issues as main topics. In their article *"I never asked to quit school myself". A qualitative study of a group of girls' path to drop out of upper secondary school*, Edvardsen, Hovland and Thorød explore the school history of girls who are dropping out from upper secondary school, recorded with mental problems. The

study has a qualitative, exploratory design with an inductive approach. Interviews were conducted with life-line method, with some supplemental questions. Most of the girls experience weak relations to both school-peers and teachers in primary school. Some of them are bullied, and they experience a school without capability to deal with the problems and work for an including school environment. When they reach upper secondary school, they have a high absence rate, and most of them are requested to terminate school, partly due to the risk of losing part of their statutory right to upper education. The authors discuss their findings in relation to a resilience- and bio-ecological perspective.

Also Beck and Wiium in *Promoting academic achievement within a positive youth development framework* have analysed how school dropout both has individual and economic implications. Current statistics reveal higher dropout rates among boys. Schools have a unique position to address youth development. Research from the US on positive youth development shows positive relationships between developmental assets (e.g. support at school) and academic achievement. The present paper examined these relationships among 591 Norwegian high-school students (55% girls), aged 15-19 (mean = 16.70) with data from a cross-sectional study. Results indicated that girls reported more assets than boys did. Furthermore, while positive correlations occurred among assets and academic achievement, some assets (i.e. commitment to learning, support and positive identity) were better predictors of academic achievement in regression analysis. Schools can play a significant role in nurturing developmental assets that will promote academic achievement in both genders, as well as have implications for youth and consequently economic development.

Stea, Abildsnes, Strandheim and Haugland write about an increasing proportion of young Norwegians who are categorised as too ill to attend upper secondary education: *Do young people who are not in education, employment or training (NEET) have more health problems than their peers?* Poor physical and mental health may reduce their opportunities to return to school or find paid employment. This study examined the differences in self-perceived health, mental health, and prevalence of pain between Norwegian adolescents, who are not in education, employment or training (NEET) compared to adolescents who attend upper secondary school (age 16-21 years). The study indicates that NEET girls have poorer self-perceived health and poorer mental health when compared to girls who are attending upper secondary school. It will be essential to identify the causes of these health problems. This may provide a basis for specially adapted measures that could help more people in the target group return to school or paid employment.

Vaktskjold looks into dental health in his article: *Frequency of tooth brushing and associated factors*

among adolescents in western Norway. Dental caries is the most prevalent disease in Norway and worldwide, and daily tooth brushing with fluoridated toothpaste is the main preventative measure when diets contain sugary foods. Tooth brushing is an important public health indicator, as the frequency of brushing also has been positively associated with good health in general. In Norway, brushing twice a day is the official recommendation. The aim of this study was to assess the frequency of tooth brushing among pupils in secondary school in two counties in western Norway, and to identify factors associated with brushing more than once a day. All 59 borough administrations in the two counties were invited to participate in the Ungdata survey in 2015-16; 26 agreed. In total 8,725 pupils filled in the electronic questionnaire (82%). Some 69% brushed their teeth more frequently than once a day, 76% of whom were girls and 63% were boys (adjusted odds ratio = 2.0). Of the boys, 6.5% did not brush daily. In 8-10th school grade 71% brushed more than once a day, compared to 65% in 11-13th grade. Out of 28 a priori selected factors, eight were independently associated with frequency of tooth brushing. Besides gender, the strongest associations observed were for frequency of brisk physical exercise, parents being informed about their adolescent's whereabouts, and satisfaction with one's own health.

Availability of data on health and its determinants at the local area level is a prerequisite for developing interventions and public health campaigns locally. Tagseth, Sund, Hallman, Holmen, Kvistad, Vik and Krokstad ask in their study: *May telephone surveys provide reliable public health surveillance data for municipalities? Mode effects differ between categories of questions. The HUNT Study, Norway.* Collecting self-reported data by means of telephone interviews may rapidly provide relevant data. The reliability of such data may be questioned. In this study, they sought to compare exact similar questions addressed by a recent telephone survey with a previous large scale and very comprehensive population health survey (The Nord-Trøndelag Health Study 2006-08 – HUNT3), conducted a few years earlier in the same geographical region. This was done in order to examine the reliability of telephone interviews as a method to provide data on health and determinants to enable municipal authorities to get a sufficient overview. The comparability of the data differed between themes. The differences may be ascribed to mode effects and to some extent the time lag between the surveys. Because replicability on issues that may be more embarrassing or stressful to recall appears to be poorer, and the more subjective self-assessments of health and well-being appear skewed, it is reasonable to conclude that there is an interviewer effect in the telephone survey. The use of a questionnaire through mail or web to monitor public health in municipalities should be considered as an alternative.

This particular issue of the journal *Norsk Epidemiologi* shows how *youth, health and welfare* continues to be an important research topic related to considerable societal challenges for youth and adults in 2019, too. One could have hoped for an increased impact on youth welfare policy by research based knowledge in 2010/2011. If that be the case, several of the observed problems at stake for youth, observed in 2010, would have been closer to a solution in 2019. However, the articles in this issue confirm old problems and continue to develop new and important subjects for both research and policy. Anxiety, depression and psychosocial problems seem to be increasing in Norwegian adolescents. An increasing proportion of youth fall out of secondary school, higher education and employ-

ment. This proportion has considerable health burdens, a challenge to themselves, and to professionals within education, health and social services, in addition to politicians at different levels. Also researchers in their work have e.g. epistemological and ethical challenges. There are thus research based reasons to fill in with future research to contribute to solutions in the youth policy fields.

Last, but not least, we as guest editors, have lent upon a considerable group of knowledgeable specialist reviewers who have, loyal to scientific rules and subject expertise, guided us all through needed scientific quality control. We are all grateful for their thorough work for the results in this issue of *Norsk Epidemiologi*.

The guest editors



Ida Marie Hydle

Institutt for barnevern og sosialt arbeid,
Norges arktiske universitet UiT



Lars Bjarne Kristofersen

Velferdsforskningsinstituttet NOVA,
OsloMet – Storbyuniversitetet
Foto: Halvard N. Dyb, NOVA



Sidsel Sverdrup

Fakultet for helsefag,
VID vitenskapelige høyskole