Parents’ Possibility to Prevent Underage Drinking
This dissertation is dedicated to my beloved parents, Carola and Stefan

*I’m rebelling against the idea that the world is the way the world is, and there’s not a damned thing I can do about it.*

Bono
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Bono

Örebro Studies in Care Sciences 29

Camilla Pettersson

Parents’ Possibility to Prevent Underage Drinking
Studies of Parents, a Parental Support Program, and Adolescents in the Context of a National Program to Support NGOs
Abstrakt


Underage drinking is common among Swedish adolescents and is related to problems for individuals, families, and society. From a public health perspective, it is of great importance that knowledge be gained about alcohol prevention. The overall aim of this thesis is, within the context of a national support program for NGOs, to study parents, a parental support program, and adolescents with regard to preventing underage drinking.

Study I of the thesis describes and analyses this program with a special emphasis on research and development for an evidence-based practice. It is a research strategy case study with 135 projects and 14 embedded in-depth studies. The results reveal that this program to support NGOs has been successful in engaging a wide range of NGOs in prevention efforts. A trustful partnership between practitioners, national agencies, and researchers has also been developed, which has improved the quality and results of the different projects.

Studies II, III, IV, and V all used data from a longitudinal questionnaire study with parents and adolescents within one of the 14 in-depth studies: the study of IOGT-NTO’s parental program Strong and Clear. Additional data, such as telephone interviews and other parental questionnaires, are also used.

Study II aims to analyse the significance of socio-demographic factors for parental attitudes and behaviour regarding adolescent alcohol consumption to see if any group of parents is especially important for intervention efforts. The results showed that fathers were more likely than mothers to have non-restrictive attitudes towards underage drinking and to have children who had drunk or tasted alcohol at home.

Study III examines reasons for non-participation in the program. Parents with a low educational level were found more likely to be non-participants than highly educated parents. When parents stated their reasons for non-participation it emerged that they did not perceive a need for the intervention and that there were practical obstacles to their participation.

Study IV is an effect study of Strong and Clear and showed that the program contributed to maintaining parents’ restrictive attitude toward underage drinking, postponing alcohol debut, and preventing drunkenness among the adolescents.

Study V, only presented in the thesis, examined parents’ perceptions about Strong and Clear. Parents primarily thought it had led to their speaking more often about alcohol with their children, and had been a help in this conversation. Many also stated that the program had influenced their ability to set limits for their children.

This thesis showed that a national support program for NGOs including research and development contributes to a more evidence-based public health practice.

Key words: Non-governmental organizations, alcohol, adolescents, underage drinking, prevention, parents, parental support.
Abstract


Underage drinking is common among Swedish adolescents and is related to problems for individuals, families, and society. From a public health perspective, it is of great importance that knowledge be gained about alcohol prevention. The overall aim of this thesis is, within the context of a national support program for NGOs, to study parents, a parental support program, and adolescents with regard to preventing underage drinking.

The Swedish National Board of Health and Welfare (NBHW) has a government commission to distribute funds to non-governmental organizations (NGOs) for alcohol and drug prevention efforts. Study I of the thesis describes and analyses this program with a special emphasis on research and development for an evidence-based practice. It is a research strategy case study with 135 projects and 14 embedded in-depth studies. The results reveal that this program to support NGOs has been successful in engaging a wide range of NGOs in prevention efforts. A trustful partnership between practitioners, national agencies, and researchers has also been developed, which has improved the quality and results of the different projects.

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This thesis showed that a national support program for NGOs including research and development contributes to a more evidence-based public health practice.

Key words: Non-governmental organizations, alcohol, adolescents, underage drinking, prevention, parents, parental support.

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Det är med glädje och tacksamhet som jag skriver detta förord. Det finns så många människor som bidragit till att denna avhandling nu äntligen är klar.


När tron på mig själv har sviktat och jag varit övertygad om att en avhandling aldrig kommer att bli klar finns det en person som alltid övertygat mig om att min förmåga räcker till. En person som med känslighet har förstått när behovet av stöd varit som störst, men som också ständigt utmanat mig att flytta fram gränserna. Min handledare Charli Eriksson – jag är dig evigt tacksam för det förtröste, det stöd och den vägledning jag har fått av dig.

Jag vill också tacka min bihandledare Margareta Lindén-Boström. Hon har med skärpa granskat alla texter och bidragit med många viktiga synpunkter i ar-\-betet.

En stor utmaning för mig har varit att förstå och lära mig handskas med den statistik som har krävts för att genomföra denna avhandling. Tack Carina Pers-\-son, Stefan Persson och Metin Özdemir för att ni så tålmodigt har lyssnat till mig och förklarat om och om igen...

En annan stor utmaning har varit att skriva avhandlingen på engelska. Ett stort tack till Everett Thiele som har språkgranskat alla texter och genom det förbätt-\-rat dem avsevärt.
Förord

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Mina doktorandkollegor, Susanna, Karin och Jonny, ni har betytt oerhört mycket för mig både personligen och i arbetet med min avhandling. Jag vill tacka er för all uppmuntran och alla värdefulla synpunkter, men framförallt vill jag taka er för alla roliga, inspirerande och stöttande samtal. Jag vill också tacka min tidigare doktorandkollega Agneta, som upprepade gånger granskat mitt manus och som genom att vara först ut har inspirerat mig att slutföra arbetet.

Alla kollegor i den lilla röda stugan, Susanna, Madelene, Sofia, Camilla B, Camilla U, Irina, Peter, Johan och Charli – tack vare er är det (nästan) alltid roligt att gå till jobbet.

Jag vill också tacka mina vänner som har tålamod med mig. För att ni har stöttat (de flesta av er) och provocerat (några av er) mig tillräckligt mycket för att slutföra arbetet.


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Lindesberg, augusti 2010

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The present thesis is based on the following studies, which will be referred to by their Roman numerals.


In addition, only presented in the thesis

V. Pettersson, C. (2010). Parents’ Perceptions about Strong and Clear. The articles are reprinted with the kind permission of the publishers.
Ett särskilt tack till mina nuvarande och tidigare kollegor inom FUFAD, Sussanna, Madelene och Carolina, för att ni alltid finns där, lyssnar, stöttar och kommer med goda råd. Tänk också vad tiden går fort när man har roligt!

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**Originals of publications**

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### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CAN</td>
<td>The Swedish Council for Information on Alcohol and Other Drugs</td>
</tr>
<tr>
<td>CRC</td>
<td>The United Nations Convention on the Rights of the Child</td>
</tr>
<tr>
<td>ESPAD</td>
<td>European School Survey Project on Alcohol and Other Drugs</td>
</tr>
<tr>
<td>HBM</td>
<td>The Health Belief Model</td>
</tr>
<tr>
<td>ISFP</td>
<td>The Iowa Strengthening Families Program</td>
</tr>
<tr>
<td>NBHW</td>
<td>The Swedish National Board of Health and Welfare</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
</tr>
<tr>
<td>NIPH</td>
<td>The Swedish National Institute of Public Health</td>
</tr>
<tr>
<td>ÖPP</td>
<td>Örebro Prevention Program</td>
</tr>
<tr>
<td>PDFY</td>
<td>Preparing for the Drug Free Years</td>
</tr>
<tr>
<td>SEK</td>
<td>Swedish Kronor (unit of currency)</td>
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Introduction

Adolescence is a time of many changes, both in terms of biological, cognitive, emotional, and social processes, as well as physical and social environments (Windle et al., 2009). Adolescence has been defined as “the phase of the human life cycle between child and adult, characterized by physical growth and development of sexual maturity. It is a time of heightened vulnerability to many environmental and emotional hazards” (Last, 2007). To protect children and adolescents and to promote children’s rights and health, the UN Convention on the Rights of the Child (CRC) has been developed (United Nations, 1989). The Convention includes 54 articles of which four are considered guiding principles: non-discrimination (Article 2); devotion to the best interests of the child (Article 3); the right to life, survival, and development (Article 6); and respect for the views of the child (Article 12). CRC protects children’s rights by setting standards for health care; education; and legal, civil, and social services. Sweden was one of the first countries in the world to ratify the CRC, and the government has stated that a guiding-star in their work is to strengthen the rights of children (Swedish Ministry for Foreign Affairs, 2003). Swedish children and adolescents up to the age of 18 have their own ombudsman whose duty it is to promote the rights and interests of children and young people as set forth in the CRC (Ombudsman for Children in Sweden, 2010). Swedish national public health policy is based on eleven public health objective domains which cover the most important determinants of Swedish public health (Swedish Government Bill, 2007/08:110). The governmental public health bill focuses on children and young people and points out that it is crucial for the health and wellbeing of children and young people to grow up under secure and favourable conditions (Government Offices of Sweden, 2008). One of the eleven objectives in the national public health policy specifically targets conditions during childhood and adolescence (Swedish Government Bill, 2007/08:110). To promote child public health is to view the health of children and their families in its entire social, economic, and political context (Köhler, 1998). In Sweden, as in many other countries, the promotion of children’s and young people’s rights, safety, and health is politically prioritized.

Adolescence is a critical period for the adoption of health behaviours. One important threat to the development of a healthy lifestyle among adolescents is the use of alcohol. It causes many serious public health problems in western countries, both directly and indirectly. Adolescents are more vulnerable than adults to negative consequences of alcohol use (Rossow & Klepp, 2009). In Swedish national public health policy it is emphasized that initiatives to reduce alcohol-
related harm are needed, including measures to reduce both overall alcohol consumption and the harmful use of alcohol. Initiatives targeting children and adolescents are prioritized (Swedish Government Bill, 2007/08:110). Previous studies have shown that successful interventions aiming to prevent alcohol use among adolescents often support parents and families in structural programs (for overviews see for example; Ferrer-Wreder, Stattin, Lorente, Tubman, & Adamson, 2004; Dusenbury, 2000; Smit, Verdurmen, Monshouwer, & Smit, 2008; Tolan, Szapocznik, & Sambrano, 2007). A Swedish national strategy for providing support to parents has been developed. Parents should be offered general parental support during the child’s entire upbringing (Swedish Government Official Report, 2008:131). The CRC also emphasizes the importance of family and that “the family, as the fundamental group of society and the natural environment for the growth and well-being of all its members and particular children, should be afforded the necessary protection and assistance so that it can fully assume its responsibility within the community” (United Nations, 1989). Thus, parents exert a significant influence on adolescents’ health behaviour, and interventions aiming to prevent underage drinking have the potential to be successful if family components are included.

The context for the present thesis is a Swedish national program to support non-governmental organizations involved in alcohol and drug prevention. This undertaking has given priority to projects aiming to prevent alcohol and drug use among adolescents and to the research and development of an evidence-based practice. The thesis focuses on this specific program, the prevention of alcohol consumption among adolescents, parents as significant individuals in adolescents’ lives, and a parental support program implemented by a non-governmental organization.

**Alcohol consumption among adolescents**

Alcohol is a part of western culture, and the EU countries have the highest alcohol consumption in the world, with an average level over two-and-a-half times that of the rest of the world. This high level of consumption contributes to serious problems for society as well as for individuals. The total tangible cost of alcohol consumption within the EU was in 2003 estimated to 125 billion Euro (Anderson & Baumberg, 2006) and about 4% of the global burden of disease is alcohol related (Room, Babor, & Rehm, 2005; Howat, Sleet, Maycock, & Elder, 2007). In addition to the problems that can be measured in financial terms, alcohol contributes to a great deal of personal harm, causing criminal, social, and health
damage (Anderson & Baumberg, 2006; Babor et al., 2003). From a public health perspective it is important to reduce overall alcohol consumption (Swedish Government Bill, 2007/08:110) as well as prevent harmful alcohol consumption within the population (Babor et al., 2003; Howat et al., 2007; Swedish Government Bill, 2007/08:110).

Despite an age limit of at least 16 for alcohol consumption in most of the EU countries (Swedish Government Official Report, 2005:25) many adolescents make their alcohol debut before that age (Anderson & Baumberg, 2006). In an international study of adolescents in 41 countries it emerged that 44% of the participating 15-year-olds had consumed alcohol by the age of 13 or even earlier. Furthermore, 26% reported that they drank alcohol at least once a week and 33% answered that they had been drunk at least twice in their lifetime (Currie et al., 2008). In order to monitor trends in adolescents’ substance use within as well as between countries, a collaborative project between independent research teams in about forty European countries has been developed. This project is called the European School Survey Project on Alcohol and Other Drugs (ESPAD) and its purpose is to collect comparable data on substance use among 15–16 year olds in Europe. Their latest report includes the results from the 2007 survey showing that 71% of the Swedish pupils had used alcohol during the last 12 months, which can be compared to the average of 90%. Sweden exhibited low rates compared to the other countries of lifetime alcohol use, alcohol use in the last 12 months, and in the last 30 days. On the other hand, Swedish adolescents reported a high total amount of alcohol consumed the last drinking day and high intoxication scores among those who reported that they had drunk alcohol. A general pattern is that countries with low consumption frequencies, like Sweden, Norway, and Finland, have high total amount of alcohol the last drinking day, and the other way around for high frequency countries. But there are some exceptions, like Denmark. Danish adolescents both drink frequently and have high intoxication scores (Hibell et al., 2009).

In Sweden, annual surveys of pupils’ drug habits have been carried out since 1971. The survey carried out by the Swedish Council for Information on Alcohol and Other Drugs (CAN) includes pupils in school year 9 (aged 15) and high school year 2 (aged 17). The results from 2009 showed that 66% of the girls and 59% of the boys in school year 9 had consumed alcohol during the last 12 month. This could be compared with 86% and 84% respectively for the older adolescents. Approximately half of the pupils in school year 9 and 78% of the adolescents in high school year 2 reported that they had been drunk (Hvitfeldt &
Gripe, 2009). Consuming alcohol is obviously common among adolescents in both Sweden and in many of the other European countries. Should alcohol consumption be considered a natural part of being a teenager? Or do we have reason to push for early prevention?

**Reasons for prevention of underage alcohol drinking**

There is no doubt that many Swedish adolescents consider alcohol to be a part of their adolescent culture. Nevertheless, there are many reasons to prevent underage drinking and to maintain the Swedish alcohol policy, with the aims that children should grow up in an alcohol-free environment and that the age of alcohol debut should be postponed (Swedish Government Bill, 2005/06:30).

The literature often describes how health-related behaviours are related to mortality. For young people, it might be more important how their lifestyle influences their present life (Aarø & Klepp, 2009). The first argument for early prevention is that many adolescents have experienced problems when they have consumed alcohol (Hvitfeldt & Gripe, 2009; Bellis et al., 2009; Stolle, Sack, & Thomasius 2009). In the study from CAN (Hvitfeldt & Gripe, 2009), it appears that 24% of the adolescents in high school year 2 had met with an accident or had been injured when they had used alcohol. Furthermore, one out of four stated that they have had unprotected sex, and 16% that they have had undesired sex, under the influence of alcohol. It was more common for girls than boys to have experienced relationship problems, like quarrels and problems with friends. Boys, on the other hand, were more likely to have experienced fights and trouble with the police.

Secondly, alcohol consumption among adolescents is also related to criminality (Eklund & af Klinteberg, 2009). Findings from a study about adolescents and crime showed associations between three lifestyles and committing crimes. The lifestyles were having delinquent friends, being out in the city centre in the evening, and high alcohol consumption (Swedish National Council for Crime Prevention, 2006).

Another important argument for alcohol prevention is that adolescents who have made their alcohol debut early in life are at higher risk of alcohol problems in adulthood (Grant & Dawson, 1997; DeWit, Adlaf, Offord, & Ogborne, 2000; von Diemen, Bassani, Fuchs, Szobot, & Pechansky, 2008).

Moreover, the prevalence of mental illness among Swedish adolescents has increased over the last decades. In an official report on adolescents, stress, and mental illness (Swedish Government Official Report, 2006:77), it was established that
high alcohol consumption and internalized mental health problems like depression interact strongly with each other. It was stated that even if the causal links are not entirely understood, research indicates that severe alcohol problems can cause mental illness.

To conclude, it is of significant importance to prevent underage drinking among adolescents both from an individual, a societal, and a public health perspective.

**Some factors of importance for adolescents’ drinking behaviour**

There is no easy explanation of the causes of young people’s drinking behaviour (Hawkins, Catalano, & Miller, 1992; Swadi, 1999; Andréasson, 2002; Lilja & Larsson, 2003). Several theories have been developed to explain and predict health, and these general theories have been used in studies of adolescents (Aarø & Klepp, 2009).

A wide range of risk and protective factors have been identified for alcohol consumption among adolescents. A risk factor has been defined as a social, mental or physical condition that leads to developmental, behavioural, adaptation, or health problems. A protective factor modifies the effect of a risk factor (Lagerberg & Sundelin, 2005). The risk factors for alcohol and drug use can be divided into **contextual factors** and **individual and interpersonal factors** (Hawkins et al., 1992).

The **contextual factors** consist of factors on the societal level, such as legislation, availability, and cultural norms (Hawkins et al., 1992). Sweden has a long tradition of a restrictive alcohol policy (Norström & Ramstedt, 2006) and a restrictive policy is a powerful tool for limiting alcohol related harm (Holder, 2008). The overall goal with the Swedish action plan on alcohol is to promote public health by reducing the medical and social harm caused by alcohol. The strategy to achieve this goal in the alcohol policy is to reduce the total alcohol consumption and to prevent harmful drinking, taking into account differences in living conditions among boys, girls, men, and women. Six priority sub-goals have been adopted: alcohol should not be consumed in transport contexts, at workplaces, or during pregnancy; children should grow up in an alcohol-free environment; the age of alcohol debut should be postponed; drinking to the point of intoxication should be reduced; there should be more alcohol-free environments; and illicit alcohol should be eliminated (Swedish Government Bill, 2005/06:30).
Swedish alcohol policy is based on a combination of tax-based price controls, effective enforcement, and the alcohol retail monopoly (Systembolaget) in order to limit the availability and accessibility of alcohol (Holder, 2008). There is strong evidence for the preventive effects of an alcohol retail monopoly (Babor et al., 2003) and high prices on alcohol are regarded as one of the most effective ways to reduce total alcohol consumption and alcohol-related problems (Howat, 2007). The conditions for Swedish alcohol policy were radically changed in 1995, when Sweden entered the EU. Sweden could no longer have an independent alcohol policy; for example, the availability of alcohol increased as a result of changed rules for private import, and alcohol taxes had to be adjusted. In order to maintain the support for one of the cornerstones of Swedish alcohol policy, Systembolaget, the numbers of alcohol shops as well as their opening hours have increased since 1995 (Norström & Ramstedt, 2006) with the number of shops peaking in 2003. Today there are in total 410 shops in Sweden compared to 426 in 2003 (Systembolaget, 2010; Holder, 2008). One part of the Swedish alcohol policy is a relatively high minimum age for purchasing alcohol compared to many other countries (Swedish Government Official Report, 2005:25). Alcoholic beverages containing more than 2.25% alcohol by volume may only be bought at Systembolaget with the exception of medium-strength beer, containing up to 3.5% alcohol by volume, which may be bought at grocery stores. The age limit for buying alcohol at Systembolaget is 20 and for buying medium-strength beer at grocery stores 18. The age limit for being served alcohol at restaurants is 18 (Holder, 2008). Despite these legal restrictions, the majority of Swedish adolescents have had their alcohol debut before they are 18 years old (Hvitfeldt & Gripe, 2009) and is easy for underage adolescents to get alcohol in Sweden. Nearly 40% of the pupils in school year 9 stated in a national survey that it is easy to get medium-strength beer and 26% stated that it was easy to get spirits from the Swedish monopoly store Systembolaget (Hvitfeldt & Gripe, 2009). The Swedish Youth Temperance Movement, UNF, is a non-governmental organization that has a long tradition of making underage purchase attempts of medium-strength beer in grocery stores. By using adolescents younger than 18, they test the observance of the law. Results from 681 purchase attempts showed that more than 40% resulted in minors buying beer (Geidne & Eriksson, 2008). The age limits for purchasing alcohol are an important tool in the limitation of adolescents’ access to alcohol (Swedish Ministry of Health and Social Affairs, 2002; Holder, 2008).

In addition to the contextual factors there are also risk factors on an individual and interpersonal level. Examples of individual risk factors are physiological and genetic factors, while family conflicts, family alcohol attitudes, and relationships
with peers are examples of interpersonal risk factors (Hawkins et al., 1992). In a review of individual risk factors for adolescents’ substance use it was established that there are many potential risk factors and that the interaction between them is complex (Swadi, 1999). However, the influences of peers as well as parents are important factors (Hawkins et al., 1992; Swadi, 1999; Kumpfer & Kaftarian, 2000; Windle et al., 2009). Risk factors at the family level are neglectful parenting practice, high level of family conflicts, and low levels of warmth and involvement in parent–child relationships (Dunn & Mezzich, 2007). Previous studies have also shown that family norms, attitudes, and rules about adolescents and alcohol are associated with alcohol consumption among young people (Aas & Klepp, 1992; Jackson, 2002; Ferrer-Wreder, Koutakis, & Stattin, 2002; Callas, Flynn, & Worden, 2004; Stafström, Ostergren, & Larsson, 2005; van der Vorst, Engels, Meeus, & Dekovic, 2006). However, even if previous studies have shown an association between parental attitudes and adolescents’ alcohol use, most studies do not examine the causality. It is possible that parents’ attitudes are a reaction to the child’s behaviour (Kerr & Stattin, 2003). In a study examining the bidirectional association between parental attitudes towards adolescents’ alcohol use and adolescents’ drinking behaviour it was shown that parents adjusted their attitudes after they found out about their children’s alcohol use. This study included both a Swedish and a Dutch sample. Another important result of the study was also that restrictive attitudes predicted less alcohol drinking among the adolescents, though this was only valid for the Swedish sample (van der Vorst, Kerr, Stattin, & Engels, 2007). Alongside parental attitudes, parents’ actual behaviour is of great significance. Having parents willing to provide alcohol is a well-known risk factor (Lundborg, 2002; Stafström et al., 2005; Komro, Maldonado-Molina, Tobler, Bonds, & Muller, 2007). Even if the most common way to get alcohol seems to be friends, it is not unusual that Swedish parents and other adults provide alcohol to adolescents. It is also quite usual that Swedish parents invite their children to taste or drink alcohol at home. In school year 9, 45% of the pupils stated that they had been offered alcohol at home. This could be compared with nearly 60% among pupils in high school year 2 (Hvitfeldt & Gripe, 2009).

Socio-demographic background is also significant for alcohol consumption among adolescents. Many studies have shown an association between socio-demographic factors, such as family structure (Blum et al., 2000; Hellandsjø Bu, Watten, Foxcroft, Ingebrigtsen, & Relling, 2002; Ringbäck Weitof, Hjern, Haglund, & Rosén, 2003; Duncan, Duncan, & Strycker, 2006) and economic situation (Hays, Hays, & Mulhall, 2003; Stafström et al., 2005; Stolle et al., 2009), and alcohol use among adolescents. However there is a lack of consistency

_Socio-demographic background_ is also significant for alcohol consumption among adolescents.
between the studies. Many studies have shown that living in a single-parent household is associated with alcohol use (Blum et al., 2000; Hellandsjö Bu et al., 2002; Ringbäck et al., 2003; Duncan et al., 2006). For example, Hellandsjö Bu and colleagues (2002) showed an association between living in a single-parent family and early alcohol debut. However, Lundborg (2002) did not find any associations between living in a single-parent household and alcohol behaviour among young people.

A family often includes more than one child and therefore it is important to consider the impact of siblings. As older siblings serve as role models, they can have an influence on the alcohol use the younger siblings (Windle et al., 2009). In her dissertation, van der Vorst (2007) established that there are few studies about the bi-directional influences of siblings in youth alcohol use. She found in a study about similarities and bi-directional influences of siblings’ alcohol use that alcohol use of an older sibling predicted the alcohol use of the younger sibling one year later (van der Vorst, Engels, Meeus, Dekovic, & van Leeuwe, 2007).

The economic situation of a family or a region is also associated with adolescents’ alcohol use. Hays and colleagues (2003) found that greater economic constraints in the community reduce substance use among adolescents. In a Swedish study it was found that high purchasing power increased the risk of frequent high alcohol use, especially among boys (Stafström et al., 2005). Similar results were found in another study among adolescents. Young people in relatively affluent areas of the capital Stockholm have the highest level of alcohol consumption. In contrast to previous studies, this was particularly valid for girls (Sandahl, 2009).

Alcohol consumption among adolescents also differs between boys and girls. In school year 9, it is more common that Swedish girls have drunk alcohol (65% compared to 58%) and have experienced drunkenness than Swedish boys (53% compared to 45%) (Hvitfeldt & Gripe, 2009). But this pattern changes as the adolescents grow older. In their early 20s young Swedish men have their highest consumption and drink more than twice as much as women of the same age. From about 25 years of age, men’s consumption falls while that of women is stabilized at a lower level (Swedish Council for Information on Alcohol and Other Drugs, 2009).

Comprehensive research has been conducted about risk factors for alcohol consumption among adolescents, which is of significant importance for the development of interventions to prevent underage drinking. However, it is not always possible to eliminate all risk factors. Therefore, knowledge about protective factors is as important as knowledge about risk factors (Hawkins et al., 1992).
A good relationship within the family prevents alcohol consumption among adolescents and has a general positive health effect (Schor, 1996). That parent and adolescent spend time together is an important protective factor, as is parental nurturance, such as the level of emotional warmth and support. Good communication between parent and adolescent has been associated with lower levels of alcohol consumption (Windle et al., 2009). Another well-documented protective factor for alcohol and drug use among adolescents is parental monitoring (Bry, Catalano, Kumpfer, Lochman, & Szapocznik, 1998; Windle et al., 2009). Several studies have shown an association between low parental monitoring and norm breaking behaviours among adolescents (Kumpfer & Kaftarian, 2000; DiClemente et al., 2001; Hill, Hawkins, Catalano, Abbott, & Guo, 2005). Nevertheless, the results of these kinds of studies have been questioned. Researchers have pointed out that typical measures of parental monitoring actually measure parental knowledge of the child’s everyday life rather than parental monitoring. There have been few studies examining how parents gained this knowledge. Child disclosure seems to be a protective factor for alcohol consumption and other norm breaking behaviours (Stattin & Kerr, 2000; Kerr & Stattin, 2000; Stattin, Kerr, & Burk, 2010). Despite the disagreement about the importance of parental monitoring there is agreement about the importance of parents for adolescents’ health and habits of life.

**Family dynamics**

The importance of good relationships within the family and the role of parents in shaping good health among children and adolescents are well documented (see for example, Schor, 1996; Ferrer-Wreder et al., 2004; Windle et al., 2009). However, how to define the concept of family is a matter of constant discussion. How to define and constitute the social, cultural, and political phenomenon known as the family is constantly undergoing change. In recent decades it has been questioned whether the nuclear family is the only way of doing family (Johansson, 2009). According to the Concise Oxford English Dictionary a family is “a group consisting of two parents and their children living together as a unit. A group of people related by blood or marriage. The children of a person or couple. All the descendants of a common ancestor” (Soanes & Stevenson, 2006). In a Swedish dictionary of Public Health, four different family types are defined: the nuclear family; reorganized family; incomplete family; and composite or extended family (Janlert, 2000). In a thesis about family practice after a divorce, the author made the point that even if the nuclear family still is a very strong ideal, family may be
defined and constituted in everyday life rather than only by blood ties. Besides blood ties, family is constituted by a feeling of solidarity and closeness as well as the sharing of everyday life practice (Ahlberg, 2008). There is no consensus about when a group of individuals should be considered as a family. From a juridical viewpoint there are cases where groups of individuals come to be regarded as a family and thereby acquire certain rights and obligations, for example through marriage (Schiratzi, 2006). As a context, the family could be considered a multiple set of everyday living arrangements. The term family is no longer considered as a static unit in family research. Instead, it is seen as a number of different ways of organizing intimate relationships (Christensen, 2004).

Of all children (age 0–17) in Sweden, 74% live with both their parents, but there are important differences between different groups of children. For example, children with highly educated parents live to a greater degree with both their parents as do children with two Swedish-born parents. There are also some geographical differences, even if the variation is small. Children in the three largest cities in Sweden live together with both their parents to a lesser degree than children in smaller municipalities. Children with separated parents usually live with their mother or alternate between their mother and father. Only 10% of the children with separately parents, only or mostly live with their fathers (Statistics Sweden, 2009).

Family, both as a designation and an idea, is socially constructed and from a sociological point of view families are seen as structures of relationships between people and as a part of a society (Coltrane & Collins, 2001). That parents’ behaviour is important in shaping children’s well-being is well known. However, there is a lack of research about how children influence family interactions (Kerr & Stattin, 2003; van der Vorst, 2007; O’Connor, 2002). Ahlberg (2008) also asserts in her thesis about family practice after a divorce, that there is limited research about children’s perceptions of family life.

In a review about effects of parenting, it is established that even if it is well known that children contribute to the quality of the parent–child relationship, it is still common to use uni-directional models to study family relationships (O’Connor, 2002). Kerr and Stattin (2003) point out that research about parenting has been based on the assumption that failures in parenting cause problems among adolescents. They raised the idea that parents’ behaviour could be a reaction to the child’s behaviour, and studied adolescents’ delinquency. The findings supported their suggestion; it was delinquency that caused neglectful parenting rather than the opposite: that neglectful parenting caused delinquency. It is im-
important to note that, even if the causal link is unknown, the literature reveals evidence of strong links between parent–child relationship quality and children’s well-being (O’Connor, 2002).

Motherhood and fatherhood

The relationships within the family also depend on the gender of the family members. Research about family life has primarily focused on the relationship between mother and child, especially research about early attachment (Blair, Stewart-Brown, Waterston, & Crowther, 2010). Fathers are becoming more visible in family research, even if more studies of fathers are needed as there is still much to learn (Croshoe & Cavanagh, 2010). The literature also gives support to the idea that mothers are very important in children’s lives. Previous research has shown that adolescents feel emotionally closer to their mothers than to their fathers. They also perceive that their mothers know them better (Hwang, 2005). Adolescents also choose their mothers when they want to talk about important topics (Miller-Day, 2002) and perceive communicating with their mothers to be easy (Levin & Currie, 2010). Young people in Sweden were asked if, in their experience, their parents have time to talk with them or do things together with them. About 95% of both boys and girls stated that their mother has time, but the percentage for fathers was lower and depended on the gender of the adolescent. Among 16–18 year-old girls, 73% answered that they perceived that their father had time, compared to 85% of the boys in the same age group (Statistics Sweden, 2009).

Governmental initiatives targeting fathers to promote gender equality have a 40-year history in Sweden (Klinth & Johansson, 2010). For instance, national family policy facilitates shared responsibility for the child by means of, for example, parental leave that can be equally shared between mothers and fathers. Nevertheless, the official policy of promoting gender equality has only partially been realized in the families (Ahlberg, Roman, & Duncan, 2008). The distribution of parental leave can be taken as an indicator of the equality of the responsibility for the child. During 2008, Swedish fathers took time off for only 21% of the days of parental allowance, yet even this is an increase since previous decades. For example in 1989, only 7% of the days of parental leave were taken by the fathers (Statistics Sweden, 2009). Fathers in families with high maternal and paternal educational levels utilize parental leave to a greater extent than fathers in families with lower educational levels (Batljan, Tillander, Örnhall Ljungh, & Sjöström, 2004).
Even so, fathers have the potential to influence their child’s development to the same extent as mothers, even if the father–child relationship has been less studied than the mother–child relationship, according to a background document from a conference about mental health and well-being of children and young people organized by the European Commission and the Swedish Ministry of Health and Social Affairs (Stewart-Brown, 2009). Engaged fathers who, for example, play and read with their children, and take part in care-giving activities, have a positive effect on children’s social, behavioural, and cognitive development. Among boys, paternal engagement also reduces the frequency of behavioural problems, and among girls it reduces psychological problems (Sarkadi, Kristiansson, Oberg, & Bremberg, 2008).

**Parental involvement in alcohol prevention**

In recent decades, intervention research has been gaining ground (Stattin & Kerr, 2009). Multi-component programs with a combination of approaches on different levels like individual, family, school, and community have been especially effective at preventing adolescents’ substance use (Broustein, Gardner, & Backer, 2007; Kumpfer & Kaftarian, 2000). Examples of successful multi-component programs are *Project Northland* (Perry et al., 2002) and *The Icelandic Model* (Sigfusdóttir, Thorlindsson, Kristjánsson, Roe, & Allegrante, 2009). Both of these programs consider parental involvement in alcohol and drug prevention targeting adolescents to be important (Perry et al., 2002; Sigfusdóttir et al., 2009). In a review about family-based programs it is established that parents play an important role in the development of alcohol and drug habits among adolescents, and the author asserts that experts within the area agree that parents should be involved in prevention programs (Dusenbury, 2000).

Previous studies have found structural programs supporting parents and families to be successful at preventing alcohol and drug use among adolescents (for overviews see, for example, Ferrer-Wreder et al., 2004; Dusenbury, 2000; Smit et al., 2008; Tolan et al., 2007). There are different types of interventions involving parents. Kumpfer and Kaftarian (2000) use the following categorization: Parent Training (parental behaviour training); Family Skills Training (parent training combined with children skills training and behavioural family therapy components); Family Therapy; and In-home Family Support. In another overview of successful prevention programs only two categories are used: Family Training and Therapy. The target population for family interventions ranges from families at risk to families in the general population. Family Training Programs can target...
both the general population and population at risk while Family Therapy targets families at risk and families with manifest problems (Ferrer-Wreder et al., 2004). Interventions for families in the general population are called universal interventions, while those intended for subgroups at risk are called selective interventions. Interventions targeting people that have been individually identified as being at high risk and who show early signs of being on a negative trajectory are designated indicated interventions (Lochman & van den Steenhoven, 2002). According to Dusenbury (2000) experts within the field suggest that prevention programs should target the general population, as well as families at risk.

The following presentation of family interventions is primarily focused on universal interventions. Two of the most widespread universal interventions aiming to prevent alcohol and drug use among adolescents are Preparing for the Drug Free Years (PDFY) (Park et al., 2000) and Iowa Strengthening Families Program (ISFP) (Kumpfer, Molgaard, & Sypo, 1996). The PDFY is a program for strengthening family communication and bonding. It is a universal program targeting parents of children aged 8–14 and the program goal is to reduce the risk of alcohol and drug abuse as well as other problems common among adolescents. The program is based on the knowledge of family risk and protective factors, and has a theoretical foundation in the social development model. Guided by this model the PDFY aims to: (1) increase opportunities for involvement and interaction between parents and children, (2) teach parents and children skills to help them resist peer pressure and refuse to engage in inappropriate behaviour, (3) increase rewards for prosocial behaviour through parents’ consistent and contingent family management, and (4) manage and reduce family conflicts.

The PDFY program usually consists of five sessions of two hours each (the design is flexible and the intervention can be enlarged with more sessions if desired). The sessions are primarily for parents, but children attend one of the sessions (“Avoiding Troubles”) together with their parents. After each session, the parents are encouraged to have a family meeting at home related to the theme of the session to transfer the contents to the home setting (Haggerty, Kosterman, Catalano, & Hawkins, 1999). Evaluations of PDFY have shown promising results for both alcohol consumption among adolescents and parental norms concerning alcohol and other drugs during adolescence (Park et al., 2000).

The Iowa Strengthening Families Program is a universal program for sixth-grade families and focuses on family risk and protective factors. The program is a further development of the Strengthening Families program, which was designed for subgroups of at-risk families. The program consists of seven sessions where
parents and children first participate in concurrent sessions and then get together for a family session (Kumpfer et al., 1996; Spoth, Redmond, & Lepper, 1999; Spoth, Trudeau, Shin, & Redmond, 2008). The youth sessions include, among other things, strengthening prosocial goals for the future, managing stress and strong emotions, strengthening motivation for responsible behaviour, and dealing with peer pressure. The parents are encouraged to discuss parental influence on adolescents, nurturance and support, family interaction, setting limits, shared beliefs, and expectations about alcohol and drug use among adolescents. The activities at the family sessions were designed to strengthen positive interactions within the family (Kumpfer et al., 1996). Evaluations of the program have shown effects on alcohol debut (Spoth, 1999), lifetime use, and drunkenness (Spoth, Redmond, Shin, & Azevedo, 2004). The program has been translated and adapted for 17 countries including Sweden (Kumpfer, Pinyuchon, de Melo, & Whiteside, 2008).

Some components have been shown to be especially important in family interventions. An intervention aiming to improve the interaction between parents and children and to strengthen family bonding has the potential to be successful (Ferrer-Wreder et al., 2002; Kumpfer, Smith, & Summerhays, 2008). Encouraging parents to clarify their attitudes towards underage drinking is also an important component (Ferrer-Wreder et al., 2002) as is strengthening supervision and communication (Kumpfer, Smith et al., 2008). Dusenbury (2000) identified eight key elements of effective family interventions. First, the program should be based on empirically proven theory and research. Other researchers as well (Stattin and Kerr, 2009) have emphasized the importance of theory in family-based prevention programs. They assert that many current family-based interventions are based on social learning theory. Secondly, Dusenbury (2000) states that as adolescents’ substance use is caused by a web of reasons the intervention should be comprehensive and use multiple strategies and affect multiple systems. Other key elements are that the program should be sensitive to the changing developmental needs of families and parents, but also be sensitive and relevant to the culture of the target population. A program can be delivered in different ways and still have the same content. The fifth key element is that the programs should provide adequate dosage and follow-up, even if the author points out that research has not been able to provide a minimum numbers of sessions. Further, interactive techniques are useful in family-based programs. Discussions and small group activities promote relationships, but require an experienced provider. The provider is of significant importance for the success of the program. Therefore, a key element is to provide training and support for the providers. Finally, Dusenbury emphasizes the importance of evaluation.
A review article about prevention of substance use problems among youth published 10 years ago calls attention to the fact that the authors had not found any experimental study that showed an effect on prevention among the general population (Paglia & Room, 1999). Today, we know that family programs targeting general populations have the potential to be successful, even if the authors of a meta-analysis of the effects of general family interventions on adolescents’ alcohol use emphasize the need for more studies and the importance of studies carried out outside of the US (Smit et al., 2008). Stattin and Kerr (2009) point out, in a general discussion about intervention research on adolescents’ development, that as of today about 400–500 evaluation studies have been published about family interventions.

**Parental support programs in Sweden**

At the beginning of the 21st century, the Swedish government commissioned the Swedish National Institute of Public Health to collect, analyse, and disseminate knowledge about how parental support of various kinds might be designed in order to do real good. A couple of years later, an overview was presented called *New tools for parents – Proposals for new forms of parent support*. Parents support was defined as “organised interventions for parents aimed at promoting the welfare of the child, but does not include indirect interventions such as family law and transfer payments (for example, child benefit)” (Bremberg, 2006, p. 32). The report concluded that informal contacts with friends, relatives, and other social contacts are the most important type of parental support. To create meeting places, like open preschools, for parents is one way to support these kinds of informal contacts. It is also common that parents with young children are invited to participate in a parents group arranged by the maternity and child healthcare service. Parents with older children (10–15 years old) are primarily offered programs aiming to develop good parent–child communication. Preventing alcohol, tobacco, and drug use is a common goal of these programs, as is reducing the risk of delinquent behaviour among the children (Bremberg, 2006).

To develop parental support in Sweden, in 2008 the government appointed a special commission to develop a national strategy for parental support. Later the same year, the report *Parental support – a benefit for all* was presented. The commission established that parental support is “a wide range of interventions for parents aimed at promoting children’s health and psychosocial development” (Swedish Government Official Report 2008:131, p. 24). A universal parental support should be further developed and the support should be offered to parents.
during the child's entire upbringing. It is important that the support be based on the needs of the parents and their children and that participation be voluntary. The methods used should be evidence-based (Swedish Government Official Report 2008:131). There is a current debate in Sweden about the meaning of the concept evidence-based. The Swedish National Institute of Public Health defines evidence as the scientific support available for a specific risk or protective factor or for the effect of an intervention. It is about gathering the results of systematically collected and quality-scrutinized scientific observations that offer the best available scientific evidence (Swedish National Institute of Public Health, 2010a). An evidence-based practice has been defined as “a meticulous, transparent, and judicious application of the current best available evidence to decide on courses of action affecting individuals” (Jergeby & Sundell, 2009, p. 12). Evidence-based practice is a process of integrating the best available scientific findings with other equally important factors (Wormer & Thyer, 2010). The three sources of information are: (1) the best available scientific findings, (2) client values, (3) clinical expertise (Jergeby & Sundell, 2009; Wormer & Thyer, 2010). Wormer and Thyer (2010) have declared that evidence-based practice does not provide lists of approved methods or interventions from which practitioners are expected to select. Despite that, the Swedish National Institute of Public Health (NIPH) recommend that municipalities use three universal parental support program targeting parents with children aged 10–15 (Swedish National Institute of Public Health, 2010b).

The first is a cultural adaption of the Strengthening Families Program, called Föräldrakraft (Swedish National Institute of Public Health, 2010b). Föräldrakraft includes 7–8 activities. Parents and children participate on the same evening. The parents and children first meet separately in a parents’ lesson and a children’s lesson, then they meet together in a family lesson where they discuss the topic of the evening. A pilot study of Föräldrakraft has been carried out in Sweden, but there is need for further evaluation of the program (Kimber & Skoog, 2008).

The second program is Örebro Prevention Program (ÖPP), which aims to encourage parents to adopt or maintain a restrictive attitude toward adolescent alcohol use and to communicate clear rules to their children. The program was carried out at five regular parents’ meetings during the three years of secondary school. It was suggested to the parents that they make a written agreement about their attitudes and behaviour toward underage drinking; this was then mailed to all parents regardless of whether or not they had participated in the parent meeting. The results from the evaluation of the program showed that ÖPP had an effect both on parental attitudes toward adolescent drinking and on drunkenness
among the adolescents (Koutakis, Statin, & Kerr, 2008). The effectiveness of ÖPP has also been studied in the Netherlands. The researchers evaluated two preventive interventions, ÖPP and a pupil intervention based on a Dutch program called Healthy School and Drugs. The study included analysis of the effectiveness both of each program separately and of the combination of the parent intervention and the pupil intervention. The study did not find any effects on adolescents’ alcohol use in those schools with only ÖPP. However, effects were found in schools where both ÖPP and the pupil intervention were carried out (Koning et al., 2009).

The third program recommended by NIPH for parents with children aged 10–15 is called Active Parenting. This program exists in two versions, one for younger children aged 2–12 and one for parents of adolescents. The program targeting parents of adolescents has not been evaluated in Sweden (Berne & Jones, 2006).

Despite these recommendations from the NIPH, there are a number of parental support efforts in Sweden that have not been evaluated. The Swedish National Board of Health and Welfare has initiated a national multicentre study of the effectiveness of parental support programs in reducing mental ill health and social problems among children, and in strengthening parenthood. A final report should be presented in January 2013 (Swedish National Board of Health Welfare, 2009). It has also been possible for municipalities to apply for grants from the NIPH to develop their parental support resources. In 2009, the municipalities could apply for, in total, 70 million SEK (Swedish National Institute of Public Health, 2009). Recently, the NIPH announced that they had been commissioned by the government to distribute an additional 60 million SEK to the municipalities. The following will be prioritized: evaluation of the most common parental support methods, adoption of foreign methods, and efforts to gain knowledge about parents’ interest in participating in parental support programs (Swedish National Institute of Public Health, 2010c).

**Implementing a parental support program**

The implementation of a health behaviour program is essential to its success (Perry 1999; Durlak & DuPre, 2008). Even a creative, involving, and motivating program will fail if the implementation process is inadequate or only partially accomplished (Perry, 1999). There are several issues that need to be carefully considered when implementing a health program, such as the choice of program, the
trade-off between program fidelity and adaption, and how to reach the target population (Green & Kreuter, 2005). Durlak and DuPre (2008) have developed a framework for successful implementation including five categories: (1) community level factors; (2) provider characteristics; (3) innovation characteristics; (4) the prevention delivery system – factors related to organizational capacity; and (5) the prevention delivery system – training and technical assistance. The community level includes factors like politics, policy, and funding. For example, if sufficient time and money are not provided, the implementation process is destined to fail. The provider characteristics include the local need for an intervention, to what extent the intervention will achieve benefits desired at the local level, the self-efficacy of the providers, and the possession of necessary skills. The characteristics of the innovation concern the fact that if the intervention fits with the organization’s current mission, priorities, and existing practice, the implementation will be more effective. Otherwise it is important for the implementation process that the program can be modified to fit the needs of the providers, organization, and communities. The two last categories are related to the prevention delivery system. One includes factors related to organizational capacity, such as general organizational features, specific organizational practice, and specific staff considerations. For example, effective leadership and local input are important resources. The other category related to the prevention delivery system is training and technical assistance. Providers need to be prepared for their task and receive support to solve local problems. It is also important to attend to the providers’ expectations, motivations, and sense of self-efficacy.

Durlak and DuPre (2008) have also emphasized the need to strike a balance between fidelity to the program and cultural adaption. If the providers have sufficient knowledge about their community, they should be able to modify the program with regard to the specific context. Highly structured programs with detailed manuals are more easily implemented with high fidelity than more unstructured programs.

One of the most essential parts of the intervention process is to reach those who are targeted for the intervention (Durlak & DuPre, 2008). Even if prevention programs involving parents have the potential to be successful, it is a challenge to reach parents for participation (Perry, 1999; Dusenbury, 2000), especially if the program is intensive (Perry, 1999). It is particularly difficult to attract and recruit high-risk families to family interventions (Smit et al., 2008). In family-based drug abuse prevention programs it is not unusual for participation rates to be lower than 40–50% (Dusenbury, 2000).
To understand participation in public health programs The Health Belief Model (HBM) has been widely used (Becher, 1974; Sheeran & Abraham, 1996). The HBM is a social cognitive model and in early versions of the model five components for explaining health behaviour are included. The first is perceived susceptibility, which is about people’s beliefs about their vulnerability to a problem. The second component, perceived severity is about people’s feelings about how serious a problem is. If people believe that they are susceptible to a problem, and if they feel that the problem is serious, the chance that they will participate in an intervention will increase. People will also weigh the perceived benefits (third component) against the perceived barriers (fourth component) before deciding about participation. The fifth component is a cue to action, which is something that can trigger an action, such as media publicity and information campaigns (Janz, Champion, & Strecher, 2002).

The Swedish national strategy for parental support emphasizes the importance of parents’ own needs when planning and implementing parent support interventions (Swedish Government Official Report 2008:131). A program needs to provide parents with something they value (Perry, 1999; Dusenbury, 2000). It is also important to use a leader with the same cultural or ethnic background as the target group and with good knowledge about the community. Parents also need to receive clear communication about the purpose of the program. The relationship between parents and program staff should be respectful. Moreover, it is important to reduce practical problems, such as by providing transport and child care. The program staff could also remind the participants by calling them, for example (Dusenbury, 2000).

In conclusion, the implementation process includes a wide range of factors that need to be closely considered when planning, conducting, and evaluating health programs. Non-governmental organizations within the social welfare field have ample experience of implementing prevention programs aiming to reduce alcohol use and prevent alcohol-related harm. The role of NGOs in alcohol prevention efforts will be addressed below.

Alcohol prevention and the role of non-governmental organizations

There is no unambiguous definition of non-governmental organizations. Several roughly equivalent expressions are used to define this sector (Johansson, 2001), such as the civil society, the third sector, the voluntary sector, non-governmental...
organizations, non-profit organizations, and value-based organizations. In an agreement about the relations between the Swedish government, the voluntary sector, and the Swedish Association of Local Authorities and Regions, it was established that the organizations would like to be called value-based organizations (Swedish Government White Paper, 2008/09:207). Despite the different expressions used, there are some criteria for non-governmental organizations that should be fulfilled. The organization needs to be (1) formal, institutionalized to some extent, (2) private, separate from the government, (3) non-profit, not distributing profits to owner or management, (4) self-governing, and (5) characterized by idealism, relying on contributions from private persons, like volunteer work or private donations (Wijkström & Lundström, 2002). In the present thesis the terms non-governmental organizations and voluntary sector are used.

The voluntary sector plays a significant role in public health work, and Sweden has a long tradition of non-governmental organizations (Wijkström & Lundström, 2002). NGOs in Sweden have been working with alcohol prevention for many years, especially the temperance movements (Andréasson et al., 2007). During the 19th century the temperance movement was gaining ground in Europe (Anderson & Baumberg, 2006). In Sweden, the modern temperance movement was started in 1879 with the founding of the first temperance lodge within the IOGT (Svensson, 1979). In 1970 the IOGT was amalgamated with the organization NTO. Today, IOGT-NTO is the largest temperance organization in Sweden with about 40,000 members (IOGT-NTO, 2010).

To achieve effective alcohol prevention and to reach the goals of the Swedish alcohol policy, there is a need for different sectors of society to increase and deepen their cooperation. NGOs play an important role in responding to the power of the alcohol industry by exerting oppositional pressure (World Health Organization, 2009). In the Swedish action plan on alcohol and narcotic drugs, as well as in the government bill for public health, the importance of the voluntary sector is emphasized (Swedish Government Bill, 2005/06:30, Swedish Government Bill, 2007/08:110). In the latter document, A renewed public health, it is stated that cooperation between the state and the voluntary sector should be expanded and that the conditions for the voluntary sector’s work should improve (Swedish Government Bill, 2007/08:110). An agreement about the relations between the government, the voluntary sector in the social setting, and the Swedish Association of Local Authorities and Regions has recently been developed through a dialogue between the parties. This dialogue is another way for the government to call attention to the voluntary sector and to the ambition to
strengthen the sector and improve its conditions. The goal of the agreement was to strengthen the independence of the voluntary sector as moulders of public opinion and to support the development of public medical service carried out by the voluntary sector (Swedish Government White Paper, 2008/09:207).

There is a need for organizations to have access to resources that are independent of commercial interest, both nationally and internationally. In the alcohol policy area the engagement by NGOs is constrained by lack of resources (Casswell & Thamarangsi, 2009). The Swedish National Board of Health and Welfare (NBHW) has a government commission to administer grants for national organizations in the social settings, as a form of general organizational support. NBHW also distributes funds to NGOs for interventions aiming to prevent alcohol and drug use in the Swedish population.

**The research program**

The Swedish National Board of Health and Welfare has since 2002 a government commission to distribute funds to NGOs for interventions aiming to prevent alcohol and drug use. In addition to project grants to NGOs, this national program also consists of support for a research team at Örebro University for research and documentation of the projects (Figure 1) (Eriksson, Geidne, Larsson, & Pettersson, 2010). The goal of the funding from the NBHW has been to support organizations and projects for the development of knowledge about alcohol and drug prevention methods and to produce evidence for the effects of different interventions. NBHW emphasizes the importance of the independence of the documentation and evaluation of the work of the organizations (Swedish National Board of Health and Welfare, 2010).
A wide range of organizations have received financial support for alcohol and drug prevention. For example traditional sport associations, women’s organizations, temperance movements, and adult education organizations have all been funded. During the period 2003–2009, 69 organizations have received funds for 135 projects. The Swedish temperance organization IOGT-NTO has received funds for the most projects (24 projects) and consequently also the greatest amount of money (nearly 15 million SEK).

Most of the projects within this special program have had the goal of preventing underage drinking. However, there have also been projects aiming to prevent alcohol consumption during pregnancy, limit the accessibility of alcohol, and influence public opinion. Several interventions have targeted parents of teenagers with the goal of preventing alcohol use among adolescents. Examples of interventions targeting parents are IOGT-NTO’s projects Strong and Clear (Stark och klar) and Parents Together (Föräldrar Tillsammans).

The NBHW has also funded a research team at Örebro University. The research team has been commissioned to carry out a number of in-depth studies. Over the years, 14 projects have been chosen for in-depth studies. Some are effect
studies and some focus on the working process in the projects. The research team has also developed a template for systematic documentation that has been sent to all the project leaders within the program twice a year. Regular meeting with all the project leaders, two to four times a year, have been arranged by the research team. Separate meetings for the purpose of evaluation have also been held with a smaller numbers of organizations. The research team has also been responsible for three national conferences about prevention work. The initiative from NBHW also contains supervision for the project leaders and an invitation to participate in a university course.

This way of organizing research and development has promoted a trustful partnership between practitioners, national agencies, and researchers. The present thesis is a result of this partnership, and all studies included in the thesis have been funded within this special program.

**Parental interventions funded by the Swedish National Board of Health and Welfare**

During 2003, the Swedish National Board of Health and Welfare (NBHW) funded a number of alcohol prevention projects that included parents. The research team was commissioned to evaluate some of these projects. The most extensive of these was a parental program called *Strong and Clear*, which was implemented by the Swedish temperance organization IOGT-NTO. The present thesis includes both a study of the effects of the program, a study of reasons for non-participation in the program, and an analysis of the parents’ perceptions about *Strong and Clear*. Data from the parents within the evaluation of *Strong and Clear* have also been used in analysing of parents and parenthood more generally. As NBHW’s program and the commission of the research team also included conducting evaluations of some other parenting projects, data from parents within these evaluations could also be added to the more general analysis. First, data from an evaluation of another parental intervention implemented by IOGT-NTO were used. This was a study circle called *Young and King*. Secondly, data from the evaluation of the national federation SMART’s intervention, the *Contract Method*, was also used. This method is based on a contract signed by adolescents as well as their parents in which the adolescents, among other things, promise not to use alcohol. A very short presentation of *Young and King* and the *Contract Method* is given below as the evaluations of these interventions are not included in the present thesis. Only data from the parents within these evalua-
tions have been used. Strong and Clear is presented in more detail, as the thesis includes the evaluation of the intervention.

**Young and King**

One of the parental interventions for which IOGT-NTO received funding from NBHW was a study circle called *Young and King* (Ung och Kung). Young and King targeted parents of adolescents and included three to seven meetings about alcohol, tobacco, and other drugs; Internet and media; youth culture; bullying; and parenting.

**The Contract Method**

*The national federation SMART* received grants from NBHW for the implementation of a method based on a contract signed by the adolescent and their parents. If the adolescent signed the contract and thereby promised not to use alcohol, tobacco, or other drugs (other components could also be included in the contract, like shoplifting) the adolescent received benefits, like discounts in local shops or to local events.

**Strong and Clear**

Strong and Clear is a parental support program targeting parents with children aged 13–16 years old. It is a universal program that aims to prevent alcohol drinking among adolescents and to maintain parents’ restrictive attitudes concerning adolescents and alcohol. The program originates from Norway and was developed by remedial teacher Oddvar Bjørnestad on behalf of the temperance organization IOGT in Norway (Sterk og kler, 2010). At the beginning of the 21st century the Swedish temperance organization IOGT-NTO, which is part of the global International Organization of Good Templars, adopted the program. The organization was awarded grants (2003–2007) from the Swedish National Board of Health and Welfare to adapt the program to a Swedish setting and implement it. The application for grants included four goals for the project:

1. Support adults in their parenting with the goal of helping children to handle the pressure to drink alcohol and try narcotic drugs.
2. Postpone the age of alcohol debut and increase the age of regular alcohol consumption.
3. Decrease the alcohol consumption among 20 year olds whose parents have participated in Strong and Clear.

4. Influence parents’ attitudes towards alcohol in a restrictive direction and prevent parents from supplying alcohol to their child at home.

The program is manual based, and the Swedish version of the program includes thirteen activities during the three years of secondary school (school years 7–9). The parents could sign up for the program during the entire period. The activities are both group- and self-administered. There are four different types of activities: *Parent meetings, Family dialogues, Family meetings, and Friend meetings* (Table 1) (IOGT-NTO, 2004).

*Parent meetings* – IOGT-NTO arranges the parent meetings, which are held at the school and last a couple of hours. Parents are encouraged to discuss pressing questions, like how to prevent alcohol use among adolescents and how parents can cooperate to get more knowledge about their child’s daily life. The parents are also encouraged to make a written agreement about topics they deem important to coordinate with other parents, for example their attitudes towards adolescents and alcohol. The parent meetings are intended to establish alliances between parents.

*Family dialogues* – this is a self-administered activity, in which parents are sent a booklet to promote talks with their child, at home. The family dialogue gives the parents and the child an opportunity to talk about issues important during the teenage years. Examples of issues that could be discussed at a family conversation are positive qualities within the family, peer pressure, important choices, parties, alcohol use, and pocket money. The parents and the child are encouraged to make an agreement about one or several issues that they feel are important in their family. Examples are provided to the families, such as agreements about homework, housework, tobacco, and alcohol, but the families are free to choose whatever they feel is important to reach agreement about.

*Family meetings* – At a family meeting arranged by IOGT-NTO, parents and children meet other families at school. At a family meeting, the families might, for example, discuss positive youth cultures and dreams and plans for the future.

*Friend meetings* - In the final type of activity, friend meetings, parents, adolescents, and some of the adolescent’s friends are encouraged to do a recreational activity together, like having a nice dinner or going bowling. The purpose is for the parents to get an opportunity to get to know their child’s friends and to be a positive adult influence.
The reported theoretical and empirical foundation of the program is weak (Forebygning.no, 2010). In an evaluation report of the Norwegian program from Bergensklinikke (Bolstad, Skute & Iversen, 2008) it emerges that the program is based on Gerald Patterson’s research about prevention, in which the role of parents is emphasized (for example Reid, Patterson, & Snyder, 2002). No further information about the theoretical foundation of the program has been presented. Stattin and Kerr (2009) assert that many family-based interventions can

<table>
<thead>
<tr>
<th>Year</th>
<th>School year 7</th>
<th>School year 8</th>
<th>School year 9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INFORMATION MEETING</strong></td>
<td>- about the program</td>
<td>- -</td>
<td>-</td>
</tr>
<tr>
<td><strong>1. Parent meeting</strong></td>
<td>- youth environments, setting limits and solving conflicts - agreements between parents, e.g. that parents do not supply alcohol to the adolescents and to react and contact other parents if adolescents are at inappropriate places or are drunk.</td>
<td>- 6. Parent meeting - facts about alcohol and drugs and the local situation - agreements between parents</td>
<td>- 10. Parent meeting - Resources and support if something happens - agreements between parents about how parents can prevent drinking-bouts</td>
</tr>
<tr>
<td><strong>2. Family dialogue</strong></td>
<td>- important aspects of life, to grow up and mature, and peer pressure - agreement between parent and child, e.g. about alcohol and tobacco</td>
<td>- 7. Family dialogue - how the adolescents are feeling, alcohol and drugs, parties and peer pressure - agreement between parent and child</td>
<td>- 11. Family dialogue - trust and openness - agreement between parent and child</td>
</tr>
<tr>
<td><strong>3. Family meeting</strong></td>
<td>- choices, courage, and motives - agreement between parents and adolescents</td>
<td>- 8. Family meeting - positive youth culture - agreement between parents and adolescents</td>
<td>- 12. Family meeting - about the future</td>
</tr>
<tr>
<td><strong>4. Friend meeting</strong></td>
<td>- to get acquainted with the child’s friends</td>
<td>- 9. Friend meeting - a weekend evening with the child and his/her friends</td>
<td>- 13. Friend meeting - a first-rate dinner with the child and his/her friends</td>
</tr>
<tr>
<td><strong>5. Family dialogue</strong></td>
<td>- strengths and positive characteristics - agreement between parent and child</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. All thirteen activities in the program Strong and Clear by year.
be traced back to G. Patterson and that they are based on social learning principles.

That there is a lack of information about the theoretical foundation of Strong and Clear does not necessarily mean that the theoretical ground should not be considered. Perry (1999) has presented an intervention model for health behaviour change among youth (Figure 2). In the present thesis this model is used to understand the theoretical ground for the program. A brief overview of the model is presented below followed by an attempt to understand the components in Strong and Clear with this model serving as a foundation.

The intervention model for changing health behaviours includes four sets of factors that form the basis of social learning theory: socio-demographic factors, socio-environmental factors, personal factors, and behaviour factors (Perry, 1999).

![Health Behaviour Program](chart)

**Figure 2. An intervention model for health behaviour change (after Perry, 1999).**

Even if socio-demographic factors are important for adolescents’ health behaviours, such aspects are difficult to address or change through health behaviour programs. They are instead important for identifying a target group for the inter-
vention, that is, the group of adolescents for whom a behavioural change is sought. This group could be defined as a school year or a developmental stage.

The socio-environmental factors, on the other hand, are of primary importance for health behaviour programs for adolescents. Parents, siblings, and best friends are the closest persons influencing adolescents’ behaviour. One step removed, peers, relatives, teachers, and neighbours also have an influence, as do, on an even more distant level, community policies and societal leaders. At each of these levels some key factors influence adolescents. The first is normative expectations, which are the adolescents’ perceptions of what they ought to do, what is accepted, and what others are doing. A second key factor is role models. This can be understood as the behaviour of role models and the consequences of that behaviour. The third factor is opportunities and includes the possibility for the behaviour. Barriers are a lack of opportunities and are also included in the concept. The final social-environmental factor is social support. This can be explained as the social support from others to engage in the behaviour and the adolescents’ perceptions about how supportive they find their environment.

The personal factors are five in number. Knowledge of the social influences to engage in a behaviour and ways to identify and resist those influences are an important factor. Values are about the importance of engaging in the behaviour from the adolescent’s viewpoint. Another key factor is the functional meanings or outcome expectations of the behaviour. Which kinds of utility does the behaviour have? Self-image is also a key personal factor and the adolescent’s perception about him- or herself. Finally, self-efficacy can be explained as the adolescent’s confidence to engage or not engage in the behaviour.

The final set of factors is behavioural factors. Behavioural intentions are the first key factor, and comprise a person’s determination whether or not to engage in the behaviour in the future. In the development of a program it is important to consider other related behaviours that also could be addressed in the program. Behaviours do not occur in isolation. A third factor includes skills to resist the influences to engage in the behaviour. Incentives and rewards are the last key factor. Rewarded behaviours are more likely to be repeated than others. The adolescent might perceive many rewards for drinking alcohol, for example acceptance by peers and a feeling of being mature. A program should provide incentives and rewards that counterbalance the already existing rewards.

These sets of key factors are useful for a health behaviour program. This intervention model for health behaviour change will now be used as a theoretical ground for understanding the components of Strong and Clear.
The main target group of Strong and Clear is adolescents aged 13–16 years. Perry (1999) asserts that the target group should be in great need of the program and the behaviour should be health compromising. Moreover, if a community-wide program is to be implemented, the problem behaviour should also be community-wide. As previously shown, alcohol use among adolescents is a community-wide problem in Sweden (Hwitfeltdt & Gripe, 2009) and can seriously affect the adolescents’ health (e.g. Hoel, Eriksen, Breidablik, & Meland, 2004; Swedish Government Official Report, 2006:77; Spoth, Greenberg, & Turrisi, 2009). Strong and Clear aims to prevent alcohol consumption among adolescent mostly by means of components targeting the people closest to the adolescents. All the components include the parents, and some include best friends and peers.

Parent meetings – The four environmental factors are targeted by the parent meetings. Parents are encouraged to establish alliances with other parents, sign an agreement, and together signal a restrictive attitude towards underage drinking. These components are intended to clarify the normative expectations by showing the adolescents that alcohol consumption is not a behaviour that adults accept. There is also a way to strengthen parents as role models and limit the opportunities for adolescents to use alcohol. Parents have unique possibilities to provide sustainable opportunities and barriers to their child’s behaviour as they generally are the most powerful role models (Perry, 1999).

Family dialogues – IOGT-NTO emphasize in the Strong and Clear method guide that the family dialogue is the most important component in the program (IOGT-NTO, 2004). All components in the model for health behaviour change are also targeted by this component. For example, IOGT-NTO asserts that as the majority of the adolescents have not been engaged in problem drinking when the program starts, the family dialogues deal with other related behaviours, such as what time they get back home in the evenings and how to do well at school. The family dialogues also include discussions about how to acquire skills to resist peer pressure and what important choices that the teenage period involves. The agreement that the adolescent and parent are encouraged to sign is a way to reward positive behaviour. In Strong and Clear it is very important to celebrate when the agreement has been reached, and in that way hopefully to counterbalance the rewards that the targeted negative behaviour gives the adolescents.

Family meetings – The three family meetings within Strong and Clear have the following topics: Choices, courage, and incentives; Positive youth culture; and Plans for the future. These topics include several of the key factors in the theoretical model such as normative expectations, knowledge about social influences, and
intentions for the future. Perry (1999) asserts that family fun nights are an important component of successful programs.

Friend meetings – This component is about parents and the child’s friends getting to know each other. Parents, best friends, and peers have the closest influence on adolescents’ behaviour. The friend meetings can be seen as a way to strengthen the social support network for several adolescents, not only for the one whose parents are participating in the program. The parents can hopefully become significant others for the child’s friends.

Table 2 gives a summary of key factors from the intervention model for health behaviour change among youth identified in Strong and Clear.

<table>
<thead>
<tr>
<th>Key factors</th>
<th>Parent meetings</th>
<th>Family dialogues</th>
<th>Family meetings</th>
<th>Friend meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-environmental factors</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Normative expectations</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Role models</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Opportunities - barriers</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Social support</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Personal factors</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Knowledge</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Values</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Functional Meanings</td>
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<td></td>
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<tr>
<td>Self-Image</td>
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<tr>
<td>Self-Efficacy</td>
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<tr>
<td>Behaviour factors</td>
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<tr>
<td>Intentions</td>
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<tr>
<td>Other Behaviours</td>
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<tr>
<td>Skills</td>
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<td></td>
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<tr>
<td>Incentives - rewards</td>
<td></td>
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</tbody>
</table>

Strong and Clear has been evaluated in Norway using a post-test-only design with non-equivalent groups regarding alcohol use among the adolescents. The findings showed that the program had an effect on parents’ attitudes towards adolescents and alcohol and on the family dialogue about alcohol and other important issues. The results also suggested that the program affected adolescents’ drinking behaviour (Bolstad et al., 2008). The Swedish version of the program has been revised by IOGT-NTO. Therefore, it is important to also evaluate the Swedish version of the program. The research team was commissioned to evaluate the program as one of 14 in-depth studies.
**Rationale**

Public health is an area that needs to be more evidence-based. Learning and knowledge-production for public health must be comprehensive and include knowledge from different areas. Knowledge about the distribution of health is needed as well as knowledge about the determinants of health behaviour. Furthermore, the impact of health behaviours on the individual and on society is another important area for knowledge-production. Finally, knowledge about intervention methods are badly needed (Eriksson, 2000). Intervention research is the most undeveloped domain in public health research in Sweden (Eriksson, 2000; Kamper-Jørgensen et al., 2004). Green and Glasgow (2006) assert that the development of an evidence-based public health practice has focused on well-controlled efficacy studies of public health programs. Little attention has been devoted to studying programs under typical, rather than optimal conditions. Their conclusion is “If we want more evidence-based practice, we need more practice-based evidence” (Green & Glasgow, 2006, p. 126). It is of great importance to establish good co-operation between research and practice (Nutbeam, 1996). Another challenge is to develop methods for learning as part of public health activities (Eriksson, 2000). The special undertaking of the Swedish National Board of Health and Welfare is an attempt to create a partnership between national agencies, researchers, and practitioners to create an evidence-based practice. Never before has this been done within the non-governmental sector in Sweden. There is a need to describe and analyse efforts like this for the further development of an evidence-based practice.

Most of the projects funded by NBHW have the goal to prevent alcohol drinking among adolescents. Several projects aim to do that by strengthening parents in there parenting and to strengthening their restrictive attitudes towards underage drinking. The research team at Örebro University has been commissioned to evaluate some of these interventions. Because the entire commission has gone to one and the same research team, it has been possible to study parents and parenthood in general and not only to get knowledge about the specific interventions. This has contributed to studies of a rather large group of parents that have been geographically widespread. It has also made it possible to study if any group of parents is in special need of interventions. Previous research has shown that parents’ attitudes and behaviours concerning adolescents and alcohol are related to alcohol consumption among adolescents (Kumpfer & Kaftarian, 2000; Aas & Klepp, 1992; Callas et al., 2004; van der Vorst et al., 2006; Lundborg, 2002; Stafström et al., 2005; Komro et al., 2007). Parents with non-restrictive attitudes...
and behaviour could therefore be seen as an important group to reach for participation in parental interventions. One important attendant question would be whether it is possible to identify non-restrictive groups of parents.

When evaluating the results of an intervention there is a need for research questions targeting not only the effects of the intervention but also its reach, effectiveness, adoption, implementation, and maintenance. Some important questions deal with the participation rate in the program and the representatively of these participants; for example, did the program reach those most in need (Green & Glasgow, 2006)? It is a major challenge to increase the recruitment and retention of parents in programs (Dusenbury, 2000). To do that, reasons for non-participation need to be examined.

Since health promotion programs often are complex multi-component interventions, the evaluation should include observations of the program from a number of different perspectives. It is appropriate to consider both quantitative and qualitative methods for evaluation of a program. Despite this, qualitative research is often undervalued and underused. Adding information from a qualitative study might contribute to a better understanding of the program, help explain why it works, or make it possible to better discern which program elements were perceived as successful (Nutbeam & Bauman, 2006). Parents’ perceptions about a parental program are of great importance for the practitioners as well as for the researchers. Practitioners may use this information to improve the program. Researchers may use the information to better understand why a program is effective or not.

Finally, it is of great importance to generate scientific evidence for program effects, as the goal of health promotion programs often is to accomplish behavioural changes (Nutbeam & Bauman, 2006). The NBHW program and all the efforts by the non-governmental organizations aim to change attitudes and behaviours. Therefore one important goal is to examine program effects on adolescents’ alcohol consumption.

To summarize, non-governmental organizations play an important role in the alcohol and drug prevention work, and more practice-based knowledge is needed. Because of the unique undertaking of the Swedish National Board of Health and Welfare, important knowledge can be gained about how to develop methods for evidence-based practice and how to build up a trustful partnership between researchers and practitioners. This can also improve our understanding of parents, parenthood, and a parental intervention implemented within typical conditions. Many studies have examined the role of parents in preventing alcohol use among
adolescents. Studies about the effects of parental programs have also been conducted, but mostly in the USA. Very few of these studies have been carried out in Sweden. As far as I know, none of these effect studies in Sweden have examined a program implemented by a non-governmental organization.
Aim

The overall aim is, within the context of a national support program for NGOs, to study parents, a parental support program, and adolescents with regard to preventing underage drinking.

The specific aims are:

• to describe and analyse alcohol and drug prevention supported by the Swedish National Board of Health and Welfare and implemented by NGOs in Sweden during 2003–2009 with a special emphasis on research and development for an evidence-based practice. The study also analyses the integrated research strategy and its main components. Three research questions will be addressed: (1) Which types of organizations and projects have received grants from the NBHW for alcohol and drug prevention? (2) What types of research and development activities for an evidence-based practice have been included (3) How can a trustful partnership develop between practitioners, national agencies and researchers? (Study I)

• to analyse the significance of socio-demographic factors for parental attitudes and behaviour regarding adolescent alcohol consumption. Two research questions are addressed: (1) Are parental attitudes associated with socio-demographic factors? (2) Is parental behaviour associated with socio-demographic factors? (Study II)

• to examine non-participation in a parental support program to prevent underage alcohol drinking. Three research questions are addressed: (1) Is there any association between socio-demographic factors and non-participation? (2) Do factors associated with adolescents and alcohol, i.e. perceived susceptibility and perceived severity, matter for non-participation? (3) How important are program and practical factors such as perceived benefits, perceived barriers and cues to action for non-participation? (Study III)

• to examine the effects of the parental support program Strong and Clear on alcohol drinking among adolescents. Five research questions are addressed: (1) Is the program effective in changing parental behaviour (allowing kids to drink at home) and attitudes towards underage drinking? (2) Is the program effective in postponing adolescent alcohol drinking? (3) Is the program effective in reducing problem behaviour (i.e. drunkenness)? (4) Do gender and parent education moderate the program effects on drinking and drunkenness? (5) Is there an effect of parents’ attitude change on adolescent drinking behaviour? (Study IV)
Aims

The overall aim is, within the context of a national support program for NGOs, to study parents, a parental support program, and adolescents with regard to preventing underage drinking.

The specific aims are:

• to describe and analyse alcohol and drug prevention supported by the Swedish National Board of Health and Welfare and implemented by NGOs in Sweden during 2003–2009 with a special emphasis on research and development for an evidence-based practice. The study also analyses the integrated research strategy and its main components. Three research questions will be addressed: (1) Which types of organizations and projects have received grants from the NBHW for alcohol and drug prevention? (2) What types of research and development activities for an evidence-based practice have been included (3) How can a trustful partnership develop between practitioners, national agencies and researchers? (Study I)

• to analyse the significance of socio-demographic factors for parental attitudes and behaviour regarding adolescent alcohol consumption. Two research questions are addressed: (1) Are parental attitudes associated with socio-demographic factors? (2) Is parental behaviour associated with socio-demographic factors? (Study II)

• to examine non-participation in a parental support program to prevent underage alcohol drinking. Three research questions are addressed: (1) Is there any association between socio-demographic factors and non-participation? (2) Do factors associated with adolescents and alcohol, i.e. perceived susceptibility and perceived severity, matter for non-participation? (3) How important are program and practical factors such as perceived benefits, perceived barriers and cues to action for non-participation? (Study III)

• to examine the effects of the parental support program Strong and Clear on alcohol drinking among adolescents. Five research questions are addressed: (1) Is the program effective in changing parental behaviour (allowing kids to drink at home) and attitudes towards underage drinking? (2) Is the program effective in postponing adolescent alcohol drinking? (3) Is the program effective in reducing problem behaviour (i.e. drunkenness)? (4) Do gender and parent education moderate the program effects on drinking and drunkenness? (5) Is there an effect of parents’ attitude change on adolescent drinking behaviour? (Study IV)
to analyse parents’ perceptions of the program Strong and Clear. The research questions are: (1) Are the parents aware of the program? (2) With what do the parents associate Strong and Clear? (3) Is it important to the parents who provide the program? (4) Does the program assist parents in their parenting, with regard to talking with or setting limits for their child? (Study V – presented in this thesis only)
Method

Design

Several types of study designs are used in the thesis. The first study (I) is an embedded single-case study of the research program for alcohol and drug prevention run by non-governmental organizations in Sweden. This study uses multiple data sources (data material 1).

The main part of the thesis is based on a three-wave, longitudinal study with adolescents and their parents in six selected schools in a province of Värmland in Sweden (data material 2). The purpose of the longitudinal study was to get deeper knowledge about family relationships, communication, and habits of life with a special focus on alcohol. The study was also an evaluation of the parental support program Strong and Clear. The adolescents and their parents were followed during the three years of secondary school (13–16 years old) with annual postal questionnaires to the parents and annual school questionnaires to the pupils. Studies III and IV are solely based on this data material. Study II includes parental data from the baseline postal questionnaire collected within the longitudinal study. It also includes data from parents in a cross-sectional study (data material 3), which was carried out with parents of children aged 12–13 and 15–16.

This thesis also includes a study (V) on parental perspectives about Strong and Clear. Parents within the longitudinal study (data material 2) have been asked about this in the two follow-up postal questionnaires. Telephone interviews have also been carried out with some of the parents from the longitudinal sample (data material 4). The results from this study are only reported in this thesis.

Table 3 gives an overview of the five studies included in the thesis with regard to design, participants, data collection, and analysis.
Table 3. Overview of the thesis.

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Data collection</th>
<th>Data material</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Embedded single-case study</td>
<td>69 non-governmental organizations with 135 projects</td>
<td>Annual reports, e-mail questionnaires, interviews etc.</td>
<td>1</td>
<td>Parallel and integrated mixed data analysis</td>
</tr>
<tr>
<td>II</td>
<td>Cross-sectional study</td>
<td>n=795 Parents</td>
<td>Postal questionnaire</td>
<td>2 &amp; 3</td>
<td>Multivariate logistic regression analysis</td>
</tr>
<tr>
<td>III</td>
<td>Mixed-method study</td>
<td>n=455 Parents</td>
<td>Postal questionnaire</td>
<td>2</td>
<td>Multinomial logistic regression analysis and qualitative content analysis</td>
</tr>
<tr>
<td>IV</td>
<td>Longitudinal quasi-experimental study</td>
<td>n=509 Parent-adolescent dyads</td>
<td>Postal questionnaire and classroom questionnaire</td>
<td>2</td>
<td>Latent Growth Modelling and repeated measures ANOVA</td>
</tr>
<tr>
<td>V</td>
<td>In this thesis only</td>
<td>Qualitative study</td>
<td>Postal questionnaire</td>
<td>2 &amp; 4</td>
<td>Descriptive</td>
</tr>
<tr>
<td></td>
<td>Qualitative study</td>
<td>n=235 Parents</td>
<td>Telephone interviews</td>
<td></td>
<td>Qualitative content analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n=53 Parents</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data material 1**

Data material 1 is used in study I. The embedded case study includes 135 projects by non-governmental organizations and 14 in-depth process or effect studies. Different kinds of information have been used to investigate the strategy developed for the research and development of alcohol and drug prevention supported by the Swedish National Board of Health and Welfare and implemented by NGOs in Sweden during 2003–2009.

**Participants and procedure**

During the period 2003–2009, a wide range of NGOs have applied for financial support from the Swedish National Board of Health and Welfare. Organizations
receiving funds are participants in the study as well as project leaders, managers in the NGOs and members of the different target groups.

A plan for research and development activities was developed during the first year and emended each year after the completion of an annual report to the NBHW. This plan consisted of several parts relating to the overall activities as well as the different in-depth studies. Notes were taken at meetings and as part of the strategy a series of presentations as progress reports were given to, project leaders, NGOs and the NBHW. A broad range of methods have been used for the development of the case study database. The six different types are presented below.

First, there is some important administrative data. Initially, this consisted of the applications from the NGOs to the NBHW as well as the funding decisions. This has been complemented by bi-annual as well as annual progress reports from all funded projects which have given information on implementation, goal achievement, barriers, and facilitating factors. The research team developed a format for these reports and they have then been summarized annually in a report to the NBHW.

Secondly, data from interviews and questionnaires to project leaders is also used. Data was collected from project leaders and their organizations during the years of funding from the NBHW. All interviews were taped and transcribed with some exceptions where notes were taken during the interviews. A questionnaire was sent to all project leaders in 2003, 2005, 2007, and 2009. It included questions about their perceptions of being a project leader in a NGO. Most of the project leaders responding to the questionnaire in 2003 also answered the 2005 questionnaire, due to the fact that many of those projects that were receiving funding in 2003 also were receiving funding in 2005. A total of 84 persons participated in the questionnaire study over the years. Of these, 38 project leaders answered the questions more than one year.

A third type of data is collected by focus group discussions and seminars. Regular meetings have been held with the project leaders during the whole period (2003–2009). Thematic discussions highlighting special issues related to the practice of alcohol and drug prevention have been held as a part of these meetings. Moreover, a series of joint seminars with NGOs and the research team has been conducted at national and organizational conferences focusing on different projects. Different approaches for documentation of the group discussions and seminars have been used, for instance notes by the research team and summaries on flipcharts by the project leaders.
Fourthly, information about the 14 in-depth studies was collected by a variety of methods, such as participatory observations, interviews, and documentation of the implementation, during the planning, implementation, and evaluation of the studies. This process has resulted in process-related data that gives insights into the development of the partnership between researchers and practitioners.

A fifth type of information has been gained by consultation with the NBHW and the NGOs. Regular meetings have taken place with the steering committee and the senior administrative officer, who have been the same person during all years. The consultations with NGOs were more intensive with those organizations selected for in-depth studies, but several meetings have also taken place with other organizations.

Finally, a systematic literature review of the research strategies for alcohol and drug prevention has been ongoing as an integral part of the research program. A number of publications related to collaboration between researchers and practitioners were found. Special thematic sections and series have been looked for. Among the key words are addiction research centre, alcohol and drug research, preventive research, practice-based research, and evidence–practice gaps.

**Data material 2**

Data material 2 is used for studies II, III, and IV, and for analyzing parents’ perceptions about Strong and Clear, which is presented in the thesis only (study V).

**Participants and procedure**

During 2003, IOGT-NTO received grants from the Swedish National Board of Health and Welfare for the implementation of the parental program Strong and Clear. The program was implemented in six counties in Sweden. The evaluation, which also was funded and sanctioned by the NBHW, was concentrated to one of these counties, Värmland. The reasons why Värmland was chosen are that this region had many schools that were interested in Strong and Clear and that the local IOGT-NTO was able to implement the program on a scale that the evaluation study required.

The selection of schools for the evaluation was made in spring 2004, in cooperation with IOGT-NTO who was knowledgeable about the implementation of the program in local schools. Implementation of a prevention program is time-consuming (Durlak & DuPre, 2008), which is why only schools that already had
introduced the program were chosen. All of the selected schools had carried out the program the previous year. Twelve schools were possible candidates for the study. Of those, seven were interested in participating. The research team, the local and national project leader from IOGT-NTO, and the headmaster of each school met and discussed the requirements for the cooperation. It was important that the roles of the parties were made clear. After this meeting, one school declined to participate.

The six schools included in the study, located in three municipalities, were different in character, which was desirable. The municipalities differed in size, the smallest having about 15,000 inhabitants and the largest about 85,000 inhabitants. A comparison between the schools' average merit ratings was made and it was found to vary between 207 and 231 (the comparison was made with data from 2002). The average merit rating for pupils at the end of their ninth year is the sum of the 16 best marks in the pupil's final mark. The highest possible merit rating is 320 points (Swedish National Agency for Education, 2010). There were also differences between the sizes of the schools in school year 2004/2005. The smallest school had 60 pupils in school year 7 and the largest had 184 pupils.

The target group for the evaluation of Strong and Clear included all adolescents who started in school year 7 (13 years old) in autumn 2004 and their parents (795 adolescents). Three questionnaires were carried out with adolescents and parents respectively and similar questions were posed to both parents and children about family relationships, family communication, and parents' knowledge about their child’s everyday life. The parents were also asked about their perceptions about adolescents and alcohol, their beliefs about their own child’s alcohol use, their opinions about how to prevent alcohol consumption among adolescents, Strong and Clear, and their socio-demographic background. The adolescents were asked about school, their health, friends, hobbies, alcohol, tobacco, delinquency, and socio-demographic background.

The questionnaires were coded which made it possible to study changes over time and to link together the parents’ and the children’s answers. A baseline questionnaire was carried out before the program was introduced to the parents (in school year 7). Two follow-up questionnaires (school years 8 and 9) were then completed. The parents received the questionnaire by mail and were informed about the study by a cover letter describing the study procedure. They gave their informed consent by returning the mailed questionnaires. The parents were also asked for permission for their child to participate in the follow-on questionnaire.
to the adolescents. A passive consent procedure was used whereby parents could decline to allow their child to participate by returning a form postage-free.

The baseline questionnaire was sent to the homes of 895 parents in autumn 2004. If the guardians lived at different addresses a questionnaire were sent to both of them if the school routines were to send information to both guardians. One reminder was sent to those parents who did not respond to the questionnaire. In the two subsequent years the questionnaires were mailed to 889 and 901 parents respectively. The response rate fell during the years. In the baseline questionnaire 69% of the parents answered the questionnaire compared to 54% in the first follow-up questionnaire and 46% in the last one.

In all three questionnaires the respondent was primarily a mother. The distribution of respondents in the baseline study was 74% mothers, 14% fathers, and 12% mothers and fathers together. Less then 1% of the questionnaires were answered by another guardian. In the first follow-up questionnaire 74% of the respondents were mothers, 13% fathers, and 13% both parents answering together. The distribution in the last follow-up questionnaire was 71% mothers, 14% fathers, and 16% answering together.

The questionnaire to the adolescents was carried out in the classroom during school hours. At the baseline, questionnaires and instructions for the data collection were sent to the headmaster of each school. The headmaster was responsible for seeing that the questionnaires were filled out and returned to the research team. This procedure was changed for the two follow-up questionnaires. The research team found it too time-consuming to wait for the questionnaires to come back from the schools. Therefore, the research team went to the schools and conducted the data collection.

All pupils received an envelope with their name on containing a cover letter with information about the study and a coded questionnaire. Even if the parents had allowed the child to participate, the adolescent could decline to participate. Children whose parents had declined to allow their participation also received an envelope containing a questionnaire without a code and an extra cover letter telling them that their parents had declined to allow them to participate. It was important from an ethical point of view that these adolescents did not feel pointed out in front of their classmates. All the adolescents also received an envelope without a name or code into which they put the questionnaire, filled out or not. Both parents and adolescents were told that their participation was voluntary and they were assured confidentiality. Neither parents nor children were paid for their participation. The same procedure for data collection was used in all three data collections.
collections. Ethical approval was given by the local ethics committee at Örebro University (Dnr CF2003/773) and the regional ethics committee in Uppsala (Dnr 2006-078).

The response rate among the pupils also fell during the three years of secondary school, but not as drastically as among parents. The total response rates were also higher among pupils than they were among parents. This is probably a result of the procedure for data collection. The pupils were asked to answer the questionnaire during a lesson in school, while parents were asked to answer it during their leisure time. The response rates among the pupils are presented in Table 4. The distribution according to sex was 48% girls and 52% boys in school year 7, 49% girls and 51% boys in school year 8, and 50% girls and 50% boys in school year 9.

Table 4. Response rates among pupils, school years 7, 8, and 9.

<table>
<thead>
<tr>
<th>School year</th>
<th>Number of pupils in the grade</th>
<th>Number of pupils not allowed to participate</th>
<th>Sample size*</th>
<th>Number of participating pupils</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School year 7</td>
<td>795</td>
<td>39</td>
<td>753</td>
<td>706</td>
<td>94</td>
</tr>
<tr>
<td>School year 8</td>
<td>789</td>
<td>30</td>
<td>757</td>
<td>634</td>
<td>84</td>
</tr>
<tr>
<td>School year 9</td>
<td>798</td>
<td>50</td>
<td>746</td>
<td>588</td>
<td>79</td>
</tr>
</tbody>
</table>

* The difference between number of pupils in the grade minus the number of children not allowed to participate and the sample size consists of cases where it was impossible to reach parents, e.g. unaccompanied young refugees. In these cases the children received an uncoded questionnaire and were not included in the study group.

The longitudinal participation was also higher among adolescents than among parents (Table 5). Of the 706 pupils answering the baseline questionnaire, 66% also answered the questionnaires in school years 8 and 9. Among the 613 parents answering the questionnaire at baseline, 48% also answered the two follow-up questionnaires.

Table 5. Number of participants in the longitudinal study. Pupils and parents answered one, two, or three questionnaires.

<table>
<thead>
<tr>
<th></th>
<th>Pupils</th>
<th>Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>School year 7</td>
<td>706</td>
<td>613</td>
</tr>
<tr>
<td>School year 7+8</td>
<td>568</td>
<td>397</td>
</tr>
<tr>
<td>School year 7+8+9</td>
<td>466</td>
<td>295</td>
</tr>
</tbody>
</table>
Of the 466 pupils who answered all three questionnaires, 205 had parents who also answered all three questionnaires.

This longitudinal study is a comprehensive study including many important parts of adolescents’ lives. The present thesis focuses on alcohol use among adolescents and parents’ attitudes toward and behaviours regarding that use. It also includes the parts that deal with the intervention Strong and Clear and parents’ socio-demographic background.

Feedback to the participating schools

The results from both the parental and the pupil questionnaires were reported back to the participating schools. The results from the baseline questionnaire and the first follow-up questionnaires were reported to the headmasters of the schools at two special meetings in the autumns of 2005 and 2006. The schools received basic data for the use of the school personnel and pupils. These presentations included both a general part with results from the study as a whole and a school-specific presentation. From the last follow-up questionnaires the headmasters only received a presentation by e-mail.

The results from the baseline questionnaires and from the first follow-up questionnaires were also reported back to the parents at parent meetings arranged within Strong and Clear in school years 8 and 9. Parents were also informed in the cover letter to the last follow-up questionnaire that they could read about the results on Örebro University’s website.

Attrition analysis

The response rates fell from the baseline questionnaires in school year 7 to the last follow-up questionnaires in school year 9. This holds for the study of the pupils as well as the parents, even if it is more dramatic for the latter. An attrition analysis has been carried out with logistic regression analysis to acquire knowledge about the dropouts. Factors among the adolescents like sex, alcohol use, and housing conditions were used in the analysis, as were parental attitudes towards underage drinking and socio-demographic factors among the parents. Adolescents who lived together with both their parents at baseline were more likely to have answered the questionnaire in school year 9 than adolescents who lived with only one of their parents or who alternated between parents (OR 2.0, 95% CI 1.3-3.3). Adolescents who had not consumed alcohol (OR 2.6, 95% CI 1.6-4.7) in
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Parents’ socio-demographic background had little influence on their tendency to participate in the longitudinal study. Educational level was the only factor of any significance. Highly educated mothers (OR 2.8, 95% CI 1.7-4.7) and fathers (OR 1.7, 95% CI 1.7-7.2) were more likely to participate in the questionnaire in school year 9 than less educated mothers and fathers. Parents’ attitudes towards adolescents and alcohol did not seem to matter for longitudinal participation.

Participants in studies II, III, IV, V

The parents who had responded to the baseline questionnaire were included in study II, with the exception of parents who had answered that they did not live together with the child and/or were not the child’s parent.

Study III included parents who had answered the baseline questionnaire in school year 7 and either of the questionnaires in the two subsequent school years.

Study IV included dyads of parents and their children who had both answered at least one of the three questionnaires.

In the last study, parents needed to have answered at least one of the two follow-up questionnaires and they needed to have completed at least one activity in Strong and Clear.

Data material 3

Data material 3 is used for study II in combination with the baseline questionnaire within the longitudinal sample (data material 2).

Participants and procedure

Data material 3 is based on questionnaires carried out with parents to children aged 12–16 in three Swedish municipalities, in two counties (Västernorrland and Södermanland). Parents with children in one of two schools that had implemented the adolescents’ contract method by the organization SMART were the first set of participants. All parents with children in school years 6 or 9 in one of these schools and parents with children in school year 9 in the other school re-
ceived a questionnaire by mail. This means that all parents got the questionnaire, even if their child had chosen not to sign a contract.

Furthermore, parents who had participated in a Young and King study circle received a questionnaire. The questionnaires which were sent to parents within both projects, the contract method and Young and King, had the same common base as the questionnaires sent to parents within the project Strong and Clear (data material 2). This included questions about their family relationships, family communication, knowledge about their child’s everyday life, perceptions about underage drinking, beliefs about their own child’s alcohol use, opinions about how to prevent alcohol consumption among adolescents, and socio-demographic background. It also included a section about the specific intervention.

Questionnaires were sent by mail to the homes of a total of 205 parents within the contract method and 116 parents within Young and King. 135 parents within SMART and 60 parents within Young and King answered the questionnaire. The response rate was, in total, 61%. The majority of the questionnaires were answered by the mothers (70%). Furthermore, 18% of the respondents were fathers, 11% were mothers and fathers who had answered the questionnaire together, and 2% were another guardian.

Participants in study II

All parents within data material 3 were included in study II, with the exception of parents who had answered that they did not live together with the child and/or were not the child’s parent.

Data material 4

Data material 4 is used in study V, i.e. for the analysis of parents’ perceptions about Strong and Clear, and the results are only published in this thesis.

Participants and procedure

In the last follow-up questionnaire with parents within the longitudinal study (data material 2) parents were asked if they were interested in participating in a telephone interview about Strong and Clear. As presented in the section about data material 2, 411 parents answered the last follow-up questionnaire. Of these, 80 agreed to be interviewed. These were divided into two groups for telephone
Parents’ Possibility to Prevent...

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The aim of the telephone interviews was both to study parents’ perceptions about Strong and Clear and to study attrition from the longitudinal study. In order to do that, two groups of parents who had not answered the last follow-up questionnaire were constructed. One of these groups consisted of parents who had answered the questionnaire at baseline but not the last follow-up questionnaire. The other group consisted of parents who had neither answered the baseline questionnaire nor the last follow-up questionnaire. To summarize, four groups of participants were identified for the study:

1. Parents who had answered the questionnaire in school year 9, who agreed to be interviewed, and who had completed at least one activity in Strong and Clear in school year 9.
2. Parents who had answered the questionnaire in school year 9, who agreed to be interviewed, and who had not completed at least one activity in Strong and Clear in school year 9.
3. Parents who had answered the baseline questionnaire (school year 7) but not the last follow-up questionnaire (school year 9).
4. Parents who had neither answered the baseline questionnaire nor the last follow-up questionnaire.

In each of the four groups, 20 parents were randomly chosen for the interviews. In groups 1 and 2, all six schools were represented within both groups even if the distribution was not similar. In groups 3 and 4 the randomization were carried out school by school. From the two largest schools four parents were randomly selected for each of these groups, and from the other schools three parents were randomly selected for each group. In all four groups replacements were also selected randomly. The replacements were used if it was impossible to find the telephone number to the parents.

The parents were called four times within a two-week period before they were considered as drop outs. 53 out of 80 parents participated in the study, primarily mothers (83%).

There were 18 parents within group 1 who participated in the study. Two parents had not answered the phone after four attempts. In group 2, 15 parents participated and five did not answer the phone. In group 3, 14 parents participated,
five did not answer the phone, and one declined to participate. In group 4, the participation was the lowest. Only six parents participated in the study. Ten parents had not answered the phone after four attempts and four declined to participate.

The interview-guide consisted of both open-ended questions and questions with response alternatives. The interviewer typed the answers simultaneously in a Word-document on a computer. The average length of the telephone interviews was 9 minutes, with a range from 3 to 17 minutes.

Participants in study V

All parents answered to the telephone interview were included in this study, even if those who did not know about the program only where represented by one question.

Measures

In this section, the measures used in study I are, due to its character, presented separately from the measures used in studies II–V.

Measures used in study I

Study I includes a range of measures in the case study protocol, which is the plan for research and development, several parts of which relate to the overall activities and the different in-depth studies. It is beyond the scope of this thesis to give a detailed description of all measures included in the embedded case study of the 135 projects. The data are collected and stored in the case study database. Among these are responses to questions and sources of evidence related to the activities to promote a partnership between national agencies, researchers, and NGOs: (1) meetings with the project leaders; (2) project dialogues and consultation; (3) competence building; (4) support for documentation; (5) in-depth studies; and (6) national conferences.

Measures used in studies II–IV

The questionnaires that were sent to parents in both data material 2 and data material 3 included, among other things, questions concerning parental knowl-
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I

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Measures used in studies II–IV

The questionnaires that were sent to parents in both data material 2 and data material 3 included, among other things, questions concerning parental knowledge about their child’s everyday life, family communication, family rules, parents’ opinions about adolescents and alcohol, and parents’ perceptions about their own child’s alcohol consumption. The parents were also asked to answer some questions about their socio-demographic background. Most of the questions have previously been used in other studies, for example Life and Health 2000 (e.g. Molarius et al., 2006) and Life and Health young people (e.g. Lindén-Boström & Persson, 2008), and in longitudinal studies by the Center for Developmental Research at Örebro University (Örebro University, 2010). Some of the questions have been created for the special aim of the study, for example questions about the different components within Strong and Clear. The questions in the telephone interviews were constructed by the research team.

Measures of socio-demographic factors

Studies II, III, and IV include measures about the socio-demographic background of the family. Questions about this were asked to the parents in both data material 2 and data material 3. The sex of the child was added from the pupil questionnaires (data material 2). Age of the child is based on which school year the child was in. Which school the child attended was also used as a socio-demographic factor. Table 6 presents all socio-demographic factors that have been used in the thesis and the sources of information. The socio-demographic factors have to some extent been used differently in the studies.

In study II, the socio-demographic factors from the baseline questionnaire within the longitudinal study (data material 2) and data material 3 were included in the analysis. Seven socio-demographic factors were used:

(1) Sex of the respondent.

(2) Parental age. On the basis of quartiles two parental age groups were constructed: (1) younger parents (Q1), and (2) older parents (Q2–4).

(3) Educational level. Three groups of educational levels were constructed based on the seven categories: (1) tertiary/university, (2) secondary education, and (3) other levels of education.

(4) Family structure. Two categories were used: (1) households with more than one adult, and (2) households with one adult.

(5) Number of children in the household. The variable was continuous and categorized into three categories: (1) one child, (2) two children, and (3) three or more children.
(6) Employment status. Five categories of employment status were constructed: (1) full-time job, (2) part-time job, (3) student, (4) unemployed, and (5) other forms of livelihood.

(7) Age of the child. This factor was based on the school year that the child was in. Two age groups were constructed: (1) 12–14 year-olds, and (2) 15–16 year-olds.

If both parents had answered the questionnaire together, the highest reported age, the highest educational level, and the highest employment status were included in the study.

Study III is entirely based on data material 2. The parents’ socio-demographic background at baseline was used for the study. In total, eight socio-demographic factors were included in the study. Six of these were the same as were used in study II: (1) sex of the respondent; (2) parental age; (3) educational level; (4) family structure; (5) number of children in the household; (6) employment status. The response alternatives were categorized similarly as in study II, with two exceptions. First, three parental age groups instead of two were constructed on the basis of the quartiles: (1) age group 1 (Q1); (2) age group 2 (Q2-3); and (3) age group 3 (Q4). Secondly, three categories of employment status were constructed instead of five: (1) full-time job; (2) part-time job; and (3) outside labour market.

If the parents had answered the questionnaire together, the highest reported age, the highest educational level, and the highest employment status were used in the analysis. All these factors concerned the parents’ socio-demographic background.

Two additional factors were included in the study and were related to the adolescents: (7) sex of the child and (8) school of the child.

Study IV, which also is entirely based on data material 2, included three socio-demographic factors: (1) parents’ educational level; (2) sex of the child; and (3) school. Parents were asked to report both their own educational level and the educational level of the other parent. In study IV, mothers’ and fathers’ educational levels were used separately. The baseline questionnaire was primarily used for data about the parents’ educational level. If none of the parents had answered the questionnaire at baseline, information from the first follow-up questionnaire was added. If none of the parents had answered the questionnaire at baseline or the first follow-up, questionnaire data from school year 9 was added. Three categories of educational level were used: (1) secondary education; (2) university or
categories of educational level were used: (1) secondary education; (2) university or university college, 3 years or more; (3) university or university college, 2.5 years or less.

Table 6. The socio-demographic factors and sources of information.

<table>
<thead>
<tr>
<th></th>
<th>Data material 2</th>
<th>Data material 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Followup 1</td>
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<tr>
<td><strong>PARENT QUESTIONNAIRES</strong></td>
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<td>Sex of the respondents</td>
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<td>3–4 year high school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University or university college, 2.5 years or less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University or university college, 3 years or more</td>
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<td></td>
</tr>
<tr>
<td>Other education, namely:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed – full-time</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Employed – part-time</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Housewife/husband</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Parental or other form of leave</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Labour market benefits</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Unemployed</td>
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<td>x</td>
</tr>
<tr>
<td>Age pension</td>
<td>x</td>
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<td>Early retired, disability pension</td>
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<tr>
<td>Long term sick leave</td>
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<tr>
<td>No employment outside the home</td>
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<tr>
<td>Working at home</td>
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<tr>
<td>Other, what?</td>
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<td><strong>PUPIL QUESTIONNAIRES</strong></td>
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<td></td>
</tr>
<tr>
<td>Sex of the child</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of the child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School year 6 (12–13 years old)</td>
<td></td>
<td></td>
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<tr>
<td>School year 7 (13–14 years old)</td>
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<td></td>
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<tr>
<td>School year 8 (14–15 years old)</td>
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<tr>
<td>School year 9 (15–16 years old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of the child</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

*Note: The answer alternatives in the questionnaires differed.
Measures of parental attitudes and behaviour concerning adolescent alcohol consumption

Parental attitudes and behaviour concerning adolescents’ alcohol consumption are used in studies II and IV. Questions about this were asked of the parents in both data material 2 and data material 3.

In study II parental attitudes and behaviour were measured by two questions each (Table 7). Data from the baseline questionnaire within the longitudinal study (data material 2) and data from data material 3 were used.

To measure parental attitudes, the parents were first asked the question When do you think it is okay for adolescents to drink alcohol? The eight response alternatives were dichotomized into a non-restrictive alternative (≤17 years old) and a restrictive alternative (18 years old to never). The second question measuring parental attitudes was: Which of the following statements is closest to your opinion about adolescents and alcohol? The parents were asked to select one of the following three statements: (1) adolescents at my child’s age are mature enough to handle alcohol in a responsible way; (2) I am not in favour of adolescents in the same age group as my child using alcohol, but I do not think adults can do anything about it; and (3) to me it is obvious that adolescents under 18 years should not concern themselves with alcohol. The first two were merged together and were considered as displaying a non-restrictive attitude, while the third alternative was considered as a restrictive attitude. The dichotomization of the response alternatives for these two questions was based on Swedish law which sets 18 years as the age limit for alcohol purchase.

Parental behaviour was first measured by the question: Has your child ever been offered alcohol at home? The answers were given on a 5-point scale ranging from (1) no we don’t drink alcohol in our family to (5) yes, he/she has often been served alcohol in their own glass. Parents with children who never had been served alcohol at home were considered as non-suppliers (alternatives 1 and 2), while parents who had allowed the child to take a sip from a glass or served their child alcohol in their own glass were considered as suppliers (alternatives 3, 4, and 5). The last question measuring parental behaviour was: Does your son/daughter know about your opinion regarding adolescents and alcohol? Three response alternatives were given to the parents: (1) yes, I have been clear about that; (2) I’m not sure; and (3) we have never discussed it, so I do not think he/she knows my opinion. Parents who selected the first alternative were designated as
parents with explicit norms, while parents who selected either of the remaining alternatives were designated as parents with non-explicit norms.

In study IV parents’ attitude and behaviour were measured with one question each. All available data from all years within the longitudinal study was used. Parental attitude was measured with the question Which of the following statements is closest to your opinion about adolescents and alcohol? and parental behaviour with the question Has your child ever been offered alcohol at home? All response alternatives were used in the analysis.

Measures of the Components of the Health Belief Model

The Health Belief Model (HBM), which is a theoretical model developed to explain health-related behaviours (Becher, 1974; Sheeran & Abraham, 1996), has been used in study III. The five components of the HBM were measured by ten questions (Table 7). The operationalization of the components in the HBM was first done theoretically. To control for internal validity of components, two factor analyses were performed. Principal component analysis was used as the extraction method and oblimin with Kaiser Normalization was used as the rotation method, because correlation between the factors was expected (Field, 2005).

Two questions were used to measure the first component in the model, perceived susceptibility. First, Has your son/daughter drunk alcohol outside of the home? Five response alternatives were given to the parents: (1) absolutely not; (2) probably not; (3) yes, once; (4) yes, more than once; and (5) I do not know. Alternatives 2 and 5 were merged together just like alternatives 3 and 4. The second question measuring perceived susceptibility was: Are you worried that your son/daughter will drink alcohol outside the home? The answers were given on a 5-point scale ranging from (1) no, not at all to (5) yes, very much. Alternatives 1 and 2 were merged together as were alternatives 4 and 5.

Three questions measured the second component, perceived severity. The first two were the same as those used to measure parental attitudes: When do you think it is okay for adolescents to drink alcohol? and Which of the following statements is closest to your opinion about adolescents and alcohol? The response alternatives were categorized as in study II. The third question was the same as used to measure parental behaviour concerning adolescents and alcohol: Has your child ever been offered alcohol at home? The same categorizations as above were made.
To measure the third component in the HBM, perceived benefits, two questions were used. First, the parents were asked: Would you like to participate in a parental support group to promote your child’s development and health? The response alternatives were: (1) no; (2) yes; and (3) I do not know. Secondly, the parents were asked what they thought could prevent alcohol use among adolescents. One of the statements could be used as a measure of perceived benefits: Values shared in common with other parents in the child’s class. The parents could answer if they thought that it would prevent alcohol use: (1) not at all; (2) somewhat; (3) rather much; and (4) much. Alternatives 1 and 2 were merged together.

The fourth component, perceived barriers, was measured by an open-ended question in the last follow-up questionnaire: Why did you not participate in Strong and Clear?

Finally, the fifth component in the model, cue to action, was measured by two questions: Have you been informed about Strong and Clear? and Were you at the first information meeting about Strong and Clear in school year 7? The first question included four alternatives: (1) yes, I have received an invitation to the parent meeting at school; (2) yes, I have seen the agreement after a parent meeting, (3) no; and (4) yes, I have received an invitation to the parent meeting at school and seen the agreement after a parental meeting. The second was a yes/no question.

The components perceived susceptibility, perceived severity, and perceived benefits were measured with questions from the baseline study while perceived barriers were measured with an open-ended question from the last follow-up questionnaire. The questions measuring cue to action were included in both of the two follow-up studies.

**Measures of parents’ perceptions about Strong and Clear**

The thesis includes an analysis of parents’ perceptions about Strong and Clear (study V). This has both been measured with questions in the two follow-up questionnaires that were carried out with the parents within the longitudinal study (data material 2) and with questions included in the telephone interviews with the parents (data material 4) (Table 7).

In the two follow-up questionnaires that were sent home to the parents (data material 2), four questions were included measuring parents’ perceptions about Strong and Clear. The first question had a general character: How important are the following things in a parental support program like Strong and Clear? In
school year 8 there were nine statements that the parents were asked to rate: (1) being able to talk to other parents of teenagers; (2) discussing limit-setting; (3) getting a larger network; (4) learning more about oneself; (5) learning more about one’s child’s daily life; (6) learning more about alcohol and drugs; (7) facilitating contact with other parents; (8) support in making an agreement with one’s child; and (9) making an agreement with other parents. For each item, the parents could select one of four alternatives that ranged from (1) very important, to (4) not important at all. In the questionnaire in school year 9 one additional statement was added: (10) to affect the alcohol consumption among adolescents.

Secondly, parents were asked if the program had led to them speaking more often with their child about some important issues during the teenage years. The issues were (1) his/her friends; (2) school; (3) bullying; (4) homework; (5) family relationships; (6) sex; (7) thoughts about life and death; (8) tobacco; (9) alcohol; (10) drugs; and (11) Internet. The parents could answer yes or no to each issue.

The third question was similar to the second: Has Strong and Clear been helpful in conversations about (1) his/her friends; (2) school; (3) bullying; (4) homework; (5) family relationships; (6) sex; (7) thoughts about life and death; (8) tobacco; (9) alcohol; (10) drugs; and (11) Internet. The response alternatives were (1) yes, and (2) no.

The fourth question was: Has Strong and Clear had an effect on your ability to set limits for your child? Responses were on a 4-point scale from (1) has made setting limits more difficult, to (4) has made it much easier to set limits.

The telephone interviews also included some questions about the parents’ perceptions of Strong and Clear. The first question was: At your child’s school a parental program called Strong and Clear has been implemented. Do you know about the program? The second question was: With what do you associate Strong and Clear? Both of these were open-ended questions.

The parents were also specifically asked about the family dialogues. Parents who stated that they had received the mailed booklet for family dialogue were asked: Have you completed the family dialogue in the context of Strong and Clear? Furthermore, If you have, has the family dialogue helped you to discuss urgent questions with your child? Four response alternatives were read to the parents ranging from (1) yes, very much, to (4) no, not at all. Parents who stated that the family dialogue had helped them in their discussions with their child were asked to describe how they had been helped. Parents who stated that they had not completed a family dialogue were asked to describe the reason why. The parents were also
asked about the agreement that is a part of the family dialogue: *Have you and your child signed an agreement as was suggested in the booklet for the family dialogue?* If the parents answered that they had not, they were asked to *tell why?*

The last question about the parents’ perceptions about Strong and Clear was: *Does it matter who provides a program like Strong and Clear?* This was an open-ended question.

**Measures of participation in Strong and Clear**

Studies III and IV evaluate Strong and Clear, which makes it necessary to define participants and non-participants in the program. This has been measured with questions in the two parental follow-up questionnaires within data material 2 (school years 8 and 9). Parents were asked if they had participated in the different activities within the program for each school year: *Parent meetings, Family dialogues, Friend meetings, and Family meetings.* They were also asked if they had participated in the first *information meeting* about the program in school year 7 (Table 7).

**Study III** included those parents who had answered at least one of the follow-up questionnaires who were divided into three levels of participation: (1) participants; (2) partial non-participants; and (3) non-participants. Partial non-participant implies that the parents had attended some activities in Strong and Clear but did not consider themselves participants in the program. To be designated as a participant or partial non-participant the parent needed to have taken part in at least one activity apart from the first information meeting in school year 7.

In **study IV** parents who had completed at least one activity apart from the first information meeting in school year 7 were designated as participants. Study IV also included a measure of the number of activities in the program. The highest number of activities in this variable is twelve, as the program consisted of four types of activities and the parents could have completed all of them during all three years. This was the case despite the fact that the program actually consisted of 13 activities over the three years. As can be seen in Table 1, school year 7 included two family dialogues, but the questionnaire did not distinguish between them.
Table 7. The parental measures and source of information.

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parental attitudes and Perceived severity (HBM)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When do you think it is okay for adolescents to drink alcohol?</td>
<td>13 years old or younger&lt;br&gt;14 years old&lt;br&gt;15 years old&lt;br&gt;16 years old&lt;br&gt;17 years old&lt;br&gt;18 years old&lt;br&gt;19 years old&lt;br&gt;Never</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Which of the following statements is closest to your opinion about adolescents and alcohol?</td>
<td>Adolescents at my child’s age are mature enough to handle alcohol in a responsible way.&lt;br&gt;I am not in favour of adolescents in the same age group as my child using alcohol, but I do not think adults can do anything about it.&lt;br&gt;To me it is obvious that adolescents under 18 years should not concern themselves with alcohol.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Parental behaviour and Perceived severity (HBM)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has your child ever been offered alcohol at home?</td>
<td>No we don’t drink alcohol in our family&lt;br&gt;No&lt;br&gt;Yes, he/she has been allowed to take a sip from a glass&lt;br&gt;Yes, he/she has been served alcohol in their own glass&lt;br&gt;Yes, he/she has often been served alcohol in their own glass</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Table 7 continued.

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does your son/daughter know about your opinion regarding adolescents and alcohol?</td>
<td>Yes, I have been clear about that I’m not sure We have never discussed it, so I do not think he/she knows my opinion.</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Perceived susceptibility (HBM)</td>
<td>Has your son/daughter drunk alcohol outside of the home?</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolutely not</td>
<td>Probably not</td>
<td>Yes, once</td>
<td>Yes, more than once</td>
<td>I do not know</td>
</tr>
<tr>
<td>Perceived benefits (HBM)</td>
<td>Would you like to participate in a parental support group to promote your child’s development and health?</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>I do not know</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What do you think can prevent alcohol use among adolescents? - Values shared in common with other parents in the child’s class</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevent: Not at all</td>
<td>Somewhat</td>
<td>Rather much</td>
<td>Much</td>
<td></td>
</tr>
</tbody>
</table>

72  | Parents’ Possibility to Prevent...  ❄ Camilla Pettersson
Table 7 continued.

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived barriers (HBM)</strong></td>
<td></td>
<td>Baseline</td>
<td>Follow-up 1</td>
<td>Follow-up 2</td>
</tr>
<tr>
<td>Why didn’t you participate in Strong &amp; Clear?</td>
<td>Open ended question</td>
<td></td>
<td></td>
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<tr>
<td><strong>Cue to action (HBM)</strong></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Have you been informed about Strong &amp; Clear?</td>
<td>Yes, I have received an invitation to the parent meeting at school</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td></td>
<td>Yes, I have seen the agreement after a parent meeting</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>No</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Yes, I have received an invitation to the parent meeting at school and seen the agreement after a parent meeting</td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Were you at the first information meeting about Strong &amp; Clear in school year 7?</td>
<td>Yes</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parents’ perceptions about Strong &amp; Clear</strong></td>
<td></td>
<td>Baseline</td>
<td>Follow-up 1</td>
<td>Follow-up 2</td>
</tr>
<tr>
<td>How important are the following things in a parental support program like Strong &amp; Clear...</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>- being able to talk to other parents of teenagers</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- discussing limit-setting</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- getting a larger network</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- learning more about oneself</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- learning more about one’s child’s daily life</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- learning more about alcohol and drugs</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- facilitating contact with other parents</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>- support in making an agreement with one’s child</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- making an agreement with other parents</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- to affect the alcohol consumption among adolescents</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very important</td>
<td>Rather important</td>
<td>Not very important</td>
</tr>
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</table>
Table 7 continued.

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ perceptions about Strong &amp; Clear</td>
<td>No</td>
<td>Follow-up 1</td>
<td>Follow-up 2</td>
<td></td>
</tr>
<tr>
<td>Has Strong &amp; Clear led to your speaking more often with your child about…</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- his/her friends</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- school</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- bullying</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homework</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- family relationships</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- thoughts about life and death</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tobacco</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- alcohol</td>
<td>x</td>
<td>x</td>
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<tr>
<td>- drugs</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Internet</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

| Has Strong & Clear been helpful in conversations about… | No | | | |
| - his/her friends | x | x | | |
| - school | x | x | | |
| - bullying | x | x | | |
| - homework | x | x | | |
| - family relationships | x | x | | |
| - sex | | | | |
| - thoughts about life and death | x | x | | |
| - tobacco | x | x | | |
| - alcohol | x | x | | |
| - drugs | x | x | | |
| - Internet | x | x | | |
| Yes | | | | |
| No | | | | |

| Has Strong & Clear had an effect on your ability to set limits for your child? | x | x | | |
| Has made setting limits more difficult | | | | |
| Has not made a difference in setting limits | | | | |
| Has made it somewhat easier to set limits | | | | |
| Has made it much easier to set limits | | | | |
Table 7 continued.

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parents’ perceptions about Strong &amp; Clear</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At your child’s school a parental program called Strong &amp; Clear has been implemented. Do you know about the program?</td>
<td>Open-ended question</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>With what do you associate Strong &amp; Clear?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have you completed the family dialogue in the context of Strong &amp; Clear?</td>
<td>Yes</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you have, has the family dialogue helped you to discuss urgent questions with your child?</td>
<td>Yes, very much</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Yes, quite a lot</td>
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<tr>
<td></td>
<td>A little bit</td>
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<tr>
<td></td>
<td>No, not at all</td>
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<td></td>
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<tr>
<td>If yes, please describe how?</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>If you did not complete the family dialogue, please tell why?</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Have you and your child signed an agreement as was suggested in booklet for the family dialogue?</td>
<td>Yes</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>If no, please tell why?</td>
<td></td>
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<td>x</td>
</tr>
<tr>
<td>Does it matter who provides a program like Strong &amp; Clear?</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
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<td></td>
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**Table 7 continued.**

<table>
<thead>
<tr>
<th>Concepts and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
<th>Data material 3</th>
<th>Data material 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participation in Strong and Clear</strong></td>
<td></td>
<td>Baseline</td>
<td>Follow-up 1</td>
<td>Follow-up 2</td>
</tr>
<tr>
<td>Have you participated in some of the activities within Strong &amp; Clear?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>School year 7:</strong></td>
<td>The information meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Parent meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Family dialogue</td>
<td></td>
<td>x</td>
<td>x</td>
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<tr>
<td></td>
<td>Family meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Friend meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>School year 8:</strong></td>
<td>Parent meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Family dialogue</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Family meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Friend meeting</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>School year 9:</strong></td>
<td>Parent meeting</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family dialogue</td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td></td>
<td>Family meeting</td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td></td>
<td>Friend meeting</td>
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<td>x</td>
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<tr>
<td></td>
<td>Yes</td>
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<td></td>
<td>No</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>No, I have not participated in Strong &amp; Clear</td>
<td></td>
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</tbody>
</table>

**Alcohol consumption among the adolescents**

**Study IV** includes measures about the alcohol use among the adolescents (Table 8). In the baseline questionnaire and the first follow-up questionnaire with the pupils (school years 7 and 8), two items measured alcohol consumption. First, *Have you ever consumed alcohol?* The response options were: (1) have not drunk alcohol; (2) have taken a sip from a glass; (3) have drunk once; and (4) have drunk several times. The two first alternatives were merged together, as were alternatives 3 and 4. The second question was *Have you drunk alcohol to the point that you became drunk?* The students could answer (1) no, or (2) yes.

The last follow-up questionnaire in school year 9 also included the two questions about alcohol consumption as the baseline questionnaire and the first follow-up questionnaire. However, the question *Have you drunk alcohol to the point that you became drunk?* included more response alternatives: (1) I have never drunk alcohol; (2) no, I have tried alcohol but never become drunk; (3) yes,
once; (4) yes, 2–3 times; (5) yes, 4 times or more; and (6) yes, every time. A control for inconsistent answers has been made for all three year. Pupils with inconsistent answers, for example who answered that they never drunk alcohol on the first question and then answered that they had been drunk are coded as missing on all alcohol variables within that school year.

Table 8. The alcohol measures and source of information

<table>
<thead>
<tr>
<th>Concept and questions</th>
<th>Response alternatives</th>
<th>Data material 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Baseline</td>
</tr>
<tr>
<td>Adolescents alcohol consumption</td>
<td>Have you ever consumed alcohol?</td>
<td>Have not drunk alcohol</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have taken a sip from a glass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have drunk once</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have drunk several times</td>
</tr>
<tr>
<td>Have you drunk alcohol to the point that you became drunk?</td>
<td>No</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>I have never drunk alcohol</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>No, I have tried alcohol but never become drunk</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Yes, once</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Yes, 2–3 times</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Yes, 4 times or more</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Yes, every time</td>
<td>x</td>
</tr>
</tbody>
</table>

*Note: The answer alternatives in the questionnaires differed.

Analyses

The thesis includes several methods for analysing data. The first study is a case study on an organisational level, which is an appropriate method when the intention is to understand real-life phenomenon in depth within its real-life context (Yin, 2009). A case-study made it possible for researchers to study social situations and processes in a more holistic way than other methods which often are used for more isolated factors (Denscombe, 2009).

Both qualitative and quantitative analysis strategies have been used in the thesis.

Content analysis has been used for the qualitative data. This is a method appropriate for different types of data material, for example textual information from interviews and open-ended survey questions (Kondracki, Wellman, &
Amundson, 2002). In study II, content analysis has been used for the open-ended question in the longitudinal study with the parents. In has also been used in study V, for the analysis of the telephone interviews about parents’ perceptions of Strong and Clear. The content analysis in the present thesis has followed the steps described by Graneheim and Lundman (2004).

For the quantitative analysis, logistic regression analysis has been used – in studies II and III as the main strategy, and in studies III and IV for the attrition analysis. Logistic regression analysis is a useful method for analysing the relationship between a response variable and one or more explanatory variables. An important strength of the method is its ability to model many variables on different measurement scales (Hosmer & Lemeshow, 2000).

Studies I, III, and V use both quantitative and qualitative data. In study I, a mixed-methods approach was used including both parallel mixed data analysis and integrated mixed data analysis. A parallel mixed design means that qualitative and quantitative data are used in a parallel manner, either simultaneously or with some time interval, to answer related aspects of the same basic research questions. In an integrated mixed design, qualitative and quantitative approaches occur in an interactive manner at all stages of the study, e.g. one approach affects the formulation of the other (Teddlie & Tashakkori, 2009).

Study III uses a mixed-method design and includes quantitative data from the longitudinal study and qualitative data from the last follow-up questionnaire within that study. A mixed-method design combines quantitative and qualitative data to increase the overall strength of a study. This is more than just collecting and analysing both kinds of data (Creswell & Plano Clark, 2007). In study III a concurrent mixed-method is used where quantitative and qualitative data are merged in order to provide a more comprehensive analysis (Creswell, 2009). This differs from study V where both types of data also have been used but analysed separately. Mixing methods is a suitable approach for addressing complex issues (Creswell & Plano Clark, 2007), and understanding the reasons for non-participation in a parental program is one such complex issue.

In study IV, Latent Growth Modelling (LGM) has been used, which is a strategy to investigate individual differences in change over time (Cheong, Mackinnon, & Khoo, 2003). LGM is a more flexible approach than repeated measures ANOVA and random coefficient models (Muthen & Curran, 1997). Multiple-group LGM models, however, further extend this flexibility to a more precise comparison of the change trajectories in the program and comparison groups to detect program effect (Cheong et al., 2009). It is also possible to exam-
ine the factors that affect the change process by including covariates in the change model.

The analytic strategies for each study in the thesis and for the analysis of parents’ perceptions about Strong and Clear are presented below.

Study I

The analytical approach in this case study uses a strategy commonly employed in research programs, which starts with the ordinary preventive activities and studies what is happening (Kazi, 2003; Reason & Bradbury, 2001). A naturalistic approach has been used, which is always practice-based. The case study is on the organizational level (Yin, 2009; Swanborn, 2010). As in most case studies a mixed method approach is used.

A quantitative description of the investments in NGOs by the grants where presented followed by an analysis of which organizations and projects that were supported. The types of organizations are analyzed with regard to main focus or mission for the organizations.

The investment into research is then described including an analysis of participants in different empirical studies that use a range of data collection methods. This includes a description of how the projects in the NBHW portfolio, considered as embedded units, have been documented and presented in annual reports. The project leaders were asked to use a format for written reports based on questions and answers in the case study database (Yin, 2009). Two types of embedded in-depth studies have been indentified, effect studies and studies of process and implementation. They are briefly presented in the study.

The research program is then presented with regard to how a trustful partnership has been developed. The different types of data and perspectives are used for triangulation and finding key elements and mechanisms in the research strategy (Yin, 2009; Swanborn, 2010).

To grasp the complexity and inclusiveness of integrated methods the term inference has been proposed as the final and most important stage of research (Teddle & Tashakori, 2009). The inference process consists of a dynamic journey from ideas to results in the effort to make sense of data. Key concepts in an integrative framework are inference quality, which is related to design quality, interpretative rigour, and inference transferability.
Study II
Logistic regression has been used to compute odds ratios and confidence intervals (SPSS Package 14.0). A bivariate model was used first, followed by a multivariate model. The association between the questions within the variables parental attitude and parental behaviour were examined by correlation analysis.

Study III
A mixed-method design was used, as both quantitative and qualitative data are included in the study. To analyse the importance of different components of the Health Belief Model, qualitative content analysis was combined with both a more descriptive approach and a multinomial regression analysis. The degree of participation was the dependent variable. Three levels of participation have been used: participants (n=124), partial non-participants (n=82), and non-participants (n=249).

The qualitative content analysis (Graneheim & Lundman, 2004) was carried out to understand perceived barriers. There were 176 responses to the open-ended question in the last follow-up questionnaire about reasons for non-participation. These responses were all treated as meaning units and were condensed into shorter sentences without changing the core of the statements. Codes were tagged onto the meaning units and sub-categories were made based on these codes. Eight main categories were created and finally two main themes emerged. The two largest categories were included in the statistical analysis.

SPSS Package 16.0 was used to calculate crude odds ratios and confidence intervals for all factors included in the study. Moreover, three models were used for the multinomial regression analysis (Figure 3). First, an analysis of the importance of socio-demographic factors was carried out ($\chi^2 = 57.48$, df = 34, p=.007). These factors were expected to have, at least partially, an indirect influence on the choice of whether or not to participate. In the next model, factors associated with adolescents and alcohol (Perceived susceptibility and Perceived severity) were included in addition to the socio-demographic factors ($\chi^2 = 70.48$, df = 48, p=.019). In the third and final model, program-related factors (Perceived benefits, Perceived barriers, and Cue to action) were also included ($\chi^2 = 194.86$, df = 68, p<.001).
Study IV

The study includes data from three time-points which makes it possible to model change over time in the program group, consisting of parents participating in Strong and Clear, and a comparison group consisting of non-participating parents. A Latent Growth Modelling (LGM) approach was used to examine change in parents’ behaviour regarding youth drinking and youth drinking behaviour. The first model used to test the program effect was the most liberal model in which there was no constraint on the growth trajectory, intercept, and slope, of either group. This initial model was used to identify the growth patterns in each group. In a second model, constraints were first added to the intercept, to test for the baseline differences, and then to the slope factor, to test for differences in the change process. Once the test of the program effect was completed, the covariates were included (age and gender of the child, parental education, number of parent-completed activities) to test how demographic factors and program participation rate influence the change process in the program group.

Parents’ attitudes towards youth drinking were only measured at two time-points (school years 7 and 9), which means that LGM models could not be used to test the link between changes in parental attitudes and underage drinking. Therefore, repeated measures ANOVA was used to test for the pre-post test differences in parental attitudes. In addition, a cross-lagged model in which grade 9
measures were regressed on grade 7 measurements was used to examine the link between program theory and outcome.

In all models, dummy school codes were included to control for possible variations due to clustering. All models were fitted with Maximum Likelihood estimator using MPlus 4.21 (Muthen & Muthen, 2007).

**Study V**

The analysis of parents’ perceptions about Strong and Clear included both a descriptive analysis including the questions from the questionnaires within the longitudinal study and a qualitative content analysis of the answers from the telephone interviews.

A selection of parents was made for the analysis of the quantitative data. Included in the study were those 235 parents who had answered that they had participated in at least one of the activities within Strong and Clear (apart from the first information meeting). SPSS Package 16.0 was used to calculate the frequencies of each included question.

The process of the content analysis followed the steps described by Graneheim and Lundman (2004). The questions in the telephone interview concerning parents’ perceptions of the program were analysed separately. As the answers from the parents were simultaneously typed into a word document during the interviews, an initial interpretation has already been made by the interviewer. The written answers from the parents were each treated as a single meaning unit. These meaning units were then condensed into short sentences, without changing the core of the statements. One or several codes were given to the condensed meaning units and thereafter categories and sub-categories were created based on these codes. Finally, main themes were identified based on the categories.
Main results of studies I–V

Study I


The Swedish National Board of Health and Welfare has developed a unique program to support alcohol and drug prevention implemented by non-governmental organizations. The present study aims to describe and analyse this undertaking with a special emphasis on research and development for an evidence-based practice.

The NBHW have emphasized the importance that a wide range of organizations should receive grants for alcohol and drug prevention. The results of this study showed that this goal was achieved. During the period 2003–2009, 135 projects were implemented by 69 non-governmental organizations. Nine types of organizations were identified: social work organizations, umbrella organizations, support organizations, ethnic group organizations, Christian organizations, alcohol and drug organizations, adult education organizations, sports organizations, and network organizations. Of all the organizations, the alcohol and drug organizations have received the most project grants – nine organizations were funded to implement 38 projects. More than half of these projects were implemented by the Swedish temperance organization IOGT-NTO (24 of 38 projects) to a cost of 15 million SEK.

The majority of the project leaders within the organizations were women. About 79% of the project leaders were 50 years old or younger in 2003. The average age of the project leaders rose over the years. In 2005, 73% of the project leaders were in this age group, while the corresponding rate in 2007 was 65%, and in 2009, 46%. Nearly half of the project leaders have worked on a volunteer basis in the organization.

During the period 2003–2009, 14 in-depth studies have been started, ten of which have also been completed. Seven of these studies aimed to study effects of the interventions. It has not been possible to study the effect of one of the interventions, as the project did not succeed in recruiting participants. In one of the other projects, the implementation of the program was cancelled by the munici-
pality. The other seven in-depth studies focussed on the working process in the project.

A trustful partnership has been developed between practitioners, national agencies, and researchers within this special state program. This has been achieved with a combination of some components. A common element was that they were program-driven and not research-driven interventions. The role of researchers-as-technical advisors was suitable for the fostering of a trustful partnership for research and development. An important component has been the regular meetings with the project leaders. The main goals of these meetings have been promoting the exchange of experiences and learning in order to strengthen the quality of the implementation of projects and facilitate the growth of networks. The research team and project leaders have also met, individually or in smaller groups, for dialogues and consultations about evaluation when needed. Within the in-depth studies, such meetings have been carried out, often more than once. The research team has also arranged three national conferences on the theme Reflection of prevention – collaboration for better alcohol and drug prevention. Project leaders have been invited to the planning group.

Some important lessons were learned from this study. First, the national program to support non-governmental organizations had succeeded in engaging a wide range of organizations within the voluntary sector in alcohol and drug prevention. An important surplus value of providing funds to NGOs is that many of the project leaders also engage in the work on a volunteer basis. The study has shown that a trustful partnership between practitioners, national agencies, and researchers has been developed. The measures to promote a partnership for practice-based research also succeeded at improving the quality and success-rate of the different projects. A few of the in-depth studies were unsuccessful due to factors hindering the implementation, and these factors were in several cases related to lack of resources among collaborating partners in the municipalities or other organizations.

Study II

Parental Attitudes and Behaviour Concerning Adolescent Alcohol Consumption: Do Socio-demographic Factors Matter?

The aim of this study was to analyse the significance of socio-demographic factors for parental attitudes and behaviour regarding adolescent alcohol consump-
I

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Study II

Parental Attitudes and Behaviour Concerning Adolescent Alcohol Consumption: Do Socio-demographic Factors Matter?

The aim of this study was to analyse the significance of socio-demographic factors for parental attitudes and behaviour regarding adolescent alcohol consumption. The baseline questionnaires from the longitudinal study (data material 1) and data material 2 were used for this study.

The main result from the study was that fathers within this data material were more likely than mothers to have a non-restrictive attitude towards underage drinking (OR 1.9, 95% CI 1.1–3.2). Fathers, to a greater extent then mothers, also had children that had drunk or tasted alcohol at home (OR 1.7, 95% CI 1.1–2.7). However, this was also valid for parents who had answered the questionnaire together (OR 2.0, 95% CI 1.2–3.4). On the other hand, parents answering the questionnaire together were less likely to have non-explicit norms about underage drinking than mothers (OR 0.3, 95% CI 0.1–0.9). No differences between the parents’ attitudes about age limits for adolescents’ alcohol consumption were found in the multivariate model.

Single parents had more non-restrictive attitudes towards underage drinking than parents who lived together with another adult (OR 1.9, 95% CI 1.2–3.1). Parents with a 15–16 year-old child were also more likely to have a non-restrictive attitude towards underage drinking than parents with a younger child (OR 2.6, 95% CI 1.5–4.7).

The other socio-demographic factors, like number of children in the household and employment status, did not seem to matter for the parents’ attitude and behaviour concerning underage drinking.

Study III

Reasons for Non-participation in a Parental Program Concerning Underage Drinking: A Mixed-method Study

There is a great need to understand why parents decline to participate in a parental intervention, especially as previous studies have shown that these kinds of interventions have the potential to be successful in reducing alcohol use among adolescents. The present study aimed to examine non-participation in Strong and Clear, a parental support program to prevent underage alcohol drinking.

The analysis was conducted in three steps and the first model included eight socio-demographic factors. It showed that fathers who had answered the questionnaire alone were more likely than parents who had answered the questionnaire together to be non-participants in Strong and Clear (OR 2.8, 95% CI 1.0–7.7). Parents with secondary education as their highest educational level were more likely to be non-participants (OR 3.3, 95% CI 2.0–5.6) or partial non-
participants (to have taken part in some activities in the program but not to consider themselves as participants) (OR 3.3, 95% CI 1.7–6.3) than parents with tertiary/university education.

In the next model, factors associated with adolescents and alcohol (Perceived susceptibility and Perceived severity) were included in addition to the socio-demographic factors. The educational level of the parents remained significant. Of the factors measuring perceived susceptibility and perceived severity, parents’ worries about their child’s alcohol use was the only factor that seemed to matter. Parents who were a little bit worried about their child’s alcohol use were less likely to be partial non-participants than parents that were not worried (OR 0.3, 95% CI 0.1–0.8).

In the third and last model, program factors were also added (Perceived benefits, Perceived barriers, and Cue to action). As in the two previous models, parents with secondary education as their highest educational level were more likely to be either non-participants (OR 2.6, 95% CI 1.3–5.0) or partial non-participants (OR 3.0, 95% CI 1.3–6.9) than parents with tertiary/university education. Parents who were a little bit worried about their child’s alcohol use were still less likely to be partial non-participants. One of the factors measuring perceived benefits became significant. Parents who had stated, before being introduced to the program, that they were interested in participating in a parental support group were more likely to be partial non-participants (OR 3.5, 95% CI 1.4–8.5) than other parents.

Perceived barriers were measured with an open-ended question in the last follow-up questionnaire. The answers, analysed with qualitative content analysis, were abstracted into two main themes of reasons for non-participation: family-related factors and program-related factors. Family-related factors were factors like no perceived need for the intervention, practical barriers, previous experiences, other protective activities, the child opposing participation, and motivational factors. Program-related factors included statements about the format of the program, the leadership and administration of the program, and the organization that implemented the program. Some parents, despite their non-participation, had a positive attitude toward the program and some thought that the program did not reach those most in need of it. The two largest categories were both family-related: no perceived need for the intervention and practical barriers. These factors were included in the statistical analysis and the results showed that parents who had stated that they did not perceive any need for the program were more likely to be either non-participants or partial non-
participants (OR 3.4, 95% CI 1.3–8.7 and OR 6.2, 95% CI 2.1–18.0 respectively). Parents who had reported practical barriers to participation were more likely to be partial non-participants (OR 24.7, 95% CI 5.7–106.3) than other parents. However, parents who reported this were not more likely to be in the group of non-participants than others. This final model also included cue to action. Parents who had not received any information about the program were more likely to be non-participants (OR 8.9, 95% CI 2.5–31.5) than those who had been informed. Finally, parents who did not go to the information meeting were more likely to be in one of the groups of non-participants (OR 2.9, 95% CI 1.1–7.4 and OR 7.1, 95% CI 3.2–15.6) than other parents.

In all three models there were differences between the schools.

To summarize, parents with secondary education as the highest educational level were more likely to be non-participants or partial non-participants in the program. Another conclusion is that information is important and that it is important to entice parents to come to the first information meeting about the program. Two frequently stated reasons for non-participation were no perceived need for the intervention and practical demands, especially time demands. Perceived susceptibility and perceived severity did not seem to be important to the decision whether or not to participate.

**Study IV**

**Effects of a Parental Program for Preventing Underage Drinking – The NGO Program Strong and Clear**

The main purpose of the present study was to examine the effects of the parental support program Strong and Clear on alcohol drinking among adolescents.

The program theory of Strong and Clear was that the changes in parents’ behaviour and attitudes regarding adolescents’ alcohol use would lead to reduced drinking among the adolescents. Therefore, measures about parental attitude and behaviour regarding adolescents’ alcohol use are included in the present study. The results did not show a significant effect on parents’ behaviour, i.e. on whether parents have allowed kids to drink at home. However, using a mixed design ANOVA model with the groups (program vs. comparison) as the between group, and pre-post test measures of parental attitude as the within group factor, the program appeared to affect parents’ attitudes towards underage drinking. The results suggested that there was a change in parental attitude ($F(1, 323) = 19.64, p < .001$) and that the change was affected by the program ($F(1, 323) = 8.20, p$
Parents participating in the program maintained their restrictive attitudes to a higher degree than parents in the comparison group.

Lifetime alcohol use and drunkenness were variables used to examine program effects among the adolescents. The results concerning lifetime alcohol use showed that in the comparison group drinking increased sharply from time-point one (school year 7) to time-point two (school year 8) while in the program group drinking remained relatively stable between these two time-points (Figure 4). Instead, drinking increased in the program group between time-point two and time-point three (school year 9). The results suggest that Strong and Clear postponed the alcohol debut age in the program group.

The comparison group had a non-significant, higher rate of drunkenness at baseline compared to the program group (Figure 5). At time-point two there were no differences between the groups. However, the drunkenness rate in school year 9 was lower among adolescents in the program group than among adolescents in the comparison group. This result suggested that the program had an effect on adolescents’ drunkenness.
Parents participating in the program maintained their restrictive attitudes to a higher degree than parents in the comparison group. Lifetime alcohol use and drunkenness were variables used to examine program effects among the adolescents. The results concerning lifetime alcohol use showed that in the comparison group drinking increased sharply from time-point one (school year 7) to time-point two (school year 8) while in the program group drinking remained relatively stable between these two time-points (Figure 4). Instead, drinking increased in the program group between time-point two and time-point three (school year 9). The results suggest that Strong and Clear postponed the alcohol debut age in the program group.

Figure 4: Change in youth drinking in the program and comparison groups.

The comparison group had a non-significant, higher rate of drunkenness at baseline compared to the program group (Figure 5). At time-point two there were no differences between the groups. However, the drunkenness rate in school year 9 was lower among adolescents in the program group than among adolescents in the comparison group. This result suggested that the program had an effect on adolescents' drunkenness.

An analysis of the effects of some covariates was also performed. The results showed that the program effects were not sensitive to gender of the adolescents, parental education, and the number of parent-completed program activities.

Even if the program theory of Strong and Clear was that the changes in parents’ behaviour and attitudes would lead to reduced drinking and drunkenness among the adolescents only parental attitudes was analysed, as the program did not affect parental behaviour. Two separate cross-lagged regression models were fitted to test whether changes in the participating parents’ attitude towards underage drinking predicted changes in drinking and drunkenness among adolescents. The results suggested that restrictive attitudes on the part of parents were related to lower levels of drinking and drunkenness among adolescents. Even though the cross-lagged models do not provide a direct test of the mediation effects of the process variables, on the whole the results implied that the changes in parental attitudes were related to the changes in youth alcohol use in the expected direction.

**Study V**

**Parents’ Perceptions about Strong and Clear**

The evaluation of Strong and Clear included an analysis of parents’ perceptions about the program. The results are only presented in this thesis and should be seen as additional information about how the program works for the parents. The results can hopefully contribute to a better understanding of the program and be especially valuable for those developing the program.
Parents’ perceptions about Strong and Clear have been measured both with questions in the two follow-up questionnaires to parents within the longitudinal study and with questions put to the parents in a telephone interview.

**Strong and Clear – awareness, associations, and perceptions about the provider**

Parents in the longitudinal study who stated that they had completed at least one activity in Strong and Clear were asked to give their perceptions about the program in both follow-up questionnaires. In total, 235 parents stated that they had participated in the program to some degree. Figure 6 presents information about which types of activities these parents had taken part in.

![Figure 6. Percentage of parents who participated in the four main activities in Strong and Clear (n=235).](image_url)

The telephone interviews included a question about the parents’ awareness of Strong and Clear. As reported in the method section, 53 parents participated in the interview study distributed across four groups. All the parents in group 1 had participated in the program and therefore stated that they knew about it. In group 2 all but three parents knew about the program. In groups 3 and 4 nearly half of the parents had heard about the program. The following questions have only been asked of the parents who knew about the program (39 of 53 parents).

Parents were also asked in the telephone interview about what they associated with Strong and Clear. Three main themes were identified: *issue related associations*, *associations related to personal support*, and *associations related to the quality of the program*.

The first theme included associations that were *issue related*, i.e. statements about alcohol, tobacco, and other drugs. Some parents just answered that they associate the program with alcohol, tobacco, and other drugs while other parents stated that their associations were about an attitude about alcohol shared in common with other parents.

There were also parents who associated the program with the temperance movement and some of them named IOGT-NTO.

The second theme, *associations related to personal support*, included statements about parenting, support to parents, and support to adolescents. The parents perceived that the program was related to parental support and networking with other parents: *Parenting. A good program that helps parents even talk with other parents’ children.* Parents also thought that the program was associated with supporting the adolescents: *Helping kids say no to alcohol.*

Associations about the *quality of the program* were gathered within a third theme. Some of the parents associated Strong and Clear with information or education: *An educational program for engaged parents.* Information and discussions about/with young people about alcohol and related issues.

Several parents pointed out that they associated the program with good lectures: *Dialogue between adults and young people, and instead of lecturing them to encourage discussion and provide information.*

There were also parents that associated Strong and Clear with low participation rates in the program. But unfortunately it’s the wrong parents who come, who are already involved, and not the ones who’d really need it. One parent stated that the program was not attractive and one associated the program with a weak leadership.
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Parents were also asked in the telephone interview about what they associated with Strong and Clear. Three main themes were identified: associations related to personal support, and associations related to the quality of the program.

The first theme included associations that were issue related, i.e. statements about alcohol, tobacco, and other drugs. Some parents just answered that they associate the program with alcohol, tobacco, and other drugs while other parents stated that their associations were about an attitude about alcohol shared in common with other parents.

Alcohol, drugs. Information and advice about drugs in general.

There were also parents who associated the program with the temperance movement and some of them named IOGT-NTO.

The second theme, associations related to personal support, included statements about parenting, support to parents, and support to adolescents. The parents perceived that the program was related to parental support and networking with other parents:

Parenting. A good program that helps parents even talk with other parents' children.

Parents also thought that the program was associated with supporting the adolescents. Two of the statements within this category were

Helping kids say no to alcohol.

Improvements for young people who need support.

Associations about the quality of the program were gathered within a third theme. Some of the parents associated Strong and Clear with information or education.

An educational program for engaged parents.

Information and discussions about/with young people about alcohol and related issues.

Several parents pointed out that they associated the program with good lectures.

Dialogue between adults and young people, and instead of lecturing them to encourage discussion and provide information.

There were also parents that associated Strong and Clear with low participation rates in the program.

But unfortunately it’s the wrong parents who come, who are already involved, and not the ones who’d really need it.

One parent stated that the program was not attractive and one associated the program with a weak leadership.
The parents were also asked in the telephone interview if it matters who provides a program like Strong and Clear. The answers are presented within three themes: quality of the provider, suitable providers, and non-suitable providers.

The theme about the quality of the provider included statements on both an organizational and a personal level. Several parents thought that the provider of the program should be an organization that you feel confident about. Other parents emphasized that the provider’s knowledge and experience were most crucial.

Someone with knowledge about the subject. Important to be able to measure the outcome.

It should be someone with scientific evidence of the effects of using alcohol and who knows the consequences. Important that the provider has facts.

The provider must have experience of such programs.

There were also parents that talked about that the personal leadership instead of the organization that arranged the program.

...the credibility hinges so much on the person in question.

And the person leading the program. Important to get a discussion going, which didn’t happen.

One parent thought that the leader should be someone with experience of addiction.

The second theme was about which providers were considered suitable providers. Many parents thought that the school was an appropriate organization or should be a co-organizer.

The school feels like the best provider, all the kids spend time there after all.

The message is important. It’s important for the school to be a co-organizer, but at the same time an outside party who is up to date on the topic should be in charge. Such parties can deal with questions that the school might not always be able to. But for the school to be a co-organizer creates legitimacy since the school affects all young people. But the teachers shouldn’t run it because the credibility hinges so much on the person in question.

Some of the parents thought that the school was the best provider as they perceived the school as neutral.

The providers should be the state, school, or municipality, that is, completely neutral.

...it’s more neutral if, for instance, the school is the provider. More people will probably take part if the provider is neutral.

Some of the parents were satisfied with IOGT-NTO as the provider.
It’s good that someone like IOGT is the provider because then the message is clear and unambiguous.

That it’s IOGT is positive and makes the whole thing more credible.

Some of the parents reported what types of organizations that they would not like to see as a provider, rather than who they thought were most appropriate. These statements are presented within the third theme, *non-suitable providers.* Several parents stated that a political or religious organization would not be an appropriate provider. One reason mentioned was that it would be too loaded and biased.

But the materials should not be too strongly biased; for instance, if they’re seen as connected with political organizations or a religious movement then maybe people would hesitate to participate.

Only one parent thought that the school should not be the provider of a program like Strong and Clear. None of the parents stated that IOGT-NTO was an inappropriate organization.

*Strong and Clear – a facilitator for parenthood?*

In both follow-up questionnaires there were questions about parents’ perceptions about whether, and if so how the program helped in their parenthood. The parents were first asked if they thought that Strong and Clear had led to them speaking more often with their child about certain issues important in the teenage years (Figure 7). The parents stated that the program had primarily led to their speaking more often about alcohol both at the first and second follow-ups (27% and 38% respectively). This was followed by issues like drugs and tobacco. The program did not, to any large extent, seem to contribute to more talking about sex or thoughts about life and death.
Parents who already spoke frequently with their child about important issues might not perceive that Strong and Clear had led to them do so even more often. Therefore, it is also interesting to ask parents if they perceive that the program had been helpful in the conversations about the above issues (Figure 8). The same pattern as above emerges. Parents primarily perceive that Strong and Clear has been helpful in conversations about alcohol (32% at the first follow-up and 38% at the second follow-up), drugs (27% and 35%) and tobacco (22% and 26%). Less than 10% of the parents at both the first and second follow-ups perceived that the program had been helpful in conversations about sex, homework, and life and death.
The parents were also asked if they thought that Strong and Clear had an effect on their ability to set limits for their child. At the first follow-up, 28% of the participating parents thought that the program had made it somewhat or much easier to set limits for their child. At the second follow-up 44% of the parents stated that the program had had a positive effect on their ability to set limits.

A more general question was asked to the parents about their perceptions concerning what is important in a parental support program like Strong and Clear (Figure 9). The parents were asked to mark how important some given statements were to them. Nearly 60% of the parents at the second follow-up thought it very important that a program like Strong and Clear should have an effect on adolescents’ alcohol consumption. To be able to talk to other parents of teenagers and to learn more about alcohol and drugs were two statements that about 50% of the parents at both the first and the second follow-up marked as very important. To discuss limit-setting was an issue that about 45% of the parents thought was very important at both time-points.

Figure 8. Percentage of parents who stated that Strong and Clear had been helpful in conversations about certain issues important in the teenage years (numbers at the first follow-up = 111–113, numbers at the second follow-up = 136–137).
The parents were asked in the telephone interview if they had received the booklet on family dialogue that had been sent home to them by mail. 27 parents stated that they had received the booklet. Of those, 12 had completed the family dialogue. Five of them described how the booklet had facilitated their discussion of important questions concerning their child. The booklet had been supportive for the dialogue with the child and led to time being taken for dialogues.

There have been relevant questions and it’s been possible to have a serious discussion. We’ve put time into the conversation.

One parent emphasized that the agreement that was suggested in the booklet was a good component. Another parent stated that the family dialogue contributed to the development of mutual trust between parent and child. That the family dialogue had contributed to common knowledge between parent and child was also a statement about how the program had helped the parents.

Parents who did not complete the family dialogue or the agreement suggested in the booklet were asked why. Two main themes were identified: no perceived need for the program and low program attractiveness.

The first theme, no perceived need for the intervention included different types of statements. It could be that they already talked to their child about the in-
cluded issues, that the questions were not relevant yet, or that the parents already had made their opinions clear.

   He already knows what I think as a parent. The topic is already a part of our conversations.

   We have an older son so we already have experience of these problems, and we’ve talked about it anyhow.

   It didn’t concern us at the time.

   With common sense you don’t need to make agreements.

Some parents also mentioned that they already had an agreement with their child or clear rules about alcohol.

   It’s worked itself out naturally. Have a kind of unspoken agreement.

   We’ve just made it clear that he must be 18 before he can try alcohol.

Some of the parents had not prioritized the family dialogue, often due to time demands.

   We simply haven’t had time but we will, and we’ll do it together as a family.

One parent did not remember the contents of the family dialogue and several parents stated that they had not read the booklet.

The second theme, *low program attractiveness* refers to statements like:

   It felt a bit stupid and unnatural actually.

   We weren’t impressed by the format which felt a bit fussy and patronizing. It wouldn’t have worked in our family.

Even if the parents did not perceive the program as attractive some of them thought the questions included were important.

   It felt a bit forced, but I’m sure they’re good questions.
To summarize the findings from the analysis of parents’ perceptions about Strong and Clear:

- The majority of the parents knew about Strong and Clear, even if this was a main difference between the groups used for the telephone interviews.

- Parents’ associations with Strong and Clear were issue related (alcohol, tobacco and drugs), related to personal support for both parents and adolescents, and related to the quality of the program (e.g. good lectures and low participation rates).

- Parents thought that the quality of the provider was important, for instance that the provider should have knowledge and experience, and be an organization that they feel confident about. The school and IOGT-NTO were considered as suitable providers, while political and religious organizations were considered as non-suitable providers.

- In the second follow-up questionnaire 38% of the parents stated that the program had led to their speaking more often about alcohol, and an equal percentage of the parents thought that the program had been helpful in these discussions. Furthermore, 44% of the parents stated that the program had had a positive effect on their ability to set limits. Parents primarily thought that the most important issue for a program like Strong and Clear was to affect underage drinking.

- Parents who completed the family dialogue stated that the booklet had been supportive for the dialogues with their child, made them take time for the dialogues, contributed to the development of mutual trust between parent and child, and contributed to shared knowledge among parents.

- Reasons for not completing the family dialogue and the agreement suggested in the dialogue booklet were no perceived need for the program and low program attractiveness.
General discussion

Alcohol use among adolescents is a threat to the health of young people. It contributes to individual as well as societal harm. Interventions to prevent underage drinking are therefore of great importance to improve the lives of the young, increase the chances of their having a healthy and positive adolescence, create a less violent society, and provide opportunities for the future. The ambition of this thesis is to make a contribution to the prevention research and to contribute knowledge about how a national support program could be designed to support interventions implemented by non-governmental organizations, and thereby positively influence adolescents’ health.

The main findings presented in the thesis are:

- that a national support program for NGOs including research and development contributed to a more evidence-based alcohol and drug prevention practice.

- that the development of a trustful partnership between national agencies, researchers, and practitioners has contributed to both practice and research. It has improved the quality and successes of different projects, as the researchers have adopted the role of researchers-as-technical-advisors. It has also contributed to a more cost-effective research process by involving practitioners in the implementation of research efforts and the data collection.

- that the support from NBHW to one and the same research team for research and development has made it possible to think and plan on a long-term basis despite the funding being provided annually. It also contributed to thematic and non-project-specific knowledge-building; for example, a study about project management in NGOs and knowledge about parents’ attitudes and behaviour concerning underage drinking.

- that fathers were more likely than mothers to have a non-restrictive attitude towards underage drinking and to have children who had drunk or tasted alcohol at home.

- that parents’ educational levels were significant for their participation in the parental support program Strong and Clear. Low-educated parents participated to a lesser degree than highly educated parents.
• that parents who did not take part in the first information meeting about the program were more likely to become non-participants.

• that the two most frequently stated reasons for non-participation were no perceived need for the intervention and practical barriers, especially time demands.

• that Strong and Clear had an effect on parents’ attitudes towards adolescents’ drinking and that the program seemed to affect the age of alcohol debut and drunkenness among the adolescents.

• that parents who participated in the program perceived that the program helped them in their parenting, especially with regard to alcohol, tobacco, and drug issues.

**An evidence-based practice**

The importance of NGOs in the area of public health has been emphasized in Swedish government documents (e.g. Swedish Government Bill, 2007/08:110; Swedish Government Bill, 2005/06:30). The literature also gives support for the health benefits of performing volunteer work (Lundåsen, 2005; Pidegon, 1998). The Swedish voluntary sector is extensive, and the majority of the Swedish population regularly engages in volunteer activities, either within an NGO or in the form of informal care and assistance for those closest to them (Olsson, Svedberg, & Jeppsson Grassman, 2005). This special support program of the Swedish National Board of Health and Welfare, to support alcohol and drug prevention, has contributed to comprehensive efforts carried out by NGOs. Several project leaders within the program have been employed by the organization. Despite that, nearly half of the project leaders have also done volunteer work for the organization. This means that if the government invests money in NGOs, a small amount of money might be translated into many working hours. This is an important consideration, but the most important quality of an evidence-based practice is that the intervention should not be harmful to the people targeted (Sundell & Vinnerljung, 2009).

In today’s society there are demands for evidence to support the methods used in alcohol prevention efforts. For example, in the Swedish National Goals for Public Health it is emphasized that parental support should be developed and that the methods used should be evidence-based (Swedish Government Bill, 2007/08:110). In its annual report on funding to NGOs for alcohol and drug pre-
vention activities, the NBHW stated that the demands for evidence should not have a restraining influence on experimentation and innovation (Swedish National Board of Health and Welfare, 2010). If only evidence-based methods are allowed to be used, new methods will not be developed (Jergeby & Sundell, 2009). The NGOs play an important role by serving as an avant-garde and pioneering new methods (Johansson, 2001). The special undertaking of the NBHW has made it possible for organizations to develop new methods and also to have them systematically documented and evaluated. The funding of research and documentation within the area of NGOs has therefore contributed to a more evidence-based practice without preventing the search for new methods. That researchers develop methods for learning is an important aspect of public health activities. This may contribute to the emergence of reflective practitioners, who have to be flexible in order to contribute to reaching ambitious health targets (Eriksson, 2000).

The relationship between the state and the voluntary sector is an aspect that needs to be discussed. NGOs are more or less dependent on economic support from the state (Wijkström & Lundström, 2002). Durlak and DuPre (2008) have emphasized, in a framework for effective implementation of promotion and prevention programs, the importance of allowing sufficient time and money for the implementation process. NBHW have taken this into consideration and funded some of the projects for more than one year. The problem was that the government only provided the money on an annual basis, which made it impossible for the NBHW to promise funds for more than one year at a time. Even if the organization has money for the project, there are other factors at the community level that are of importance for the implementation of a program (Durlak and DuPre, 2008). As shown in study I, one of the in-depth studies failed due to decisions by the municipality.

Other important aspects of the implementation process are the capacity and characteristics of the provider (Durlak and DuPre, 2008). The temperance organization IOGT-NTO, which ran Strong and Clear, had sufficient capacity for the implementation process and, as Durlak & DuPre (2008) recommend, the program fit the organization’s current mission, priorities, and existing expertise. Study V showed that several parents emphasized that the quality of the provider was the most important factor when they were asked about who they thought should run a program like Strong and Clear.

When evaluating a program under typical conditions there is a need for a respectful collaboration between researchers and practitioners. Nutbeam and
Bauman (2006, p. 16) recommend an approach where “both science and practice are codependent, and are best served by a ‘middle way’ – an integrated approach – involving an evaluation partnership that meets both researcher and practitioner needs”. The research approach, described and analysed in study I, includes elements of participatory research in which the practitioners have been involved in the development of research questions in the in-depth studies. A respectful partnership between funding agencies, researchers, and practitioners improves the quality of health promotion programs (Nutbeam & Bauman, 2006). The findings from the research case study suggest that the partnership has improved the quality and contributed to the successes of the different projects.

A final remark is that without this partnership between funding agencies, researchers, and practitioners the research program could not have accomplished as extensive results as it did. Without the local knowledge of the practitioners, their efforts in the implementation process, and their help with data collection and feedback to participants, the research project would have been poorer in both content and outcomes.

**Socio-demographic background of the parents – influences on attitudes and behaviour concerning underage drinking**

Socio-demographic factors that are related to adolescents’ problem behaviours have been found in many studies. For example, several studies have shown that living with only one parent is associated with alcohol use (Blum et al., 2000; Helsløs Bu et al., 2002; Ringbäck et al., 2003; Duncan et al., 2006). Perry (1999) asserts that socio-demographic factors can not be changed in health behaviour programs. Nevertheless, such factors are critical in identifying a target group that may be at risk. Previous studies have shown that parents’ permissive attitudes and behaviour concerning adolescents and alcohol are risk factors for underage drinking (Aas & Klepp, 1992; Jackson, 2002; Ferrer-Wreder et al., 2002; Callas et al., 2004; Stafström et al., 2005; van der Vorst et al., 2006). The second study in this thesis showed that fathers were more likely than mothers to have a permissive attitude concerning adolescents and alcohol and to have children that have been offered alcohol at home. It is important to emphasize that the present study can not be generalized to all Swedish fathers due to the research design. In the present study, as in many others concerning family interventions (e.g. Spoth & Redmond, 1996; Spoth, Redmond, Hockaday, & Shin, 1996; Haggerty et al., 2002) it was primarily the mothers who responded to the postal questionnaires. This could be
explained by the long tradition of it being the mothers who are responsible for children. Despite a Swedish policy of promoting gender equality and shared responsibility for children, mothers are still expected to take the primary responsibility for their basic care (Ahlberg et al., 2008). Still, it is reasonable to assume that fathers answering the questionnaire within the present study felt as much responsibility for their children as the mothers did.

A parental support program – effects and perceptions

The evaluation of Strong and Clear (study IV) showed promising results regarding drinking, drunkenness, and parental attitudes toward underage drinking. Dusenbury (2000) has identified some key elements of effective family interventions. First, the program should be based on empirically proven theory and research. As stated in the introduction, Strong and Clear is lacking in this regard, even if the program did include several of the important components proved in Perry’s (1999) framework for creating community-wide programs for youth. In particular, the parent meetings and the family dialogues incorporated several of the important social-environmental, personal, and behavioural factors. These were also the two kinds of activities in which the parents participated the most.

The components of Strong and Clear have also been included in other successful family programs. For example, the program has components that target adolescents and that target parents, making it similar in this regard to the Iowa Strengthening Families Program (Kumpfer et al., 1996) and a combination of the Örebro Prevention Program and the Dutch prevention program Healthy School and Drugs (Koning et al., 2009). Like Preparing for the Drug Free Year (Haggerty et al., 1999) parents participating in Strong and Clear are encouraged to complete a family meeting at home with their children. The agreement that the parents are encouraged to sign has been successfully used in the Örebro Prevention Program (Koutakis et al., 2008). In Perry’s model (1999) for health behaviour change among youth, it is emphasized that it is important that a program include incentives and rewards, as rewarded behaviours are more likely to be repeated than others. The relation between lifestyle and mortality is well documented, but for adolescents it is of greater importance how their lifestyle influences their life here and now (Aarø & Klepp, 2009). If they feel that using alcohol will provide benefits or enjoyment in the short-term, they will consume. The functions that behaviours serve for an individual are called functional meanings, and a prevention program should include potential incentives and rewards for health-enhancing behaviours (Perry, 1999). As an example, the Strong and Clear manual
includes the point that the signing of the agreement between parent and adolescent should be celebrated.

The interpretation of outcomes is dependent on the knowledge about the implementation process. The results of an intervention could be “falsely” negative if the program is not sufficiently well implemented, or the results could be “falsely” positive if the practice differs significantly from the program intent (Durlak & DuPre, 2008). The implementation process of Strong and Clear was closely documented by the national project leader at IOGT-NTO during the first two years of the project. The final year, another national project leader took over the work, as the previous one left the project. This is a weakness of the study, but it is the sort of thing that might happen in a project under typical conditions. Despite that, all activities carried out during the last year were documented even if the contents of each activity were not as closely noted as before. The research team were of the opinion that the program was implemented as intended in the manual of the program. The problem with the implementation process of Strong and Clear is rather that some of the components in the program (Family meetings and Friend meetings) were completed by very few families. This made it impossible to evaluate the effects of each type of activity within the program. The program is rather comprehensive, which can negatively impact the participation rates (Perry, 1999) and it would have been desirable to know which components of the program that brought about the change in alcohol consumption. Only the effective components could then be included in future versions of the program (Ferrer-Wreder et al., 2004). This could not been done without ascertaining that these component had been effectively administered (Durlak & DuPre, 2008).

Even if the evaluation of Strong and Clear indicated that the program had an effect on underage drinking, it would have been desirable if the degree of change had been greater. An important point is that Strong and Clear was carried out under realistic conditions. Many initial efficacy studies in the prevention field are characterized by unique and favourable conditions (Andréasson, 2010). It might be irrelevant to compare results from these kinds of studies with studies of interventions under typical conditions. Another point is that it is not unusual that universal programs show limited results. Smit and colleagues (2008) concluded, in a meta-analysis of family interventions and their effects on adolescents’ alcohol use, that the overall effect of universal family interventions on adolescents’ drinking was small. An overview by the World Health Organization (2009) also showed that education-type programs did not reduce alcohol-related harm, but did contribute by providing information. Strong and Clear is a program based on family-
strengthening components and on maintaining parents’ restrictive attitudes and behaviour concerning adolescents’ alcohol use. If the families with participating parents already have good relationships, and the parents have restrictive attitudes and behaviours, the program may only contribute to maintaining these positive factors instead of making improvements. Programs targeting families at risk, in which problems have already appeared, have more of an opportunity to show improvements.

A related issue is the cost-effectiveness of a program. Strong and Clear is a rather comprehensive program including 13 activities during the entire period of secondary school. The overall participation rate was rather low; 235 parents took part in at least one activity in the program. Worth noting is that among those parents, the number of activities completed was also rather low, and they had primarily participated in parent meetings and completed family dialogues. This is not unusual in family prevention programs. A typical parental prevention program engages about 40–50% of the eligible parents, but the participation rates are sometimes even lower (Dusenbury, 2000). Therefore the third article, which studies reasons for non-participation in parental programs, makes an important contribution. The fact that highly educated parents participated to a greater degree than low-educated parents was shown in the study and corresponds to earlier findings (Bauman, Ennett, Foshee, Pemberton, & Hicks, 2001; Spoth, Redmond, Kahn, & Shin, 1997; Spoth, Redmond, & Shin, 2000; Haggerty et al., 2002). This has an important implication for practice. What need to be done to attract parents independently of educational level? Study II also indicated that fathers seemed to be an important target group for prevention programs. The Swedish National Institute of Public Health, a major provider of research grants, has stated that it will give priority to projects that aim to gain knowledge about how to interest parents in participating in parental support programs (Swedish National Institute of Public Health, 2010c).

When parents were able to state their reasons for not participating in Strong and Clear in their own words, one reason emerged very clearly in both study III and study V: the absence of perceived need for the program. The Health Belief Model, which was used as a theoretical framework in study III, claims that the target group needs to believe itself susceptible to the specific problem that the intervention is meant to prevent (Janz et al., 2002). Most parents with children in their early teens do not believe that their child consumes alcohol. Only about 30% of parents of teenagers are aware of their child’s alcohol use (Bogenschneider, Wu, Raffaelli, & Tsay, 1998; Williams, McDermitt, Bertrand, & Davis,
Perry (1999) asserts that the target group should be a group in great need of the health behaviour intervention. Epidemiological data (e.g. Currie et al., 2008; Hibell et al., 2009; Hvitfeldt & Gripe, 2009) suggests that adolescents are in need of interventions to prevent underage drinking, but if the parents who are expected to participate do not believe that their child is in need of the intervention, the risk for non-participation is high.

Other stated reasons for non-participation were practical barriers (study III) and low program attractiveness (study V). To overcome some of the problems of low rates of participation that have been shown in the studies, it is important to implement parental programs in other arenas than schools. It is plausible that more educated parents feel comfortable with the school as the arena for the intervention. But this may not be the case for parents with lower educational levels. One of the most successful parental support programs, Preparing for the Drug Free Years, has shown that it is possible to offer the program to parents in churches, community centres, homes, hospitals, and prisons (Haggerty et al., 1999). In Sweden, the main setting for parental interventions targeting parents of adolescents is the school. The Swedish government also emphasized in the national strategy for parental support “Parent support – a benefit for all”, that the school is an important arena (Swedish Government Official Report, 2008:131) even though the Swedish National Agency for Education has questioned the suitability of having teachers and student-health personnel support parents in their parenthood (Swedish National Agency for Education, 2009). School staff who feel pressured to offer new programs often do not implement them very effectively (Durlak & DuPre, 2008). Strong and Clear is carried out in the schools, and the school personnel are invited to participate, but they have no responsibility for the performance of the program. Andréasson (2010) points out that many of the prevention programs shown to be effective need comprehensive resources, as they call for elaborate manuals, training, technical support, and supervision. Municipalities often lack the necessary resources and prevention infrastructure. It is therefore an advantage that it is IOGT-NTO that implements the program. The voluntary sector has the possibility to complement and strengthen the work of the public sector (Swedish Government Bill, 2007/08:110; Swedish Government Bill, 2005/06:30). While the municipalities have limited resources and difficulties engaging staff to work evenings, the NGOs often have personnel resources that work on a voluntary basis in their leisure-time.

Parents also stated that practical barriers were an important factor in their non-participation. Programs implemented in the USA have offered childcare and
transportation for parents who need it (e.g. Haggerty, MacKenzie, Skinner, Harachi, & Catalano, 2006; Dumas, Nissley-Tsiopini, & Moreland, 2007). This may be a simple way to overcome low participation rates.

Methodological considerations

There have been some challenges in the research and development of the preventive efforts by the NGOs. The research and development component within the national support program for NGOs has a program-driven approach, meaning that it is the NGOs who have the full responsibility for the development of the project. This is in contrast to a research-driven approach, where the intervention is under the control of the researchers. Evaluating interventions under typical conditions can lead to difficulties, such as when a new project leader changes the conditions for the evaluation, or a municipality ceases its cooperation. An important methodological decision has been how to define the respective roles of the researchers, national agencies, and NGOs. Even if the researchers have adopted the role of researcher-as-technical-advisor, the responsibility for carrying out the interventions has belonged to the organizations.

Limitations and strengths

This thesis has some limitations and strengths that should be noted. A first limitation relates to study I in the thesis. When the research team was initially commissioned to document and evaluate the projects within the national support program, no one could have known that the commission would continue for so many years. If we had known what a unique program this would become, a more careful documentation of the research process would have been carried out from the beginning. The idea for the case study has been developed during the years, and the documentation during the first years could have been better adapted to the aims of an extensive case study. However, a long-term project always includes improvements and development.

Participation in research is problematic from more than one perspective. First, the ethical issues need to be considered carefully, especially when the participants are minors. Furthermore, there are always people who decline to participate in research. Therefore, it is of great importance that attrition in research be studied. The second study has two main limitations, the first of which concerns attrition. It was not possible to carry out an attrition analysis in study II. The data used in this study were both the baseline questionnaire within the longitudinal study.
(data material 2) and questionnaires to parents within the evaluations of two other interventions including parents (data material 3). One of the two organizations used to get data material 3 did not want to supply the research team with addresses to the parents. The questionnaires were therefore prepared by the research team but the addresses were added to the envelope by the organization. This made it impossible for the research team to do any follow-ups with the non-participating parents, for example by means of telephone interviews.

The second limitation of study II is that the questionnaires to the parents in data material 3 did not include the gender of the child. This was an indefensible typo in the questionnaire, limiting the analysis of the study.

Some might argue that the design of the effect study of Strong and Clear is weak, as it is not a randomized controlled trial. When evaluating the effectiveness of interventions, randomized controlled trials have been considered the gold standard and as giving the strongest empirical evidence (Tones, 2000; Ji, DuBois, Flay, & Brechling, 2008). Nevertheless, it is important to bear in mind that even if this procedure provides the strongest evidence it is associated with a range of challenges. First, the number of schools for randomization needs to be rather large to ensure equivalence between the schools. As this seldom is the case, a matched-pair randomized control trial is more appropriate to ensure the internal validity of a school study. Secondly, it is not necessarily the case that a school will participate if it runs the risk of becoming a control school. Schools may prefer to self-select their condition. The sample repetitiveness and the possibility to generalize the results will be compromised if schools decline participation. To ensure the participation of those schools that have been randomized to the control condition, ample resources are needed (Ji et al., 2008). The evaluation of Strong and Clear has a quasi-experimental design with comparison groups. There were several reasons why schools could not be randomized for the evaluation. One of the most important reasons was that the evaluation of Strong and Clear has been accomplished under typical conditions. IOGT-NTO received grants from the Swedish National Board of Health and Welfare to implement the program in some defined regions. The evaluation of the program had to be concentrated to the region where the organization had the personnel and organizational resources to carry out the program on a sufficiently large scale. Within the chosen region, Värmland, a number of schools were already familiar with the program. This was necessary as the implementation process is time-consuming (Durlak & DuPre, 2008) and the project and the research team were only funded for a very limited time (the initial period was two years, and the project and the research team were
subsequently funded on an annual basis). It would have taken too much time from the project if Strong and Clear had to be presented to new schools at the beginning of the project. Worth noting is that even if the program was already familiar to the schools, it was new to the families included in the evaluation, though with one exception: parents with an older child may have been offered the program the previous school year. Due to the small sample of schools familiar with the program the generalization of the results would not have been benefited by a randomized design. With few schools available it is difficult to match schools into pairs. There is also a chance that all these schools, regardless of whether they became intervention or control schools, differed from Swedish schools in general (Ji et al., 2008). The conclusion is that the results from the evaluation of Strong and Clear can not be generalized to the whole Swedish population.

Furthermore, the longitudinal study had a skewed distribution of sex of the respondent. The responding parent has in more than 70% of the cases been the mother. The questionnaires were sent to the children's guardians, and in some cases, when the parents lived separately, questionnaires were sent to both the mother and the father. It would have been of great value if the questionnaires had always been sent to both mothers and fathers. It is probable that the response rate has been influenced negatively and that comprehensive resources are needed to improve the response rate.

Another weakness of the effect study of Strong and Clear (study IV) is that it was not possible to identify core components of the program, due to the low participation rates in family meetings and friend meetings. There is a need to simplify prevention programs for wider dissemination, and to do that it is essential to strive to identify core concepts (Andréasson, 2010).

The study of parents' perceptions about Strong and Clear has some methodological weaknesses. First, the participation rate among the two groups that had not answered the second follow-up questionnaire in school year 9 was low. Another weakness is that the answers from the parents in the telephone interviews were written simultaneously into a word-document rather than being first recorded and then transcribed. This means that the interviewer already has interpreted the results, as it is impossible to write everything word by word.

There are also certain strengths that should be noted. First, it is an advantage that the thesis is based on a comprehensive research program including several in-depth studies of different interventions implemented by NGOs. The first article in the study is unique as it describes and analyses a national support program to NGOs focussing on research and development.
A second strength is that the research examined interventions under typical conditions. Even if randomized controlled trials have been considered the gold standard (Tones, 2000; Ji et al., 2008) and well-controlled efficacy studies contribute to understanding causation, there is a great need for intervention studies under typical conditions (Green & Glasgow, 2006). NGOs have a long tradition of implementing alcohol and drug prevention projects and they will continue to do so.

An important strength of the thesis is the use of several sets of data. This has been possible due to the fact that the NBHW chose to commission one and the same research team for research and documentation of the efforts by the NGOs. This is particularly clear in study II, where it has been possible to use information from parents of teenagers in the evaluations of three different interventions for studying the general pattern of parents’ attitudes and behaviour concerning underage drinking.

The thesis is mainly based on the longitudinal study of parents and adolescents. Longitudinal studies are needed to track both the initiation and progression of alcohol use (Spoth et al., 2009). The longitudinal study in this thesis follows the adolescents from the age of 13 to the age of 16.

There is an urgent need for studies and knowledge-production using both quantitative and qualitative approaches to develop the evidence base for public health action (Eriksson, 2000). In studies of effects, quantitative approaches are essential but important contributions can be made if qualitative studies are also included (Bonnie & Schensul, 2005; Jack, 2006). Using qualitative approaches may help to close the gap between scientific findings and their application (Eriksson, 2000). Studies III and V have used quantitative data to deepen the knowledge about the applications of Strong and Clear. Qualitative approaches are preferable when you want to gain deeper knowledge about people’s perceptions of a phenomenon (Morse & Richards, 2002). For example, they are useful for asking people about their perceptions of the effects of a program, barriers to participation, and strengths of program components (Nutbeam & Bauman, 2006). Even if the fifth study has some methodological weaknesses and not yet been developed into a proper research paper submitted to a scientifically journal it contributes with important knowledge about the application of the program. This study should be viewed as additional information about how the program works for the parents.

The present thesis includes both a quantitative and a qualitative approach, used in both a parallel and integrated fashion. A mixed-method design has the ability
to provide a more comprehensive analysis, even if this is a time-consuming process (Creswell, 2009).

The thesis is primarily based on self-reported data from project leaders, parents, and adolescents. This has some limitations and strengths that are important to mention.

The validity of self-reported data should be discussed, especially as the thesis includes issues that could be considered sensitive. Alcohol drinking is an issue that many researchers have regarded as a socially undesirable behaviour, and therefore drinking has been considered an issue where self-reports may be underestimated. When it comes to adolescents, it is reasonable to believe that the opposite pattern occurs: heavy drinking may be regarded as socially desirable, and adolescents may therefore over-report consumption levels (Del Boca & Jack Darkes, 2003). Social desirability, which is the tendency of respondents to give answers that they believe will depict them in a favourable light in the eyes of others, has been examined within the ESPAD survey. A specific methodological study was carried out where the pupils were asked about the honesty of their responses and their perceptions of the honesty of their peers. Nearly all pupils (95%) stated that they had honestly answered the questions relating to their alcohol consumption and 85% thought that all or most of their classmates gave honest answers. To test the occurrence of false or bad answers among pupils, a non-existent dummy drug was included in the ESPAD questionnaire. Less than 1% of the pupils stated that they had used that drug (Hibell et al., 2009).

Another important issue concerning self-reporting is the differences in perceptions between parents and children. It is not unusual that parents’ and children’s perceptions about the child’s life differ, especially when it concerns the child’s risk behaviours. Children have been seen as less reliable than adults, but there is little reason to discredit children as respondents. As most adolescents are involved in problem behaviours, such as alcohol use, without their parents’ knowledge, it is not surprising that the answers differ (Scott, 2008). The present thesis includes multiple data sources collected from both parents and adolescents, which is an important strength. Scott (2008) has stated that the best informants about children’s perspectives and actions are children themselves.

Scott (2008) also asserts that it is possible to use standardized questionnaire instruments with adolescents aged 11 and up. A final aspect of the validity of self-reported questionnaires is the importance of reflecting on problems of language, literacy, and different stages of cognitive development (Scott, 2008). To overcome some of these problems, the questionnaires intended for the adolescents were first
Ethical considerations

One overall ethical consideration of the whole research program deals with vested interests. Vested interests concern the possibility of someone, an individual or an organization, having a special interest in controlling research, promoting a theory, or distorting a finding for personal benefit (Babor, Miller, & Edwards, 2010). It could be reasonable to believe that some of the organizations within this national support program have vested interests, especially those whose entire organization is based on a specific method. On the other hand, the satisfaction of helping others is the most important motivation for voluntary workers (Pidgeon, 1998). The experience of the research team has also been that the organizations are honestly interested in improving society and promoting people’s health. The research team has received far more requests for evaluations than there have been resources for. The NBHW has also emphasized the importance of independent research and documentation (National Board of Health and Welfare, 2010). Therefore, the division of responsibility between the NGOs and the researchers has been very important. The organizations have had the full responsibility for carrying out the interventions and the research team has had the full responsibility for the evaluations, even if practitioners have been helpful in the implementation and completion of the evaluation on a local level. An important lesson learned from this research project was the importance of a clear agreement between all parties in the research project. Within the evaluation of Strong and Clear, a meeting at the beginning of the project and follow-up meetings in school years 8 and 9 were arranged. But when conditions changed, like with the arrival of a new headmaster of a school or a new project leader in the NGO, it would have been better if the agreement had been written down. In later research projects including more than one part, this has been done successfully.

Ethical considerations are important in all research including people. Research including children and young people is particularly complicated. It is more difficult for children and young people to reflect on the risks that participation may involve, and they are also more influenced by the decisions of other people (Swedish Research Council, 2010). Children have until recently been rather invisible in
survey research. Parents and teachers have been asked to report on children’s lives, and children’s own perspectives have been rather marginalized (Scott, 2008). The UN Convention on the Rights of the Child is clear about the importance of children’s right to freely express their view in all matters affecting them (United Nations, 1989). If children are seen as competent social actors in their own right they should be asked about their role in social life (Scott, 2008). The Swedish Research Council has emphasized that it could be risky not to carry out research with children (Swedish Research Council, 2010). Young people should have the right to participate in research, but they should also have the right to decline participation. If young people are involved in research, they and their parents should be given adequate information, and both the parent and the child should each have the right to decline participation. In other words, it is not enough that the parents have approved the child’s participation (Greig, Taylor, & MacKay, 2007). It is of great importance that children be included in research and that measures be modified to suit young respondents (Scott, 2008).

As Greig and colleagues (2007) recommend, the ethical issues with the longitudinal study were discussed with other researchers. One of the most discussed issues was the choice between an active and a passive procedure for parental permission for adolescents’ participation in the study. Active permission means that parents who approve of their child’s participation actively report that to the researchers, often by sending back a signed, pre-paid letter. Passive permission means that parents are informed that if they do not want their child to participate, they must report that to the researchers. After extensive discussion of the arguments for and against each procedure, a passive permission procedure was chosen. An active permission procedure may threaten the external validity of a study, as there is a potential risk that parents who return the form to approve their child’s participation will differ from those who do not return it, for example in terms of socio-demographic background (Klepp, 1995). In a study of school-based depression screening to identify youth at risk, a passive permission procedure was compared with an active permission procedure. The results suggested that an active permission procedure with required written permission from the parents reduced the participation rates by approximately 20% (Chartier et al., 2008). A Swedish study, using active consent, showed that 65% of the students were allowed to participate. Among those students that were excluded from the study (35%), only 50% of the parents had made an active refusal. Educational level was significant for parental consent, with parents with higher education being more likely to accept the participation of their children (Post, Galanti, & Gilljam, 2003).
In this thesis both adolescents and parents have received adequate information about the study. The parents were informed by means of a cover letter, and the adolescents were informed both verbally and with a cover letter. The ethical questions have been discussed in detail to create a procedure that protects the adolescents from harm and at the same time treats them as competent social actors in their own right and capable of freely expressing their views. Ethical approval for the longitudinal study was obtained from both the local and regional ethic committees.

**Implications**

The findings from the embedded single-case study of the research program (study I) have implications for how national support programs for alcohol and drug prevention could be designed. Some important lessons learned, with implications for politicians and officials at national agencies are that:

- Support programs for alcohol prevention efforts should include systematic documentation of the interventions.
- It is beneficial that the same research team work with several projects as it gives opportunities for comparative research and cross-project research questions.
- If research and development are integrated within national support programs, the alcohol prevention efforts benefit.
- Implementing alcohol prevention projects is time-consuming. Therefore, funds should be granted for more than one year at a time.

The results of the thesis also have some implications for NGOs receiving funds for alcohol prevention efforts.

- Implementation is important and takes time. Think in the long-term and plan for when the project funds are expended and the intervention must be embedded in the original work of the organization.
- It is of great importance to reflect on the practice of an alcohol prevention effort and closely document the implementation process.
- It is important to learn about the target group for an intervention. There may be groups that are especially important to reach. Furthermore, it does not matter how effective an intervention is if the target group does not perceive a need for an intervention or has practical barriers to participation. It is a chal-
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• Implementation is important and takes time. Think in the long-term and plan for when the project funds are expended and the intervention must be embedded in the original work of the organization.
• It is important to learn about the target group for an intervention. There may be groups that are especially important to reach. Furthermore, it does not matter how effective an intervention is if the target group does not perceive a need for an intervention or has practical barriers to participation. It is a challenge for practice to design interventions that attract people independently of gender and educational level.
• If the project is evaluated by an independent research team, plan for how the results will be used.

The results of the thesis also have implications for municipalities and county councils.

• Comprehensive knowledge is collected within NGOs and they have an important role to play in alcohol prevention.
• The evidence for practice has been improved by the national support programs for NGOs and now various prevention efforts have been evaluated.

Further research

It is essential to continue the research and documentation of alcohol and drug prevention projects run by NGOs. NGOs have an important role to play in knowledge-building for practice. This sector is a forerunner in the development of new interventions and working methods. The research team will continue to evaluate alcohol and drug prevention efforts run by NGOs and to study some general case-study questions about the role and importance of NGOs in alcohol and drug prevention.

Family dynamics are complex, and the longitudinal study with parents and adolescents included in this thesis is comprehensive, which means that there are several possibilities to deepen the knowledge about the importance of family life for adolescents’ health and adjustment. The present thesis has focused on the question of alcohol consumption among adolescents. Further research could deepen the knowledge about the connection between family relationships and adolescent’s drinking behaviour, self-reported health, school adjustment, and delinquency.

In future research of family dynamics it would be desirable if data could be collected from both mothers and fathers. This would contribute to a better understanding of parental attitudes and behaviour concerning underage drinking as well as the impact of parental gender in interventions aiming to prevent underage drinking. There is also a need to consider the aspect of gender in analysis about parents’ perceptions of parental support. This is of immediate interest as the Swedish government recently invited municipalities to apply for funds for the development of parental support.
Finally, it is of great importance that the methodology for practice-based research with a participatory approach be further developed.
Conclusions and final remarks

The present thesis deepens our understanding of how a national program to support NGOs could be designed to help develop a more evidence-based practice. The Swedish National Board of Health and Welfare has developed a unique undertaking with research and development as an integral part. This has never been done to a similar extent in a Swedish context before. An important conclusion is that a trustful partnership can be developed between national agencies, practitioners, and researchers, and that this has led to a more evidence-based practice as well as more cost-effective research and development.

Most of the projects within the undertaking have the goal of preventing underage drinking. Involving parents in this prevention could be successful. Adolescents with parents who participated in the parental program Strong and Clear had a later alcohol debut and had been drunk to a lesser extent than adolescents with non-participating parents.

There are some important issues that need to be taken into consideration when implementing a parental program. First, fathers seem to be an important target group for parental programs as they were more likely to have non-restrictive attitudes towards adolescents and alcohol, and more frequently reported that their children had drunk or tasted alcohol at home. Secondly, there are different reasons for parents to decline participation in parental programs. The most important ones seemed to be parental educational level, absence of perceived need for the interventions, and practical barriers. The information about the program also seemed to have an influence on parents’ choice of whether to participate. To design programs that attract parents independently of educational level and gender seems to be an important goal for the future, because there is no need for evidence-based methods that do not attract the target group.

Parents participating in Strong and Clear benefitted in terms of their parenting skills. The program had contributed to them speaking more often with their child about alcohol and other issues, and had also helped them conduct these conversations. The school and IOGT-NTO were considered as suitable providers of Strong and Clear.

Clearly, to support NGOs and integrate research and development into that support contributes to a more evidence-based practice and this in turn means that the chances for adolescents to grow up in an alcohol-free environment will increase.


Många av de projekt som fått medel inom Socialstyrelsens satsning har syftat till att minska ungdomars alkoholkonsumtion. Tidigare forskning har visat att föräldrar har en viktig roll i detta arbete och flera projekt har riktat sina insatser till tonårsföräldrar. Genom att Socialstyrelsen har gett uppdrag åt ett och samma forskarteam att utvärdera och dokumentera dessa projekt har både projektspecifika studier kunnat genomföras såsom en utvärdering av IOGT-NTOs föräldrastödsprogram Stark och klar liksom projektövergripande studier där information...
Sammanfattning på svenska

Föräldrars möjlighet att förebygga alkoholkonsumtion bland mindreåriga
- Studier av föräldrar, ett föräldrastödsprogram och ungdomar i kontexten av ett nationellt stöd till frivilligorganisationer


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har samlats från en betydande grupp föräldrar som utgjort målgruppen inom flera projekt.

Avhandlingens andra studie är en sådan projektövergripande studie som syftar till att studera betydelsen av föräldrars sociodemografi sak bakgrund för deras attityder till och beteenden kring ungdomar och alkohol. Föräldrar inom tre olika projekt i sex svenska kommuner har fått en enkät hemskickat med frågor om bland annat deras syn på ungdomar och alkohol. Resultatet visar att pappor som svarat på enkäten hade en mer tillåtande attityd till ungdomar och alkohol än mammor och att de i större utsträckning hade barn som fått smaka alkohol hemma. Slutsatsen är att det är viktigt att föräldrastödsinsatser utformas så att de attraherar både mammor och pappor.

Avhandlingens tredje studie syftar till att studera orsaker till varför föräldrar väljer att inte delta i föräldrastödsprogram. Föräldrar inom ramen för IOGT-NTO:s föräldrastödsprogram Stark och klar har följts med enkäter under hela högstadietiden då också programmet genomfördes. Resultatet visar att föräldrars utbildningsnivå var den viktigaste sociodemografi faktorn för deltagande i programmet. Lågutbildade föräldrar deltog i mindre utsträckning än högutbildade. När föräldrarna själva har fått angett orsaken till att varför de inte deltagit var de två vanligaste svaren att de inte känt något behov av insatsen och att de haft praktiska hinder för att delta.

Den fjärde studien är en effektstudie av Stark och klar. Syftet är att undersöka om programmet har skjutit upp alkoholdebuten för de ungdomar vars föräldrar deltagit i programmet, om programmet har någon effekt vad gäller berusningsdrickande och om föräldrars attityder och beteenden kring ungdomar och alkohol förändrats. Ungdomarna har liksom föräldrarna följts med enkäter under högstadietiden. Resultaten visar att ungdomar med deltagande föräldrar alkoholdeburerade i genomsnitt ett år senare än andra ungdomar och berusade sig i mindre utsträckning i skolår 9. Deltagande föräldrar bibehöll också en restriktiv attityd till ungdomar och alkohol i större utsträckning än föräldrar som inte deltog.

Avhandlingens sista studie behandlar föräldrars uppfattning om Stark och klar och resultatet presenteras endast i avhandlingen för en fördjupad förståelse kring programmet. Föräldrar har i enkäterna skickats till dem fått frågor om programmet och ett urval av föräldrarna har också intervjuats per telefon. Resultaten visar att de flesta föräldrarna var positiva till att programmet genomfördes. De föräldrar som deltagit i programmet ansåg att det framförallt bidrog till att de oftare talade med sina barn om alkohol och att det också varit en hjälp för detta...
samtal. Föräldrarna ansåg att det var bra att skolan arrangerar ett program som Stark och klar och flera ansåg också att IOGT-NTO var en bra arrangör.

Sammanfattningsvis visar denna avhandling att ett nationellt stöd till frivilligorganisationers alkohol- och drogförebyggande arbete kan skapa ett respektfullt partnerskap mellan myndigheter, forskare och praktiker och bidra till en mer kunskapsbaserad praktik. Denna praktik kan innebära stöd till föräldrar i syfte att minska ungdomars alkoholkonsumtion. Föräldrars bakgrund och motivation att delta i insatser är viktigt att beakta när en intervention planeras och genomförs. Slutfinal, föräldrar som deltagit i föräldrastödprogrammet Stark och klar hade i slutet av skolår 9 en mer restriktiv attityd till ungdomars alkoholdrickande än föräldrar som inte deltog. Ungdomar med föräldrar som deltagit debuterade i genomsnitt ett år senare med alkohol och berusade sig i mindre utsträckning än ungdomar till icke deltagande föräldrar.
References


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