



The Faculty of Public Health

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Kandidatnr. 3

## Master's Thesis

Understanding Norwegian adolescent's use of over-the-counter analgesics: a qualitative study

Master's in Public health

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## Abstract

**Background:** The use of over-the-counter analgesics (OTCAs) in adolescents is increasing and this is seen as an issue of Public Health. The adolescent's own views of the reasons for using OTCA and how the society and the environment has influences that contribute to the use of these medicines is poorly understood. The increased access of over-the-counter medicines, due to the possibility of buying them in regular stores, could be a factor that increases an inappropriate use of these medicines in Norwegian adolescents. Pain-relieving medicines was released for sale in grocery stores in 2003. The increased access to medicine can provide possibilities for inappropriate use and self-medicating in young people.

**Theory:** Bronfenbrenner's socioecological model was used to illustrate the different layers of influence affecting children growing up. The sociological concepts "normalization", «socialization», "transition" and "medicalization" was used to help shed light to the choices young people do.

**Methods:** This qualitative study will seek to understand this phenomenon and collecting data was therefore done by using focus groups. Totally 22 young people participated in this study. The adolescents in these groups were 16-19 years all from Hedmark county. The focus groups were audiotaped and transcribed verbatim before the analysis. Thematic analysis was used to make sense of the collected data.

**Findings:** There were given various reasons for the use of OTCAs, all from fever to headache to being able to sleep and relax from psychological distress. Given the easy access and the liberal policies around it, this was a natural solution to everyday problems. The OTCAs therefor play a big part in their lives. The adolescents in this study expressed the need for increasing information to the public to be able to make better choices regarding these medicines in their daily life. The common view in these focus groups were that the use is high in young people in Hedmark.

**Conclusion:** The findings in this study support earlier research, showing the OTCAs has a big role in the young people's lives. They get their influences from the different contexts they grow up in, where the OTCAs is always there and therefor seen as very natural and used as a solution for a various specter of reasons.

## Norsk sammendrag

**Bakgrund:** Bruken av ikke resept-belagd smertestillende medisin(OTCAs) hos ungdom er økende, og dette ses som en bekymring for folkehelsen. Ungdommens egen oppfatning av årsakene til bruk av OTCA og hvordan samfunnet og miljøet har innflytelse som bidrar til bruken av disse medisinene, er dårlig forstått. Den økte tilgangen til OTCAs, på grunn av muligheten for å kjøpe dem i vanlige butikker, kan være en faktor som øker uhensiktsmessig bruk av disse legemidlene hos norske ungdommer. Smertelindrende medisiner ble utgitt for salg i dagligvarebutikker i 2003, og det er en aldersgrense på 18 år for å kjøpe dem. Økt tilgang til medisin kan gi muligheter for upassende bruk og selvmedisinering hos unge mennesker.

**Teori:** Bronfenbrenners sosioøkologiske modell ble brukt til å illustrere de forskjellige lagene som påvirker barn som vokser opp. De sosiologiske konseptene "sosialisering", "overgang" og "medisinering" ble brukt til å forklare valgene unge gjør.

**Metode:** Denne kvalitative studien vil forsøke å forstå dette fenomenet, og det er derfor gjort å samle data ved å bruke fokusgrupper. Til sammen deltok 22 unge i denne studien.

Ungdommene i disse gruppene var 16-19 år alle fra Hedmark fylke. Fokusgruppene ble tatt opp på lyd bånd og ordrett transkribert før analyse. Tematisk analyse ble brukt til å gi mening til de innsamlede dataene.

**Funn:** Det ble gitt ulike grunner til bruk av OTCA, alt fra feber til hodepine, til å kunne sove og slappe av fra psykologisk nød. Gitt den enkle tilgangen og den liberale politikken rundt den, var dette en naturlig løsning på hverdagslige problemer. OTCA spiller derfor en stor rolle i livet. Ungdommene i denne studien ga uttrykk for behovet for å øke informasjonen til offentligheten for å kunne ta bedre valg om disse medisinene i sitt daglige liv. Felles syn i disse fokusgruppene var at bruken er høy hos ungdom i Hedmark.

**Konklusjon:** Resultatene i denne studien støtter tidligere forskning, OTCAs har en stor rolle i de unge menneskers liv. De får sin innflytelse og påvirkning fra de forskjellige sammenhenger de vokser opp i, hvor OTCA er alltid der og derfor sett som veldig naturlig, og brukes som en løsning av ulike grunner.



# 1. Introduction

This project focuses on the use of over-the-counter analgesics (OTCAs) among young people, ages from 16-19 years, both girls and boys. The use of medicines for pain is common among children and adolescents and has been increasing over time in most countries. Use of pain relievers is an important issue for clinicians and for public health because the substances can be toxic and may have harmful side effects such as liver damage and headache related to medication-overuse. The most common drugs used for deliberate self-poisoning among children and adolescents are analgesics (Holstein et al. 2008). The over-arching goal is to understand how this use of OTCAs may become normalized among youth, taking this into their future adult lives.

Norwegian studies show that during the last two decades the use of OTCA has increased markedly (Skarstein, Lagerløv, Kvarme & Helseth, 2016). Both paracetamol and Ibuprofen are often used in treating headache, cold-symptoms, joint and muscular pain conditions (Holmström, Bastholm-Rahmner, Bernsten, Röing, & Björkman, 2014). They are also commonly used in the treatment of pain and fever in both adults and children (Cham, Hall, Ernst & Weiss, 2002). Formally there is a 18-year age limit for buying these medicines in Norway, but Geelmuyden (2017) say that youth as young as 13 years get access to OTCA in many stores. The trends are found to be similar in Sweden, Denmark and in the USA. Those in most use are also here paracetamol, ibuprofen, and nasal decongestants (Nydert, Kimland, Kull, & Lindemalm, 2011).

## 1.1 Regulations for sale

The sale of medicines in general stores, except from in pharmacies is regulated in the Norwegian law, set by the Health and Social services department in Legemiddeloven § 16 from 1992, (Lovdata, 2018). This law regulates who can sell and distribute OTC medicines to the public, saying as follows: *“The department can by regulations decide that the sale of some medicines without prescription can be sold by merchants, and give closer regulations for this kind of sale.”*

The Norwegian Food Safety Authority has the supervision of the sale (Mattilsynet, 2016). This supervision is there to make sure that the sale is following the regulations and to maintain the safety around the sale of OTCA. The Norwegian Medicines Agency (2016) gives the guidelines on this, including who can sell, how the medicines should be contained, age limits and limits of amount bought and so on.

Paracetamol and Ibuprofen are the most commonly used OTCA medicines in Norway and they can be bought in any convenient stores without prescription from doctors. Paracetamol was released for sale over-the-counter in Norway in 2003, and it is still sold in convenient stores. In Sweden the same medicines were released for sale in convenient stores in 2009. When it was observed a major increase of intoxications with paracetamol in Sweden it was withdrawn from the convenient stores. It can still be bought without prescription in pharmacies according to Høye and Rostad (2016).

The consumption of paracetamol doubled itself in eight years from when it was released for sale in the convenient stores. Geelmyuden (2017) says that the Norwegian toxicity information center received 1667 calls from people worrying about poisoning from over-doses of paracetamol in 2016. The leader of Apotekforeningen, Per Kristian Faksvåg, report that paracetamol in the best case contributes to reducing pain, but it does nothing

about the causes. In the worst case, he says, it can contribute that headache only will get worse (Soldal,2015). This means that using OTCAs appropriately is of importance.

## 1.2 Paracetamol and Ibuprofen

Paracetamol is used in treating mild to moderate pain and it is the most used pain-relieving and fever reducing medicine in Norway. How it works is not completely clarified and the effect of it can be caused by several mechanisms. No tolerance is developed for the analgesic and antipyretic effect and it is therefore not pharmacologically addictive (Rygnestad & Spigseth, 2000). Compared to other similar analgesics paracetamol has very favorable effects and profile of side-effects. It can though in high dosage give both liver- and kidney-damage (Rygnestad & Spigseth, 2000).

Ibuprofen is a medication in the nonsteroidal anti-inflammatory drug (NSAID) class that is used for treating pain, fever and inflammation. This also include painful menstrual periods, migraines, and rheumatic pain conditions. About 60% of people improve with any given NSAID, and it is recommended that if one does not work then another should be tried (Bjørnstad, 2006). The most common side effects come from the gastrointestinal tract and it can even cause gastric ulcers. It was first marketed in 1969 in the United Kingdom and in the United States in 1974. Ibuprofen is the most widely used non-steroidal anti-inflammatory drug (NSAID) for the treatment of inflammation, mild-to-moderate pain and fever in children and, thanks to its good tolerability profile, the only NSAID approved for treating children over 3 months old according to Martino et al. (2017).

### **1.2.1 Risk in using OTCA**

Easy access to OTCAs can lead to inappropriate and harmful use of these medicines. This can have a negative impact on health or functioning and may take the form of drug dependence or be part of a wider spectrum of problematic or harmful behavior. This is seen as a severe and serious global health challenge and its consequences can lead to great financial burdens on the health care system. The nonmedical use of prescription or OTC medications implies that the user is using them for reasons other than those indicated in the prescribing literature or on the box label. The inappropriate use of these medicines is seen as a national issue in America (Lessenger, & Feinberg, 2008). Using high levels of OTC analgesics, including aspirin and acetaminophen, over long periods of time have been associated with dysphoric mood states according to Lessenger & Feinberg (2008).

Frequent use of pain-relieving medicine against headache can trigger chronic daily headache, especially in those who have migraine and tension-headache (Salvesen, 2002). Paracetamol has few side-effects when used in the recommended dose (Folkehelseinstituttet, 2016). The main concern is the increased risk of liver-damage in high doses and from 12 grams and over are always toxic. Toxic symptoms can also emerge from repeated high doses of paracetamol (Folkehelseinstituttet, 2016). This is also described in the patient information included in the package.

### **1.2.2 Pain in adolescence**

According to Geelmuyden (2017) 30 % of the Norwegian population report in surveys that they are in constant pain. This puts Norway at the top in Europe in terms of pain in the population. Norwegians also consume increasing amounts of pain-relieving medicines, both with and without prescription. About 11 % of the Norwegians use OTCA medicines every week (Geelmuyden, 2017). Soldal (2015) say that it is alarming that approximately 40

000 young women in Norway experience pain daily. Evidence from a Norwegian study (Skarstein et al. 2013) shows that more than 25% of the 15 to 16-year-olds use painkillers every day or every week. The study also found lower self-esteem, more absence from school and lower academic ambitions in this group than others of the same age (Geelmuyden, 2017). Increasing numbers of adolescents suffer from pain according to Løvendahl-Mogstad (2017). They also consume more pain-relieving medicine than ever before. It is not unusual that adolescents keep a package of Paracetamol in their bags, and many again, take them as soon as they feel any pain or discomfort (Løvendahl-Mogstad, 2017). Such frequent use among a large proportion of this population might indicate that young people are using OTCAs inappropriately. However, there are few qualitative studies that have sought to explore in detail how young people in Norway view OTCAs as an aspect of their everyday lives.

### **1.2.3 OTCAs use among young people as a public health issue**

Mortimer and Larson (2002) argue that one of the most striking features of post-industrial societies is the increasing number of elderly compared to the relatively small number of children and youth. They also say that this aging of the population will continue in to the 21<sup>st</sup> century, changing society and bringing new issues to the fore (Mortimer & Larson, 2002). The rapidly growing older populations, coming to depend on economically active adults, is one of the reasons investing in youth, who are the adults of the future, deserves special attention.

Being ill as a child may affect education and lifelong socioeconomic prospects (Jones & Douglas, 2012). Being sick also gives people extra costs in the form of healthcare expenses and this can cause people to end up in a downward social spiral of poor health. The

prevalence of chronic pain in children and adolescents is poorly mapped out in Norway, but the consumption of pain-relieving medicine and numbers from other countries indicate that chronic pain is common also in the youth (Folkehelseinstituttet, 2015).

Although Norway is a country with modest socio-economic differences compared to many other countries, the results from many surveys show that children and adolescents from families with low income and education, have poorer health (Klepp & Aarø, 2017). The report, *Barn, miljø og helse* (2016) shows that approximately 9% of Norwegian children grow up in families with consistently low income. Observations show that the share of adolescents reporting monthly psychosomatic complaints, increases with decreasing income and education levels in the families. This is also supported by Samdal et al. (2016) who reported socio-economic differences in adolescent's health and health-behavior. They point out that even though Norway has considerable welfare benefits and services with high levels of sharing, there are widening socio-economic differences that can be compared to other countries. Adolescents from families with low level of education and economy are more likely to being exposed to risk factors that in combination with each other are damaging to their health (Samdal, et al. 2016). This is one reason why this study might contribute to understanding how adolescents in Hedmark perceive the use of OTCA in their social groups, to the poorer health-outcomes of socio-economic differences.

There is also a significant social gradient in health perceptions and social practices within children and adolescents. Those coming from families with low socio-economic status, are reporting poorer perceived health and lower satisfaction in life, than those from families with higher level of education and better economic state. This observed social inequality makes it obvious that there is needs for measures to reduce the social gradient (Samdal et al.2016).

In statistics from Folkehelseinstituttet (2017) numbers show that Hedmark is a county with many challenges in socio-economic differences. The use of health care due to mental illness and muscular/joint complaints are significantly higher here than the country in average. Highschool drop-out is also significantly higher, the level of education significantly lower. Obesity, living in families with low income, people receiving social support and life expectancy also come out on the negative side in Hedmark. This makes it interesting to conduct this study in this county to see how adolescents perceive the use of OTCA as high among their social groups.

In this study the focus will be on exploring the perceptions Norwegian adolescents have towards the use of OTCA. A qualitative study from Sweden on a similar theme, also using 16-19-year old's (Holmström, Bastholm-Rahmner, Bernsten, Röing, & Björkman, 2014) concluded with that there were wide gaps in understanding how OTCAs are used by young people in their everyday life. There seem to be little research in Norway, within this age-group, on this subject. The knowledge about and views on self-medication with OTCA amongst teenagers with limited experience in treatment of their own complaints has been little investigated in Norway ( Holager, Lagerløv, Helseth & Rosvold , 2009). Views on medicine use can have effects on the amount of sales and use, but also commercials and the easy access to medicine can be of influence to this. Youth are, according to Holager et al. (2009) taking responsibility for their own health and making independent choices at an increasing young age. A study from a secondary school in Oslo (Helseth, Lagerløv, Holager, Johansen, & Rosvold, 2009) say that the key to understanding the increased use of non-prescriptive pain-relieving medicines is seeking the adolescents own experience and their views on why they use them, which is in focus in this study. This has the potential to contribute to the development of strategies and measures in making the use safe, in different

levels. Studying this phenomenon in Norway is interesting due to the remaining easy access of OTCAs. Access to medication is a public health issue, especially in relation to young people being in a phase where they are increasing in autonomy and encouraged to take more responsibility of their own health. This study will possibly contribute to, in a small way, knowledge and understanding of the perceptions of Norwegian 16-19-year old's and their views on using OTCA and what place they feel that OTCAs have in their lives.

### 1.3 Research questions

The aim of this study was to explore the perceptions and experiences young people have with the use of OTCAs. To be able to give an answer to the research problem there were developed two overarching research questions.

The research questions are as follows:

*What knowledge and experience do Norwegian adolescents have of using OTCAs?*

*How do OTCA have a place in young people's everyday lives?*

### 1.4 Structure of the thesis

This thesis is presented in six different chapters. The first chapter is the introduction to the topic of the thesis and how this is of relevance for public health. The research problem and the research questions are also presented here. In chapter two there is a review of previous research made on this topic, both in Norway and internationally. The third chapter is presenting the theoretical framework used for possible explanations of the research problem. The selection of methodology is described in chapter four and this describes the



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research process. The findings in this research are presented in chapter five, and finally in chapter six there is a discussion of the findings and also a conclusion of the research.

## 2. Literature review

### 2.1 Young peoples use of OTCAs

The aim of this chapter is to explore the existing research and literature on use of OTCA in relation to adolescent's knowledge and experience of them in their daily lives. There will be presented studies both from Norway and internationally, to give a wider picture of the existing knowledge on this subject, and to underline the global challenge. There will also be presented an overview on the general health of Norwegian adolescents and the challenges they potentially can struggle with. How this has relevance for the use of OTCA will also be outlined.

Several of the studies presented in this literature review, show the connection between physical complaints and psychological distress. A wide range of research implies there might be a connection between adolescents' mental health and the use of OTCA, and this will be further explored in this study. Research showing how adolescents health and the socio-economic status of the family is related will also be presented.

The studies presented in this review are drawn from a range of age groups, also showing that the self-medication may start early and persist in to adulthood. There are also little studies on the specific age-group in this study.

According to Gentry and Campbell (American Psychological Association, 2002) there is no standard definition of "adolescent". Adolescence can be defined in a numerous way, considering factors as physical, social and cognitive development as well as age in young people. What is most important according to Gentry and Campbell (2002) is to consider the needs and capabilities of each adolescent. In this study the word adolescent will be used as well as young people, where the researcher finds it most suitable.

## 2.2 Adolescents health

Even though Norwegian adolescents have good health in general, many of them struggle with different complaints in everyday life. Overall the boys report on better health than the girls (Bakken, 2017). In high school, measured in 2016, 76 % of the boys reported on good health, of the girls there were 66 % who reported on good health.

The use of pain-relieving medicine among Norwegian 15-16-year old's is described in the NOVA-report as relatively high and has increased since 2001 according to Bakken (2107). Even so there are many adolescents suffering from different health complaints in their daily life. A great deal suffers from things as headaches, stomach-aches, pain from neck, shoulders, joints, and musculature. Others again, show symptoms of stress and they think that "everything is a struggle". Bakken (2017) also comment that girls report having these symptoms more often and that this is increasing with age during secondary school. The use of pain-relieving medicines is high, according to Bakken (2017) and in the middle of the teen years more than every fourth girl report that they use these kinds of medicines one or several times a week.

**Table 1.**

View of psychosomatic complaints among children in the Nordic countries in 2001

| Country | No. of child. | Stomach complaints (%) | Headaches (%) | Sleeplessness (%) | Dizziness (%) | Backaches (%) | Loss of appetite (%) | Boys (%) | Girls (%) | Any PSC (%) |
|---------|---------------|------------------------|---------------|-------------------|---------------|---------------|----------------------|----------|-----------|-------------|
| Sweden  | 803           | 7.6                    | 11.3          | 2.4               | 0.5           | 1.1           | 2.9                  | 22.4     | 17.2      | 19.8        |
| Iceland | 776           | 14.3                   | 11.9          | 1.5               | 1.3           | 2.6           | 5.4                  | 21.8     | 31.6      | 26.8        |
| Norway  | 677           | 10.0                   | 11.8          | 2.4               | 1.5           | 1.6           | 5.3                  | 22.7     | 26.0      | 24.5        |
| Finland | 777           | 9.9                    | 16.0          | 3.0               | 1.2           | 1.7           | 6.8                  | 23.9     | 34.0      | 28.8        |
| Denmark | 779           | 12.6                   | 14.0          | 1.0               | 0.8           | 4.4           | 3.1                  | 22.6     | 28.2      | 25.3        |
| Total   | 3,812         | 10.9                   | 13.0          | 2.0               | 1.0           | 2.3           | 4.7                  | 22.7     | 27.2      | 25.0        |

Table 1 show results from a quantitative study in Sweden (Berntsson, Köehler, & Gustafsson, 2001) looking at the association between self-reported psychosomatic complaints, as headache, sleeplessness, dizziness, backaches and loss of appetite, and the background factors within the Nordic countries. The children in the study were 7 to 12 years old. Headaches and stomach-pain were shown to be most common in all the countries. The prevalence of this was higher in girls than boys. The most important factors associated with psychosomatic complaints were the health of the mother. The mental health of the child, social competence and the socioeconomic state of the family were factors influencing psychosomatic complaints. The families that had low income, were in the working class or where the father was unemployed were found to be the most vulnerable, measured as having the most psychosomatic complaints.

The children and adolescent's own perceptions of health and well-being gives an important view of the overall health in a country according to Samdal et al. (2016). Having psychological challenges in childhood also seem to have wider consequences, than suffering from physical illness. Psychological challenges in these years increase the risk of dropping out from school, being addicted to drugs, struggle to get work with the economic consequences that leads to. This also can have an impact on their social relationships (Samdal et al. 2016). As many as 15-20% of children and adolescents in Norway between 3-18 years are experiencing symptoms of psychiatric disorders such as anxiety, depression, and behavioral disturbances, that are so severe it affects their everyday functioning (Helsedirektoratet, 2016). Results from a Norwegian quantitative study (Helseth, Christophersen, Lund & Emeritus, 2007) showed that the health- related quality of life is high on the average in Norwegian adolescents. The areas where the adolescents were shown to be more vulnerable is in relation to mental health, self-esteem, and bodily pain.

According to Wiklund, Malmgren-Olsson, Øhman, Bergstrøm and Fjellman-Wiklund (2012) co-occurrence of physical and psychological health problems is common among adolescents and there have been observations of associations between various stressors, perceived stress, and subjective health complaints. In this quantitative study they found that common subjective health problems are headache, abdominal pain, musculoskeletal symptoms, sleeping difficulties and nervousness. Multiple pain problems are said to have negative psychosocial consequences and impact on quality of life. In addition, pain problems often seem to persist in to adulthood. These trends in the health development of adolescents is a challenge to public health work and to the wider society (Wiklund, et al. 2012). It also raises the possibility that a broad range of health problems, including psychosomatic illness, could be related to young people's use of OTCAs.

### **2.2.1 Gender differences in health**

There are also differences in gender when it comes to self-reported health complaints in Norwegian adolescents. Results from the Hemil-report (Samdal et al. 2016) show that twice as many girls report on daily health challenges, compared to the boys, in all age-groups. This indicates that adolescents, and especially girls, experience challenges, that are expressed as subjective health complaints. This is believed to be a consequence of a combination of internal and external pressure related to being successful, in terms of body, health and high levels of school results (Samdal et al. 2016). There is a majority of girls seeing doctors with complaints such as stomach-ache, headache, muscular- and joint pain.

This is described by Løvendahl-Mogstad (2017) as a consequence of the increasing pressure the girls are exposed to in the form of grades in school, body image and the never ending comparing and being evaluated in social media and elsewhere. The boys can also be exposed to this according to Løvendahl-Mogstad (2017) but the girls are overrepresented.

They are seen in almost all environments and social contexts. Others again are struggling with the opposite, with little support from family, low social status, poor economy in the family and low level of intellectual support. These adolescents also suffer from headache, stomach-ache, and struggle with their lives, which can lead to them taking pain medication, being absent from school and in the end dropping out. There are many common factors among adolescents who wear themselves out to illness, by the demands they experience according to Løvendahl-Mogstad (2017). For example, they feel the pressure of an intensified and perfected road to growing up, where the demands on them are higher than ever. Furthermore, Løvendahl-Mogstad argues that they are continuously measured, by those around them and in social media, tested at school and in private. They experience that they are never allowed to rest. Women often report more complaints compare to men, both psychological and physical. Both genders report the same type of association between the complaints (Haug, Mykletun & Dahl., 2004). This might indicate that these health-related patterns follow the adolescents in to their life as adults.

## 2.3 Use of OTCA

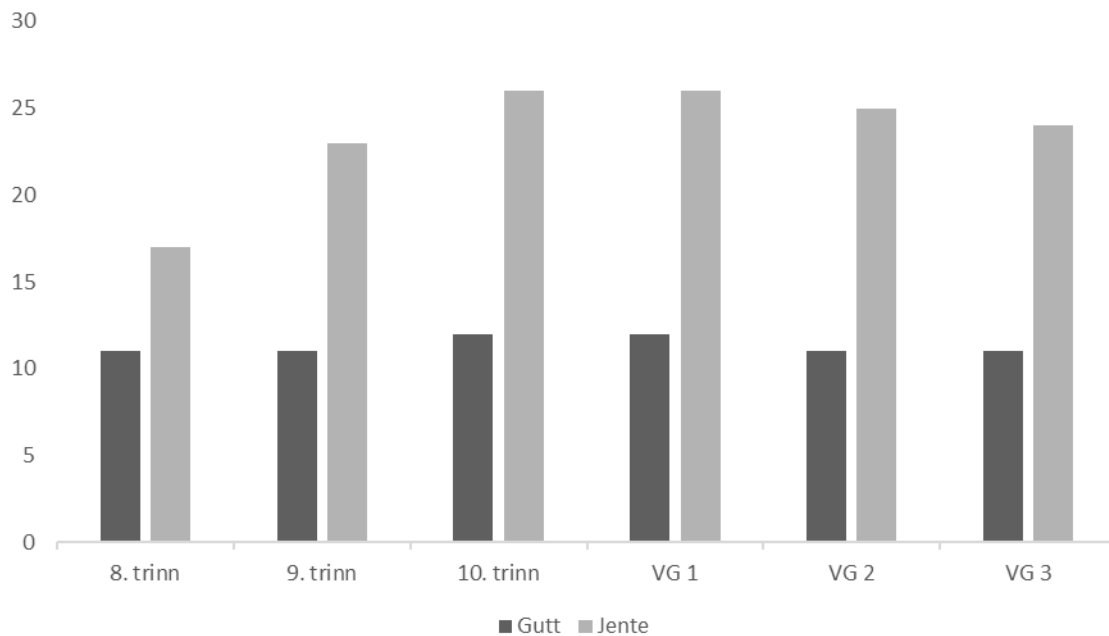
The use of painkillers in Norwegian 15-16-year old's is described as high and it has increased since 2001 (Folkehelseinstituttet, 2015). A study from Apotekforeningen (Soldal, 2015) reports that between 50-70% of the Norwegian girls age 15-24 years use pain-reliving medicine on a regular basis. They were looking at the relationship between pain in the young population and the use of pain-relieving medicine. The results show that 65% of the girls were reporting that they were in pain several times a month. In addition, 70% of the girls also reported they had used paracetamol during the last month, 50% during the last week. As many as 40% report that they have been taking paracetamol to be able to go to school or to their job. More than 30% of the girls say that they always keep paracetamol in their bag. As

many as 75% say that their friends always have paracetamol accessible. In the age 15-18 years one out of three report to be taking OTCAs as prevention, to avoid having pain (Soldal, 2015). This might suggest that young people take OTCAs beyond what they are meant for, that is to say, as treatment.

A qualitative study from Sweden (Holmström, Bastholm-Rahmner, Bernsten, Röing, & Björkman, 2014) using 16-19-year old's in focus-groups, shows that most adolescents use OTCA as recommended. However, some of the students in the study were said to show “from casual to careless use” of these medicines, saying that some of the young people in this study used OTCAs in without reflecting on why.

Benotsch, Koester, Martin, Cejka, Luckman, and Jeffers, (2014) report on a study from the United States, examining the intentional non-medical misuse of OTCA in 18-25-year-old's linked to the use of alcohol and other drugs. In this quantitative study they found that individuals who reported unintentional use of OTC drugs, scored significantly higher in sensation seeking, hopelessness. Also reporting on more symptoms of depression, anxiety and somatic distress, relative to those who denied using OTC drugs in ways they are not meant for.

In a Norwegian quantitative study, Lagerløv, Holager, Helseth, and Rosvold, (2009) where the aim was to look at the frequency of use in OTCA in 10 graders, they also explored reasons for using the medication as well as their knowledge of toxicity of OTCAs. They found that the more the adolescents use OTCAs, the more knowledge they had about different kinds of OTCA. As reason for using OTCAs the boys reported long time spent in front of computers or TV, while the girls often said that long days at school, busy days and heavy school bags were the reason.



*Figure 1.* View over use of OTCA (Bakken, 2017).

Figure 1 shows the percentage (vertical axis) of boys and girls taking over-the-counter analgesics, due to headache, neck- and shoulder-pain, joint problems and stomach ache, at least once a week from eight grades to third year on high school (Bakken, 2017)

A quantitative study of 12-15-year old's in South and North-Trøndelag showed that 17 % were regularly bothered by headache, bowel-pain, back-pain or pain in arms and legs (Skarstein, Rosvold, Helseth, Kvarme, Holager, Småstuen, & Lagerløv, 2014). The girls in this study were reporting a higher amount of use than the boys.



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### 2.3.1 Use of OTCA related to socio-economic differences

Social and economic conditions and their effects on people's lives determine their risk of illness and the actions taken to prevent them becoming ill or treating illness when it occurs. It is the poorest of the poor, around the world, that have the worst health (WHO, 2008). Evidence shows that, within countries in general the lower an individual's socioeconomic position the worse their health. There is a social gradient in health running from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle, and high-income countries. This social gradient in health means that health inequities affect everyone (WHO, 2008). If young people growing up in low socioeconomic conditions have poorer health, they may also have more pain, leading to increased use of OTCAs. The use of OTCAs may also be so "normalized" in society so that the use is increasing in all social groups.

A quantitative longitudinal study from Denmark (Kirkeby, Hansen and Andersen, 2014) comparing medicine use, self-reported pain, and psychological problems in relation to parental education and household income showed that young girls use twice as much medicine for pain and psychological problems compared to young boys. Socio-economic differences based on parental education level were directly associated with the use of prescribed medicine for psychological problems. Socio-economic differences based on household income were directly associated with the overall medicine use and the use of OTC medicines.

Myrtveit Sæther, Sivertsen, Haugland, Bøe and Hysing (2018) investigated in their quantitative study, the frequency of health complaints in late adolescence, the factor structure and the association with socio-economic status. They concluded that health

complaints are common in late adolescence and that it may, as in adults, be a part of their everyday life. They also came to the conclusion that health complaints are more frequent in adolescents coming from families with lower socio-economic status. However, this study could not shed light on any of the reasons for why this might be the case.

In a quantitative study (Hasselid, Clench-Aas, Raanaas & Lundquist, 2017) there were shown that parental medication use of non-prescription analgesics also strongly influences adolescent use.

Skarstein et al. (2016) found in their qualitative study that the over-use among adolescents age 12-17 is associated with low self-esteem, reduced sleep, low ambitions according to education, binge drinking, high consumption, and part-time employment. Some argue that these factors could increase the level of pain due to the wear and tear that is associated with the allostatic mechanisms from stress (Abraham, Conner, Jones & O'Connor, 2016). Anxiety and depression has shown to have a strong relationship with chronic pain conditions and are conditions that could give rise to this development. Some adolescents also used OTCAs to cope with stress (Skarstein et al. 2016). Long term stress can lead to physical symptoms and pain can be a signal of that something is wrong. When the brain repeatedly experiences stressful, psychologic and behavioral responses this can lead to allostasis and adaption. This stimulates the neural and endocrine responses and also the immune stress mediators, leading to allostatic load and this again can lead to disease (Lundberg, 2003).

Humans vary in how they cope with daily challenges and some struggle more to master daily demands and to handle stress. Some people also meet situations so severe and long-lasting that together they become overwhelmed and they can't manage according to Skarstein et al (2016). This might increase the likelihood of developing pain conditions or psychological/psychosomatic problems. In turn people may turn to OTCAs as a way of

helping them cope with painful experiences. This is especially likely if OTCA use is readily accessible and has become normalized in everyday life.

### **2.3.2 Risk in using OTCA**

A quantitative comparative study (Gilbertson, Harris, Pandey, Kelly & Myers, 1996) describe deliberate self-poisoning as a major health problem in Europe and the United States. This study found that the most common agent used in suicidal behavior and in coping with intra-psychic or environmental stressors is paracetamol. The study revealed significant differences in knowledge between students from the UK compared to students from the United States. Knowledge about the toxicity and side effects were increasing with age in the UK but not in the United States. The pattern was similar in regarding damage to body parts and organs.

A quantitative study in Sweden (Gedeborg et al, 2017) looked at the connection between the increased access of paracetamol from 2009, being able to buy them outside pharmacies, and self- poisoning with the same agent. They found that the incidence of self-harm using paracetamol had increased since 2009, but could not establish the connection with increase in sale or the general trends in self-harm or suicide.

Benotsch et al. (2014) examined psychological factors and found that the young people who reported that they were misusing OTCA reported more symptoms of depression, anxiety, and somatic distress than those who reported not using OTCA. They were also more likely to report using other drugs such as marijuana, ecstasy and cocaine. The non-medical use of prescription medicines such as anxiolytics, analgesics and sedatives was also higher in this group of adolescents. The results of this study suggest that a considerable minority of

young adults may be risking their health in misusing OTC medications as part of a pattern of polysubstance use. This may also be associated with symptoms of depression.

In a cross-sectional study from Denmark (Andersen, Holstein, & Hansen, 2006) the association between smoking, drunkenness and medicine use in 11-15-year olds was investigated. There were 4824 children in this study and the focus was on self-reported use of medicine for headache, stomach-pain, insomnia, and nervousness. The use of tobacco and alcohol were also self-reported. The results of this study showed strong and graded associations between drunkenness and medicine use. The same pattern was to be seen between smoking and the use of medicines. This may indicate that the use of OTCA can be a part of a pattern of using substances to cope with everyday life that are experienced as challenging or painful in some way.

### **2.3.3 Focus for the current study**

In the qualitative study from Sweden (Holmström et al. 2014) the results from the study also show knowledge gaps among the adolescents regarding OTCA and the influence family and friends have on their use of these medicines. This form of qualitative study on this age group of adolescents has not in the researcher's knowledge been done in Norway and this study will explore this phenomenon. This study will seek to understand the perceptions of adolescents in Hedmark, how they perceive the use of OTCA and whether they have knowledge about the possible risk associated with consumption of these medicines. Amundsen, (2005) argues that knowing what kind of OTCA and why the adolescents use them is essential to be able to plan strategies to be able to understand how young people seek help to deal with their pain. Several of the studies in this review show the possible link between using OTCA with mental health problems, such as anxiety and depression, as well as the multiple challenges they face in everyday life. This will be

explored in this master's thesis. Adolescents are the adults of tomorrow and in a public health perspective it is important to know about the habits of self-medication they bring in to their adulthood.

### 3. Theoretical framework for the study

This chapter describe the framework developed for conceptualizing the research problem. In particular it focuses on the transition of young people towards adulthood which focuses on the social aspects of their lives and experiences. Bronfenbrenner`s (1986) ecologic model was used as a starting point to illustrate some of the layers of influence that affect the development of children and young people over time. Bronfenbrenner`s model can also be related to the idea of “transition”, that is to say the process of moving from childhood towards adulthood. This will be further described in this chapter. Socialization is the idea that it is people who form other people, by internalizing their knowledge and beliefs, building a personality, enabling them to become a full member of society (Thurston, 2014).

This shows how the different layers in Bronfenbrenner`s model influence and shape people and is further described in this chapter. The sociological concept of medicalization was also used to try to understand some of the reasons of why some young people might use OTCAs. The medicalization concept can offer some explanations that can be of help to explain these practices, saying that our everyday suffering is medicalized by putting labels to them, and that medicine is more and more seen as the solution. Knowledge about life experiences of adolescents who frequently use over-the-counter analgesics may be useful to prevent health problems.

These social concepts can provide a general sense of reference and guidance in approaching empirical instances (Bryman, 2016). In qualitative work this is especially important in that the idea is to theorize from empirical data. This means that concepts, such as medicalization, should be used in such a way that they give a general sense of what to look for and act on as a means for uncovering the variations in the phenomena, that are studied (Bryman, 2016). The social concepts used in this study were used to understand what

influenced the young people, when growing up, to take the actions they do, in relation to the use of OTCA and how they see why others use OTCA and what influenced the way they see this. The framework was also used to sensitize the researcher during the analysis, to be able to interpret the findings and lift the findings from description to explanation.

### 3.1 Adolescents in transition

Being a young person and moving towards adulthood is described as a period of life with specific health and developmental needs and rights (WHO, 2108). It is also a time to develop knowledge and skills, learn to manage emotions and relationships, and acquire attributes and abilities that will be important for enjoying the adolescent years and assuming adult roles. The WHO (2108) describe adolescence as one of the most rapid phases in human development. Although many of the changes seem to be universal, the timing and speed of change vary, influenced by both internal and external factors, such as poor nutritional conditions or growing up in abusive environments. During adolescence young people will negotiate puberty and the completion of growth, take on sexually dimorphic body shape, develop new cognitive skills, develop a clearer sense of personal and sexual identity. They also develop a degree of emotional, personal, and financial independence from their parents (Christie & Viner, 2005).

Developing as a young person is being in the process of making distance from parents and becoming increasingly autonomous. At different stages of his or her development, the child will be concerned with different challenges and problems. According to Buchmann and Steinhoff (2017) individual capacities may matter the most in coping with transition. As transition is a process that “calls for action” it demands the mobilization of

individual agentic capabilities of various kind which have been under development from the time of birth and which, as Bronfenbrenner suggests are influenced by many things.

Barrett (1996) divides adolescence in three periods. The first he calls the early adolescence which goes from 11 to 13 years. In this phase Barrett (1996) say, belonging is central for the children in several ways. This age is a period where it is important to be able to identify with peers and the children's friendships are so powerful that their sense of identity is closely tied up to his or her best friend's. Barrett (1996) also say that the children's moral reasoning strongly reflect the need for approval from parents and peers. There may also be a reappearance of separation disturbances, some might even develop separation anxiety disorder in these years. The need for belonging is so strong in these years according to Barrett (1996) that the child might act against better judgement in order to avoid the stress from not going along with their group. As described in the literature review also younger adolescents use OTCAs and this may be influenced from the way their peer or parents react on their different challenges in life.

The second period of adolescence Barret (1996) identifies is the middle adolescence and goes from 14 to 16 years of age and is a period where competence and uniqueness are in focus. The drive to find one's special competence- the abilities and interests that makes a person who he or she is, becomes important in his period.

Adolescence third period, later adolescence, is according to Barrett (1996) the years from 17 to 19 years of age. Here the children begin to strive against personal standards of morality and integrity. They also experience an increased pressure of success in this period. The success is supposed to be in academic, social and financial areas and this might lead to situations where children experience situations where there is conflicts between personal standards and situational demands. Further, Barrett (1996) say that the child understands in this period that there are actual moral dilemmas, where situations sometimes seem to have



more than one “best” response, where there is need to make some kind of personal compromise. The child’s self-esteem is affected by how well he or she live up to own expectations. The recognition of soon being on one`s own and independent, can bring more tension to this period according to Barrett (1996). How the young people cope with the transitions in the adolescent life course is eminently consequential for the adult life course and the developmental processes in this stage of life according to Buchmann and Steinhoff (2017). The use of OTCAs can here be seen as one of the ways of coping with the everyday challenges in the young peoples lives.

Studying the events during childhood and adolescence is said to be important in understanding the nature and effects of life events (Compas, 1987). Adolescence is described as a critical period of psychosocial development, an aspect of which is the process of identity formation. Alongside this, young people also learn the mechanisms of adult personal relationships and find ways of how to cope with different challenges (Meeus, 2016).

This is also the time when they are assumed to develop a stable personality according to Meeus (2016). This is described as a process over the course of the second decade, where the adolescents develop stronger reasoning skills, logical and moral thinking, and become more capable of abstract thinking and making rational judgements (WHO, 2018).

Also, Stroud et al. (2009) describe the period of adolescence as a time of social, academic, cognitive, and physiological changes. The morphological changes in the reproductive maturity also affect the central and peripheral stress response systems in the body and the brain. These stress responses may, in typical adolescents, lead to adaptation to new challenges of adolescence and adulthood. In those adolescents of higher risk this might be what tips the balance over towards stress response dysregulation associated with

depression and other kinds of psychopathology (Stroud et al. 2009). As shown in the literature review it is the children growing up in poorer socioeconomic circumstances who are more likely to develop health issues, in the need of coping with these. When measuring psychological health, one also look for physical complaints, as headache and stomach-pain, which often is related to the psychological challenges one is experiencing (Klepp & Aarø, 2017).

Buchmann and Steinhoff (2017) looks at the connection between how the individual adolescent develop and the opportunities or constraints they experience from the social context they grow up in. These are believed to affect young people's trajectories through adolescence. Child and adolescent development, they say, are not solely driven by age. The recognition of both the impact of social inequality and the structured life course gives hope to properly embedding adolescent development in social context (Buchmann & Steinhoff, 2017)

### **3.1.1 Health challenges**

Being an adolescent and experiencing health challenges has several aspects. Their abstract thinking is not fully developed and being able to see long term consequences from the choices you make, can be a challenge (Kristoffersen, 2012). In many situations adolescents find themselves in, they do not have the knowledge from experience to harvest from. Kristoffersen (2012) also describe the attitude of invulnerability that the adolescents sometimes have, they have thoughts about adults being impossible and that they can manage everything on their own. Their perception of time is not fully developed, and it can be hard to see and understand the future consequences from the choices you make. These young people are in a phase of their life, characterized by growing fast and there are also physiological, sexual, and emotional changes (Holmström. et al. 2014). They are also

becoming more independent in relation to their families, being more vulnerable to behavior codes from peers. In the period between 10 and 18 years of age there are great changes for the young ones (Kristoffersen, 2012). This also affect their relation to family and friends. They are starting to form their identity in this period and they are about to develop a stronger autonomy. They may come in to situations where they need to know when they are in need of help, who to trust and who they can ask for help. Often in this age, Kristoffersen (2012) say they are in opposition to parents, teachers and other authorities, friends become more and more important. As the ability to think in an abstract way develops, according to Christie and Viner (2005) it interacts with adolescents' sense of uniqueness to create an awareness of outcomes for others but a belief in personal invulnerability. They have a feeling of being “bullet proof.” These beliefs can lead young people into taking substantial risks in terms of substance misuse, personal safety, or adherence to treatment. They might believe that negative outcomes will not apply to them. There are tendencies according to Helseth, Christophersen, and Lund, (2007) that the feeling of belonging and the attachment the children and adolescents have to family and friends has the strongest influence on their perceived quality of life.

### 3.2 The socio-ecological model of Bronfenbrenner

Looking at how development is influenced over time by the environments children and young people grow up in, the social context of situations, the people we are surrounded by and the socio-economic positions we are living in, the socio-ecological model of Bronfenbrenner was used, to understand young people`s lives, the influences on them, including in relation to the choices they make and the actions that they do.

Bronfenbrenner (1986) describes the external influences that affect the capacity of families to foster the healthy development of their children. This includes the family norms relating to how to deal with pain and discomfort. Within a family it is either the parents or other responsible caregivers who need to ensure that the child has safe environments to grow up in, and they are also there to make way for a healthy and good development for the child. Bronfenbrenner (1986) focused on the development of the child being seen in the context of the society they grow up in. The family is seen as the first and perhaps the most important scene for development in the children's identity. Through his socio-ecological model he tries to convey a comprehensive picture of all the influences the modern society has on children when growing up. The model operates with four different levels in society which in turn has influence on each other. There are four levels in the model: micro- meso- exo- and macro-level with the child being in the center. The microlevel is the level closest to the child and involves all systems with direct influence on the child. It is not just the closest family, as parents and siblings, but also grandparents, uncles, and aunts. Also, teachers and others the child has direct interaction with, comes in to this level. Bronfenbrenner focuses on the interaction between child and caregiver, which must fulfill to be of good influence of the child development. They will have to adapt them-selves to each other and for optimum development there must be a realistic balance in power between them. Here it is not only focus on the child's own interaction, but also the interaction that the child observes. At the meso-level it is the mutual relations and the communication between the different microlevels that is focused on. The exo-level does not affect the child directly, but it has an indirect influence through the caregivers surrounding them. This might be the caregivers work, friends or activities the caregivers participate in. At the macro-level it is the law, political decisions, and the media amongst others, who again affect the micro-level for the

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child (Helgesen, 2011). These four levels in the socio-ecological model is all a part of the concept of socialization, which will be outlined under.

As Hedmark is a county with many challenges in socio-economic differences (Folkehelseinstituttet, 2017), in this study the model may contribute to some understanding in how the young people are influenced by the context they grow up in.

Steinberg et al. (1982) studied how unemployment affected 8,000 families in California in a longitudinal project. Analyzing data over a 30-month period they revealed that child abuse increased in periods of high job loss. They found that this was confirming the authors' hypothesis that “unwanted economic change *leads* to increased child maltreatment”. Bronfenbrenner (1986) also describe another consequence of parental unemployment. It is shown that in families where the father had been unemployed for several months, the children were susceptible to contagious diseases. There are two possible explanations presented for this; the use of health-related preventions was reduced, due to lower economic resources, and the children were more vulnerable to contagious disease as a response to the higher stress-levels in the family. As shown in this study the parents are reported to be the “models” in how to use OTCAs, and the participants makes a close connection with physical complaint and stress in their lives. This gives an example on how the governmental policies, at the macro-level in Bronfenbrenner`s model influence the micro-level, the family, again affecting the context the children grow up in. According to Bakken (2017), it is the parents that are the most important caregivers in most cases for children and adolescents. The financial, cultural, and social resources of the parents are the platform for the conditions the children and adolescents grow up in (Bakken, 2017).

### 3.3 Socialization and normalization

Bronfenbrenner (1986) tends to talk about “interactions”, a better way of understanding this is to use the term “socialization”. Socialization is the process where people shape and form other people (Thurston, 2014). Interacting with different people and groups is influential in various points in time, shaping the person`s knowledge and beliefs, also influencing the choices they make for themselves. The influences we are exposed to in childhood and the signals children and adolescents get from the different social groups that affect them during growing up, makes impressions that forms the way we think and act

According to Stanley and Stanley (2017) the process of socialization occurs over time, beginning in early childhood. The socialization processes are composed of explicit messages and knowledge also including social support, which may be transmitted directly from parent to child. Socialization may also include less direct forms of information transmission, such as observations of parental physical activity and instrumental support.

Socialization is a dynamic process that involves numerous individuals across many years (Stanley & Stanley, 2017). In this study, young people are socialized in various ways of how to cope with pain and distress, beginning in the home through the internalization of norms. They may, for example, see, taking a pill, as the preferred or more acceptable solution in their daily lives. Viewing the young people in their social networks suggests that parents and young people`s peers, as well as the wider community, including schools and Norwegian society is important to understand. This can for example be related to how the legislation of medicine sale allows these medicines to be very available.

Normalization is the concept of how practices become routinely embedded and integrated into the social contexts, that is to say, whether they become normalized or not (May & Finch, 2009) Using OTCAs to solve everyday challenges may have been

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“normalized” in the context of young people, growing up, seeing the medicines in their everyday life. Also seeing how they are used among family and friends makes them a natural part of their lives and may contribute to the use. Normalization is linked with social norms, both within the family and peer groups as well as the wider society.

Parker, Williams and Aldridge (2002) describe normalization as a multi-dimensional tool, in changing social behavior and cultural perspectives, in this case changing the use of OTCAs in young people. They use smoking as an example of normalization, which at first was normalized in all socioeconomic groups, involving both men and women. This has changed, also in Norway, where smoking is not so tolerable, and their social spaces are being restricted and the habit of smoking is increasingly challenged (Parker, Williams & Aldridge, 2002). Accessibility and availability is essential for the development of normalization, and this is also the case in this study, according to OTCAs.

### 3.4 Medicalization

The sociological concept of medicalization might also be relevant to understanding young people's use of OTCAs. Zola (1972) stated that medicalization is “making medicine and the labels of ill and healthy relevant to an ever-increasing part of human existence”.

The definition of medicalization according to Bondevik, Madsen, and Solbrække (2017) is that it is a process where social problems are defined and treated as medical problems. The debate about medicalization has traditionally been describing how non-medical phenomena has been transformed into medical conditions. Growing up in a society where all “aches and ill`s” are expected to be fixed by a doctor or with medication will possibly contribute to shaping a lower grade of tolerance of pain and illness in people and it may also increase our vulnerability. Bondevik, Madsen, and Solbrække (2017) argue that

there is a need to evaluate the consequences of seeing normal human phenomenon from the illness perspective. Seeing the young people`s use of OTCAs, perhaps feeling tired and not being able to separate this from “pain”, calls for action, using OTCAs instead of a more “non-medical” solution.

Zola (1972) also speaks of the change of the medicines commitment to be focusing on that there are several factors causing illness and the greater acceptance of the concepts of comprehensive medicine. These has according to Zola, expanded so that it can be relevant to the understanding, treating and even preventing disease. Because of this, it is no longer necessary to reveal only the bodily symptoms, but also the symptoms of daily living, habits, and worries.

Svenaesus (2013) seeks to highlight and explore how science, especially medical science, in an increasing way influences our suffering. Why do we need labels in form of diagnosis? Svenaesus (2013) says that the offer to have a medical label on the suffering we get a kind of relief from the guilt and an explanation on why things are the way they are.

In this study the medicalization concept will be used as a sensitizing concept to explore adolescents use of OTCA. Some of the drivers of medicalization, as for example the pharmaceuticalization, can be a great contributor in wanting to market and sell the medicines from the pharmaceutical industry. Pharmaceuticalization is explained by Abraham (2010) as the sociological explaining factors of biomedicalism, medicalization, pharmaceutical industry promotion and marketing, consumerism and regulatory state ideology or policy. This comes under Bronfenbrenner`s macro-level, seeing how the over-arching legislations and large industries have influence on how we act and react.

The power of the physician is described by Zola (1972) as a driver of the medicalization. With the exclusive right to prescribe and also speak of and regulate drugs gives them this influence. In this study the focus is non-prescribed medicines, and this was



not in focus, although the doctor can recommend these kinds of medicine and therefore have an influence that may be of relevance. The greatest increase in drug use over the last decade has according to Zola, not been in order to treat any organic disease, but in treating a large number of psycho-social states. Reflecting on how research describes the reasons for why young people use OTCAs today this is a relevant model for possible explanation. Labelling social problems, coming from the interactions with situations and people, as illness can be a way of making young people into patients. Soldal (2015) describes this as a need of change in attitude in society. Both parents, teachers, people working in health care systems and others need to be aware of how we use and talk about medicine, being models for the younger generation.

In today's society, according to Frich and Fugelli (2006) the media are important mediators for the expectations we have for illness and health. Economic profit is an important motive for moving the borders between healthy and sick. When health is made a sales item, both doctors and the pharmaceutical industry can make a profit on expanding the definition of illness. Marketing illness and diagnosis has become a growing industry and it may change the way we see illness, body and health in its context, due to modern technology (Frich & Fugelli, 2006). If everything is seen like an illness, as an example, the participants in this study describe, they see it as difficult to know if they really have a headache or if they are tired, it may be a part of changing the way we see illness and health. This give an example on how the macro-level in Bronfenbrenner's model has influence over how we view the difference between sick and healthy and the choices we make out from that view.

The need for human improvement can also be a driver of medicalization and this can be a factor in consideration in why these young people use OTCAs. Other drivers of medicalization are said to be a society that emphasizes quick and easy solutions (Bondevik,

Madsen, & Solbrække, 2017). Many of the conditions where the adolescents use OTCAs could possibly be addressed in other ways. The pill is a quick fix and you can continue with the activities you are doing in short time. These issues will be explored with the young people in this study.

## 4. Methodology

### 4.1 Qualitative approach

As this study aims to develop an in-depth understanding of young people's perceptions and understanding of a specific phenomenon this study has a qualitative design. A qualitative approach has a commitment to exploring a social phenomenon in order to understand experiences from the participants' perspectives (Patton, 2015). In this study the researcher aim to understand how young people understand the use of OTCA in relation to themselves, their families and their friends.

Ontology is concerned with the nature of social entities. As a perspective it differentiates between constructionism and objectivism position where the difference is whether the social entities can and should be considered objective entities, where reality is external to social actors, or to be considered as social constructions built up from the perceptions and actions of the social actors (Bryman, 2016). In this qualitative study the focus is to understand the perceptions and views of Norwegian adolescents and this is therefore an appropriate way, and the constructionism is the way to see the adolescents, as social actors.

Constructionism is based on the idea that social phenomena and their meanings are continually being accomplished by social actors (Bryman, 2016). Social phenomena are not only produced in social interaction according to Bryman (2016) but also in constant state of revision. Lately there has also been focus on the researchers own accounts of the social world as constructions. The researcher presents a specific version of social reality which cannot be regarded as definitive. This was appropriate to this project as the focus groups is a

social construct where also the meanings of the researcher and the way the questions are asked has implications for the research findings. The researcher must though be detached and have a commitment in trying to understand things from the young people's perspective.

The knowledge generated by research process is a result of the relation between the researcher and the participants according to Thaagard (2009). The social processes have influence in what is seen as valid knowledge. In other words, this study will try to understand social action, adolescent's views of OTCAs and how OTCAs has a place in their lives through focus group interaction.

### **4.1.1 Sampling**

Sampling in qualitative research typically focuses in-depth on relatively small samples, even single cases, selected for a quite specific purpose (Patton, 2015). The power and logic of purposeful sampling lies in selecting information-rich cases for in-depth study according to Patton (2015). In this study purposeful sampling was used to get the in-depth knowledge of these young people in terms of what the researcher wanted to understand. In this qualitative study 16 to 19-year-old adolescents were chosen, due to that there were not in the researchers knowledge done any qualitative study in Norway, in this age group, on this subject.

The participants in this study are information-rich in terms of their views and experiences about the specific phenomenon that is the focus to this project, namely how and why they use OTCA. Studying information-rich cases gives insight and understanding into this specific phenomenon because it is something that they are familiar with and have directly or indirectly experienced. Given the widespread use of OTCAs among youth, there was assumed by the researcher that, the young people who were recruited, would have some

knowledge and information on the subject. It may be directly or indirectly. Use of OTCAs was therefore not set as a specific criterion for the recruitment.

To get in contact with potential participants for this study, an email was sent to eight different high schools in Hedmark. There were attached an explanation of the study, and an invitation for 16-19 years old to participate in focus groups. The principal was viewed as the “gate-keeper” and he or she could either give permission to or refuse the request. The gate-keeper`s role is extremely important according to Barbour (2005) as they can help organize the groups to optimize diversity in recruitment. In this study the principals of the schools who participated gave the responsibility for the organization of the groups to a teacher, who organized the groups for the researcher. Email established the first contact containing a short introduction of the researcher and the general purpose of the study. This was formed as an invitation for them to participate in the study by giving the allowance to involve a group of students in their school, in a focus group. Four of the school principals did not answer the request, two of them did not find the time for their students to participate and in the end, there was two schools who consented to participate and set up two groups each for this study. These four focus groups were set up by the responsible teacher for practical reasons, so that the researcher had no influence of this. The criteria given to the teacher in advance were that the participants should be between 16 to 19 years, and mixed, in terms of gender.

Three of the groups were a mix of gender and only one of the groups were only girls. The teacher had been given the request for groups from four to six participants. There were five participants in three of the groups, and seven participants in one group, a total of 22 young people. Two of the groups were studying vocational subjects and the two other groups were from more theoretical studies. All of the participants were in the third year of high school and were 18 years old.

In the reply from NSD it was recommended that the consent form for the student also should be sent to the schools so that things were ready to present to the students. The high school students were informed that participation was voluntary and the criteria for taking part in the study were being 16- 19 years old. Both the mail that was sent to the principals and the consent form for the adolescent are presented as appendix 1.

#### **4.1.2 Data collection method: focus groups**

Before going to the field, a pilot study was performed to test out the data collection method, which was focus groups. This also allowed the researcher to “test” the organization of the focus groups and plan how to run them effectively. A semi-structured focus group guide was developed as a base for the discussions in the focus group. Meeting the participants with an open mind is important according to Malterud (2012). Using a semi-structured guide with a few open questions, should activate associations in the participants encouraging them to share their stories. The researcher must be prepared to follow this up and perhaps ask questions not planned for (Malterud, 2012). This was done in this study and the researcher had to improvise and find the follow up questions from what came up in the focus groups. The most important was the views of the adolescents. The researcher asked follow-up question in between if somethings needed to be clarified.

The schedule for the focus groups and the questions prepared for this were tested on a group of four boys, who were 16 years old. These boys were good friends, from a school not included in this study. One of them was related to the researcher and the others were peers of his. These boys spoke well together, as they knew each other in advance. The findings of the pilot study made it clear to the researcher that the questions had to be adjusted to be more open and this was discussed with the supervisor for the project. There was also one of the questions that was eliminated because it produced too much repetition

compared to one of the other questions. The experience of the pilot study also generated the awareness of the need of follow-up questions and the need for a facilitator to help organize the groups. The revised focus group schedule and the questions can be found in appendix 2.

It is always desirable Bryman (2016) argues, to conduct a pilot study before carrying out any study. Not only to ensure that the questions work well, in other words, generate rich detailed data, but also to ensure that the research instrument overall works well (Bryman, 2016) in that data are generated that have the power to illuminate the research questions. Also piloting a focus group schedule, can give the researcher experience, and help support their confidence, particularly when they have not carried out any qualitative research before, as was the case in this project.

### **4.1.3 Using focus groups**

Focus-groups are a cost-effective way of collecting data (Patton, 2015). Using focus groups in this study was helpful to collect rich data. When you want to explore phenomenon about experiences that people share with others, perceptions, and understandings in an environment where people cooperate, focus groups are a suitable research method according to Malterud (2012). Since this was a small study with limitations in both time and finances this form of data collection allows several people to share views at the same time. According to Smithson (2000) using focus groups gives insight into public discourses on a set of issues, their views expressed when with peers. These might differ from more private views, expressed in individual interviews.

Furthermore, the participants get a chance to consider their own views in the context of the other participants views (Patton, 2015) and this is where it would be possible to generate the richness in the data. Typically, Patton says, a focus group is conducted in an

enjoyable and comforting way, to make the participants share from their own views, experiences, and perceptions. Malterud (2012) also say that focus groups can mobilize associations, where the dynamic of the group stimulate to make the participants share their views and experiences.

The aim was to have six participants in each focus group, and that they would know each other so that they would be able to communicate in a relaxed and comfortable way. To be able to call something a focus group there must be an obvious interaction between the participants according to Malterud (2012). The recommendations are to have more than three participants to ensure diversity of data on the phenomenon that is studied. To get enough and secure the variation in data, at least four groups would have been needed. It was conducted four focus groups with five participants in three of them and seven participants in one of them. The interviews were conducted in school time, when the school nurse was present. This was to provide someone the young people could talk to if anything was discussed during the focus group, that they wanted to follow up confidentially with someone at the school.

The focus groups were scheduled for about one hour. The participants were encouraged to relax and to see the focus group as a regular conversation. The focus group was conducted in Norwegian and the transcripts were subsequently translated into English to allow discussion with the supervisor of the project. The researcher asked the participants to introduce themselves and to say something about the school and the studies they were taking. This was done to “break the ice” and set a good atmosphere for the discussion.

The focus groups were performed in the school environment and the researcher and the moderator (another masters student) came to the school in good time to be prepared for the focus groups. The room was prepared by the researcher in advance of the focus group, so



that the participants were sitting in a way that they all could see each other and by this be stimulated to take part of the discussion. To be able to better interpret and transcribe the data when collected, there were set up a map over where the participants were sitting. The moderator drew a map with the placements of the participants and, they were given numbers, so the researcher could know who was saying what in the audiotape, when transcribing. The participants were informed before the focus group started, on the purpose of the study, and their voluntary participation. They also had time to read the consent form. The researcher provided some fruit and juice to make the participants feel comfortable and to get a relaxed atmosphere. To get familiar with the group setting the participants got the opportunity to talk about general things, to make them relax and feel comfortable in the group. Patton (2015) also point out that the interaction between the participants is a way to secure data quality.

Patton (2015) describes diversity-focused groups as a way of comparing perspectives in a group of people with diverse perspectives and experiences regarding one issue. This was seen as useful in this study as the aim was to understand the place of OTCAs in young people's lives and how they perceive the reasons for the extended use. Bryman (2016) says that sample sizes in qualitative research cannot be too small, this makes it difficult to ensure data saturation. Data saturation is reached when the data collection does not generate any data, according to Bryman (2016). This was not easy to evaluate in this study as the sample size was relatively small, due to the challenges in recruitment.

The participants were high-school students 16-19 years old without any further selection criterion, so that there may have been included in the sample young people using OTCA weekly or even daily. There may also have been those who did not use these medicines at all. This was done to get the general views of young people, and not only the

views of the youth using OTCA, that may have generated a different result. The focus groups should be homogenous in terms of background and not by attitudes according to Patton (2015). The homogeneity in the group of students was being young people from the same district, at the same age. Their educational pathway was diverse, this was random and not planned for. The groups were pre-set by the teachers in the school, so the researcher had limited influence on this part. When contacting the schools there were asked for friendship groups, or groups of young people the teacher knew spoke well together. They had different views to contribute with being individuals with different experience from life.

The group dynamics also enhance good data quality by the interactions of the participants according to Patton (2015). There might come silent moments and the researcher can experience that people are avoiding some topics. Here Patton (2015) says that this also can generate fruitful insights. The limitations in using focus-groups can be (Patton, 2015), that the number of questions you can ask is limited, given that all participants must be given opportunity to respond to each question. This was planned for in this study and the adolescents were informed about this before the session started.

The researcher was also aware of the responsibility to let everyone speak so that one or two more outgoing adolescents did not dominate the situation. In this study the researcher used some of the silent moments that came up to ask the less outgoing participants on their views, to get them into the conversation. This can be dealt with according to Smithson (2000) by making the focus group homogenous in terms of age, sex, experience, and education. Those who realize that their opinion on topics are in a minority, must be taken care of and encouraged to speak. This was in focus in these sessions, as some of the participants were more silent than the others so that the researcher tried to ask them directly on their views. In all the focus groups there were some of the participants who spoke more than the others, there were though, set opportunities for everybody to contribute. The

atmosphere was joyful, and it seemed that laughing took some of the tension away, making the conversation easier. When the focus groups were finished the researcher thanked the participants for taking part in the study and reminded them that they were able to withdraw their participation any time before the dissertation was published.

#### **4.1.4 Analysis of focus groups**

Braun and Clarke (2006) state that if we do not know how other researchers went about analyzing their data, or what assumptions informed their analysis, it will be more difficult to evaluate their research. Comparing and/or synthesizing it with other studies on the topic can also be more challenging. It can also possibly be a factor stopping other researchers carrying out related projects in the future. For these reasons alone, clarity on process and practice of analysis is vital and for these reasons the process in this study is described below.

In this project thematic analysis was used to make sense of the qualitative data. Thematic analysis is according to Braun and Clarke (2006) a method used in identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes the data set in (rich) detail. An additional aim of thematic analysis is to move beyond description to interpretation, which often involves a degree of theorizing. It is a widely used method but Braun and Clarke (2006) say that there is no clear agreement about what thematic analysis is and on how to do it. The important thing is (Braun and Clarke, 2006) that the theoretical framework and methods are compatible with what the researcher wants to know, as reflected in the research questions. Thematic analysis is not wedded to any pre-existing theoretical framework and can be used within different theoretical frameworks. In

this study the sociological concepts “medicalization” and “socialization” were used to understand the data. Bronfenbrenner’s socioecological model was also used to make more sense of what was found. The adolescents transition was also a concept used to understand the process the young people go through on their way to adulthood.

In this study the researcher got familiar with the data collected when transcribing the audiotapes. This was done verbatim, that is to say, exact word for word, including interruptions and silences also identifying who was speaking. When this was finished the data set were separated in columns to make it easier to extract the important items in the text to better organize and interpret them. This was followed by coding the materials to better understand what they could mean, giving names (labels) to the extracts. The researcher then searched for patterns in the data items, starting with one focus group and these were again compared to the other groups and used to find preliminary categories for the analysis. When this was done the researcher got back to the transcribed material to see how the themes followed the data set.

There was also a comparison between the transcripts to look for similarities and diversities, to help formulate the themes. A detailed analysis was conducted for each theme. The themes who came out of the analysis were used to extract relevant parts of the transcribed material that was used to present the findings. The themes and the process around this were discussed with the supervisor of the dissertation. The themes were later revised, involving merging some themes and creating other themes. There was a commitment to lift the analysis from descriptive to focus on more abstract ideas that reflect theoretical concepts. As one example here is the theme “need for a quick fix” was developed to reflect the idea that young people in the 21<sup>st</sup> century live busy and challenging lives. In focus groups the extracted quotations often relate to portions of dialogue rather than one person’s voice, although the latter is sometimes used in illustrating the findings. The themes

are there for strongly linked to the data itself. This findings chapter will go into the details on this.

## 4.2 Ethical issues in research

According to Smith (1995) the understanding of ethics in research is not just a study of the theory, but also includes an understanding of the applicability of ethics to real world situations. This was taken care of in this study by the researcher and will be described in this section.

Approval from NSD was obtained before contacting potential participants. The letter of approval can be found in appendix 3. The participants in a research project shall always be treated with respect (The Norwegian National Research Ethics Committees, 2014). In this study some of the participants could have been minors and if they had been, it would have been important to inform their parents about the study. 16 year old's can decide for themselves whether they want to participate or not in the study. Parents of the participants that has reached the age of 18 will not be informed as they are adults and decide for themselves. In this study the participants all were in third grade in high school and had turned 18 already. This made it unnecessary to inform the parents.

A research project shall also aim to have good consequences and the researcher must ensure that any adverse consequences are within the limits of acceptability. The researcher has an independent responsibility to ensure that the research conducted is of benefit for research participants and relevant groups, or the general society. This study has the intention of seeking information that can help in understanding why adolescents use and

perhaps over-use OTCAs. The researcher shall always work with recognized norms and be open and honest towards colleagues and the public.

Bryman (2016) says that there are four main ethical areas a researcher must consider in doing research. First Bryman (2016) says that it must be considered whether the research can harm the participants. In this study, conducting interviews with adolescents, the researcher had to be aware of that there could be vulnerable individuals in the groups. In this study it was planned for back-up in the form of a school nurse who could take care of the participants if sensitive and disturbing things came up. The school-nurse was seen as a resource and data collection was performed on days where the nurse was available at the schools. The focus groups were conducted in their own known environment and they were able to discuss the OTCAs use without mentioned their own use, unless they wanted to. The participants was also informed of their anonymity in the data collection, and also that the school would not be mentioned by name.

The second area to be considered according to Bryman (2016) is that the participants must be offered the opportunity to give their informed consent. The consent form in this study was given to the participants in advance, also containing an information on what the study was about. They were also given time to read it and consider the meaning of it. The participants were informed on that they were able to withdraw at any time. As third area Bryman (2016) say that the researcher must take care, so the research does not invade the participants privacy. The student was also asked to avoid speaking about family and friends in a way that could reveal personal data from a third part. They were asked to speak of their friends as “a friend of mine”, and family members as “one in my family”. Transgression of privacy is not regarded as acceptable as it constitutes a potential harm to participants. The consent forms the participants were given to sign only ensured the researcher information on the specific area that were in focus in the research project.

The fourth area Bryman speaks about is deception. Deception occurs when the research is represented in a manipulated way, so that the participants are being cheated. This was in focus when the researcher transcribed the audiotapes, taking care of that everything was transcribed verbatim. Although in order to be able to cooperate with the supervisor of the project the transcripts were translated in to English.

## 5. Findings

### 5.1 Introduction

As the aim of this study was to develop an in-depth understanding of Norwegian adolescent's views and perceptions of the use of over-the-counter analgesics, amongst themselves and their peers, the findings will be presented under five different main-themes that came out of the analyses of the data-set. These themes will explore their experiences of using OTCAs and, how their use has been shaped by family, friends and others, by the influences they are exposed to. Understanding the place OTCAs have in adolescent's lives will particularly be explored. The findings will be presented with some quotes from the data-set, to get a better view of the discussions in the focus groups. The focus-groups were conducted in Norwegian and the quotations used have been translated into English. This can possibly influence the order of the words to better fit the used language. There will be no names of the participants in the results section, to protect the anonymity.

### 5.2 The need for a "quick fix"

The use of OTCAs was described as very various. The participants experienced that there was always someone who had Paracetamol or Ibuprofen in their school bags. One of the participants told about a friend who even looked forward to becoming 18 so she could buy these medicines for herself. It was also described differences in access in their homes and how their parents saw the use of OTCAs. The question if someone had some OTCAs accessible at



school was said to be rather common. In focus group number three the discussion around this was as follows:

Participant 3: many youths take OTCAs at once they feel some headache, while others wait a very long time before taking it. So that it is very painful before you take it.

Participant 2: what you see is that a lot of youth is using them, a lot. It is very easy to take it, just to get rid of...

Participant 3: I think there might be a habit behind it, that it is, they feel a little headache and think that I'll just take a paracetamol, instead of waiting a while and see if it might pass...

This was also in discussion in the first focus group:

Participant 6: I think youth take OTCAs too often, that it is a little bit too easy to take paracetamol and stuff...

Moderator: you think it is too easy then? Taking these kinds of medicine?

Participant 6: yes absolutely...

The use of OTCAs amongst a lot of young people was described as "once they feel a little pain they pop a paracetamol, like..". The reason for this was given the need to be able to finish the school day and that it was to everybody's benefit that one could continue functioning in whatever was going on. In the third focus group this was said:

Participant 4: I think this is the problem, I mean we go to school, we have things going on all the time... I think OTCAs is an easy solution in a way. In stead of...yeah if you don't have time to take a walk, not time to sleep or relax like... you just take paracetamol, to ease the pain...I think.

Participant 5: we are also kind of used to have easy solutions for everything, like...not related but...if people, instead of working out, get surgery to get the body they want, like... We expect to get an easy solution to everything today. So instead of actually taking a walk I pop a pill instead....

This describes the need for an easy solution or a “quick fix” in the young people’s lives. The need to be able to keep going, continuing their busy lives. Not getting enough sleep, busy with work from school and the need for more physical activity and being outdoors were parts of why they meant they needed the OTCAs.

Another description of the need for a quick fix in the first focus group described a friend that “ate pills as if it was candy”. This person had a very low barrier for taking pills and the reason was said to be pain in the spinal cord:

Participant 5: he had some back pain and set the barrier for taking pills very low. I think this is the case with some youth too, my experience is that they are having very low barriers for taking pills...

Moderator: you think it is too easy then?

Participant 5: yes...it is so easy to go to the cupboard and take a Paracetamol when you feel a little bit of pain in the back of your head...

There were discussed that there is a very low threshold for taking OTCAs and that there may be a habit behind it because they had always done it like this. Observing how parents and peers also used OTCAs as a solution were said to have influence. Although the OTCAs were used as a “quick fix” the participants knew there were other things that may work to get rid of headache, for example. Taking a walk, or sleeping was talked about as good alternatives one could use. The common understanding of this was that young people are busy and there is no

time to get the extra rest or sleep, taking a walk to get fresh air was said to be challenging during school hours due to that they were obligated to take part in classes.

Some of the participants also said that they took OTCAs to cure their “hang-over”, and that this was very common amongst their friends. In the first focus group one of the participants said; “ I know that a lot of my friends, as soon as they have a bit of hang-over, they hurry taking some paracetamol and go back to bed, like...”

There were participants making the connection to other easy solutions in terms of health/wellbeing. Instead of making the effort of exercising and changing the way we eat, in order to have the body that is desired, people pay for surgery, to have a “quick fix” of their “problems”. This was said in comparison to taking pills, to show that society is changing in this direction of having easy solutions for everyday challenges.

### 5.3 Something that is always there

In all the groups the participants talked about Paracetamol and Ibuprofen as “something that is always there”. All of them had the experience that it was available at home in a regular cupboard and that they saw it as “normal”. Parents were the main source of access and siblings and friends were also mentioned. The participants in this study all were in third year of high school and had the possibility to buy OTCAs for themselves. They were aware of the age limit, this is illustrated below. The participants said to be asking their parents for OTCAs or at least tell them that they were taking these medicines if needed. As they were becoming more independent they gradually administrated the OTCAs for themselves. If there was a need for OTCAs during the school day all they had to do was to ask someone in the class room. There

would always be several people that had these medicines in their school bags. The easy access was also discussed in the groups and the participants commented that the availability in ordinary convenience stores was a factor that could tell people that this was of no risk in using.

In focus group four this was said:

Participant 5: there are like no limits for, it is like, so easy to take it, easy to get a hold of and...there is no problem. If you should need it. There is no warning or... that`s what I think.

Participant 4: yes at least for us over 18 but, it is as simple as just buying it, but I`m sure most of the house-holds have it, Paracetamol...in a cupboard...

Participant 3: It`s available in all the grocery stores and, they are like open from 07.00 to 23.00, so you dont`t have to go to the pharmacy or anything, in that way it is very easy to get a hold of...

As the medicines were just laying around in the homes, in cupboards being without locks and they were to buy in a regular store the participants meant this was sending signals of “no danger”. This was also discussed in focus group two :

Participant 4: I think the grownups think a little like us, the do not necessary know so much about it, so they do not actually reflect upon it.

Participant 1: As with us the grownups surely also think that, there cannot be any danger in using this as you can buy it in a regular store...

The easy access was also seen as a factor that influenced the use. One of the participants in focus group four said: “I`ve got a member of the family who has had a lot of trouble with the back, and OTCAs has always been accessible. I`ve in a way grown up with it, that it is always there...”

One of the participants said she had been “shocked” by the age limits for buying OTCAs the first time she tried. “ I like...What? I didn’t understand a thing.. It has always been so available, so I was not aware of this”

Being obligated to show you were old enough to buy OTCAs could also bring some challenges for the young people. One of the participants had experienced coming to the store without her identification and therefor been denied buying OTCAs. This was problematic for adolescents who are living by themselves, when they were sick, and no one could come and buy OTCAs for them.

Availability in school were seen as granted for, if not amongst their friend one could always ask in the school administration, the participants in focus group three spoke of this :

Participant 1: it is easy accessible here, but more amongst the students, because if you go to the administration it not so easy to get any...

Moderator: what are the criteria for getting OTCAs in the administration, do you need to...?

Participant 1: I’m not quite sure...

Participant 3: you just have to say that you have a headache or say that you need it for pain here or there, then you get it...

Even in secondary school some of the participants meant that the access from the school administration was easy, although they knew about the rules for a written consent from the parents to be able to get OTCAs in school.

In all the groups the need for more information to young people about OTCAs was talked about. The participants felt that they had too little knowledge and that no one had told

them anything about the possible risk in using OTCAs. In focus group three the participants said this:

Participant 1: ..yeah, I think maybe the school nurse could have said something, she talks about everything else, could have said something about this too...

Participant 4: yes, like why not?

Participant 5: yes, as it plays a big part in our lives..

Participant 3: when we know how often it is used, it had been in place to get some information about it, because a lot of people take it.. all the time. And that is not good... taking as much as we young, or young people do now. . It is used all the time as a solution for everything. For a lot of people....

One of the other groups suggested that it should have been campaigns with information on OTCAs, as for smoking and drinking. To make young people aware of that using OTCAs is not without risk. One of the participants in the third focus group said “you know scaring little about it, being everybody has it at home, like...” There were said from several of the participants that more information would have effect on the actual use of OTCAs. Thinking that increased awareness of possible side-effects and risk would make it less likely that adolescents saw this as the first choice.

## 5.4 Knowledge of OTCAs.

This theme will describe the familiarity that adolescents had with OTCAs and reveal their knowledge gaps about these medicines. All the participants had some knowledge of OTCAs and reasons for using it. For example, headache and fever were mentioned in all the

focus groups. Some of them also knew that Ibuprofen has an anti-inflammatory effect, and that it is mainly used for muscular pain and menstruation discomfort. The groups all said something about Paracetamol as a medicine used for headache. Differences in strength and dosage were discussed and the participants had different views and experiences with this. There were mentioned the difference in strength and how the medicines should be distributed through the day. It was also talked about that some of them believed that paracetamol was the stronger medicine and that it “lasted longer” than ibuprofen.

The participants all said their main source of information of OTCAs was their parents. They had been told when growing up, when to take OTCAs and why to take them by their mother or father. The pattern was transferred from grownups in near family to the young people. In the second focus group one of the participants said this:

“..we don’t get so much information really, not everybody reads the information on the package or, the instruction belonging to the medicine. You always hear from your parents when you are little, that taking a Paracetamol helps...If you are in pain, like, and then you don’t think a lot more of that....”

Although the knowledge of what medicine to use for different reasons mainly came from their parents, others in the family, as older siblings, uncles and aunts, were also said to be used as sources of knowledge. The internet was also a source for finding information for the young people, although they were aware that they should not google their symptoms, to find out what their problems could be. There was also talked about reading the package information to get information on the OTCAs.

The possibility of going to the school nurse was not a natural option for most of the participants. This was discussed, and the participants had not thought about the possibility for

seeing the school nurse. The fact that she was available only one day a week was seen as one reasons for this. They also said that the school nurse only was an advisor, and not necessarily of that much help. The participants meant that the doctor had better knowledge on medicine and therefor preferred to see them. It seemed more natural to see a doctor than going to the school nurse. Some participants reflected on that going to a doctor for what they saw as “minor” complaints were a waste of the doctor’s time.

Using internet as a source of information was discussed and the participants were aware of that this could be a less trustworthy source, not knowing how to separate what to trust as “real” knowledge. They also discussed that using google to find out what different symptoms could make you feel even worse and possibly think that you might be seriously ill.

A common understanding that came out in all the groups was that OTCAs are physically addictive and that the use of them creates a kind of immunity to them. Saying that the medicines stopped working if you used a lot of them. The participants also stated that they thought they knew too little about how to use the medicines and what the consequences might be in taking too much or too often. There were also several of the participants who thought that OTCAs was not very harmful, not even in high dosage. The adolescents did not seem to be familiar enough with the differences in strength in the OTCAs. One of the participants described that she had taken several tablets from two different kinds of OTCAs without making sure that it was safe.

In all the focus groups there were some awareness of that there can be risk in using OTCAs. Most of the participants had some knowledge in liver damage due to Paracetamol and several mentioned that taking to much could be dangerous. Kidney affection was also mentioned by several of the participants.



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The possible danger in taking too much OTCAs seemed to be of some awareness in most of the participants, several of them had heard of or knew someone that had deliberately overdosed to try to commit suicide. In the fourth focus group this was discussed:

Participant 1: ...you need to take a lot, for a long time, until it will do any actual damage but, you can overdose on most things, if you just take enough...

Participant 5: if you take a very lot at the same time, it is not very good...

Participant 4: no, you can actually die...

Participant 5: you have heard of people trying to kill themselves with paracetamol...

Participant 1: you need to take a great deal of them, they are not that strong, but in large amounts it of course different...

Some of the participants seemed to doubt the danger in taking a lot of OTCAs. This was not the common perception amongst the participants.

There seemed to be a good understanding in all off the groups that combining alcohol and medicine is not good. Although there were mentioned that some young people had experienced that youth sometimes used OTCAs to “increase their high”. This was seen as youth crushing pills and then sniffing them to get the expected effect from this. There was no one that knew if this had any actual effects.

Knowledge of alternatives to taking OTCAs to cure hang-over came out in the groups. It was talked about that drinking water and sleeping was better than taking pills.

The possibility of a placebo-effect of OTCAs also came up in the group discussions. Thinking that a pill would have an effect made people believe it works and this was seen as a psychological effect.

## 5.5 Reasons for using OTCAs

There was a common understanding in the focus groups that there are a lot of pain amongst Norwegian adolescents. There was always someone who could not take part in the gym class for various reasons. It was mentioned menstrual discomfort as one of the known usual reasons for not participating. Headache from concentrating in school hours were a common theme in the different focus groups as a reason for using OTCAs. The participants all said that there is poor quality of the inside climate in the school and this was reported to be a factor of discomfort during the school day. Also using computers in learning was said to be a cause to headache. A discussion of this in the third focus group was:

Participant 3: I think a lot of the cause to people using it is because of the school...many people develop headaches when they concentrate over time. Then we also know that you always get a little headache when you are working and that it is kind of irritating so that...cannot concentrate good enough so then you think that if you just take a Paracetamol or an Ibuprofen it goes away...

Participant 4: but you do not actually have a headache, you are just tired, in a way...

Participant 2: it is a mix of that and poor air quality as well, if you don't get good enough air you will be kind of tired and feel heavy and... and I think it may be a reaction to that, ok, I will just take a Paracetamol or an Ibuprofen and it will go away..

Participant 1: I think many do struggle to separate this, like you said that it is kind of, you can be tired and you can feel heavy-headed and stuff and then... if it has been much one day then you just take a Paracetamol and think that then it will be fine...kind of...

Being in a room with poor quality of air over time seemed to be a factor that most of the participants thought were a cause of headache and using OTCAs. Being obligated to take part in school hours made it difficult to get up and move around, going out to get some fresh air was possibly disturbing for classmates and teachers. Also, the use of computers and lack of activity was mentioned. Being able to get out and move around was said to be a better solution to this than taking pills.

It seemed to be a common perception that young people get too little sleep, developing headaches during the school day and this was given as a reason for taking OTCAs. Also taking OTCAs when you have pain, to be able to sleep through the pain came up in focus group 1; "...or if I am in a lot of pain I usually take paracetamol to be able to sleep. But I think that is easiest when you are in pain.. it takes time for it to away anyway and then I think it is better to just sleep through the waiting. Rather than being awake and in pain. You don't notice the pain when you are asleep...."

Not being able to separate headache from tiredness and getting headache from being tired was mentioned. Also, in the relation to being "hung over", getting up in the morning to take some pills to be able to sleep it of was talked about as common in young people.

The possible connection between the impact of psychological distress and physical pain were also mentioned by several of the participants and this was said to be done in hope of that it should help. In focus group four one of the participants talks about this: "I think that if you got that attitude that you use it as soon as you need it, so then it is that creating the

addiction like,.. hoping it will work...You have hope that it will work more on your mental state than the physical need for it... “There were said that a lot of young people struggling with their mental health and that this might be a reason for taking OTCAs, as they thought it would help.

Acute bodily pain caused by damages from physical activity was not seen as a reason for using OTCAs, suggestions here were, as for example; “ lay your legs high if you have a stretch or a sprain in the ankle”. Another example here was one of the participants had an inflammation in one of her arms, waiting very long before taking any pain releasing medicines.

## 5.6 Influences on attitudes

This theme describes the way the young people see the way their attitudes to using OTCAs has been shaped and how they see the easy access in relation to use of OTCAs.

The knowledge and attitudes towards the use of OTCAs were mainly coming from the easy access and the availability in the young people’s homes. The fact that it was “always there” and “just laying around” were of the things that came out as reasons for how the young people see the use of OTCAs. The participants talked about their parents as also doing what they had learnt. The parents did the best they knew out from the knowledge they had gotten from their own parents and so on. The influence from parents was discussed and it was seen as if the parents used OTCAs as an easy solution, this was seen as the way of solving things also by the children, learning from their parents. There were also other family members influencing how the young people saw the use of OTCAs. There were those who were asking them for advice, others who said they were observing the use of OTCAs and this was contributing to their views. This was talked about in focus group four:

Participant 5: ..if I have a real headache my mother tells me to take paracetamol. She has always said that, as long as I remember,,,

Participant 4: yeah, they have, like, made sure we have not taken too much like... But if they see that you are in pain, like, its ok to take paracetamol...in a way..

The participants said that discussing OTCAs use with friends were not a common thing, they just took them, and no one seemed to think much of that. OTCAs was something someone always had in their school bags and in this way, it turned out as “normal”. Seeing peers often using OTCAs was part of the “normalizing” around the use of these medicines.

The OTCAs being available in regular stores were sending signals to the young people, that there was no danger in using them. There was also an awareness of that you only could buy one package at the time, and this was commented in one of the groups as “you can just go from store to store”. They also reflected upon that the age limit could say something about that there was a possible risk in using them. Also, the lack of societal information was discussed as reason for why people did not see the risk in taking OTCAs. There were discussions on the lack of information in school and this was compared to the information about alcohol and smoking. The participants also talked about that people see alcohol and tobacco as more harmful than they saw OTCAs.

## 6. Discussion

The aim of this study was to understand young people's use of OTCAs and their own perceptions of these medicines and why young people use them. The research questions guiding the research process was as follows: 1. What knowledge and experience do the young people have of using OTCAs? 2. How are OTCAs a part of the young people's everyday lives? Both research questions were developed to understand how young people thought about and used OTCAs. Although the findings in this study indicate that adolescents do not have enough knowledge about OTCAs and that this is something they have a need to know more about, the most important finding is that OTCAs are a significant part of their everyday lives and that they are used for a diverse range of reasons, both physical and psychological as well as social.

From the young people's perspective OTCAs play a big role in their lives, and their use is very common. This is concluded with, on the basis of the young people's own statements about the low threshold young people tend to have for using OTCAs and how they describe their use. Knowledge about the life experiences of adolescents who frequently OTCAs may be useful to prevent health problems. The findings in this study are discussed in the light of previous knowledge and the theoretical framework that emerged as appropriate from the data. Limitations of the study and suggestions for further work will be presented and also the implications the finding have for public health.

## 6.1 Discussion of the themes

### 6.1.1 Easy solutions in a busy life

The findings in this study indicate that the young people that participated are living busy lives where the need to be able to function and to “keep moving” was important to them. Being at school during the day, having things going on all the time puts pressure on them. Taking OTCAs was described as the easy solution to keep functioning and being able to fulfill their plans, not wanting to take any “time out”. Barret (1996) describes this third period of adolescence as time of increasing pressure to be successful a pressure which may give rise to the young people needing to cope with challenges and do so by finding easy solutions with OTCAs. Such pressure and challenges are closely connected to the young people’s self-esteem and this reflects how well they are doing academically, socially, and financially according to Barret (1996).

Being exposed to stress in adolescence was also found to be connected to the use of OTCA by Skarstein et al. (2016). Feeling the need to be able to keep functioning was repeatedly coming up under the focus groups in this study and this is according to Skarstein et al. (2016) associated with inappropriate use of OTCA. This is also consistent with the Norwegian study of 10 graders (Lagerløv et al. 2009) where long hours with computers, stress from school and busy days were given as reasons for pain leading to use of OTCA.

This can be seen in the light of the concept of medicalization, where the idea is that young people’s experiences of growing up in a society where everything is expected to be medically “fixed”, makes us less tolerant to discomfort, physical, psychological and social, increasing our vulnerability to challenges. There is a learnt expectation that medicine, in this case the OTCAs, is the solution to, perhaps everything and this is described by the participants

in this study, seeing that some young people, instead of sleeping or taking a walk, “pop a pill...” The important point here is that this gives rise to the use of OTCAs beyond that for which they are recommended. Thus, social, and psychological discomforts and challenges become medicalized and in need of “treatment”.

These findings are supported by Bondevik, Madsen and Solbrække (2017) who also argue that the quick and easy solutions are a possible driver of a more generalized process of the medicalizing of society. The need to be able to keep functioning, in school, work or leisure, makes people reach out for a “quick fix”. Taking a pill to be able to move on is “normalized” and the medicines are a part of the young people’s daily lives.

Buchmann and Steinhoff (2017) argue that how well the young people cope in the challenges that tend to accompany this period of transition, will also tend to have consequences for their responses in their adult lives. Moving towards adulthood the young people become increasingly independent, which includes being able to buy these medicines in the store for themselves from the age of 18. This is where the young people’s learnt actions and habits come to play a big part, having been influenced throughout their early childhood and adolescence. Soldal (2105) reported that girls moving in to adulthood being 15-24 years taking pain-relieving medicines several times a week. This may indicate that, as Buchmann and Steinhoff (2017) say, consequences for adulthood, because habits have been learnt in the process of growing up, by processes of formal and informal socialization.

### **6.1.2 Reason for using OTCAs**

The common understanding of the young people in this study was that they experience a lot of pain. This is in line with what Bakken (2017) describe as many young people suffering



from diverse pain conditions. The most common given reasons for taking OTCAs in this study were headache, stomachache, neck and back-pain and tiredness. Making the link between psychological distress and physical complaints was made in a Swedish study (Berntsson, Kjøehler & Gustavsson, 2001). They were looking at the factors that may be the background for the pain in the young people, finding that the social competence and the socioeconomic state of the family were influencing the level of psychosomatic complaints. In this study the young people meant that some young people take OTCAs because they were hoping it could help ease their psychological state.

The social context young people grow up in will be shaping the form of socialization they are exposed to (Buchmann & Steinhoff, 2017), where children from different socioeconomic backgrounds are influenced by habits from parents with different ways of coping.

### **6.1.3 Shaping of how young people see the use of OTCAs**

Children`s understanding and perceptions on how to respond to different situations and to the challenges they meet, starts in early childhood, as a part of a process of ongoing socialization, and they are influenced by the totality of the context they grow up in. As Bronfenbrenner (1996) describes this it is the nearest family that has the most influence on how the child learn to react and what actions to choose in given situations. If a child sees and hears parents and other caregivers respond to a variety of challenges with taking a pill, in this case OTCAs, the child will learn in this socialization-process, that this is “the right way” of handling the similar situations. It is in this way habits are formed from the earliest of times.

The focus groups revealed that the young people in this study had some knowledge of what OTCAs are, what they are used for and how they should be used. This is in line with what was found in the Swedish study using the same age group (Holmstrøm et al. 2014). Also, in line with this study was the perception young people had that if something had been dangerous with these medicines, they would have known about it. Lagerløv et al. (2009) also are consistent with this and they found that the young people's knowledge of OTCAs was connected to the amount of use.

The knowledge and views the young people had about OTCAs were said to come mainly from their parents. This can be seen in the light of the concept of socialization (Thurston, 2014). These young people had been told by their parents, for as long as they could remember, to take OTCAs to cure their health complaints. These are impressions from the closest social group (family) who form the way we think and act. Family is described of Bronfenbrenner (1986) as possibly the most important scene for development of the personality of the child. Growing up in families where medicine use for a variety of pains and discomforts is normalized will shape this kind of habit. The use of OTCAs is normalized in their lives and therefore a natural choice. This was also described in the focus groups where some of the participants said to have "grown up with it". In this period the young people also become more autonomous and take increasingly more responsibility for their own health (Kristoffersen, 2012) and can choose for themselves, often continuing the habits they have been socialized in to.

Young people in this study tend to believe that OTCAs were "not so strong", this belief being shaped from within the family as well as wider society, growing up with these medicines as a natural part of everyday life. Being accessible in convenience stores, gives signals that that there is "no danger". This also illustrates how beliefs about the appropriate use of OTCAs are shaped both within and beyond the family, through processes of normalization. This can

also be seen as influences from the macro-level of Bronfenbrenner`s model, penetrating the micro level of family and school life.

The participants in this study were more likely to be reading the information following the package of the OTCAs and getting some information from this. In convenience stores there are no personnel, with knowledge of OTCAs and therefore cannot give advice on the use of OTCAs. Helseth et al. (2009) found that the young people in secondary school were more likely not to read the package information. This may indicate that as young people get older they may be more likely to take some responsibility for their own information needs (Barret, 1996).

## 6.2 Limitations and suggestions for further work

Like any small-scale research project carried out in a specific timeframe and with limited resources there were a number of limitations, which are important to discuss as they may have affected the robustness of the research and therefore the validity of the data. In the first instance, it is important to recognize that the researcher was unexperienced in carrying out research. In qualitative research the researcher is often seen as the “instrument”, in that they have the role of generating the data directly through their own actions. In this case, the role of the researcher in the focus groups was critical in the extent of to which rich detail data were generated from the from the questions formulated. In order to enhance this process, a pilot focus group was carried out. In addition, there was a debrief with the supervisor after the first focus group in which it was recognized that creating the right atmosphere at the beginning of the session with some ice-breakers and the need for follow-up questions were needed. On reflection, this seems to lead to richer data in subsequent focus groups. The researcher was also trying to avoid asking leading question, thus influencing the answers of the young people.

If this was not avoided, this may be seen as a potential bias, for this study. Overall, the conclusion is that the young people were facilitated to give their own version of social reality without undue bias from the researcher.

The sampling in this study was purposive and also convenient, in that the teachers set the groups, the researcher had little influence over this. The four focus groups were from two different schools and this spreads the participants in terms of geography. Three of the groups were mixes of gender and the fourth was only girls. There was not any discussion in the groups of gender differences and this could be a weakness in this study, given that much of the previous research report that girls use more OTCAs than boys, also having more health complaints. The mix of gender was not planned for; the groups were set when the researcher came to the schools. There were a total of 22 young people taking part in this study and they had all turned 18, being in the third year of high school. In two of the focus groups the participants were in vocational studies and the other two were studying general subjects. This may be something for future studies to follow up as the answers from the participants showed much of the same, and that the use of OTCAs may be equally “normalized” for everyone. The use of OTCAs tend to follow social groups of lower socioeconomic status and this could be further explored in future work. In this study the researcher knew nothing of the socioeconomic status of the participants. The participants were all Norwegian, two of them probably had parents with immigrant background. This may have had influence on the results, given that people from different countries may have different views on how to respond to challenges in their lives, but this was not in focus in this study. Further studies are needed recruiting young people from different social groups, also culturally diverse and from different areas to explore this further.

Bryman (2016) argue that using focus groups in research has its limitations. One thing he says is the difficulty of organizing the focus groups, making sure everybody meets up. This

was not a problem in this study, as it was done during school hours. Bryman (2016) also speaks of the difficulty in analyzing the transcripts from focus groups. The researcher in this study experienced this, needing to discuss the themes emerging from the data collection with the supervisor several times. The tendency of two or more people speaking at the same time is seen as a possible limitation in focus groups according to Bryman (2016). This may make it difficult to transcribe the audiotapes verbatim and information may in this way get lost. This happened a few times in this study, but the researcher concluded that there were mainly in situations where the participants were making jokes and laughing. It did not have a significant meaning for the findings.

In the Swedish similar study (Holmstrøm et al. 2014) there were shown some of the previous research to the participants to give them an idea of what the questions was going to be about. This was not done in this study, because the researcher wanted the participants to come to the focus groups without being influenced by what previous research had shown. The results of the study may have been influenced by this and it might have generated different findings if the participants had gotten more information before starting the focus groups.

According to Bryman (2016) data collection should continue until there is no new information emerging from the categories. This Bryman says is theoretical saturation. Due to limitations of time and the fact that it was difficult to recruit participants to the study, this can be a possible bias in the findings. Although the focus groups in this study generated a great deal of rich data, the fact that the researcher only got four groups may have implications for the findings. There may have come out different views if there had been several groups. There may also have been new findings if there had been more participants, coming from several different schools. The findings in this study are specific to the participants and can not

necessarily be transferred to the whole population. It is though reasonable to expect that their experiences and perceptions are moreover similar to other young people`s.

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## 7. Conclusion

There is an increasing expectation for good health in the population and this is likely to contribute, alongside other processes, the medicalizing of people's everyday lives. Phenomena occurring in the mind and body, earlier seen as normal variations are, in the light of medicalization redefined as a diagnosis with the need for treatment (Zola, 1972). As seen in this study the young people have grown up learning from different experiences and influences within and beyond the family that there is a treatment or cure for everything, may it be headache, stomachache, unhappiness or just tiredness. Taking a pill has been their learnt way of coping with these things, as long as they can remember, and this is seen as the "normal" way of reacting. As with other ways of coping this is learnt early and as the young people in this study say; from their parents. The children's attitudes towards medicine are socialized in learning from their parents, also shaped by the use amongst friends and the regulations of the law, allowing this to be very accessible (Bronfenbrenner, 1996, Thurston, 2014). This shows how the different layers in Bronfenbrenner's model all have influence on how young people see things and act upon challenges they meet. It seems from the findings in this study that OTCAs have a central role in the young people's lives, being used to be able to "move on" and keep functioning in their busy lives. This is especially the case as they move through childhood towards early adulthood, requiring key decision relating to education, work, family, friends, and other relationships. The challenges of being young in transition is likely to be many (Buchmann & Steinhoff, 2017) and the use of OTCAs is a part of understanding how they cope with these, alongside more widely reported strategies for coping relating to alcohol use and, in some cases, drug use.

The findings in this study support earlier research in that the use of OTCAs amongst young people is high. On its own, the study says something about how the young people keep their views of how they see the use of OTCAs, compared to studies with younger children, and that the use is continuously high, as they move through their way to adulthood. The need for information came strongly out in this study and the participants thought the use could have been different if the knowledge had been better amongst themselves and their parents. However, the evidence from much research indicates that better knowledge is unlikely to lead to changes in deeply embedded habits that have developed over time (Thurston, 2014).

## 7.1 Implications for public health.

What children experience early in their lives has implications for their health as adults. Therefore, life course perspective is a valuable way of understanding population health (Dahlgren & Whitehead, 2009). This means that establishing good habits in early childhood, particularly in relation to the appropriate use of medicines and to use alternative to medication for everyday complaints, is important for future health.

For the future this subject need more focus and, as in the study of Skarstein (2016) about 15-16-year-olds, this also needs to be explored in a deeper level how this develop as the young people get older. Most of the participants in this study expressed the need for more information about OTCAs, comparing this to the information they get in school on alcohol and tobacco. They mentioned the need for this about OTCAs but also on nasal sprays and that this also, they believed, creates a habit that is like an addiction. Their beliefs and perceptions were mainly coming from their parents who they said “didn’t know it was potentially harmful”.



The easy access has also changed how we see these medicines. The attitudes towards these medicines and the widespread use of them may develop into a health-problem the authorities will have to relate to in increasing amounts (Soldal, 2015). How young people see their health and well-being is of importance for the country in general according to Samdal et al. (2016) and this may be a challenge to the public health.

The macro-level of Bronfenbrenner's model contains the regulations of the law, political decisions and such as media, influencing the use of OTCAs. Considering that the sale of OTCAs is allowed in convenient stores may send signals of that it is of no danger to use. One might be able to compare this to the regulation of smoking (Lov om vern mot tobakksskader, 2017) which was set in Norway in 2004, with regulations of not smoking in public places. Not seeing people smoking everywhere and being exposed to tobacco is a way of seeing that if the legislation creates a change in access and use, the people act as good models for each other (Krokstad, 2012). This might also be something to consider in reducing the use of OTCAs. It is the social norms that influence people's actions most according to Krokstad (2012). Seeing what others do and getting a feel for what is "normal" is what influence choice of action. Because legislation varies from country to country, regarding the sale of OTCAs, the social norms who relate to OTCA use may also vary to some degree. Sweden had sale of OTCAs in convenient stores from 2009, but as the there was seen an increase in intoxication with paracetamol these medicines were withdrawn, only to be bought in pharmacies (Høye & Rostad, 2016). This may be something to consider in future public health policies and work, to make the medicines less accessible and therefor less "normal" in the everyday life.

In addition, pain problems often seem to persist in to adulthood. These trends in the health development of young people is a challenge to public health work and to the wider society (Wiklund, et al. 2012).

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Elverum 07.02.18

Elinor Lindby-Aas

Tel.nr 97974613

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Til daglig leder ved....videregående skole

### **Forespørsel om elevers deltagelse i studie.**

Jeg heter Elinor Lindby-Aas og studerer ved Høgskolen i Innlandet. I forbindelse med at jeg skal skrive masteroppgave innenfor folkehelse ønsker jeg å se nærmere på ungdom i Hedmark og deres kunnskaper om og holdninger til ikke-reseptbelagt smertestillende medisin hos dem selv og hos venner. Forskning og statistikk viser at forbruk av denne type medisin øker og at ungdom er en gruppe som står i fare for overforbruk og bruk av den type medisin på grunnlag medisinene ikke er egnet for. Jeg har planlagt å gjennomføre fokusgrupper og ønsker derfor å få tilgang til en gruppe elever, helst 6 stykker, hos dere for en times samtale/diskusjon. Deltagelse er helt frivillig og elevene vil bli bedt om å skrive under på et samtykkeskjema, der de også får informasjon om studiens formål. Elevene må ha fylt 16 år for å kunne delta da studien omhandler norsk ungdom fra 16-19 år. Det hadde vært fint om intervjuet kan settes opp under vanlig skoletid og gjerne en dag helsesøster er til stede, hvis det skulle være behov for oppfølging av enkelt-studenter. Opplysningene som kommer frem i intervju-situasjonen blir tatt opp med opptaksmaskin og det vil bli ført notater. Material som blir innsamlet vil bli oppbevart innelåst og kun veileder ved Høgskolen Innlandet og undertegnede vil ha tilgang til dette materialet.

Om det kan være av interesse for dere å ta del i dette studiet vennligst ta kontakt med undertegnede så fort som mulig på mail, adr. [elindby@hotmail.com](mailto:elindby@hotmail.com)

Kan også nås på telefon: 97974613

Med vennlig hilsen Elinor Lindby-Aas

# *”Understanding Norwegian adolescents use of over-the-counter analgesics. A qualitative study”*

## **Forespørsel om deltakelse i forskningsprosjektet**

### **Bakgrunn og formål**

Mitt navn er Elinor Lindby-Aas og jeg studerer master i Folkehelsevitenskap ved Høyskolen i Innlandet avd. Elverum. Målet med denne studien er å få bedre kunnskap om og forståelse for bruk av ikke resept-belagd smertestillende medisin, som for eksempel Paracet og Ibux, hos norske ungdommer. Resultatet av denne datasamlingen skal brukes i en masteroppgave og opplysninger fra dere, vil bli anonymisert i oppgaven.

Begrunnelse for valg av deltagere er at denne type kvalitativ studie på dette tema ikke tidligere har vært gjort på 16-19 åringer i Norge. Det er behov for utvidet kunnskap om holdninger og kunnskaper hos Norsk ungdom rundt dette tema.

### **Hva innebærer deltakelse i studien?**

Deltagelse i denne studien vil innebære at du aktivt deltar i en diskusjonsbasert fokus-gruppe med inntil 6 andre ungdommer fra din skole. Dette vil ta fra 45 minutter inntil 1 time.

Spørsmålene vil dreie seg om deres erfaringer av og oppfatninger om bruk av ikke resept-belagd smertestillende medisin hos norske ungdommer. Diskusjonen vil bli tatt opp med båndopptaker og det kommer til å føres korte notater.

### **Hva skjer med informasjonen om deg?**

Alle opplysninger vil bli behandlet konfidensielt. Det vil kun være meg og veileder ved Høyskolen Innlandet som kommer til å ha tilgang til de data som samles inn. Opptak og utskrift av datasamling vil bli oppbevart forsvarlig innelåst og skjermet for innsyn. Lydopptak vil bli lagret på personlig datamaskin og denne vil bli beskyttet ved passord. Det vil ikke bli brukt navn på deltagere eller navn på skole dere går på. Data fra denne studien vil bli oversatt til engelsk til bruk i denne masteroppgaven.

Prosjektet skal etter planen avsluttes 25.05.2018. De data som er samlet inn vil da bli slettet innenfor 3 måneder og alle skriftlige dokumenter blir forsvarlig makulert.

### **Frivillig deltakelse**

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli slettet. Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med Elinor Lindby-Aas, tel.nr 97974613 eller på mail. [elindby@hotmail.com](mailto:elindby@hotmail.com) eller veileder for studien Miranda Thurston, [miranda.thurston@inn.no](mailto:miranda.thurston@inn.no)

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

*”Understanding Norwegian adolescents use of over-the-counter analgesics. A qualitative study”*

**Samtykke til deltakelse i studien**

Jeg har mottatt informasjon om studien, og er villig til å delta

-----  
(Signert av prosjektdeltaker, dato)



## Focus group guide

Focus group: this meeting has a goal in getting as rich data from the adolescents as possible.

Diversity in opinion is good and there is not necessary to reach agreement in discussion. No opinion is right or wrong and there is no “correct” answers.

The aim: understanding Norwegian adolescents use of over-the-counter analgesics.

The meeting will be as follows: you will think out loud and discuss between you the topics that we present for you. It is not necessary to ask for permission to speak as long as we let everyone have their say.

If you need to take a break, that is fine.

Participation is as you know voluntary and you can withdraw at any time.

Leading the meeting: the researcher will not comment or try to teach you about the topic in any way. There might be some follow up questions if something is unclear and if the conversation is floating away from the topic it will be lead back. We want everybody to be active in participating and we will be listening and taking notes.

The focus group session is meant to last for 45-60 minutes. It will be audiotaped and there might be need for some notes. We will start with a short presentation with our names.

Are there any questions before we start?

### Questions:

1. Over-the-counter analgesics is for example Paracetamol and Ibuprofen, what do you know of this type of medicine?
2. How do you see your own use of these medicines and how others at your age use them?
3. Where do you and your peers get access to these medicines?
4. What do you know about possible side-effects of these medicines and do you think your peers know about them?
5. How do adolescents at your age know what medicine to take for the certain symptom they experience?
6. Is there any risk of damage, that you know of, in using these medicines?



Miranda Thurston  
Hamarvegen 112  
2411 ELVERUM

Vår dato: 16.01.2018

Vår ref: 57661 / 3 / OASR

Deres dato:

Deres ref:

## Tilråding fra NSD Personvernombudet for forskning § 7-27

Personvernombudet for forskning viser til meldeskjema mottatt 08.12.2017 for prosjektet:

|                      |  |
|----------------------|--|
| 57661                | <i>Understanding Norwegian adolescents use of over-the-counter analgesics: A qualitative study . Forståelse for norske ungdommers bruk av ikke reseptbelagd smertestillende medisin: en kvalitativ studie.</i> |
| Behandlingsansvarlig | Høgskolen i Innlandet, ved institusjonens øverste leder  |
| Daglig ansvarlig     | Miranda Thurston   |
| Student              | Elinor Lindby-Aas  |

### Vurdering

Etter gjennomgang av opplysningene i meldeskjemaet og øvrig dokumentasjon finner vi at prosjektet er unntatt konsesjonsplikt og at personopplysningene som blir samlet inn i dette prosjektet er regulert av § 7-27 i personopplysningsforskriften. På den neste siden er vår vurdering av prosjektopplegget slik det er meldt til oss. Du kan nå gå i gang med å behandle personopplysninger.

### Vilkår for vår anbefaling

Vår anbefaling forutsetter at du gjennomfører prosjektet i tråd med:

- opplysningene gitt i meldeskjemaet og øvrig dokumentasjon
- vår prosjektvurdering, se side 2
- eventuell korrespondanse med oss

### Meld fra hvis du gjør vesentlige endringer i prosjektet

Dersom prosjektet endrer seg, kan det være nødvendig å sende inn endringsmelding. På våre nettsider finner du svar på hvilke [endringer](#) du må melde, samt endringskjema.

### Opplysninger om prosjektet blir lagt ut på våre nettsider og i Meldingsarkivet

Vi har lagt ut opplysninger om prosjektet på nettsidene våre. Alle våre institusjoner har også tilgang til egne prosjekter i [Meldingsarkivet](#).

### Vi tar kontakt om status for behandling av personopplysninger ved prosjektslutt

Ved prosjektslutt 23.05.2018 vil vi ta kontakt for å avklare status for behandlingen av personopplysninger.

*Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.*

Se våre nettsider eller ta kontakt dersom du har spørsmål. Vi ønsker lykke til med prosjektet!

Vennlig hilsen

Marianne Høgetveit Myhren

Øivind Armando Reinertsen

Kontaktperson: Øivind Armando Reinertsen tlf: 55 58 33 48 / [Oivind.Reinertsen@nsd.no](mailto:Oivind.Reinertsen@nsd.no)

Vedlegg: Prosjektvurdering

Kopi: Elinor Lindby-Aas, [elindby@hotmail.com](mailto:elindby@hotmail.com)



Formålet med studien er å utforske og forstå kunnskapen og oppfatningen norske 16-19-åringer om egen og andres bruk av ikke reseptbelagt smertestillende medisin.

Du har opplyst i meldeskjema at utvalget vil motta skriftlig og muntlig informasjon om prosjektet, og samtykke skriftlig til å delta. Vår vurdering er at informasjonsskrivet til utvalget er godt utformet. Vi anbefaler imidlertid at du skriver at datamaterialet vil bli anonymisert ved prosjektslutt, heller enn slettet, slik at du kan ta vare på anonymisert datamateriale.

Slik vi vurderer det, befinner prosjektet seg på grensen av hva som er gjennomførbart med tanke på innhenting av sensitive personopplysninger om helseforhold samt innhenting av tredjepersonopplysninger. Selv om alle respondentene vil være minst 16 år, er det snakk intervju av barn om mulig sensitive data om helseforhold. Basert på tema og intervjuguide, tar vi høyde for at det kan komme til å innhentes sensitive personopplysninger om helseforhold. Vi ber deg derfor være særlig oppmerksom på følgende punkter:

- I følge intervjuguiden ber du respondentene uttale seg om medisinbruk blant venner og familie. Dette er problematisk med tanke på innhenting av tredjepersonopplysninger. Lovens utgangspunkt er at tredjepersoner skal samtykke til bruk eller informeres om bruk av personopplysninger. Vi ber derfor om at du innledningsvis i hvert intervju ber informanten omtale eventuelle tredjepersoner i så generelle termer som mulig, slik at det ikke vil være mulig å identifisere vedkommende. Du kan f.eks. be om at de kun sier "en venn", uten å utdype mer enn det.
- Dersom det framkommer opplysninger om identifiserbare tredjepersoner, gjelder følgende: Det skal kun registreres opplysninger som er nødvendig for formålet med prosjektet. Opplysningene skal være av mindre omfang og ikke sensitive, og skal anonymiseres i publikasjon. Så fremt personvernulempen for tredjeperson reduseres på denne måten, kan prosjektleder unntas fra informasjonsplikten overfor tredjeperson, fordi det anses uforholdsmessig vanskelig å informere.
- Det er særlig viktig å understreke frivilligheten i dette prosjektet. Skolen er en obligatorisk arena, men det skal være helt frivillig å delta i forskning for elever. Det er forskers ansvar å sørge for at deltakerne ikke opplever press om å delta, og at de deltar frivillig.
- I studentprosjekter har veileder et særskilt ansvar for planlegging av datainnsamlingen og god oppfølging av informanter. Jeg setter derfor veileder som kopi på denne mailen. Vi vurderer det som positivt at dere ønsker helsesøster til stede på intervjudagen, slik at elevene skal følges opp dersom det anses som nødvendig.
- Fordi rekrutteringen foregår gjennom skolen, ber vi deg også sende ved en kopi av samtykkeskjema til rektor, slik at vedkommende kan få en best mulig vurdering av prosjektet før det eventuelt forespeiles for elevene.

Det blir i epost fra Elinor Lindby-Aas, mottatt her 15.01.2018, bekreftet at nevnte punkter blir tatt høyde for i forbindelse med gjennomføring av intervju.

Personvernombudet forutsetter at du behandler alle data i tråd med Høgskolen i Innlandet sine retningslinjer for datahåndtering og informasjonssikkerhet. Vi legger til grunn at bruk av mobil lagringsenhet er i samsvar med institusjonens retningslinjer.

Prosjektlutt er oppgitt til 23.05.2018. Det fremgår av meldeskjema/informasjonskriv at du vil anonymisere datamaterialet ved prosjektlutt.

Anonymisering innebærer vanligvis å:

- slette direkte identifiserbare opplysninger som navn, fødselsnummer, koblingsnøkkel
- slette eller omskrive/gruppere indirekte identifiserbare opplysninger som bosted/arbeidssted, alder, kjønn
- slette lydopptak.

For en utdypende beskrivelse av anonymisering av personopplysninger, se Datatilsynets veileder:

<https://www.datatilsynet.no/globalassets/global/regelverk-skjema/veiledere/anonymisering-veileder-041115.pdf>