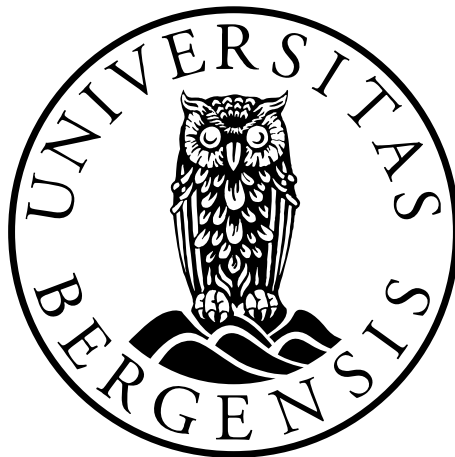# LEISURE CLUBS AS PREVENTIVE AND HEALTH PROMOTING ARENAS

A quantitative study investigating adolescents with immigrant background and their attendance in leisure clubs in Oslo, Norway

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Thesis submitted in partial fulfilment of the requirements for the degree Master of Philosophy in Global Development Theory and Practice, with specialisation in Health Promotion

Spring 2019

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Acknowledgements

I want to thank my supervisor, Wenche Dageid (PhD) for her time and encouragement. I have appreciated your thoughts and our discussions.

Further, I would like to thank Vegard Svagård (adviser at NOVA) for giving me access to Young in Oslo 2018.

I also want to thank Strule Nes (senior-adviser in the Norwegian Directorate of Health) for introducing me to the subject and providing me with new research from the field.

Lastly, I would like to thank my family, especially my sister, brother and brother in law for reading my thesis and giving me feedback.

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Abstract

Background: Attending leisure clubs is the second biggest leisure time activity for adolescents in Norway. Unlike organised sports leisure clubs often has a low or no membership fee, which makes it accessible for everyone regardless of their socio-economic resources. Studies have found that there has been an increase of adolescents with immigrant background who attend leisure clubs, especially in Oslo. These clubs have the ability to reduce social inequality in health by focusing on preventive and health promoting measures.

Objective: This study will examine the characteristics of and the factors that predict attendance in leisure clubs among adolescents with immigrant background in Oslo. In addition, the study will discuss how leisure clubs could be preventive and health promoting arenas.

Methods: A quantitative study was conducted by using the survey *Young in Oslo 2018*. The participants were adolescents with immigrant background in Oslo between the ages of 13 to 16 (N=4708). Descriptive and bivariate analyses (Chi-Square tests of independence and independent sample t-test) as well as logistic regression were conducted.

Findings: The findings showed small differences in the characteristics of adolescents with immigrant background that attended and did not attend leisure clubs. Sex, problem behaviour, bullying, experienced bullying, experienced cyber bullying, perceived resources in local community, substance and alcohol use and life satisfaction predicted attendance in leisure clubs.

Discussion and conclusion: The findings of this study support the assumptions that strengthening communities are important for attendance in leisure clubs. However the study did not find huge differences in behavioural problems among adolescents that attended and did not attend leisure clubs, which could indicate that there is too much focus on the preventive aspects of leisure clubs. The findings suggest a stronger focus on health promotion and implementation of universal measures that have the ability to empower adolescents.

Chapter 1: Introduction

This study investigates the characteristics of adolescents with immigrant background and factors that predict their attendance in leisure clubs in Oslo, Norway, and includes eight chapters. The introductory chapter gives a summary of the history and objectives of leisure clubs in Norway and the study's purpose statement. The second chapter includes a review of youth policy and leisure clubs, as well as characteristics of adolescents attending leisure clubs in Norway. The third chapter addresses the theoretical framework comprising the Social Ecological Model of Health. Chapter four outlines the main objective and research questions of the study and chapter five describe the data and methods used to answer the research questions. Chapter six details the results of the analysis and these results, as well as limitations of the study, are discussed in chapter seven. Lastly, chapter eight includes concluding remarks and recommendations for further research.

1.1 Background

Problem behaviour (including violence, threats, drug dealing and blackmailing) among a small group of young boys in upper secondary school has brought concern to the political parties in Norway. These problems among small groups in upper secondary school seem to become a problem among some adolescents in lower secondary school. Due to this, the Conservative Party of Norway (Høyre) suggested an investment of 30 million NOK to leisure clubs in the most vulnerable districts in Oslo with a goal to develop leisure clubs that are open every day (Mellingsæter, Sørgjerd, & Eggesvik, 2018).

Attending leisure clubs is the second biggest leisure activity for adolescents in Norway (only organised sports have more participants) (Bakken, 2018; Heggelund, Anderssen, & Schmidt, 2017), which should make it an important area for politicians. The recommendation to invest money to expand the availability of leisure clubs in Oslo among adolescents in vulnerable districts suggests that leisure clubs can be an important arena for prevention of problem behaviour. The assumption that leisure clubs are preventive arenas has a long history. The first leisure club was founded in Hammersborg (Oslo) in 1953. Oslo experienced a negative

development of criminal behaviour among adolescent, and leisure clubs were a place to prevent this by providing a safe place for adolescents to spend their leisure time. In addition, during the 70s there were an increase of substance use among adolescents, and leisure clubs were seen as arenas that could prevent the use of illegal drugs (Heggelund et al., 2017). The preventive objective of leisure clubs continued to get attention during the 2000s and the Norwegian Ministry of Children and Equality (2009) suggested that reaching out to vulnerable groups in the society and offering them a place to spend their time, in a safe and supportive environment, could lead to a reduction in problem behaviour among adolescents.

One important factor that might contribute to exclusion of adolescents with low socio-economic resources are leisure time activities that demand high levels of membership fees (Ministry of Children and Equality, 2009). Leisure clubs often demand low or no membership fee, which makes it an important arena for youth policy. In addition, the clubs can contribute to integration of groups with low socio-economic resources because the economic status of a family does not determine adolescents ability to attend the clubs (Heggelund et al., 2017; Ministry of Children and Equality, 2009). This could indicate that leisure clubs have the ability to reduce social inequality in health among adolescents because they offer a safe and supportive environment that includes everyone regardless of their social background.

The Norwegian Directorate of Health recommend that both universal and specific measures be implemented in order to reduce social inequality in health. However, they emphasise the fact that universal measures (that includes everyone in the society) is the most important measure in order to reduce social inequality in health and improve the populations public health (The Norwegian Directorate of Health, 2018). The measures implemented in leisure clubs could be specific preventive programs that aim at reducing criminal behaviour and substance use, and universal programs that focus on health promotion. Two important foundations for leisure clubs ability to be preventive and health promoting are the social political and cultural political aspects, and the influence from the two aspects has shifted based on the political parties in charge and their priorities (Heggelund et al., 2017). The social political aspect aims to develop leisure clubs that contribute to the integration of vulnerable groups in the society and highlights the importance of collaboration with different social institutions. The cultural political aspect focuses on the development of youths' cultural abilities and their participation in decision making concerning the clubs' activities and structure (Heggelund et al., 2017).

1.2 Definition and clarification of important concepts

Leisure clubs describes houses or locations (managed or supported by municipalities) developed for, and with, adolescents to use in their leisure time (Heggelund et al., 2017).

This study examines adolescents with immigrant background and uses the definition described by Bakken (2018) as adolescents that have two parents born outside of Norway.

Oslo is often divided into inner and outer city. Inner city East consists of Sagene, Grünerløkka and Gamle Oslo and inner city West includes St. Hanshaugen and Frogner. Further, Bjerke, Grorud, Stovner and Alna are a part of outer city East and Ullern, Vestre Aker of Nordre Aker makes up outer city West. Lastly, outer city South includes Østensjø, Nordstrand and Søndre Nordstrand (Oslo municipality, 2018). Most adolescents with immigrant background in Oslo live in inner city East and outer city East and South (Appendix 1: Map of immigrants in different districts in Oslo; Appendix 2: percentage of adolescents with immigrant background in different districts in Oslo).

Inner East, outer East and outer South have areas considered as vulnerable districts. These areas often have complex challenges related to the social and physical environment in their local community. Different problems concerning living conditions are often common in these areas, and people often struggle with crowded housing, child poverty and unemployment. There are, at the moment, three on-going community upgrades in vulnerable districts in Oslo (in Groruddalen, Søndre Nordstrand and inner East) (Oslo municipality, 2019c).

1.3 Purpose statement

Adolescents with immigrant background in Oslo often attend leisure clubs to a greater extent than adolescents with Norwegian-born parents. In addition, more adolescents in East of Oslo attend leisure clubs compared to West of Oslo (Bakken, 2018). This can partly be explained by the fact that adolescents with immigrant background in Oslo often live in more vulnerable areas (Søndre Nordstrand, Gamle Oslo, Grünerløkka and Grorud) (Appendix 3) (Dzamarija, 2016), and come from families with low socio-economic resources (Andersen & Seland, 2019). Moreover, the media have addressed the development of criminal groups in vulnerable districts in Oslo that struggle with problem behaviour (Mellingsæter et al., 2018) and previous

studies have shown that adolescents that attend leisure clubs often struggle with problem behaviour and substance and alcohol use (Andersen & Seland, 2019). Based on this, it would be interesting to investigate different factors in the lives of adolescents with immigrant background in Oslo that attend leisure clubs. This leads to the study's purpose statement, which is to investigate the characteristics of adolescents with immigrant background that attend leisure clubs in Oslo and the factors that predict their attendance in leisure clubs. Further the study will discuss, based on the findings, how leisure clubs can focus on health promoting and preventive measures.

Chapter 2: Literature review

This study used Oria (a Norwegian search engine) and Google Scholar and limited the search to peer-reviewed journal articles, published empirical reports and government documents concerning leisure clubs and youth work. According to a peer-reviewed journal article by Gjertsen and Olsen (2011) there are limited research on leisure clubs, and their study on the existing literature in this field showed that the majority of relevant research was published after 2000. Based on this the literature review included empirical findings from 2000 to 2019. The study focused on adolescents in Norway and the searches were limited to empirical literature from Norway and Sweden, who share the Scandinavian ideology of a welfare state with a large public sector and an emphasis on equality (Nygård, 2006). In addition, the Council of Europe's international review of national youth policy was included. The study used Norwegian and English words in the search field and the most used word strings were "leisure club", "youth club", "adolescents", "immigrant background", "problem behaviour", "bullying", "substance use", "life satisfaction" and "health promotion". Further, reference mining (where relevant resources were found by looking at previous authors' reference lists) (Flamez, Lenz, Balkin, & Smith, 2017) was used to find literature. In addition, the webpage for the National Youth Club Organisation in Norway was used to find different empirical reports on leisure clubs (Youth Work Norway, 2019b). The studies used in this thesis based on Young data and The National Youth Club Survey is only available in Norwegian with no official English translation. Some English translations are therefore made by the researcher and do not necessarily represent an officially accepted translation.

2.1 Youth policy and leisure clubs in Europe

The Council of Europe's international reviews of national youth policy celebrated its 21st anniversary in March 2018. During these years, 21 European countries (Appendix 4) developed a framework for youth policy consisting of a) concepts of "youth" and "youth policy", b) enabling features, c) structures for delivery, d) domains of youth policy, e) cross-cutting issues, f) foundation challenges and g) monitoring and evaluation (Williamson, 2018).

2.1.1 Concepts of "youth" and "youth policy"

The concepts of youth can be interpreted in many ways and the concepts have become more complex during the last century. According to UNESCO (2019) *Youth* can be defined as people between the age of 15 and 24, and the period is explained as a transition from childhood to adulthood. *Adolescents* are defined as people between the age of 10 to 19, which falls under the definition of young people (age 10 to 24) (World Health Organization Regional Office for South-East Asia, 2019). The National Youth Club Organisation in Norway defines its members as adolescents between the ages of 10 to 18 years (Youth Work Norway, 2019a). In addition, according to the Norwegian Law adolescents that have turned 18 years old are considered adults in legal terms (Guardianship Act, 2010). This study will use the term adolescents and focuses on students in lower secondary school (age 13 to 16).

2.1.2 Enabling features

Enabling features to support youth policy can include legislation, human and/or financial resources (Williamson, 2018). Based on the fact that leisure clubs are the second most used leisure activity for adolescents, the National Youth Club Organisation in Norway have conducted four national surveys involving leisure clubs (in 1997, 2002, 2008 and 2016/2017) where the goal was to contribute to more knowledge on leisure clubs in Norway and give the National Youth Club Organisation important documentation when working on the development of youth policy and services for youth. The survey from 2016/2017 by Heggelund et al. (2017) compared the results with the survey from 2002 and 2008 in order to identify the development of leisure clubs. The survey from 2016/2017 invited all the leaders of leisure clubs to answer a web-based questionnaire on behalf of their club and the survey had a response rate of 69 per cent (N=302).

Heggelund et al. (2017) reported that there was an increase in leisure clubs that were run by the municipalities and a small decrease in leisure clubs that were run by voluntary and private organisations from 2008 to 2016. Further, in order to be a member of the National Youth Club Organisation and receive funds to run leisure clubs, municipalities had to run the clubs or financially support them (Youth Work Norway, 2019a). This indicates that youth organisations are important for leisure clubs because they contribute with financial resources to the municipalities. Despite this, the fact that leisure clubs are not protected by the Norwegian law affect the delivery of options in the clubs and Heggelund et al. (2017) argues that legislative tasks in the municipalities often receive resources before non-legislative tasks (e.g. leisure clubs). This can affect the quality of the services leisure clubs are able to provide.

2.1.3 Structure for delivery

Youth policy should focus on the structure of delivery by assuring that the services leisure clubs provide have high quality and are relevant, meaningful and effective (Williamson, 2018). Heggelund et al. (2017) showed that one important distinction between organised sports and leisure clubs was the membership fees. While organised sports most often had a membership fee the study showed that 80.7 per cent of leisure clubs did not demand any membership fees. This indicates that leisure clubs provide an option that includes all adolescents in the society regardless of their parents' social economic resources. However, leisure clubs had less money to use on activities, and employees had a lower salary (when including the wage increase over time in this sector) in 2016 compared to 2008. Heggelund et al. (2017) found that 74.5 per cent of leisure clubs had 50 000 NOK (a year) or less to use on activities in 2016 compared to 2008 where only 50.1 per cent had the same amount. Further, 29.6 per cent of leisure clubs had over 100 000 NOK in 2008 compared to only 14.9 per cent in 2016. These results indicate a decrease in resources used on leisure clubs from 2008 to 2016, which can imply that there might be a lower quality in the services leisure clubs provide due to lack of resources.

Another important aspect in the structure of delivery is leisure clubs ability to recruit adolescents in the local community. Eriksen and Frøyland (2017) looked at the recruitment of adolescents to leisure clubs. The study found that in order to develop leisure clubs, with preventive and health promoting abilities, the recruitment of participants were important especially in multicultural communities. The main strategies for recruiting adolescents were

to develop a club without membership fees, involve parents and strengthen the community and the resources used on leisure clubs.

2.1.4 Domains of youth policy

According to Williamson (2008) one domain for youth policy is health, and the review showed that countries often focused on substance use. A project for youth workers, where the goal was to make them counsellors and give them the tools to identify adolescents that exhibited problem behaviour and people in risk of increasing the use of drugs and alcohol, was implemented in different Norwegian leisure clubs (Müller, 2010). The project got the name "Yo-Pro" (Youth Work in Progress) and was a collaboration between Norway, Italy, Poland, Sweden and Britain. The project's main objective was to shift the focus of youth work from consisting of activities controlled by adults to empower members to develop their own ideas and take responsibility for their activities. The youth workers' role shifted from an organiser to a counsellor. The evaluation of the project included quantitative and qualitative methods such as; survey, interviews and participatory observation. The results showed that the project could contribute to important strategies to improve youth work and youth policy (Vestel & Hydle, 2009).

However, Williamson (2008) emphasised that there were other factors concerning health that should get more attention (e.g. mental health, physical health, dietary health). The review stated that it was important to investigate how adolescents made use of different health services available, which addresses adolescents' ability to take control over their health (empowerment). Further, the Norwegian white paper on public health (Folkehelsemeldingen) from 2014-2015 emphasised the importance of voluntary work as a factor to promote health and create a feeling of joy, belonging and wellbeing. In addition, participation in the local community through voluntary organisations could be an important arena for youth to develop themselves (Services, 2015).

2.1.5 Cross-cutting issues

Cross-cutting issues can include information on occupational choice, health and lifestyle, internal and external migration and gender and race equality (Williamson, 2018). The study on leisure clubs from 2016/2017 examined leisure clubs work on attitude-development (holdningsskapende arbeid). Many clubs focused on attitude-development and the results showed how leisure clubs addressed attitudes regarding different topics: bullying (61.3 per

cent), cyber cullying (51.9 per cent), mental health (51.4 per cent), food and health (49.7 per cent), violence and conflicts (41.4 per cent), fashion and body image pressure (29.3 per cent), racism (28.2 per cent), religious radicalisation (14.4 per cent), international solidarity (13.3 per cent) and political radicalisation (9.4 per cent). In addition, the relationship between youth workers and participants seemed to be important in the attitude-development project in order to achieve their goal and develop healthy attitudes among adolescents (Heggelund et al., 2017).

A study from Sweden evaluated the programme *Young meet young*. The aim of this programme was to enable the integration of refugee youths by building bonds with Swedish youths. The project expressed the importance of having a solution-oriented focus where attention was on factors that could create a positive environment (their strengths and significance) instead of focusing on potential problems. The trust between youth workers and adolescents resulted in personal strength, a sense of appreciation and increased confidence. The project showed that it was important to include adolescents in the planning process and not only let youth workers lead the planning. This enabled adolescents to participate and take control of their life, which is an important part of health promotion (Jönsson & Larneby, 2018).

The importance of community upgrade (where leisure clubs got more resources) was highlighted in the study by Andersen and Dæhlen (2016). They looked at Grorud, which is a district in the East of Oslo. This place had a community upgrade where the investment in leisure clubs was higher than in Stovner (another district in East of Oslo). The results showed that 36 per cent of adolescents used leisure clubs in Grorud compared to only 26 per cent in Stovner. In addition, only 39 per cent of adolescents in Stovner reported to be happy with the leisure clubs options compared to 62 per cent in Grorud.

2.1.6 Foundation challenges

In order to maximise the effect of youth policy there are some fundamental challenges that need to be met. Studies need to investigate the characteristics of adolescents attending leisure clubs, evaluate projects in leisure clubs and youth work in order to draw experiences from them, and lastly develop educational programs for youth professionals (Williamson, 2018). The characteristics of adolescents attending leisure clubs will be described further in the next chapter of the literature review.

2.1.7 Monitoring and evaluation

The last part of the framework for youth policy is monitoring and evaluation. The Council of Europe international review of national youth policy expressed how countries lacked monitoring and evaluation of youth work, which could lead to subjective, impulsive and unpredictable youth policy development (Williamson, 2008, 2018). This is supported by Heggelund et al. (2017) who mentioned, in the last survey from 2016/2017, that there was a lack of research on leisure clubs in Norway.

2.2 Characteristics of adolescents attending leisure clubs in Norway

Heggelund et al. (2017) found that 76.6 per cent of leisure clubs in the survey reported that the majority of the adolescents in the clubs were between the ages of 13 to 15. Moreover, the report discovered that 62 per cent of leisure clubs had the same amount of boys and girls, 34.2 per cent had more boys than girls and 3.9 per cent had more girls than boys. Another study by Andersen and Seland (2019) used *Young data from 2015-2017,* consisting of students in lower secondary school ranging from the ages 13 to 16 (*Young data 2015-2017*, n=14 590 and *Young in Oslo 2015*, n= 12450). The study included data from national level combined with data from Oslo, because Oslo have some different factors that it is important to be aware of (e.g. their high level of adolescents with immigrant background). The results showed small gender differences. However, there were some differences concerning the amount of time spent at a leisure club during a month, 7.3 per cent of boys attended leisure clubs five times or more compared to 6.3 per cent of girls. In addition, 18.6 per cent of girls attended leisure clubs one to two times a month compared to 17.8 per cent of boys. The same gender difference was found by Pedersen (2008) where 15.8 per cent of boys and 11 per cent of girls had attended leisure clubs.

 Andersen and Seland (2019) found that attendance in leisure clubs decreased by grade. In 8th grade 8.1 per cent attended leisure clubs five times or more during a month whereas 5 per cent attended leisure clubs five times or more in 10th grade. A study by Øia (2009) based on *Young in Oslo 2006* (N=11500) also found a decrease in attendance when adolescents got older, but the decrease did not start until 9th grade. In addition, *Young in Oslo 2018* (N= 24667) showed the same trend when it came to participation and age, but the attendance in

leisure clubs had been relatively stable when compared to the *Young in Oslo 2006* survey (Bakken, 2018).

Studies showed that attendance in leisure clubs was higher for adolescents with low socio-economic resources at home compared to adolescents with high socio-economic resources (Andersen & Seland, 2019; Bakken, 2018; Pedersen, 2008; Øia, 2009). In Oslo, 40 per cent of adolescents with low socio-economic resources attended leisure clubs compared to 20 per cent of adolescents with high socio-economic resources (Andersen & Seland, 2019). Øia (2009) explored family factors and did not find any differences in attendance and non-attendance in leisure clubs when taking parents' education into account.

The National study by Heggelund et al. (2017) found an increase of participants with immigrant background that attended leisure clubs. In 2008, 65.3 per cent of leisure clubs reported that 0-5 per cent of adolescents attending leisure clubs had immigrant background and 42.4 per cent reported having the same amount in 2016. Further, 14.4 per cent reported having 6-10 per cent of adolescents with immigrant background in 2008, whereas the increase showed that 25.1 per cent of leisure clubs had 6-10 per cent of adolescents with immigrant background in 2016. The study showed that two out of ten adolescents that attended leisure clubs had immigrant background. A majority of adolescents with immigrant background attended leisure clubs instead of other leisure time activities (Øia, 2009). In addition, 42.1 per cent of adolescents with immigrant background had attended leisure clubs at least one time during the last month compared to only 22.6 per cent of adolescents without immigrant background (Andersen & Seland, 2019). A quantitative and qualitative study by Eriksen and Frøyland (2017), using surveys from *Young data 2014-2016* and a case study, explored recruitment of adolescents in leisure time activities in three multicultural areas in Norway (Veitvet in Oslo, Fjell in Drammen and Saupstad in Trondheim). The results showed that organised sports was the most used leisure time activity, but there was higher attendance in leisure clubs in the three local communities compared to the cities they belonged to. Leisure clubs were especially popular in Fjell (Drammen) and Veitvet (Oslo) and the attendance by girls were higher in these two communities compared to other places. In addition, a quantitative study using *Young in Oslo 2015* by Andersen and Dæhlen (2016) explored the living conditions of adolescents in Grorud (Oslo). The study found that 35 per cent of adolescents in Grorud had attended leisure clubs at least once. Moreover, 51 per cent of adolescents with immigrant background attended leisure clubs compared to 31 per cent of adolescents with parents born in Norway. Adolescents in Grorud were also more satisfied

with the leisure clubs options compared to Oslo in general (62 per cent were satisfied in Grorud, 46 per cent in Oslo in general)

Different studies point out that adolescents that attend leisure clubs have struggled more with problem behaviour (Andersen & Seland, 2019; Øia, 2009). Andersen and Seland (2019) described that adolescents that attended leisure clubs struggled more with problem behaviour, violence and bullying. In Oslo, 30 per cent of adolescents that attended leisure clubs had been in a fight compared to 16-17 per cent of adolescents that had not attended leisure clubs (Andersen & Seland, 2019). Moreover, studies exploring substance and alcohol use found different results. Øia (2009) found that adolescents that attended leisure clubs consumed the least amount of alcohol, but adolescents that had attended (but did not anymore) consumed more alcohol compared to adolescents that did not spend time in a leisure club. The study did not find any differences when examining illegal drugs (cannabis, marihuana). Contrary, Andersen and Seland (2019) found that adolescents that attended leisure clubs had more experience with alcohol and the use of cannabis was more common among adolescents that spent time at a leisure club compared to adolescents that did not. The same study found a small significant health difference between adolescents that attended and did not attend leisure clubs. The study found that 71.6 per cent of adolescents not attending leisure clubs were satisfied with their health compared to 67.2 per cent of adolescents that attended leisure clubs five times or more during a month. In addition, adolescents that attended leisure clubs had a weaker relationship with their parents and were more dissatisfied with school, but not with their friends, than those who did not attend leisure clubs. In this study dissatisfaction with parents was measured by adolescents having arguments with their parents, keeping secrets and avoid talking with them about personal problems. Dissatisfaction with school included adolescents not fitting in with peers, feeling that teachers did not care about them, and dreading to go to school. Lastly, dissatisfaction with friends included rarely hanging out with peers and a lack of friends to talk about personal problems (Andersen & Seland, 2019).

Chapter 3: Theory

This chapter describes the theoretical framework for this study, which is the Social Ecological Model of Health.

3.1 The Social Ecological Model of Health

The Social Ecological Model describes how health is affected by individual, relationship, community and societal factors (McCloskey et al., 2011). The study used the model to discuss how the different levels can affect leisure clubs focus on health promotion and prevention.

According to Stokols (1996) the Social Ecological Model of Health consists of four core principles that can enable community engagement. The first level consists of social cohesion, health status and emotional wellbeing. These factors are influenced by individual biology and personal characteristics (e.g. gender, age, behaviour patterns and personality), and are part of the individual aspect. The second level also consists of social cohesion and addresses the close environment including friends, partners, and family members, which falls under the relationship aspect of the model. The third level includes multiple environments that influence each other (e.g. workplace, neighbourhood, schools and leisure clubs) and examine how these characteristics can affect health. This level includes the whole community in the model, which includes the physical environment, resources available and social norms that can influence health and wellbeing. These factors are also a part of the societal level and includes social policies that effect socio-economic inequalities between groups, cultural and social norms as well as history, education and economy (CDC, 2019; McCloskey et al., 2011).

Figure 1: The Social-Ecological Model (CDC, 2019)

Factors included in different levels of the model influence each other across all levels, which is illustrated by the overlapping rings. Further, the model suggests that in order to achieve the goals of prevention and health promotion it is important to work across multiple levels of the model at the same time.

Chapter 4: Objective and research questions

In order to create leisure clubs that can reduce social inequality by promoting health and preventing behavioural problems it is important to have enough knowledge about adolescents that attend leisure clubs and their characteristics. In Norway several studies have investigated adolescents that attend leisure clubs and different factors that can contribute to attendance in leisure clubs. Studies have found an increase of participants with immigrant background, especially in Oslo. However, there are few studies that have solely examined adolescents with immigrant background and attendance in leisure clubs. Based on this, the study will contribute to more knowledge on characteristics of adolescents with immigrant background that attend leisure clubs in Oslo. More knowledge on factors that can predict attendance in leisure clubs is important in order to develop universal and specific programs that reach out to adolescents that spend time in leisure clubs. In order to achieve the objective of the study the following three research questions will be addressed:

- Which factors distinguish adolescents with immigrant background that attend and do not attend leisure clubs in Oslo?
- Which factors predict the likelihood of attendance in leisure clubs among adolescents with immigrant background in Oslo?
- Based on the findings, which focus should leisure clubs have on preventive and health promoting measures?

Chapter 5: Data and methods

This chapter is divided into different sections addressing research design, data collection method and participants, study sample, variables, data management methods, data analysis methods, quality assurance and ethical considerations.

5.1 Research design

The study used a quantitative non-experimental comparative research design since there was no possibility to manipulate the independent variables or control when adolescents were exposed to the independent variables (Punch, 2014).

The Norwegian Social Research Institute (NOVA; *Norsk institutt for forskning om oppvekst, velferd og aldring*) collected the secondary data used in this study. NOVA is one of the largest social science research institutes in Norway. Some reasons supporting the use of secondary data is that it is inexpensive and the data collection is often comprehensive and routine, which means that it tends to have large samples (Institute for Work & Health, 2015). NOVA got an assignment, to conduct the *Young in Oslo 2018* (Ung i Oslo 2018) survey, from the municipality of Oslo. Oslo is the biggest city and capital of Norway. By January 1 2018 the city had a population of 673 469 and 222 843 were considered immigrants. Almost 169 000 of the immigrants were people born outside of Norway and approximately 54 000 were people with parents born outside of Norway. Oslo is the city in Norway with the highest number of immigrants, and in 2018 33.1 per cent of the city's population had immigrant background (Oslo municipality, 2019a, 2019b). *Young in Oslo 2018* is a cross-sectional survey intended to reach out to adolescents in Oslo that attended lower secondary school and upper secondary school. The survey had an objective to capture different patterns in adolescents' everyday life and living conditions, which included family, friends, school, community, leisure time activities and attitudes. This study will only use the survey from 2018, but *Young in Oslo* has been conducted four times earlier (1996, 2006, 2012, 2015), which makes it possible to compare the results over time (HIOA, 2018a, 2018b).

5.2 Data collection method and participants

The following section will contain information from Bakken (2018) unless otherwise noted. In order to achieve a good result for the survey a project group was established consisting of employees from NOVA, drug and alcohol competence centres (KoRus; *kompetansesentrene for rusfeltet*), the City Department, and the education authority in Oslo. The main task for the project group was to decide on which questions to include in the survey. In addition, NOVA

employed a research assistant that had the task to document the implementation of the survey and stay in contact with all the schools that took part in the survey.

The questionnaire was made out of the ground module of *Young data* (Ungdata). This is a quality assured and standardised system for local questionnaires (Young data, 2016). The questionnaire also included additional modules on politics and community, sports, youth culture and so on, but this study did not include these. In addition, there were more detailed questions about participants' background in the questionnaire for upper secondary school (age 16-19) than for lower secondary school (age 13-16).

Adolescents from 84 schools (56 lower secondary schools and 28 upper secondary schools) participated in the survey. All the students' guardians were informed about the survey (Appendix 5: Information flyer), and the schools were encouraged to have health staff available after the completion of the survey if some students felt the need to talk to someone. Before the start of the survey a video was shown to the students where other students explained the purpose of the study, that it was voluntary to participate, and that students could skip questions they did not want to answer. The data used in this study was collected during the spring of 2018 (from week 3 to 12).

The participants in the *Young in Oslo 2018* survey consisted of adolescents from the age 13 to 19 and they answered a web-based questionnaire during a school period (45 minutes). The students received a single-use code that they used to log in to the survey. It was not possible to link the single-use code to the persons that completed the survey, but in upper secondary school the code could be linked to the school the person attended. It was voluntary to take part in the survey. More than 35 000 adolescents from 84 schools in Oslo were invited to take part in the survey (HIOA, 2018b) and 25 348 students ended up participating in the survey. The overall response rate was 74 per cent (83 per cent in lower secondary school and 65 per cent in upper secondary school).

5.3 Study sample

This study limited the sample to only include adolescents with immigrant background, which in this case is defined as adolescents with both parents born outside of Norway. In addition,

the study sample included adolescents that attended lower secondary school, aged 13-16, (N=4708), and both males (n=2309) and females (n=2375). Further, the study sample excluded participants that had one or more parent born in Norway and participants that attended upper secondary school.

5.4 Variables

The study consists of one dichotomous dependent variable (attendance in leisure clubs), four categorical independent variables (sex, grade, fathers' education, mothers' education) and eight continuous independent variables (problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction).

5.4.1 Dependent variable

Attendance in Leisure Clubs

The dependent variable in this study is attendance in leisure clubs, which was answered by the question: "How many times during the last month have you been a part of a leisure club/youth house/youth club?" The participants were asked to answer the question by a 1-4 scale where 1=never, 2=1-2 times, 3=3-4 times, 4=5times or more

For this study, the dependent variable was collapsed into a dichotomous variable in order to get two somewhat equal groups of participants because there were few responses for option 3 and 4 (1= Attend, n=1816; 2= Not Attend, n=2324)

5.4.2 Independent variables

The independent variables in this study are; sex, grade, fathers' education, mothers' education, problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community and life satisfaction.

Sex

This variable was answered by the question: *Are you a boy or a girl?* The participants were asked to answer by a dichotomous scale where 1=Boy (n=2309) and 2=Girl (n=2375).

Grade

This variable was answered by the question: *Which grade do you attend?* The participants was asked to answer by a 1-3 numeric scale where 1=8th grade (n=1641), 2=9th grade (n=1546) and 3=10th grade (n=1497).

Father and mothers' higher education

This variable was answered by two questions: *Does your father (1)/mother (2) have higher education from university or college?* The participants were asked to answer 1= yes or 2=no to the question concerning **Fathers' higher education** (n=3980) and **mothers' higher education'** (n=4067), and were told to skip the question if they did not have contact with one or both of their parents.

Problem Behaviour

This variable was answered by the question: *How many times have you been a part of or done any of the following the past year (the last 12 months)* 1) taken items from a shop without paying, 2) been in a fight, 3) broken or shattered windows, bus seats, mail boxes, or similar behaviour (vandalism) on purpose, 4) sprayed or tagged illegally on walls, buildings, trains, buses or similar objects, 5) tricked your way out of paying for cinemas, sports arrangements, buses, trains or similar events, 6) gone a whole night without your parents knowing where you were, 7) skipped school, 8) threaten with violence.

The participants were asked to answer each question by a 1-5 scale where 1=never, 2=one time, 3=2-5 times, 4=6-10 times, 5=11 times or more. For this study, the eight items were computed making up the variable Total Problem Behaviour (totprobeh, n=4301) ranging from 8 to 40.

Bullying

The variable was answered by the question: *Do you sometimes bully, threaten or exclude other youth in school or leisure time?* The participants were asked to answer the question by a 1-6 scale where 1=yes, several times a week, 2=yes, about once a week, 3=yes, about every 14th day, 4=yes, about once a month, 5=almost never, 6=never.

The variable was collapsed into a dichotomous variable in order to get more equal groups. The dichotomous variable consisted of 1=Have Never Bullied (including 6=never) (n=3205) and 2=Have Bullied (including the answers from 1=yes, several times a week to 5=almost never) (n=1257). Making up the variable Total Bullying (Totbull, n=4462)

Experienced Bullying

The variable was answered by the question: *Have you experienced bullying, threats or exclusion by other youths in school or leisure time?* The participants were asked to answer the question by a 1-6 scale where 1=yes, several times a week, 2=yes, about once a week, 3=yes, about every 14th day, 4=yes, about once a month, 5=almost never, 6=never.

The variable was collapsed into a dichotomous variable in order to get more equal groups. The dichotomous variable consisted of 1=Have Never Experienced Bullying (including 6=never) (n=2761) and 2=Have Experienced Bullying (including the answers from 1=yes, several times a week to 5=almost never) (n=1678). Making up the variable Total Experience Bullying (totexpbull, n=4439).

Experience cyber bullying

The variable was answered by the question: *Have you experienced (during the last month)* 1) threats on the phone or through the Internet 2) people writing mean things to you or about you on the phone or the Internet, 3) people posting hurtful images or videos of you on the Internet or the phone, 4) someone excluding you from social events on the internet.

The participants were asked to answer the question by a 1-4 scale where 1=never, 2=one time, 3=2-5 times, 4=6 times or more. Further, this study computed these four items making up the variable Total Experience Cyber Bullying (Totcybbull, n=4373) ranging from 4 to 16.

Experience violence

The variable was answered by the question: *Have you during the last 12 months been exposed to any of the following* 1) I have been exposed to threats about violence, 2) I have been beaten without getting bruises, 3) I have gotten wounds or injuries due to violence but I did not need medical treatment, 4) I have been severely injured due to violence and I needed medical treatment.

The participants were asked to answer the question by a 1-4 scale where 1=never, 2=one time, 3=2-5 times, 4= 6 times or more. For this study, the four items were computed making up the variable Total Experience Violence (totexpvio, n=4271) ranging from 4 to 16.

Perceived resources in Local community

This variable was answered by the question*: How would you rate the following services for youth in the area you live* 1) a place to meet other youth in your leisure time (leisure club, youth house etc.), 2) sports facilities, 3) cultural facilities (cinema, concert halls, library etc.), 4) public transport (bus, train, subway, etc.)

The participants were asked to answer each question by a 1-5 scale where 1= really good, 2= quite good, 3= neither good nor bad, 4= quite bad, 5= really bad. This study computed these four items into the variable Total Perceived Resources in Local Community (totperreslo, n=3900) ranging from 4 to 20.

Substance and alcohol use

The variable was answered by the question: *How many times have you done any of the following in the past year (the last 12 months)* 1) consumed alcohol, 2) consumed an amount of alcohol that made you feel intoxicated, 3) used hashish, marihuana, cannabis.

The participants were asked to answer each question by a 1-5 scale where 1=never, 2=one time, 3=2-5 times, 4=6-10 times, 5=11 times or more. For this study, the three items were computed making up the variable Total Substance and Alcohol use (totsubalc, n=4341) ranging from 3 to 15.

Life satisfaction

This variable was answered by the question: *How satisfied or unsatisfied are you with the following aspects of your life* 1) parents, 2) friends, 3) school, 4) local community, 5) health, 6) appearance (look).

The participants were asked to answer each question by a 1-5 scale where 1=Not at All satisfied, 2=Not Very Satisfied, 3=Neutral, 4=Somewhat Satisfied, 5=Very satisfied. In order for all the variables to have the same value in the answering options (the lowest score = most wanted behaviour) the options were reversed. This made the options 1=Very Satisfied, 2=Somewhat Satisfied, 3=Neutral, 4= Not Very Satisfied, 5=Not at All Satisfied. This study computed these six items into the variable Total Life Satisfaction (totlifsat, n=3746) ranging from 6 to 30.

5.5 Data management methods

The data material from the survey is handled in a confidential manner. Only a few scientists and employees at Rambøll (the company that register all the electronic answers) have access to the whole questionnaire. The data is stored in a database together with other *Young data* surveys. Due to the fact that it is possible to identify some students in upper secondary school by combining answers, NOVA had to report this survey to the Norwegian Centre for Research Data (NSD). The General Data Protection Regulation (Datatilsynet) allowed NOVA to conduct the survey, but demanded that the data be stored in a secure server at the University of Oslo. In addition, the data should not be shared with other people without the approval of NOVA (Bakken, 2018; HIOA, 2018b).

To receive the data from NOVA, the researcher had to sign a contract stating that the data needed to be kept in a secure way (e.g. in a password protected area) (appendix 6). In addition, the data had to be deleted at the end of the project, and a signed form confirming the deletion of data had to be sent to NOVA (appendix 7). The data was kept on a password protected memory stick, and no one beside the researcher of this study had access to the data.

5.6 Data analysis methods

The survey used Statistical Packages for Social Sciences (SPSS) version 25 to analyse the data. The analyses did not exclude any cases and in order to reflect variation in the sample no missing data was replaced. The variables were manipulated as described in the variable section, and they were screened for outliers. All outliers that were classified as "extreme" by SPSS were examined.

The statistical analyses consisted of three steps. 1) A univariate analysis was conducted by exploring the descriptive statistics for all the variables. 2) Bivariate relationships between the dependent variable attendance in leisure clubs and the independent variables were investigated. First Chi-Square of independence tests was conducted to explore if there were any association between the categorical variables sex, gender, fathers' higher education and mothers' higher education and attendance in leisure clubs. Further, independent sample t-test were conducted to explore if there were any significant difference in the mean score of the continuous variables problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction for adolescents that had not attended and had attended leisure clubs during the last month. Lastly, 3) a binary logistic regression was used to explore what factors predicted the likelihood of participation in a leisure club.

5.7 Quality assurance

5.7.1 Reliability

According to Pallant (2016) high reliability gives an indication on how free the scale is from random error. One indicator of a scale's reliability is internal consistency. Internal consistency assumes a correlation between items that measure the same construct and the most commonly used statistics to measure internal consistency is Cronbach's alpha. The values from Cronbach's alpha range from 0 to 1 and higher value indicate greater reliability (Kimberlin & Winterstein, 2008). According to Pallant (2016) values above .7 are considered acceptable, but values above .8 are preferable. The Cronbach's alpha for the scales problem behaviour (α=.84), experienced cyber bullying (α=.77), experienced violence (α=.80) perceived

resources in local community (α=.80), substance and alcohol use (α= .86) and life satisfaction (α=.87) suggests that the six scales used in this thesis had good internal consistency (Pallant, 2016).

5.7.2 Validity

Further, the validity of a scale indicates to which degree the scale measures what it is supposed to measure (Pallant, 2016). The dataset used in this thesis was from one of the largest social research institutes in Norway, they had already completed four data collections before this one, and they are constantly revising the questionnaire to make sure that the questionnaire is of the highest quality. From the evaluation of the survey *Young in Oslo 2006* some changes was made, especially when it came to the length of the survey. In 2006 the survey lasted two school periods (90 minutes), and the evaluation of the survey found that this was too extensive in order to obtain good quality data. Further, the survey from 2018 showed that 85 per cent of the participants believed that the survey gave an accurate picture of adolescents' lives (Bakken, 2018). Further, representativeness, missing cases, outliers and lack of participants completing the survey can give important information on the quality of the data.

5.7.3 Representativeness

It is important to be aware of the different ways a questionnaire can strengthen or weaken the reliability and validity of a study. One way to assure high quality is to make sure that the questionnaire has a representative sample, which will make the study more generalizable. In this study the response rate in lower secondary school was 83 per cent. Compared to other *Young data* surveys this indicate that the data is representative for the population without a lot of skewedness in the sample (Bakken, 2015; Ringdal, 2014). Some aspects that can influence the representativeness of a sample can be participants that do not answer the questions in a truthful manner, too complex questions that allows for misinterpretation and participants that answers the questions without reading them properly. Another important aspect that can affect the data quality is the target group, which in this case are adolescents. Some argue that surveys targeting adolescents can lead to more inaccurate data because youth often struggle to concentrate and have lower level of patience than adults (Elstad, 2010).

5.7.4 Missing cases

The length of the questionnaire is important to assure high quality data and according to Statistics Norway a questionnaire should not last longer than 45 to 60 minutes. This is because the participants can get tired and lose focus (Elstad, 2010). *Young in Oslo 2018* lasted for 45 minutes, and it would therefore not be surprising if there were more missing data at the end of the survey than in the beginning. In fact, six out of 10 participants thought that the survey was too long, and approximately 18 per cent did not complete the survey. The *Young in Oslo 2018* survey had 69 main questions in the ground module (with different sub-questions). The variables used in this study were answered in the questions 1 (sex), 2 (grade), 3 (parents' higher education), 23 (problem behaviour), 24 (bullying), 25 (experienced bullying), 26 (experienced cyber bullying), 27 (experienced violence), 30 (attendance in leisure clubs), 33 (perceived resources in local community), 40 (substance and alcohol use) and 58 (life satisfaction).

Table 1: Percentage missing in the variables from beginning to end of the survey:

Variables	% missing
Sex	0.5
Grade	0.5
Fathers' higher education	15.5
Mothers' higher education	13.6
Problem behaviour	8.6
Bullying	5.2
Experienced bullying	5.7
Experienced cyber bullying	7.1
Experienced violence	9.3
Attendance in leisure clubs	12.1
Perceived resources in local community	17.2
Substance and alcohol use	7.8
Life satisfaction	20.4

N=4708

The data used in this study supports the argument that participants might lose focus and skip more questions at the end of the survey (Andersen & Bakken, 2015). In addition, another aspect to be aware of is the high percentage of missing in the variable *parents' higher*

education. This variable is question number three in the survey, and the length of the survey is probably not the cause of the missing value. One explanation of the high rate of missing cases can be that students lack information to answer the question. They may not know if their parents have higher education. Another explanation can be that participations were asked to skip the question if they lacked contact with one or both of their parents (Bakken, 2018; Elstad, 2010).

5.7.5 Outliers

The variables problem behaviour, bullying, experienced bullying, experienced cyber bullying, violence, substance and alcohol use can include sensitive questions that participants might struggle to answer truthfully or trigger adolescents to give misinformation on purpose (Elstad, 2010). One way to ensure that they felt safe to answer these questions was by explaining that the questionnaire was 100 per cent anonymous. Further, the data used in this study was cleaned and 191 unlikely answers were removed by NOVA before the researcher received the data (Bakken, 2018). In addition, one way to explore if participants gave disreputable answers was by examining the outliers in the variables. Outliers are values that are well above or below the majority of the values (Pallant, 2016). Outliers in different variables are explained in more detail under the descriptive parts of the results (6.1.3).

5.7.6 Lack of participants

One advantage of completing the questionnaire in a school period is that the sample should be quite representative for the adolescents in Norway. However, it is important to be aware of the students that did not attend school that day or did not wish to participate, and that this study did not have any data on these students, which might make the results less representative. The students that did not want to participate in the survey had to attend an alternative educational school period and they did not get a free period where they would have been able to do other more tempting things than participating in a survey. This might increase the likelihood of students participating in the survey rather than attending a school period (Bakken, 2018).

5.8 Ethical considerations

This study used secondary data and a lot of ethical considerations have been taken care of by NOVA. According to Punch (2014) some ethical issues in social science can be "harm, consent, deception, privacy and confidentiality of data" (p. 42). Further, one important part in the ethics in social science is to get voluntary informed consent. This means that participants have agreed to participate, that they understand how the results will be used and that they are free to drop out during the survey, or skip questions that they do not want to answer. In the *Young in Oslo 2018* survey the students' guardians got information about the survey before the students were asked to participate. For all the students under the age of eighteen their guardians could inform the school whether they wanted the student to attend or not. The students could quit the survey whenever they felt like it and skip a question if they did not want to answer. In addition, guardians were allowed to see the questionnaire before the survey was conducted (Bakken, 2018).

It is also important to consider how much information the participants receive before they decide if they want to take part in the survey and whom the information comes from. It might be harder for participants to withstand from the survey if they get a letter from an authority figure (e.g. the students' head teacher or principal) (Punch, 2014). In this survey the students got a letter from NOVA, but it was conducted during a school period, which could make some students feel obligated to participate. Further, two out of three adolescents believed that they got enough information about the survey before they participated. This indicate that the information given before the survey was conducted could be improved (Bakken, 2018).

In addition, the privacy of the participants is an important part of ethical considerations. According to Punch (2014) "Privacy refers to individuals' right to control the disclosure of what they deem personal or non-public information about themselves" (p. 47). Further, it is important to be aware of the fact that invasion of privacy is possible in all social science research. It is therefore important to store the data in a secure way.

The use of secondary data also includes some ethical considerations for the researchers borrowing the data. It is important to feel an ownership to the data and report the findings as truthfully as possible without misusing the results for own benefit (Punch, 2014). In order to make sure that these aspects were fulfilled all researchers using the *Young in Oslo 2018* survey had to sign a contract before receiving that data. The contract states that the researcher

is committed to use the data to explore the objectives. The researchers also need to notify NOVA if they do not use the data. If the study is to be used in any publications the researchers have to state that the data material was based on a *Young data* survey, executed by NOVA in cooperation with KoRus, and financed by the Norwegian Directorate of Health. In addition, NOVA does not have any responsibility for the results of the study, but have to be notified if there are any media reports based on the results.

Chapter 6: Results

This chapter includes a univariate analyses addressing the descriptive statistics of the variables. Followed up by a chi-square of independence and independent sample t-test examining the characteristics of adolescents with immigrant background and attendance in leisure clubs. Lastly a model was made predicting attendance in leisure clubs using a logistic regression.

6.1 Univariate analyses

The sample (N=4708) consisted of 49.1 % boys and 50.4 % girls. The sample was almost evenly distributed between the 8th (34.9 %), 9th (32.8 %) and 10th (31.8 %) grade. Further, the majority of the sample had parents with higher education. Among the participants 52.2 % had a mother with high education and 54.1 % had a father with high education. A minority of the sample had attended leisure clubs at least once during the last month (38.6 %) compared to adolescent that had not attended leisure clubs during the last month (49.4 %). More information on the frequency of the categorical variables is shown in table 2.

Table 2: Frequencies of sex, grade, parents' education and attendance in leisure clubs.

Variables	Frequency
Sex	
Boy	2309
Girl	2375
Total	4684
Missing	24
Grade	
8th	1641
9th	1546
10th	1497
Total	4684
Missing	24
Fathers' higher education	
Yes	2547
No	1433
Total	3980
Missing	728
Mothers' higher education	
Yes	2459
No	1608
Total	4067
Missing	641

Attendance in leisure clubs	
Not attend	2324
Attend	1816
Total	4140
Missing	568

The majority of the study sample did not struggle with problem behaviour with a mean score of 11.17 (SD=5.15). Only a small part of the sample reported taking part in bullying (M=1.28, SD=.45), and the same goes for participants experiencing bullying (M=1.38, SD=.48). Further, the majority of the sample did not experience cyber bullying (M=5.09, SD=2.07) and/or violence (M=4.72, SD=1.86). The participants were somewhat happy with the options in the local community with a mean score of 9.70 (SD=4.27), and only a small part of the sample had experience with substance and alcohol use (M=3.72, SD=2.10). In addition, the majority of participants were very satisfied with their life and had a mean score of 12.36 (SD=6.05). More information on the continuous variables is listed in table 3.

Table 3: Descriptive Statistics of problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction.

Variables	N	Missing (N)	Min	Max
Problem behaviour	4301	8.6 % (407)	8	40
Bullying	4462	5.2 % (246)	1	2
Experienced bullying	4439	5.7 % (269)	1	2
Experienced cyber bullying	4373	7.1 % (335)	4	16

Experienced violence	4271	9.3 % (437)	4	16
Perceived resources in local community	3900	17.2 % (808)	4	20
Substance and alcohol use	4341	7.8 % (367)	3	15
Life satisfaction	3746	20.4 % (962)	6	30

N=4708

6.1.1 Missing cases

Quantitative research often experience problems with missing data (Peugh & Enders, 2004) and it is not unusual to have a missing rate of 15 % to 20 % in educational and psychological studies (Dong & Peng, 2013). Two of the most common techniques to manage missing values are listwise deletion and pairwise deletion. It is important to be aware of how to handle missing data because it can affect the results in a crucial way. According to Pallant (2016) "exclude cases listwise will include cases in the analysis only if they have full data on all of the variables listed in your variables box for that case. However, exclude cases pairwise excludes the case (person) only if they are missing the data required for the specific analysis" (p. 58). The option of excluding cases listwise can limit the sample size of the study in an extreme way. To exclude cases pairwise or listwise the missing data must be "missing completely at random" (MCAR) and there should not be more than five per cent missing cases. When conducting the Little's MCAR test in SPSS the results were significant which means that the missing cases were not MCAR. Based on these results this study will not exclude missing cases.

6.1.2 Normality

According to Pallant (2016) one common assumption for several statistic techniques is that the dependent variable is normally distributed. However, it is not uncommon that the dependent variable in social sciences is not normally distributed. The dependent variable in this study *attendance in leisure clubs* has been manipulated into a dichotomous variable, where the options are "attend" and "not attend". The result of the normality test tells us that the dependent variable is not normal distributed. Luckily, most statistical techniques accept violation of this assumption, especially with a large sample size, which it is in this case (N=4140). Further, normality was investigated in the eight continuous variables. The independent variables were not normally distributed. Preliminary analysis showed that the distribution in problem behaviour (Skewness = 2.84, Kurtosis = 10.32) and life satisfaction (Skewness = 1.23, Kurtosis = .94), were skewed to the right. This is not uncommon because the majority of youth do not struggle with problem behaviour and are generally happy with their life. The distribution in the perceived resources in local community score was somewhat normally distributed, but it was also a bit skewed to the right (Skewness = .67, Kurtosis = -.18). Further, Pallant (2016) explains that a positive or negative skewness in the scores are common in social science, and it does not necessarily indicate that there is something wrong with the scale (see table 4 for more detail on the skewness and kurtosis of the other variables).

Table 4: Normality in the independent variables.

Independent variables	Skewness	Kurtosis
Bullying	.97	-1.05
Experienced bullying	.50	-1.75
Experienced cyber bullying	2.76	8.94
Experienced violence	3.55	14.15
Substance and alcohol use	3.84	15.40

6.1.3 Outliers

Outliers can be a problem for several statistical techniques and it is therefore important to explore if some of the variables in the study have outliers, and decide what to do with them. One indication of whether the variables have outliers can be the kurtosis value (see table 4) (Pallant, 2016). The variables Problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence and substance and alcohol use have a high kurtosis value which makes it necessary to investigate these values further.

The boxplot for these variables suggests that there are some extreme outliers in the dataset. However, the decision to manipulate the data and remove the most extreme outliers is a difficult decision because it can impact the data in a negative way if they are wrongfully removed. It is important to look at other outcomes in order to make a decision on whether to keep or remove the outliers. One outcome is the difference in the 5 % trimmed mean and the mean (see details in table 5). According to Pallant (2016) we need to investigate these outliers if the trimmed mean and mean values are very different. This study found a small difference between the mean and trimmed mean values. Based on this, the study will not manipulate the data by removing the extreme outliers.

Table 5: Mean and trimmed mean for variables with extreme outliers

Independent variables	Mean	5 % Trimmed Mean
Problem behaviour	11.17	10.36
Bullying	1.72	1.74
Experienced bullying	1.62	1.64
Experienced cyber bullying	5.09	4.76
Experienced violence	4.72	4.38
Substance and alcohol use	3.72	3.32

6.2 Bivariate analyses

6.2.1 Chi-Square tests for independence

Chi-Square tests for independence were conducted to explore if there were any associations between attendance in leisure clubs and sex, grade, fathers' higher education and mothers' higher education. The test indicated a significant association (p=.000, value=31.28, using Yates' Continuity Correction) between attendance in leisure clubs and sex with a small effect size (phi=.088). There was also a significant association (p=.027, value=7.23, using Pearson Chi-Square) between attendance in leisure clubs and grade with a very small effect size (Cramer`s V=.042). Further, there appeared to be no significant association (p=1.00, value=.00, using Yates` Continuity Correction) between attendance in leisure clubs and fathers' higher education (phi = -.000). However, the results did find a significant association (p=.047, value=3.95, using Yates` Continuity Correction) between attendance in leisure clubs and mothers' higher education with a very small effect size (phi=.034) (See table 6 for more details).

Table 6: Chi-Square test and crosstabs for sex, grade, fathers' higher education, mothers' higher education*attendance in leisure club

		Not attend N (%)	Attend N (%)	N=4122 (Missing)
Sex	Boys within attendance	1036 44.8 %	969 53.6 %	
	Girls within attendance	1278 55.2 %	839 46.4%	
	Total	2314	1808	12.4%

Grade	8th	770	661	
	within attendance	33.3 %	36.6 %	
	9th	763	599	
	within attendance	33.0 %	33.2 %	
	10th	782	546	
	within attendance	33.8 %	30.2 %	
	Total	2315 (56.2)	1806 (43.8)	12.5 %
Fathers' higher education	Yes	1260	1003	
	within attendance	64 %	64 %	
	No	708	563	
	within attendance	36 %	36 %	
	Total	1968 (55.7)	1566 (44.3)	24.9%
Mothers' higher education	Yes	1260	938	
	within attendance	62.2 %	58.9 %	
	No	766	655	
	within attendance	37.9 %	41.1 %	
	Total	2026 (56.0)	1593 (44.0)	23.1 %

6.2.2 Independent sample t-test

Independent sample t-tests were conducted to explore if there were any significant differences in the mean score of problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction among adolescents with immigrant background that had not attended and had attended leisure clubs during the last month. Only two variables did not violate the assumption of equal variance (experienced bullying and life satisfaction). The remaining six variables had a sig. value lower than .05 (according to Levene`s test for equality of variance). There was a significant difference in the mean score for "not attend" and "attend" in all the variables except experienced bullying and substance and alcohol use. Further, it is quite common to get a significant result in big samples and the effect size for the significant variables were calculated. The magnitude of the difference in the means for all the variables were small when following Cohen (1988) guidelines. The highest effect size was found in problem behaviour and perceived resources in local community. Further, 1.2 per cent (eta squared = .012) of the variance in attendance in leisure clubs was explained by problem behaviour and perceived resources in local community (see Table 7 for details).

Table 7: T-test of attendance in leisure clubs during the last month by problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction.

Variable	N	M(SD)	Mean Diff.	t	df	Sig. (2-tailed)	95% Confidence Interval	
							Lower	Upper
Problem behaviour								
- Not attend	2241	10.63 (4.49)	1.17	7.10	3240.61	.000	.85	1.49
- Attend	1729	11.81 (5.63)						
- Total	3970							

	N	Mean (SD)		t	df	p		
Bullying								
- Not attend	2297	1.24 (.42)	.093	6.56	3645.46	.000	.06	.12
- Attend	1791	1.33 (.47)						
- Total	4088							
Experienced bullying								
- Not attend	2289	1.38 (.48)	-.012	-.78	4076	.43	-.04	.02
- Attend	1789	1.37 (.48)						
- Total	4078							
Experienced cyber bullying								
- Not attend	2276	4.99 (1.91)	.22	3.37	3509.73	.001	.09	.35
- Attend	1769	5.21 (2.20)						
- Total	4045							
Experienced violence								
- Not attend	2243	4.62 (1.76)	.21	3.51	3497,11	.000	.09	.33
- Attend	1726	4.84 (1.96)						
- Total	3969							
Perceived resources in local community	2083	10.13 (4.32)	-.96	-6.91	3569,80	.000	-1.23	-.68
- Not attend	1626	9.16 (4.10)						
- Attend	3709							
- Total								

Substance and alcohol use								
- Not attend	2252	3.68 (2.00)	.07	1.07	3626.78	.28	-.06	.20
- Attend	1753	3.76 (2.15)						
- Total	4005							
Life satisfaction								
- Not attend	1998	12.63 (5.95)	-.60	-2.94	3522	.003	-1.00	-.20
- Attend	1526	12.03 (6.11)						
- Total	3524							

6.3 Logistic regression

A binary logistic regression was performed to assess how the study's predictor variables (sex, grade, parents' higher education, problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction) explained the study's categorical dependent variable (attendance in leisure clubs). Before conducting the analysis, the assumptions for logistic regression were investigated (see the descriptive analysis above for more information on the general assumptions). More specific assumptions for logistic regression (sample size, multicollinearity and outliers) were investigated and collinearity diagnostics showed that the tolerance values were above .1 (from .7 to .9), which support the assumption that there was not multicollinearity between the variables. Further, in order to make sense of the results, some changes in the coding of responses were conducted. The dependent variable *attendance in leisure clubs* were recoded from 1=attend, 2=not attend to 0=not attend, 1=attend. Six independent variables were also recoded. *Sex* from 1=boy, 2=girl to 0=girl, 1=boy. *Grade* from 1=8th, 2=9th, 3=10th, to 0=10th, 1=9th, 2=8th. *Fathers' and mothers' higher education* from 1=yes, 2=no to 0=yes, 1=no. *Bullying and experienced bullying* from 1=have never

bullied/experienced bullying, 2=have bullied/experienced bullying to 0=have never bullied/experienced bullying, 1=have bullied/experienced bullying.

6.3.1 Baseline model

The sample size (N=2544) included in the analysis shows that there is a high level of missing data (N=2164, 46%) in this model. The reason for this is that SPSS, by default, excludes cases listwise, which often exclude 20-50 % of the data (Acock, 2005). Due to the fact that there were some missing cases in the variables (see descriptive section), and that this study did not impute missing data, there are a high percentage of missing cases in this analysis. Despite the high number of missing cases, the sample size is large enough to get quality results from the analysis (Pallant, 2016). Further, the sample size from each categorical variable showed that there were big enough groups to continue with the analysis (see table 8 for details). In addition, the sample size in the outcome variable was almost equally distributed between not attend (N=1455) and attend (N=1089).

Table 8: Case processing summary and categorical variables summary

Categorical variables	N
Sex:	
- Boy	1238
- Girl	1306
Grade:	
- 8th	835
- 9th	865
- 10th	844
Fathers' education	
- No	925

- Yes	1619
Mothers' education	
- No	1016
- Yes	1528

The baseline model gave a result of the analysis without including any of the predictor variables (grade, sex, fathers' higher education, mothers' higher education, problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction). The results given by SPSS indicated that all cases would not attend leisure clubs, because there were a higher percentage of people answering "No" to the question. The overall percentage of correctly classified cases was 57.2 %.

6.3.2 Model including all sets of variables

The full model contained twelve independent variables (sex, grade, fathers' higher education, mothers' higher education, problem behaviour, bullying, experienced bullying, experienced cyber bullying, experienced violence, perceived resources in local community, substance and alcohol use and life satisfaction) and was statistically significant, X^2 (13, N = 2544) = 143.5, p < .001. This suggests that the model was able to distinguish between respondents that reported *not attending leisure clubs* and respondents that reported that they *attended leisure clubs*. The model as a whole explained between 5.5 % (Cox and Snell R square) and 7.4 % (Nagelkerke R squared) of the variance in attendance in leisure clubs, and correctly classified 61.9 % of cases. Nine independent variables made a unique statistically significant contribution to the model (sex, mothers' higher education, problem behaviour, bullying, experienced bullying, experienced cyber bullying, perceived resources in local community, substance and alcohol use and life satisfaction). The odds ratio for sex (OR = 1.30, CI 1.10 – 1.55) indicates that an increase of boys in the sample will increase attendance in leisure clubs. An increase in problem behaviour (OR = 1.06, CI 1.03 – 1.08), experienced bullying (OR = 1.25, CI 1.03 – 1.50) and experienced cyber bullying (OR = 1.10, CI 1.05 – 1.16) will also lead to an increase in attendance in leisure clubs. The confidence interval in mothers' education (OR = 1.38, CI .99 – 1.51) explains that it is almost equal probability of the two responses (not attend/attend). Grade (OR = 1.23, CI .99 – 1.51), fathers' higher education

(OR = 1.14, CI .93 – 1.40) and experienced violence (OR = 1.01, CI .95 – 1.07) did not contribute significantly to the predictive ability of the model. An increase of adolescents that bullied (OR = .68, CI .56 - .83), were dissatisfied with the perceived resources in local community (OR = .95, CI .93 - .97), struggled with substance and alcohol use (OR = .89, CI .84 - .94) or were dissatisfied with their life (OR = .98, CI .97 - .99) in the sample will lead to a decrease of participants in leisure clubs (see more detail in table 9). The model was able to correctly classify 35.4 per cent of the participants that attended leisure clubs (the sensitivity of the model) and 81.7 per cent of the participants that did not attend leisure clubs (the specificity of the model). Further, the positive predictive value in this model was 59.1 per cent, which indicates that out of the people predicted to attend leisure clubs the model accurately picked 59.1 per cent. The negative predictive value, which indicates the percentage of cases predicted not to have the characteristics that are actually observed, was 62.8 per cent in this model.

Table 9: Logistic regression predicting likelihood of reporting attendance in leisure clubs.

Variables	B	S.E.	Wald	df	Sig.
Sex (1)	.27	.08	9.61	1	.002
Grade			3.86	2	.145
Grade (1)	.13	.10	1.68	1	.195
Grade (2)	.20	.10	3.75	1	.053
Fathers' education (1)	-.13	.10	1.68	1	.195
Mothers' education (1)	.33	.10	10.61	1	.001
Problem behaviour	.05	.01	17.56	1	.000
Bullying	-.38	.10	13.81	1	.000

Experienced bullying	.22	.09	5.20	1	.023
Experienced cyber bullying	.09	.03	13.98	1	.000
Experienced violence	.01	.03	.12	1	.730
Perceived resources in local community	-.05	.01	25.93	1	.000
Substance and alcohol use	-.11	.03	16.26	1	.000
Life satisfaction	-.02	.01	5.23	1	.022
Constant	-.48	.24	4.05	1	.04

Chapter 7: Discussion and limitations

The objectives of this study are to contribute to more knowledge on characteristics of adolescents with immigrant background that attend leisure clubs, factors that predict attendance in leisure clubs in Oslo and how leisure clubs can focus on health promoting and preventive measure in order to reduce social inequality in health. This chapter includes discussion of findings and limitations of the study.

7.1 Discussion of findings

The findings of the study will be discussed by using the Social Ecological Model and previous literature mentioned. This sub-chapter includes the characteristics of adolescents with immigrant background in Oslo. Followed by predictive factors for attendance in leisure clubs and implications for leisure clubs as health promoting and preventive arenas.

7.1.1 Characteristics of adolescents with immigrant background

Previous studies showed how the majority of adolescents in leisure clubs were boys (Heggelund et al., 2017; Pedersen, 2008). However, there was a smaller difference in sex and attendance in leisure clubs in studies from multicultural communities compared to studies on national level (Andersen & Dæhlen, 2016). The fact that there were more boys attending leisure clubs than girls is supported in this study. Despite that fact that more boys attended leisure clubs compared to girls, the findings in this study suggest that the difference between boys and girls was small and supports the results in the study by Andersen and Dæhlen (2016). Bakken (2018) found that the gender differences in leisure clubs were smaller than in organised sports, where less girls attend. One reason for this can be that 65.2 per cent of leisure clubs reported that they had developed girl groups (Heggelund et al., 2017). The recruitment of girls through girls group in leisure clubs can explain why girls and boys are somewhat equally represented in leisure clubs. This is supported by the Social Ecological Model that emphasis the importance of implementing measures on the individual-level in order to reach out to all youth (Stokols, 1996).

Studies found a decrease in attendance in leisure clubs when adolescents became older. Some studies found a decrease in attendance in leisure clubs after 9th grade (Andersen & Dæhlen, 2016; Øia, 2009). However, this study found a decrease in attendance in leisure clubs after 8th grade. Despite the weak association, this study discovered that more adolescents with immigrant background attend leisure clubs in 8th grade, compared to 9th and 10th grade. The fact that adolescents often stop attending leisure time activities when they get older might be explained by a feeling of independence and a desire to hang out with peers without supervision (Bakken, 2018). This suggest that there might be a need for programs that keep adolescents in leisure clubs longer in order for leisure clubs to be efficient health promoting and preventive arenas that reaches out to older youth.

This study did not investigate adolescents' socio-economic resources and attendance in leisure clubs. However, it did investigate parents' higher education, which is one of the factors included when investigating socio-economic resources and a proxy for the resources available for adolescents (Andersen & Seland, 2019). The findings did not show an association between attendance in leisure clubs and fathers' higher education. This results was supported by Øia (2009) who did not find any differences in parents' higher education and attendance in leisure clubs. This study found a significant association between mothers' higher education and attendance in leisure clubs, but the effect size showed that the association was weak. One reason for this might be the fact that more immigrants experience that they are over qualified for their job compared to ethnic Norwegians. A study by Wold and Håland (2016) found that 23 per cent of employed immigrants felt over qualified for their job. The fact that immigrant parents have higher education but not a job that match their level of education, might explain the non-existing and week association between parents' higher education and attendance in leisure clubs. However, Bakken (2018) found that adolescents with immigrant background attended leisure clubs to a greater extent than adolescents with Norwegian-born parents, regardless of their socio-economic resources. One reason for this can be that adolescents with immigrant background often live in vulnerable districts (Bakken, 2018) and some of these districts have gone through community upgrades where more resources are used on leisure clubs (Andersen & Dæhlen, 2016; Eriksen & Frøyland, 2017). The fact that municipalities often are in charge of the resources used on leisure clubs (Heggelund et al., 2017) supports the importance of the societal and community-level in the Social Ecological Model (Stokols, 1996). Based on this, a focus on strengthening leisure clubs and their services in vulnerable communities might explain why adolescents attend leisure clubs more in East of Oslo than West of Oslo.

Previous studies found that adolescents that attended leisure clubs struggled more with problem behaviour compared to adolescents that did not attend leisure clubs (Andersen & Seland, 2019; Øia, 2009). This is supported by the results in this study, which found that adolescents that attended leisure clubs struggled more with problem behaviour. The findings showed that adolescents with immigrant background that attended leisure clubs had bullied more, experienced more cyber bullying and experienced more violence than adolescents that had not attended leisure clubs, which was supported by Andersen and Seland (2019). Despite the significant results, there was a small difference in the mean scores of problem behaviour, bullying, experienced cyber bullying and experienced violence between adolescents that

attended and did not attend leisure clubs. Further, this study did not find a significant difference in experienced bullying between adolescents with immigrant background that attended and did not attend leisure clubs, which contradicts the findings by Andersen and Seland (2019).

The finding in this study did not find a significant difference in the mean score of substance and alcohol use and attendance in leisure clubs among adolescents with immigrant background. These findings contradict the results from previous studies that found that adolescents that attended leisure clubs had more experience with substance and alcohol use (Andersen & Seland, 2019). This can be explained by the fact that many adolescents with immigrant background in Oslo come from Muslim families where there are strict rules when it comes to consumption of alcohol and use of illegal drugs (Bakken, 2018). The results in this study indicate that there might not be a need for an extensive focus on prevention among adolescents with immigrant background in leisure clubs in Oslo. This is supported by Williamson (2008) who suggested more attention on other topics than substance and alcohol use. In addition, he underlined the importance of developing tools that enable adolescents to take control of their own health. Further, the white paper on public health expressed how a focus on voluntary work could promote adolescent's health and increase their feeling of joy (Services, 2015).

The results of this study suggest that leisure clubs might struggle to reach out to adolescents with immigrant background that struggle with problem behaviour. However, there are not more adolescents with immigrant background that struggle with problem behaviour compared to adolescents with parents born in Norway. In fact, most adolescents that does not struggle with problem behaviour live in East of Oslo (Bakken, 2018). This suggests that the observed groups with problem behaviour in vulnerable districts in Oslo (Mellingsæter et al., 2018) might not be adolescents with immigrant background but adolescents with low socio-economic resources (Bakken, 2018). This might be an important result for politicians that want to expand the opening hours of leisure clubs in order to prevent the development of criminal behaviour among adolescents. In order for leisure clubs to achieve their preventive objective they have to be able to reach out to the vulnerable youth in the society. One way to recruit adolescents from multicultural communities is, according to Eriksen and Frøyland (2017), to include the parents. A focus on the community, relationship and individual level in the Social Ecological Model (Stokols, 1996) is important in order to develop programs in leisure clubs that are attractive for both adolescents and their parents.

The study by Andersen and Seland (2019) also found that adolescents attending leisure clubs reported more dissatisfaction with their health, parents and school compared to adolescents that did not attend leisure clubs. These results were not supported by this study where the findings indicate that adolescents with immigrant background that attended leisure clubs reported to be more satisfied with life compared to adolescents that did not attend leisure clubs. This might be explained by leisure clubs ability to include adolescents and let them decide how to spend their leisure time in these clubs (Heggelund et al., 2017; Vestel & Hydle, 2009). Based on this, there should be more focus on positive topics in the attitude-development groups in leisure clubs. The importance of positive topic was highlighted in the study by Jönsson and Larneby (2018) who found that leisure clubs should focus on factors that create a positive environment. In addition, leisure clubs should be aware of the importance of the relationship-level in the Socio-Ecological Model (Stokols, 1996) and educate youth workers to be safe and supportive people whom adolescents can trust (Heggelund et al., 2017; Jönsson & Larneby, 2018; Vestel & Hydle, 2009).

Previous studies indicated that more adolescents attended leisure clubs in vulnerable districts and that a community upgrade resulted in higher attendance (Andersen & Dæhlen, 2016; Eriksen & Frøyland, 2017). Andersen and Dæhlen (2016) found that adolescents in Grorud attended leisure clubs more frequently compared to adolescents in Stovner and they were more satisfied with the services provided in the leisure club compared to the rest of Oslo. The fact that adolescents that attended leisure clubs were more satisfied with the services provided in the local community was supported in this study. In addition, Eriksen and Frøyland (2017) showed how strengthening the community and increasing the resources in leisure clubs were important factors in order to recruit adolescents from multicultural communities to leisure clubs. In addition, the Social Ecological Model defend the importance of policies that strengthens the communities in order to develop health promoting arenas that provide services to the citizens (Stokols, 1996).

7.1.2 Predictions of attendance in leisure clubs

This study predicts that higher level of bullying among adolescents with immigrant background would lead to a decrease in attendance in leisure clubs. On reason that can explain why adolescents with immigrant background that does not bully are more likely to attend leisure clubs can be the focus on bullying in the attitude-development groups in leisure clubs. According to Heggelund et al. (2017) bullying was the most discussed topic in these

groups. In addition, the findings predict that an increase in adolescents with immigrant background that struggled with problem behaviour, experience bullying and/or experienced cyber bullying will lead to an increase in attendance in leisure clubs. This suggests that leisure clubs are able to provide a supportive environment where vulnerable adolescents feel comfortable, and strengthens the importance of discussing difficult topics concerning bullying and violence in attitude-development groups. This explains the importance of preventive measure in leisure clubs as a part of the community-level in the Social Ecological Model. Moreover, the societal-level can influence the community-levels focus on prevention of behaviour problems among adolescents by implementing laws, for instance the implementation of law against bullying (Norwegian Government, 2017).

Adolescents with immigrant background in Oslo that are more satisfied with the local community and their lives, are more likely to attend leisure clubs. This emphasises the importance of community upgrades in local communities, which is supported by different studies (Andersen & Dæhlen, 2016; Eriksen & Frøyland, 2017). On the other hand, the fact that there has been a decrease in resources used on leisure clubs from 2008 to 2016 (Heggelund et al., 2017) can indicate that the districts in Oslo that is not under a community upgrade will struggle more to obtain adolescents' attendance in leisure clubs. This was emphasised in the study by Andersen and Dæhlen (2016) where more adolescents in Grorud (which is a part of a community upgrade) attend leisure clubs compared to Stovner (which does not experience a community upgrade). This indicate that measures on the societal-level in the Social Ecological Model are necessary in order to provide policies that support the use of resources on leisure clubs by the municipalities (Stokols, 1996). This can be through legislative tasks stating that municipalities need to prioritise leisure clubs (Heggelund et al., 2017), but the government should also provide financial support to research institutes that can evaluate leisure clubs and provide research on their health promoting and preventive abilities (Williamson, 2018).

This study shows how a decrease in substance and alcohol use predicts an increase in attendance in leisure clubs. The objective to prevent substance and alcohol use in leisure clubs through different projects, for instance YoPro (Vestel & Hydle, 2009), might be a reason for this prediction. These types of projects and the zero tolerance for substance and alcohol use in leisure clubs (Heggelund et al., 2017) might explain the fact that adolescents with immigrant background that does not struggle with this are more likely to attend leisure clubs in Oslo. On the other hand, the fact that adolescents with immigrant background consume less alcohol and

illegal drugs compared to adolescents with Norwegian born parents, due to cultural and religious differences, might explain this result (Bakken, 2018). The study by Andersen and Dæhlen (2016) showed how parents were important in the recruitment of adolescents to leisure clubs, and the fact that leisure clubs have a zero tolerance when it comes to substance and alcohol use (Heggelund et al., 2017) might make it attractive for parents in multicultural communities to let their children attend leisure clubs.

The findings in this study clarify how some factors in the Social Ecological Model predict attendance in leisure clubs among adolescents with immigrant background in Oslo. Even though the factors had a relatively weak prediction, sex, problem behaviour, bullying, experienced bullying, experienced cyber bullying, resources in the local community, substance and alcohol use and life satisfaction were all predictors for attendance in leisure clubs. Further, the study support the importance of working across the four levels in the Social Ecological Model in order to create leisure clubs that are preventive and health promoting because the variables that predict attendance in leisure clubs are part of the individual, relationship, community and societal level of the model.

7.1.3 Implications for leisure clubs as health promoting and preventive arenas

In order for leisure clubs to be health promoting and preventive arenas they need to develop programs that reaches out to the groups of interest. According to Youth Work Norway (2019a) leisure clubs are open for everyone from the ages of 10 to 18 years. The fact that there is a decrease in attendance in leisure clubs among adolescents with immigrant background after 8th grade, suggest that measures including older adolescents should be implemented. One explanation for the decrease in attendance in leisure clubs by adolescents might be their need for autonomy (Bakken, 2018). The structure of delivery is therefore important in order for leisure clubs to be relevant and meaningful for older adolescents (Williamson, 2018). Leisure clubs focus on prevention of problem behaviour can limit adolescents feeling of freedom and might exclude them from leisure clubs. This study suggest that more health promoting aspects, with an increased focus on democracy and adolescents right to decide how to spend their time in leisure clubs (Lindström, 2010), can include older adolescents.

Leisure clubs need enabling features such as legislation, human and/or financial resources in order to provide sufficient health promoting and preventive arenas (Williamson, 2018).

Community upgrades can be important factors for attendance in leisure clubs in multicultural communities (Andersen & Dæhlen, 2016). This study indicates that adolescents with immigrant background that are happy with the resources in the local community are more likely to attend leisure clubs. This suggests that adolescents are more likely to attend leisure clubs if resources are used to improve their community and the clubs. The decrease in resources used on leisure clubs (Heggelund et al., 2017) might reduce the attendance among adolescents with immigrant background. It is therefore important that governments and municipalities prioritise leisure clubs if they want them to be arenas that promote health and prevent behaviour problems.

Leisure clubs have throughout the years had an preventive objective (Heggelund et al., 2017), and the Conservative Party of Norway wanted to invest 30 million NOK to leisure clubs in Oslo in order for clubs to be open every day (Mellingsæter et al., 2018). The main argument for an expansion in opening hours was to prevent the development of criminal groups among youth in Oslo. This study found that the characteristics of adolescents with immigrant background in Oslo that attended and did not attend leisure clubs were reasonably similar. This indicates that leisure clubs do not attract adolescents with immigrant background that struggle a lot with problem behaviour, bullying and/or substance and alcohol use, which means that leisure clubs do not work as preventive arenas for the adolescents that struggle a lot with behavioural problems. Based on this, there might be a need to develop programs that reach out to these youth. In order to recruit problem youths, vulnerable districts should focus on strengthening the community, increase the resources used on leisure clubs, make sure that leisure clubs are free of charge and include parents (Andersen & Dæhlen, 2016). Collaboration with different social institutions is important in order for leisure clubs to provide effective preventive measures (Ministry of Health and Care Services, 2019; Williamson, 2018). However, Heggelund et al. (2017) described a decrease in collaboration with police, child welfare and school nurses from 2008 to 2016. This indicate that there might be a need for better cooperation between the societal and community level in the Social Ecological Model, in order to provide preventive measures that reaches out to the most vulnerable groups in the community.

Lastly, the characteristics of adolescents with immigrant background that attend leisure clubs in Oslo indicate that there is too much focus on the preventive objective, which often are specific measures focusing on prevention of behavioural problems. The fact that adolescents that attend leisure clubs are satisfied with their life and the resources in their local community

suggest a shift in focus to more health promoting measures that reach out to everyone in the communities. This shift could include more focus on positive topics in the attitude-development groups, which focus on the importance of community engagement (e.g. voluntary work) (Lindström, 2010; Services, 2015). In addition, programs focusing on how adolescents can be important resources to the society (as a whole) and the local community (more specifically) could empower adolescents. However, the fact that adolescents with immigrant background that have experienced bullying and cyber bullying are more likely to attend leisure clubs support the importance of combining universal health promoting topics with more specific preventive topics in these groups (The Norwegian Directorate of Health, 2018).

7.3 Limitations

It is important to address and discuss some of the limitation that might affect the results of the study. *Young in Oslo 2018* is the newest survey investigating young peoples life in Oslo. This affected the availability of the survey, and the researcher had limited access to the survey due to on-going research projects and concerns for anonymity. Not gaining access to the whole survey limited the study's ability to investigate other variables that might have more predictive abilities in the model.

Further, different questions in the survey might have had an impact on the results in the study. It might not be sufficient to only include two options in the question about sex. In this study participants got the options to answer if they were boy or girl but according to Fryrear (2016) it is important to provide a range of gender options that include everyone. However, this study only had .5 per cent missing cases in the sex variable, which might indicate that most of the participants in the survey were satisfied with the gender options. Moreover, another question in the survey that could influence the results in this study was the question about parents' higher education. This question asked the participants if their mother and father had a higher education, from college or university, with a yes and no option. In addition, participants were asked to skip the question if they did not have contact with one or both of their parents. The missing cases in this question suggest that many participants skipped this question. It is important to reflect on the missing cases and it might be important to include other options in

this question (e.g. *I do not have contact with my father, mother, both* and *I do not know if my parents have higher education*).

Due to the weak predictions on attendance in leisure clubs from the independent variables in the model, and the fact that Andersen and Seland (2019) found bigger differences in the independent variables when including all the options in attendance in leisure clubs, this study investigated if a linear regression would give a stronger prediction. However, the linear regression, where the dependent variable kept the original answering option, did not provide a better model and the study therefore continued with the logistic regression. Lastly, SPSS automatically excluded cases listwise in the logistic regression of this study, and the fact that this study did not impute value to the missing data might have had an impact on the final model.

Chapter 8: Conclusion and recommendations

8.1 Concluding remarks

Leisure clubs have had a preventive objective from the establishment of the first club in 1953 to present time. These clubs have an aim to provide an open and safe environment that includes all adolescent in the community. Leisure clubs also have the ability to reduce social inequality in health among adolescents because their low or non-existing membership fee makes sure that everyone can attend regardless of their socio-economic resources. Further, it is important to include universal and specific measures in order to reduce social inequality in health, and leisure clubs have the ability to do this by focusing on health promoting and preventive objectives. In order for leisure clubs to develop health promoting and preventive measures that are relevant and meaningful for adolescents they are dependent on financial support from the government or municipalities. The community upgrades that some districts in Oslo have experienced seem to have a positive influence on adolescents' attendance in leisure clubs. This study suggests that more resources should be used to strengthen the leisure clubs in districts that does not participate in a community upgrade.

Leisure clubs should increase the focus on health promoting measures that includes all adolescents and focus on empowerment and community engagement. This shift is based on

the fact that the characteristics of adolescents with immigrant background that attend and does not attend leisure clubs in Oslo are relatively similar. They are generally happy with their life and local community and do not struggle a lot with behavioural problems.

In addition to universal health promoting measures there should still be a focus on prevention in leisure clubs. However, the results in this study does not suggest that leisure clubs in Oslo attract adolescents that struggle a lot with behavioural problems. Therefore, in order to reduce the behavioural problems observed in Oslo among youth the last years, a program that reaches out to these youth and recruit them to leisure clubs have to be developed before preventive measures will have an effect.

8.2 Recommendations for further research

Several studies have examined the characteristics of adolescents that attend leisure clubs in Norway. However, the decrease in resources invested in leisure clubs by the municipalities from 2008 to 2016 indicate that there might be a need for more studies that evaluate leisure clubs and their preventive and health promoting abilities. Evaluation of leisure clubs and their empowered outcomes might increase the resources invested by the municipalities.

The result of this study makes it interesting to examine how adolescents and parents perceive the preventive objective in leisure clubs by conducting a qualitative study. The study should include adolescents that attend leisure clubs and explore their thoughts about clubs as preventive and health promoting arenas. In addition, it would be interesting to explore parents' attitudes towards leisure clubs as preventive arenas and whether they want their children to attend leisure clubs.

In addition, a qualitative study investigating adolescents in Oslo that struggle with behavioural problem and their thoughts about leisure clubs and the services they provide would be interesting in order to develop programs that recruit these adolescents to leisure clubs.

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Appendices

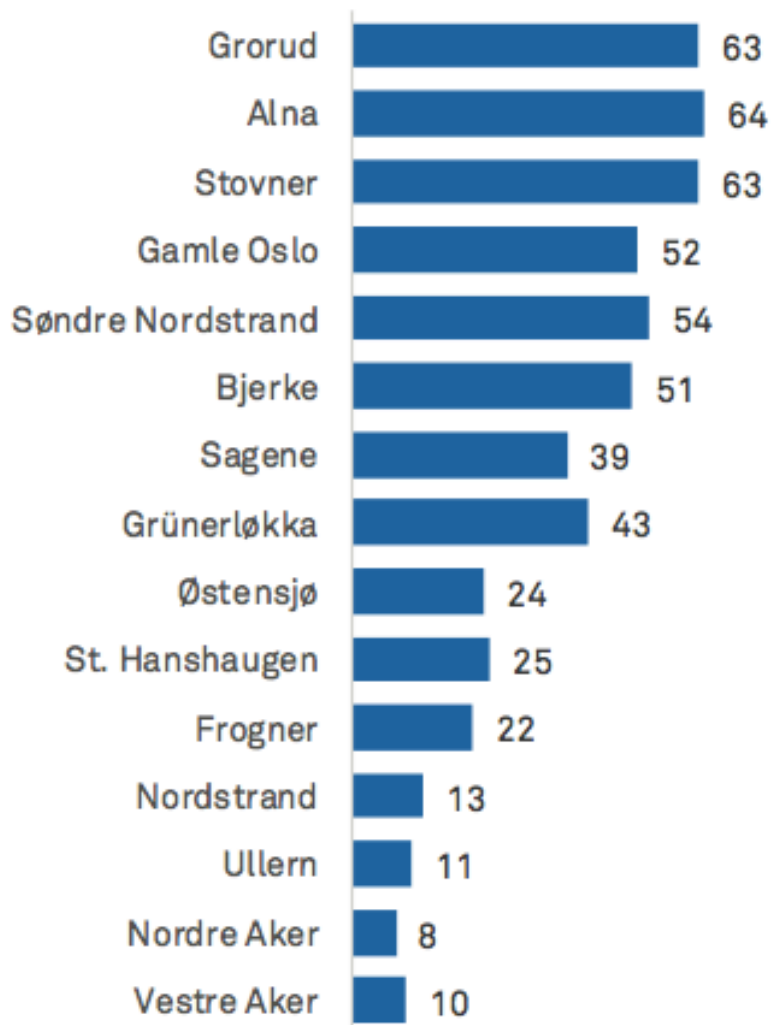## Appendix 1: Map: Immigrants and Norwegian-born with immigrant parents in Oslo

Figure 1.0: Immigrants and Norwegian-born with immigrant parents in different districts in Oslo from 1.1.2015.
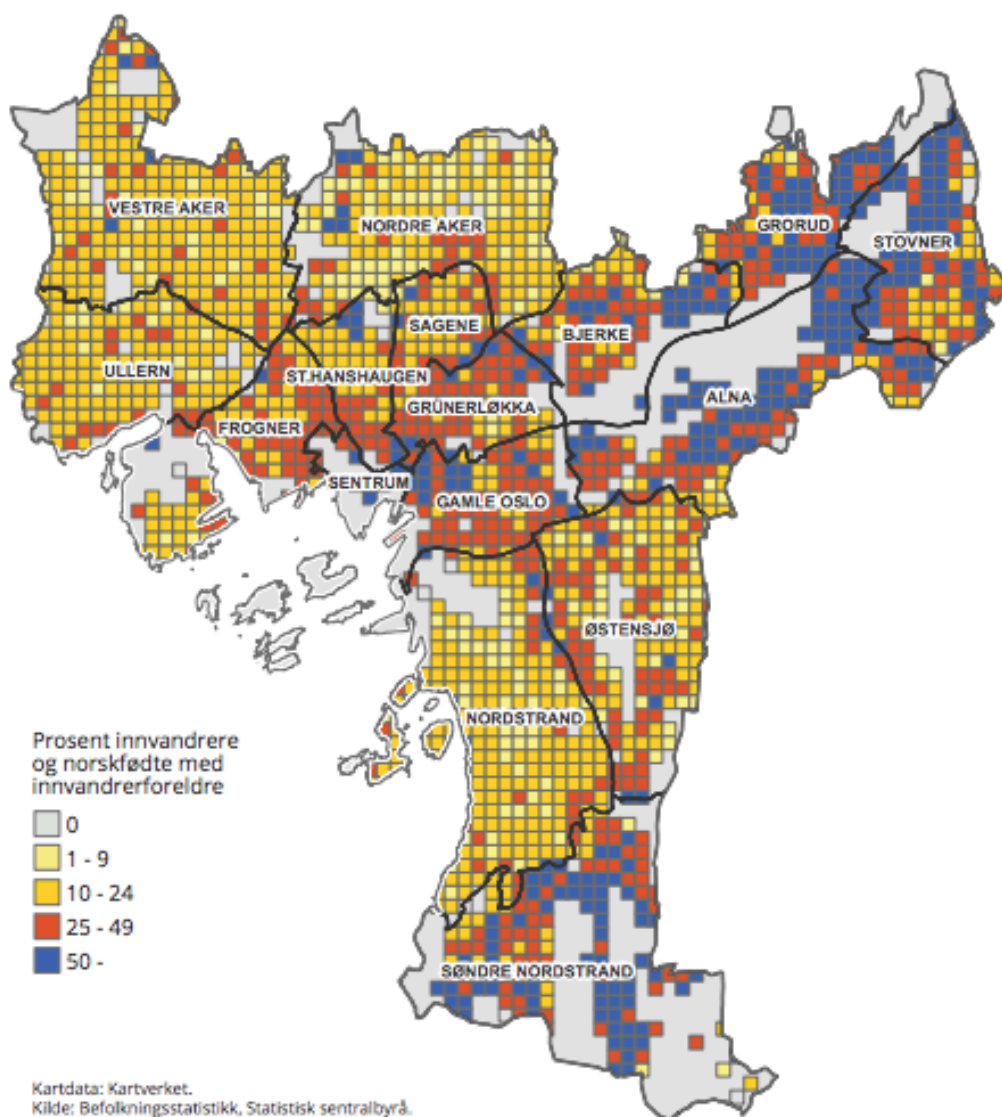

Source: Høydahl (2015)

Appendix 2: Percentage of adolescents with immigrant background in different districts in Oslo, 2018.

Prosentandel som har to utenlandsfødte foreldre blant ungdom i ulike bydeler. Oslo 2018

District	Percentage
Grorud	63
Alna	64
Stovner	63
Gamle Oslo	52
Søndre Nordstrand	54
Bjerke	51
Sagene	39
Grünerløkka	43
Østensjø	24
St. Hanshaugen	25
Frogner	22
Nordstrand	13
Ullern	11
Nordre Aker	8
Vestre Aker	10

Source: (Bakken, 2018)

Appendix 3: Amount of immigrants and Norwegian-born with immigrant parents 0-24 years, after the size of the municipalities. Oslo is excluded and districts in Oslo are included. 01.01.2015
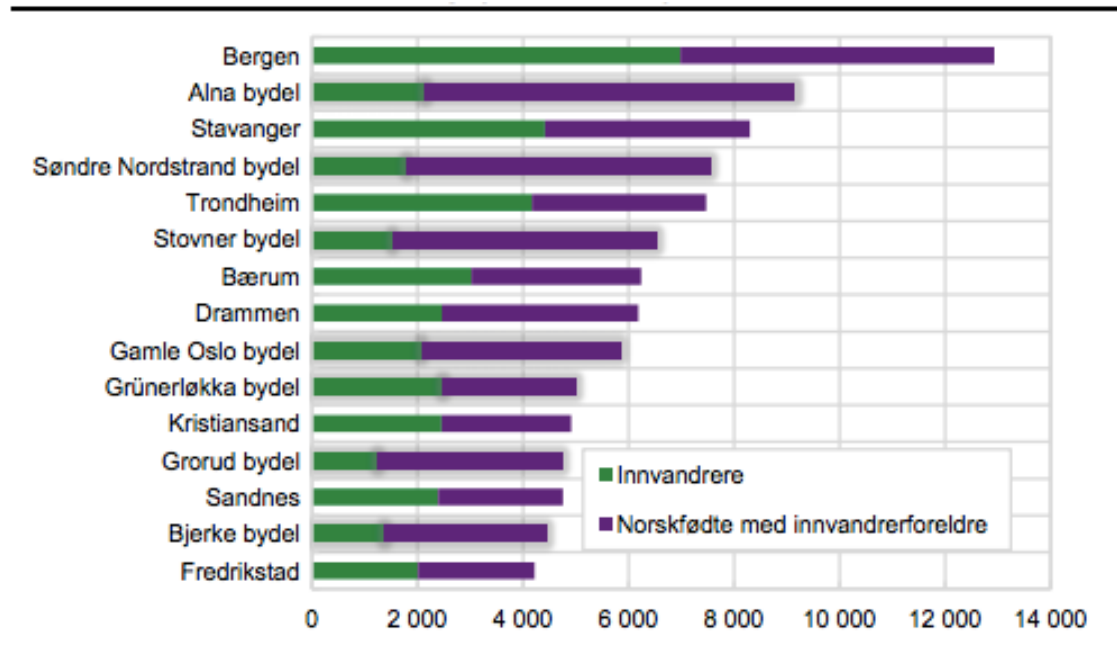
Source: (Dzamarija, 2016)

Appendix 4: 21 countries included in the International Review of Youth Work

Countries	**Year of Review**
Finland	1999
Netherlands	2000
Sweden	2000
Spain	2000
Romania	2001
Estonia	2001
Luxembourg	2002
Lithuania	2003
Norway	2004
Malta	2005
Slovak Republic	2007
Cyprus	2007
Hungary	2008
Latvia	2008
Armenia	2009
Moldova	2010
Albania	2010
Belgium	2012
Ukraine	2013
Greece	2015
Serbia	2016

Source: Council of Europe Portal (2019)

Appendix 5: Information flyer Young in Oslo 2018

Young in Oslo 2018

Information for parents/guardians and lower secondary school pupils

NOVA
Velferdsforskningsinstituttet
HØGSKOLEN I OSLO OG AKERSHUS

HØGSKOLEN I OSLO OG AKERSHUS

The research institute NOVA invites more than 35,000 young people in Oslo to complete the survey Young in Oslo. The purpose of this is to gain an up-to-date picture of how young people in Oslo are doing and what they do in their spare time. The survey is conducted by NOVA at Oslo and Akershus University College of Applied Sciences, in collaboration with the City of Oslo.

Young in Oslo 2018

Young in Oslo gives the city's young people a unique opportunity to tell politicians, researchers and others about their lives.

The main findings will be published in June, and will give the City of Oslo and the city districts new knowledge that they can use to develop their policies on young people.

The survey is sent to around 90 lower and upper secondary schools across Oslo. Most of the schools will carry out the survey in the period from week four to week seven.

NOVA and the City of Oslo have previously conducted the Young in Oslo survey in 1996, 2006, 2012 and 2015.

How is the survey carried out?

The survey is anonymous at lower secondary level, and the pupils fill in the online survey while they are at school. It takes pupils around one school period to answer the questions.

To answer the survey, the pupils log in to an online form using a randomly assigned single-use code.

The pupils are informed in advance that participation is voluntary, that they can skip individual questions and they can withdraw at any time.

All answers will be treated as strictly confidential by researchers at NOVA and the staff of Rambøll, which make the practical arrangements for the electronic survey.

Parents/guardians who do not want their child to take part in the survey must notify the pupil's form teacher by 18 January 2018.

What are the pupils asked about?

The survey is intended to give us an accurate picture of young people's well-being. The pupils will be asked about how they spend their free time, their health and well-being, school, local community and friends. They will also be asked about bullying, pressure, crime, violence, hateful statements, sexual harassment and their use of alcohol and drugs.

There are also questions about parents' level of education and how they bring up their children, the family's financial situation and immigrant background.

Parents/guardians who would like to see the whole questionnaire can contact NOVA.

Ungdata

Young in Oslo 2018 is part of the Ungdata surveys that are conducted among school pupils across Norway. The survey conducted in Oslo will therefore be able to tell us what it is like to grow up in Oslo compared with other places in Norway.

Data from the survey will be used in research and development projects, where the goal is to obtain new knowledge about the conditions under which young people grow up.

You can find more information about Ungdata at ungdata.no.

More information about Young in Oslo 2018
More information is available on the website hioa.no/ungioslo2018.
If you have any questions, please send an email to ungioslo@hioa.no.

Contact information NOVA
Project manager Anders Bakken, 46 50 20 76 – ungioslo@hioa.no
Project team member Ola Melbye Pettersen, 91 77 24 80 – ungioslo@hioa.no

Source: HIOA (2018b)

Appendix 6: Contract between NOVA and researcher

AVTALE OM UTLEVERING AV DATA

Mellom

Marit Lundberg

(senere kalt Studenten)

og

OsloMet v/NOVA

(senere kalt NOVA)

1. Grunnlag

27 08 2018 søkete Marit Lundeberg om tilgang til data fra ung i Oslo 2018 undersøkelsen. dataen skal brukes i en masteroppgave med problemstillingen "Er det noen sammenheng mellom deltakelse i fritidsklubber blant ungdom med innvandrerbakgrunn og holdninger til vold, mobbing og rus?"

2. Vilkår

a) Tillatelsen til å benytte data er gyldig fra kontrakts undertegnelse til 31.12.2020, med mulighet til forlengelse etter egen søknad om dette. Datamaterialet fra Ung i Oslo 2015 må anonymiserer senest 31.12.2018, og det anonymiserte datasettet kan benyttes i resten av prosjektperioden.

b) Data kan bare benyttes i analyser knyttet til formålet i samarbeidsprosjektet mellom NOVA og Norges idrettshøgskole.

c) Opplysningene må utelukkende brukes til forsknings- og utredningsformål.

d) Før utlevering av data kan finne sted, må studenten ta kontakt med NOVA for å bli informert om innholdet i de opplysningene som utleveres. Studenten er spesielt forpliktet til å gjøre seg kjent med mulige svakheter ved datamaterialet.

e) Bakveisidentifisering eller forsøk på rekonstruksjon av personidentifiserbare opplysninger på grunnlag av utlevert materiale er ikke tillatt. Resultatene må ikke offentliggjøres på en slik måte at det medfører risiko for identifisering av enkeltpersoner.

f) studenten har ansvar for å påse at ikke andre personer enn de som er nevnt i søknaden får tilgang til data. Opplysningene må oppbevares på sikker måte (passordbeskyttet område, kryptert minnepenn eller lignende).

g) Eventuelle vilkår fra offentlige instanser som Personvernombudet må følges.

h) NOVA skal underrettes når arbeidet med prosjektet er avsluttet. Det ligger en forpliktelse i at materialet faktisk blir brukt til å belyse de aktuelle temaene/problemstillingene. Hvis materialet likevel ikke blir benyttet, må NOVA underrettes snarest mulig.

i) I alle publikasjoner som helt eller delvis er basert på analyser av datamaterialet, skal følgende opplysninger framgå at:

2

- «Datamaterialet er basert på en ungdataundersøkelse, gjennomført av NOVA i samarbeid med de regionale kompetansesentrene for rusfeltet (KoRus). Ungdata er finansiert over statsbudsjettet gjennom tilskudd fra Helsedirektoratet.»

- "NOVA er ikke ansvarlig for studentes analyser eller fortolkninger av resultatene."

Også ved muntlig formidling av forskningsfunn skal det oppgis at datamaterialet er basert på en ungdataundersøkelse som NOVA og KoRus står bak.

j) NOVA skal fortløpende gis beskjed når det blir utgitt publikasjoner eller finner sted annen formidling som helt eller delvis er basert på analyser av materialet. Alle publikasjoner fra prosjektet skal vederlagsfritt sendes til NOVA, fortrinnsvis som pdf.

k) NOVA skal underrettes fortløpende om medieoppslag som måtte komme i tilknytning til forskning basert på materialet. I den grad det er mulig, skal melding om dette sendes til ungdata@nova.hioa.no i forkant av oppslaget.

3. Ansvar
NOVA er ikke ansvarlig for konklusjoner som trekkes av studenten eller av andre brukere på grunnlag av de utleverte opplysningene.

4. Sletting / tilbakelevering
Ved prosjektslutt, det vil si når arbeidet samarbeidsprosjektet er avsluttet, og senest ved sluttdatoen for denne kontrakten, forplikter studenten seg til å slette alle mottatte opplysninger, inklusive alle utskrifter og kopier av disse. Sletting skal bekreftes på det vedlagte skjemaet.

5. Autorisasjon
Følgende personer i studenter skal ha tilgang til opplysningene:

1 Marit Lundberg

Dersom det er aktuelt å endre personer med tilgang til opplysningene, må dette søkes spesielt om i hvert enkelt tilfelle.

6. Brudd på avtalen
Ved brudd på vilkårene som er gitt i denne avtalen, kan tillatelsen til å benytte de utleverte opplysningene bli trukket tilbake.

Appendix 7: Form confirming deletion of data

NOVA
Veilerdsforskningsinstitutet
HØGSKOLEN I OSLO
OG AKERSHUS

Vedlegg 2   **SLETTING AV OPPLYSNINGER**

Fylles ut av NOVA:

Avtale datert:	Slettedato i henhold til avtale:
19.09.2018	31.12.2020
Prosjekttittel:	
Masteroppgave Marit Lundberg	
Kontaktperson på NOVA:	
Vegard Svagård	

student:
Marit Lundberg

Hvilke opplysninger (type data og eventuelt navn på datasettet):
Utvalgte variabler fra ung i Oslo 2018.

Fylles ut av virksomheten:

Bekreftelse, sletting
Det bekreftes at ovennevnte opplysninger inklusive alle utskrifter og kopier ble slettet den

_____.

    (dato)

For virksomheten:

_____ _____ _____

   (dato)   (navn)   (stilling)