

## Research Article

# Organizational readiness for development and implementation of alcohol and drug prevention at Swedish youth health clinics: A qualitative interview study

Pia Kvillemo

Stockholm prevents alcohol and drug problems (STAD), Centre for Psychiatry Research and Education, Department of Clinical Neuroscience, Karolinska Institutet, Sweden

Charlotte Skoglund

Stockholm prevents alcohol and drug problems (STAD), Centre for Psychiatry Research and Education, Department of Clinical Neuroscience, Karolinska Institutet, Sweden

Johanna Gripenberg

Stockholm prevents alcohol and drug problems (STAD), Centre for Psychiatry Research and Education, Department of Clinical Neuroscience, Karolinska Institutet, Sweden

Anna K Strandberg

Stockholm prevents alcohol and drug problems (STAD), Centre for Psychiatry Research and Education, Department of Clinical Neuroscience, Karolinska Institutet, Sweden

### ABSTRACT

**Background:** Risky sexual behaviour is common among adolescents and young adults and often occurs under the influence of alcohol and sometimes other drugs. Swedish youth health clinics are an important arena for prevention of unplanned pregnancies and sexually transmitted diseases, as well as mental health problems. Alcohol and drug consumption have been shown to be higher among youths visiting youth health clinics than their peers. Since alcohol and drug consumption affect both sexual behaviour and mental health, the youth health clinics are well-suited for alcohol and drug prevention. The aim of this study was to investigate the organizational readiness for development and implementation of alcohol and drug prevention policy and interventions at youth health clinics in Stockholm county.

**Methods:** Face-to-face interviews were conducted with midwives and social counsellors (n=22) at 11 youth health clinics in Stockholm county, using a semi-structured interview guide. The guide reflected issues related to organizational readiness for change, such as organizational structure and staff motivation. The interviews were transcribed verbatim and analysed with qualitative content analysis.

**Results:** Motivation and general capacity were identified as two main categories in the interview material, along with five subcategories. The midwives and social counsellors were highly aware of the association between alcohol and drug use and

risky sexual behaviour, and the subject was often brought up in conversations with youths. They also expressed dedication to their work. At several clinics, there was a supportive organizational climate with staff motivated to work with alcohol and drug prevention, although sometimes burdened by various requests from external stakeholders. However, the interviewees occasionally felt that they did not have sufficient knowledge to give proper guidance and support to youths with risky alcohol consumption or youths using other drugs and expressed interest in developing their knowledge and activities regarding alcohol and drug prevention. At the same time, they argued that shortage of time and resources could be an obstacle for this.

**Conclusions:** There are several factors contributing to the organizational readiness to develop and implement alcohol and drug prevention policy and interventions in relation to sexual health at youth health clinics in Stockholm county. Involvement of staff at an early stage as well as time and resource efficient interventions, such as internet-based tools and programs, could enable successful implementation. Research aiming to test the usability, acceptability, and effects of such interventions at youth health clinics is warranted.

**Keywords:** Organizational readiness, Implementation, Qualitative content analysis, Alcohol, Drugs, Youths, Risky sexual behavior, Youth health clinics

## Abbreviations

ACT: Acceptance and Commitment Therapy; AUDIT: Alcohol Use Disorders Identification Test; CBT: Cognitive Behavioural Therapy; Int: Interview; MI: Motivational Interviewing; RSB: Risky Sexual Behaviour

## Background

Adolescents and young adults are generally more prone to taking risks than individuals of other ages [1]. Risky behaviour may take on different forms, e.g., high alcohol consumption, the use of other substances, and risky sexual behaviour (RSB). RSB has often been defined in terms of multiple or casual partners and unprotected sexual activity, but also early sexual debut [2-4]. Young adults who drink heavily or use cannabis are more likely to engage in RSB [4-7]. Also, college students have been shown to engage in more RSB, e.g., being less likely to use condoms, when they drink alcohol [8,9]. Although substances can be used to facilitate sexual contact and enhance the feeling of pleasure [10-12], substance use among adolescents and young adults can also have negative consequences, in both the short and long term [13-18]. Experimental studies have shown that high blood alcohol levels increase the risk of RSB, such as unprotected sex [4]. Alcohol consumption is also associated with a higher risk of unplanned pregnancy and sexually transmitted diseases [19-21].

Longitudinal research indicates that alcohol consumption in adolescents increases the risk of RSB later in life [22]. Worldwide, efforts are being made to reduce the negative effects of alcohol and other drugs. Swedish alcohol and drug policy encompasses both supply and demand through strict legislation, as well as motivational efforts. Under Swedish law, you are allowed to drink alcohol from the age of 18, while personal use of other drugs like cannabis, ecstasy, cocaine, heroin and amphetamine is criminalized for people of all ages [23]. There are several national, regional and local actors in the Swedish society working with alcohol and drug prevention. One of them is STAD (Stockholm prevents alcohol and drug problems), which is a collaboration between Stockholm county council and the Karolinska Institute. STAD focuses on the development, implementation, and evaluation of promising alcohol and drug prevention methods in different settings, e.g., nightlife, sports arenas, and primary healthcare [24-27]. STAD continuously develops methods for new arenas in society and has identified youth health clinics as promising institutions for reaching out to youths, especially girls and young women. Youth health clinics are outpatient healthcare units where young people up to around 25 years of age can go for advice on contraceptives and prevention of sexually transmitted diseases, but also for support regarding mental health problems [28]. In Sweden, there are about 230 youth health clinics, annually visited by a total of around 200,000 adolescents and young adults. About 85% of the visitors are girls or young women [29]. The visits are free of charge and the clinics are open during office hours, and sometimes evenings or weekends, and also offer weekly drop-in occasions. Different professions are represented at the youth health clinics, primarily midwives, social counsellors and/or psychologists, and physicians. Organizationally, the

youth health clinics belong to either a municipality, a county council, or both in combination. A few clinics are run privately in agreement with the local county council [30]. Youths can visit youth health clinics without having to inform their parents. The clinics can therefore be attractive for young people who want support regarding sensitive issues from adults outside their family. Exceptions from this principle occur when a visitor is very young and has severe problems. However, when a youth is 18 years or older, no contact with the family will be made without the individual's consent [30]. In Sweden, alcohol and drug consumption has been shown to be higher among youths visiting youth health clinics than their peers [31]. Thus, alcohol and drug prevention activities could be particularly motivated at these clinics. Professionals at youth health clinics have an opportunity to communicate norms and give advice to the youths regarding RSB as well as regarding alcohol and drug use [13]. Staff knowledge of alcohol and drug prevention is therefore important. Relevant theories and evidence-based prevention methods with a systematic focus on alcohol and drug prevention in the promotion of sexual health could strengthen the present practice at the clinics. However, in order to effectively support the youth health clinics in this, it is important to investigate the readiness for such interventions [32]. Readiness can be defined as the extent to which an organization is both willing and able to implement a particular innovation [33]. Research on implementation has shown that an organization's readiness for an innovation is a critical component in the successful implementation of processes or policies [33,34]. However, the conceptualization of readiness has varied and focused on different organizational levels [33,35]. Previous research on organizational readiness for change in mental healthcare and organizations carrying out substance misuse programs has shown that factors contributing to readiness are, e.g., motivation for change, organizational climate, program resources, staff perceptions and beliefs, and previous experiences of change [32,34]. This study has used a conceptualization of organizational readiness elaborated by *Scaccia et al.*, which includes aspects of motivation and capacity [33]. The aim of this study was to investigate the organizational readiness for development and implementation of alcohol and drug prevention policy and interventions in relation to sexual health at youth health clinics in Stockholm county. To the best of our knowledge, this is the first study investigating the organizational readiness for implementation of alcohol and drug prevention policy and interventions at youth health clinics.

## Methods

### Participants and procedures

In early 2016, 27 out of 34 youth health clinics in Stockholm county were contacted by e-mail and offered to participate in the current study by letting their midwives and social counsellors be interviewed. Seven clinics were not contacted due to geographical distance. Eleven youth health clinics in different geographic areas with varying socioeconomic status agreed to participate. In the fall of 2016, midwives (n=11) and social counsellors (n=11) were interviewed at their own clinics.

## Semi-structured interviews

One of the authors (AS) conducted the interviews face to face, using a semi-structured guide. The interview guide reflected issues connected to readiness for change [33] and included the following questions: “How do you perceive the association between alcohol, drugs and RSB among youths or young adults?”, “How do you work to prevent RSB among youths and young adults?”, “Are actions to reduce alcohol and drug consumption included in the prevention work?”, “What other contextual factors are important (when trying to prevent risk behaviour)?”, “Are efforts to reduce RSB among adolescents and young adults based on any theoretical model or method? If so, which?”, “Have you identified risk factors or individuals at risk with regard to alcohol, drugs and RSB?”, “Based on your organization, your daily activities, and your authority: what are the obstacles and opportunities for the prevention of RSB in youths visiting your clinic?”, “Do you ask all youths visiting the clinic about alcohol and drug use?”, “Do you ask all youths visiting the clinic about the association between alcohol, drugs and RSB?”, “If so, do you use any specific questionnaire or method or are these questions part of the general conversation?”, “How is the information documented?”, “Are there follow-up questionnaires/visits? If so, how are they performed?” The interviews, on average about 30 minutes long, were recorded and transcribed verbatim following informed consent from interviewees.

## Content analysis

Qualitative content analysis was used to analyse the interview data [36]. Theories and concepts about readiness directed the analysis, and unexpected content was taken into account in order to refine and expand the understanding of the material. The approach most closely resembling ours is described by Hsieh & Shannon as “Directed Content Analysis” [37]. A team-based approach was applied, with two researchers carrying out the analysis [38]. One of the researchers (PK) has a master’s degree in public policy and organization and also a PhD in medical science. She has extensive experience in qualitative analysis and guided the analysis process. The other researcher (CS) is a trained psychiatrist with a PhD in medical science. She has extensive experience in working with adolescents and young adults, focusing on mental health problems, including alcohol and drug consumption or abuse. All interviews were initially read 3–4 times by one researcher (PK), who developed a coding scheme by identifying meaningful units grouped into categories, as exemplified in Table 1. Two main categories, along with five subcategories and 20 codes, were identified in this first coding. To assess the reliability of the coding, an independent re-coding was undertaken by the other researcher (CS), using the first coder’s coding scheme [39]. The two main categories and five subcategories of the initial coding scheme were confirmed in the re-coding process, although one of the subcategories was renamed, from “beliefs and knowledge” to “knowledge.” Also, one additional code was identified by the researcher undertaking the re-coding. With this in mind, both researchers read the material together again, while

comparing their coding. During this process they identified yet another code and continued their work with 22 codes, which are presented in Table 2. Any disagreements regarding which code should be applied to a certain meaning unit were resolved through discussion and the researchers agreed on the codes and categories as presented in Table 2.

## Results

Two main categories, i.e., motivation and general capacity, were identified in the interview material. Three subcategories connected to motivation were identified, i.e., knowledge, perceived needs of the target group, and attitude and interest. Two subcategories connected to general capacity were identified, i.e., structure and staff capacity. The content, with codes and categories, is summarized in Table 2.

### Knowledge

The subcategory “knowledge” includes the staff’s awareness, or lack thereof, of the association between alcohol and drug use and RSB, and perceived lack of knowledge in the clinical work to prevent RSB, alcohol consumption, and use of other drugs. The awareness of the association between alcohol and drug use and RSB was high among the staff, and almost every interviewee expressed this in some way. The perception that alcohol might be important for young people to seek social and sexual contact, is exemplified by the following statement:

- *Ordinary boys describe [...] a large number of partners, and almost every time they see them under the influence of alcohol. It somehow makes it easier to take that social contact. (Interview (Int) 3)*

Some of the interviewees emphasized that alcohol and drug use might be viewed as part of a general risk behaviour associated with mental health problems or neurodevelopmental disorders. However, such an association might, the interviewees suggested, be driven by binge drinking, drug use, and RSB as proxies for anxiety and/or self-mutilating behaviour. One interviewee expressed this as follows:

- *The reason for using drugs and alcohol may be that you don’t feel good. [...] You feel bad from the outset and then you use different substances to injure yourself. (Int 5)*

Many interviewees emphasized different ways that alcohol consumption can have unintended (adverse) consequences, like RSB. Some suggested that alcohol could be used as an excuse for not using a condom or for engaging in sexual activities that you would not engage in when sober. Several of the interviewees suggested that the ability to consider consequences of RSB decreases when youths use alcohol, as exemplified by the following statement:

- *I think that the thresholds are lowered regarding what you do. You don’t have this doubt about consequences. (Int 6)*

Some of the interviewees expressed scepticism regarding the association between alcohol and drug use and RSB, as expressed in the following statement:

**Table 1.** Illustration of the analysis process

Meaning unit	Condensed meaning unit	Code	Subcategory	Category
The reason for using drugs and alcohol may be that you don't feel good. [...] You feel bad from the outset and then you use different substances to injure yourself.	Alcohol and drug use may be an expression of mental health problems.	Awareness of the association between alcohol/drugs and RSB <sup>1</sup>	Knowledge	Motivation
At this time, we have to say no to everyone who wants to see a social counsellor, because the waiting list has become too long.	Lack of time results in the clinic having to say no to youths wanting to see a social counsellor.	Lack of resources	Structure	General capacity

<sup>1</sup>RSB= Risky Sexual Behaviour

**Table 2.** Summary of content divided into main categories and subcategories

Main categories	Motivation			General capacity	
Sub categories	Knowledge	Perceived needs of the target group	Attitude and interest	Structure	Staff capacity
Codes	<p>Awareness of the association between alcohol/drugs and RSB<sup>1</sup></p> <p>Doubts about the association between alcohol/drugs and RSB<sup>1</sup></p> <p>Perceived lack of knowledge in the clinical work to prevent RSB<sup>1</sup>, alcohol and drug use</p>	<p>Perceived needs and risk factors in the target group</p> <p>Perceived protective factors in the target group</p>	<p>Positive view of the present (alcohol and drug) prevention work/methods</p> <p>Negative view of the present (alcohol and drug) prevention work/methods</p> <p>Scepticism towards external demands</p> <p>Visions for potential (alcohol and drug) prevention work</p> <p>Normalization of high alcohol consumption in adolescents</p>	<p>Ways of working with prevention, including alcohol and drug prevention, at the clinic</p> <p>Lack of structure/flexibility in the prevention activities</p> <p>External work</p> <p>Lack of mandate</p> <p>Working cooperation with other organizations</p> <p>Unsatisfactory cooperation with other organizations</p> <p>Available resources/support</p> <p>Lack of resources/support</p>	<p>Education</p> <p>Previous experiences of prevention work</p> <p>Ability to "reach" the target group</p> <p>Difficulties in "reaching" the target group</p>

<sup>1</sup>RSB= Risky Sexual Behaviour

- *I have problems with generalizations, such as 'if you drink lot, then you have outrageous sexual behaviour' and so on. (Int 5)*

As outlined above, the staff was generally well aware of the association between alcohol and drug use and RSB. However, several of them perceived a lack of knowledge regarding how to prevent RSB related to alcohol and drug use. Perceived lack of knowledge regarding how to act after talking to the youths, as well as knowledge about different substances, is illustrated by the following statements:

- *We ask a lot of questions, but we don't know what to do with it. (Int 2)*

- *Then, there are so many other drugs that it's and hard to keep up, I think. Once, I had knowledge about all of them, but now I know about only a fraction. There is new stuff all the time. (Int 11)*

Also, some interviewees experienced uncertainty as to when they ought to be worried about a certain behaviour, or what is actually meant by risky alcohol consumption in youth.

### Perceived needs of the target group

The subcategory "perceived needs of the target group" includes perceived needs and risk factors of the target group, as well as perceived protective factors. According to the interviewees, individuals visiting the youth health clinics are

more prone to taking risks than their peers. Regarding the discrepancy between alcohol consumption among those visiting youth health clinics and same-age non-visitors, one of the interviewees stated the following:

- *The latest investigation showed a decrease in alcohol consumption among youths, which is good of course. We have a special group here, so this is not a trend that we see here. (Int 19)*

While the primary function of the youth health clinics is prevention of unintended pregnancies and sexual transmitted diseases, the staff is well aware of the broader context of the youths' RSB. Negligence at home was brought up as a risk factor, as were insufficient coping strategies and mental health problems, illustrated by the following statements:

- *Most young people who come here need help in finding coping strategies for their stress or anxiety. (Int 16)*

- *Risk behaviour is about so many things, I think, your self-image, destructive patterns and so on. (Int 11)*

The staff had also observed protective factors among groups of youth, e.g., the ability to say no to risk behaviours. One of the interviewees expressed this as follows:

- *There are quite a few who don't use alcohol or drugs, and this group is growing. [...] Many who say "well, I tried but it wasn't my cup of tea, I think it's unnecessary, I don't want to do this." (Int 6)*

### Attitude and interest

The subcategory "attitude and interest" includes a positive or negative view of the present (alcohol and drug) prevention work or methods, scepticism towards external demands, visions for potential (alcohol and drug) prevention work, and normalization of high alcohol consumption in adolescents. Many of the interviewees expressed confidence and commitment to their work and many also expressed genuine concern for the youths and their wellbeing. Also, several of the interviewees recognized the importance of including alcohol and drug-related prevention in the daily work, as exemplified by the following statement:

- *Asking about alcohol and drug use is quite important, since it is hard to work with depressive symptoms if the youth drink a lot. (Int 16)*

Some interviewees, however, expressed dissatisfaction with the alcohol and drug prevention methods or instruments used. For example, the use of the screening instrument for risky alcohol consumption (AUDIT) was sometimes perceived as unsuitable for younger visitors, as expressed in the following statement:

- *It is adapted for adults. It's trickier for a 15- or 16-year old to fill out the form than for a 21-year-old [...]. There are many questions about units, how much, and so on, which is hard for them to understand. (Int 16)*

According to the interviewees, the clinics are quite often approached by external stakeholders who want them to include various new aspects in their work. Some of them expressed

frustration about external demands, regarding them as threats to a well-functioning unit. The following statement is illustrative:

- *The social services and politicians want us to do "everything" with the youths. But too many questions impede the youth meeting. (Int 1)*

Some interviewees expressed visions for how they would like to develop their work and different tasks, including those related to alcohol and drug prevention, if they had sufficient time and resources. One example is having more outreach activities in the community, for instance at schools and refugee accommodations. Some of the interviewees wanted to learn about new methods and offer group training programs, expressed by one person in the following way:

- *Then, if we had resources, we could learn about new methods and have group training sessions. Different youth groups that we could work with. (Int 1)*

A few of the interviewees expressed concern about a perceived normalization among the staff, of high alcohol consumption levels in youths; they met so many high consumers that they tended to get used to risky alcohol consumption and were thereby less inclined to take action against it. One of the interviewees described this in the following way:

- *Some midwives may think 'It's not that bad'. So it's very individual. [...] Many youths drink too much, but that has become normalized. (Int 2)*

Some of the interviewees also expressed a personal view of high alcohol consumption and other risk behaviours being part of normal development in adolescents, and therefore a phenomenon that did not necessarily need to be fixed, as exemplified in the following statement:

- *There is also a normal risk-taking behaviour, which is quite human, both alcohol consumption and unprotected sex. That doesn't mean that they are injured as a result. (Int 11)*

### Structure

The subcategory "structure" includes ways of working with alcohol and drug prevention at the clinic, lack of structure or flexibility in the prevention work, external work, lack of mandate, cooperation with collaborators at the municipal or county level, lack of or unsatisfactory cooperation with collaborators, and availability or lack of resources and support. The structure of the alcohol and drug prevention activities varied between clinics. Some of the interviewees argued that the issue was regularly brought up in every meeting, or at least at the first visit. They also stated that questions about alcohol and other drug use were part of a general questionnaire regarding health and lifestyle factors, used by the midwives, and documented in medical records. However, other interviewees suggested that the issue was not brought up systematically, but only when it seemed relevant. Alcohol and drug use among visitors seemed to be rather routinely covered at the clinics and integrated in daily work, but not always in a systematic fashion. Some interviewees emphasized the ambition to understand the reasons why a youth used alcohol or drugs extensively, for example

by asking about the situation at home or reflecting over a possible neurodevelopmental disorder. Trying to help the youth understand the risks of alcohol and drug use seemed central to the prevention work and many of the interviewees mentioned Motivational interviewing (MI) as a way of introducing the subject, as exemplified by the following statement:

- *I can use MI regarding risky sexual behaviour, which doesn't have to be a consequence of binge drinking [...], but also when it's about alcohol and drugs. I mean, then MI is the backbone. (Int 16)*

Several of the interviewees expressed that there was a lack of structure, or in other words: a high degree of flexibility, in the prevention activities at their clinics, exemplified by the following statements:

- *We cannot say that we have very clear prevention work here. (Int 16)*
- *There have been trends in what questions you ask, and you tend to ask questions that cover issues from the latest course you attended. (Int 11)*

All clinics engaged in information activities targeting schoolchildren, usually aged 14–15. Sometimes groups of pupils visit the clinics and sometimes the staff visits schools, sharing information on ways of contacting or visiting the clinic. To what extent alcohol and drug use is mentioned at these occasions was not clear from the interviews, but these meetings can be viewed as a prerequisite for the regular work at the clinics or as an extension thereof. Other external work was also described, e.g., visits to refugee accommodations.

The possibility of working with alcohol and drug prevention is limited by rules and regulations regarding what is perceived to be the primary function of the clinics. The interviewees discussed the differences between prevention and treatment and the majority seemed convinced that treatment interventions should not be part of their primary assignment. However, many also felt that it is difficult to separate prevention from treatment. Moreover, visits to these clinics are voluntary and each youth's perception of the situation will guide the intervention, especially for those over 18 years of age, when involvement of social services or contact with parents has to be approved by the young adult. This can be problematic if there is a need for actual interventions, e.g., for alcohol or drug abuse, as expressed in the following statement:

- *If they are 18 years or older, you can't do anything. (Int 10)*

The clinics cooperate with other organizations in their external work, to attract youths to the clinics, when other organizations refer youths to their units, and when they seek to refer youths to treatment clinics or psychiatric units for more severe problems. Much of the external work seemed to work well, with good cooperation with schools, for instance. Some of the interviewees mentioned concern about unsatisfactory cooperation with the psychiatry clinics in that it can be hard to get access to treatment or that they don't know if the youths get help after referral, as illustrated by the following statement:

- *Cooperation with psychiatric clinics is not always easy. If we discover that someone is a drug abuser and he or she needs help from psychiatry, then they don't get that help because of their drug abuse. (Int 16)*

Lastly, regarding structure, the amount of resources and support received was mentioned by several interviewees. Lack of time and staff was a salient topic, illustrated by the following statement:

- *At this time, we have to say no to everyone who wants to see a social counsellor, because the waiting time has become too long. (Int 4)*

Factors contributing to available resources were a supportive leadership and routines, the latter illustrated by the following statement:

- *When there is a new visit, we sometimes have an hour! Then you have time to do a lot. (Int 15)*

### Staff capacity

The subcategory "staff capacity" includes education, previous experiences of prevention work, ability to reach the target group, and difficulties in reaching the target group. The interviewees were, as mentioned earlier, trained midwives and social counsellors. Some of them also had training in Cognitive behavioural therapy (CBT), Acceptance and commitment therapy (ACT), Motivational interviewing (MI) and/or other methods which they claimed could facilitate the prevention work. Many of them had worked at their clinics for several years and had extensive experience of their work. Some of the interviewees brought up experiences from working at other youth health clinics in other areas of Stockholm county, comparing different situations and target groups. The staff seemed experienced and familiar with performing their current tasks. They also expressed their own strategies to reach the youths, e.g., trying not to stigmatize the youths when talking about alcohol consumption, and that they were sometimes surprised by the openness that the youths showed when talking about sensitive subjects. Some also mentioned that the youths seemed happy with the contact with the clinic, as exemplified by the following statement:

- *When we have questionnaires, 98% of the youths are satisfied with our work. But they are dissatisfied with the opening hours and want the clinics to be open round the clock. (Int 11)*

Despite an impression of popular and well-functioning clinics with skilled staff, the subject of difficulties in reaching the target group was also brought up, for example concerning the very few boys visiting the clinics for guidance. Also, the interviewees reflected on some difficulties in reaching immigrated youth.

### Discussion

This study focused on organizational readiness for development and implementation of alcohol and drug prevention policy and interventions in relation to sexual health at youth health clinics in Stockholm county. To the best of our knowledge, this is the first study investigating the

organizational readiness for this kind of implementation content at youth health clinics. Two main categories, i.e., motivation and general capacity, were identified in the interview material, along with five subcategories, i.e., knowledge, perceived needs of the target group, attitude and interest, structure, and staff capacity. The interviewees were highly aware of the association between alcohol and drug use and RSB, and the subject was often brought up in conversations with youths. They also expressed dedication to their work. A supportive organizational climate was observed at several clinics, with staff motivated to work with alcohol and drug prevention. However, the staff was also burdened with various requests from different external stakeholders wanting to influence their routines and activities. The interviewees sometimes felt that they did not have sufficient knowledge to give proper guidance and support to youths with risky alcohol consumption or youths using other drugs. Some of them also suggested that substance use may sometimes be an expression of mental health problems that should be treated elsewhere. Several of the interviewees, however, expressed interest in developing their knowledge and activities regarding alcohol and drug prevention. That said, they also emphasized that shortage of time and resources could be an obstacle to this.

### **Limitations**

The current study did not investigate the staff's perception of any specific intervention, thus limiting the ability to draw conclusions about how successful a certain supportive intervention could become. However, the purpose was to investigate aspects of readiness at the clinics at an early stage, and thereafter, in cooperation with the clinics, develop suitable support, e.g., routines, programs, and/or other tools. We did not involve managers in our interviews, which can be regarded as a limitation, since leadership support is essential for organizing the resources needed to carry out innovation implementation [40,41]. At this stage, however, we were interested in the staff's perceptions of their daily work, their competence, motivations and perception of their target group, and thus decided to focus on staff working directly with young people visiting the clinics. Finally, since the attitudes to alcohol, drugs, and RSB, as well as perceptions of ways to organize prevention of alcohol and drug use related to RSB, may differ between cultural contexts, the generalizability of some of our results may be limited to cultural contexts similar to that in Sweden, e.g., other Nordic countries.

### **Comparison with previous research**

We found certain factors contributing to readiness for change at the youth health clinics, which were in line with previous results from studies on organizational readiness for change in mental healthcare [32] and organizations carrying out treatment programs for substance use disorders [34]. Awareness of own needs of more knowledge, as well as motivation and interest in the ability to carry out professional work, are favourable conditions for implementation of new routines and methods. Earlier research has highlighted a positive organizational climate as particularly important in determining a successful adoption of innovations [34]. Organizational climate can be defined as employees' shared perceptions or experiences of the policies,

practices, and procedures of the workplace and the behaviours that get rewarded and supported, and that are expected [42]. In the current study, many interviewees expressed commitment and engagement in their work and suggested that the youths appreciated the clinics, which implies a positive attitude to the work in general. The staff also expressed ambitions to develop the work by learning about new methods and reaching out to various groups of youths. There were, however, some sceptical thoughts regarding external demands, which may counteract the readiness [43]. Another central aspect of the interviews was shortage of time and resources, which may imply challenges if supportive actions like new policies, education or routines are time-consuming for the staff.

### **Implications for future research**

Our study revealed great potential for developing the present alcohol and drug prevention work carried out at youth health clinics, albeit in competition with other important commitments. In this context of scarce time and resources, the internet provides an opportunity for cost-effective tools and programs for youth health clinic staff as well as adolescents and young adults in need of alcohol and drug prevention interventions [44,45]. Having such tools or interventions delivered in smartphones and computers may save precious time for those who use them. Several studies on internet-based programs have shown effects on psychological outcomes, and also on alcohol and other drug use [46-48]. To the best of our knowledge, none of these studies have focused on increasing the competence among staff at youth health clinics or decreasing alcohol and drug-related risk behaviours among youths visiting youth health clinics. The group of youth health clinic visitors consists primarily of girls and young women, which means that it differs from many other studied populations. Additional research on internet-based tools and programs aimed at preventing alcohol and other drug use among youth health clinic visitors is therefore warranted.

### **Conclusions**

There are several factors contributing to the organizational readiness to develop and implement alcohol and drug prevention policy and interventions in relation to sexual health at youth health clinics in Stockholm county, e.g., motivated and dedicated staff and a supportive organizational climate. Some counteracting factors are also present, e.g., shortage of time and resources, and some scepticism towards external requests. Involvement of staff at an early stage could decrease feelings of uncertainty towards external demands. Less time and resource-consuming interventions, such as internet-based tools and programs, could enable successful implementation. Research aiming to test the usability, acceptability, and effects of such interventions at youth health clinics is warranted.

### **Declarations**

#### **Ethics approval and consent to participate**

All procedures were performed in accordance with the ethical standards of the institutional and/or national research committees, the 1964 Helsinki Declaration and its later amendments, or comparable ethical standards. Informed consent

was obtained from all the individual participants included in the study. The study was approved by the Ethics Committee of the Karolinska Institute (No. 2016/818-31/5).

### Consent for publication

Not applicable.

### Availability of data and material

The data that support the findings of this study are available from the Centre for Psychiatry Research and Education, an organized collaboration between the Karolinska Institute and Stockholm county council, but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are, however, available from the authors upon reasonable request and with permission from the Centre for Psychiatry Research and Education.

### Competing interests

The authors declare that they have no competing interests.

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### Authors' contributions

AS and JG designed the study and elaborated the interview guide. AS collected the data by interviewing the staff at the youth health clinics. PK guided the qualitative content analysis by elaborating a coding scheme from the transcribed interviews. PK and CS analysed and interpreted the interview data in collaboration and wrote a first manuscript. All authors contributed to revision of the first manuscript and approved the final version of it.

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**ADDRESS FOR CORRESPONDENCE:**

Pia Kvillemo, Stockholm prevents alcohol and drug problems (STAD), Centre for Psychiatry Research and Education, Department of Clinical Neuroscience, Karolinska Institutet, Norra Stationsgatan 69, SE 113 64 Stockholm, Sweden, E-mail: pia.kvillemo@ki.se