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A Descriptive Study of Swedish Secure Youth Homes in Terms of Their Spatial Factors and Residents' Individual Characteristics

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ABSTRACT

This study aims to describe secure institutional youth care homes in Sweden in terms of the conditions of their spatial environment (i.e. physical design and objects) and the individual characteristics of the youths placed there. Data were collected through a survey and from the Swedish National Board of Institutional Care. The study population consisted of 18 units and 1,859 youths in secure institutions in Sweden from 2006 to the end of 2016. The results showed that 74.1% of the youths were enrolled under acute circumstances. They often present with physical and mental health problems, such as sleep disturbance and lack of impulse control; the young people are placed in a restricted environment with little possibility to maintain a sense of security. Due to their previous traumatic experiences, this can be problematic in terms of care and treatment. The results show a tension between different aspects of control, highlighting the importance of offering care environments that both offer the staff "control functions" (i.e. functions facilitating observation and control over the environment) and offer the youths "control opportunities." Such environments need to be as homelike as possible, while simultaneously maintaining safe care for young people and a safe working environment for staff.

Introduction

This study aimed to describe secure institutional youth care homes in Sweden in terms of the conditions of their spatial environment and the individual characteristics of the youths placed there.

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The Context of Secure Institutions for Youths in Sweden

In Sweden, children and youths up to 21 years who have psychosocial problems, suffer from drug abuse or are involved in criminality, and youths 15-17 years who have been convicted of a crime, are placed in secure institutions for youths (SFS1990:52, 1990; SFS1998:603, 1998). These secure facilities are run by the Swedish National Board of Institutional Care. Placement in a secure institution is involuntary; it can be carried out both as an acute intervention and planned, and results from a court decision in which a youth is found to be involved in substance abuse, criminality, or any other "socially degrading behavior," as specified by law (SFS1990:52, 1990; Ybrandt, 2010; Ybrandt & Nordqvist, 2015). However, these youths often face problems that are multifaceted or a combination of difficulties commonly linked to school, crime, substance abuse, or social and family-related problems (Levin, 1998; Nordahl et al., 2007; Vogel, 2012). Moreover, according to research there is also a connection between traumatization and what is often labeled antisocial behavior. Impulsivity, norm-breaking, and aggressiveness are all defined as aspects of antisocial behavior, but at the same time, they can also be symptoms of traumatization. A literature review examining the prevalence of traumatization among young people in institutional care with antisocial problems showed that as high a proportion as between 70% and 96% of young people had experienced trauma. It was common for the trauma to take place within the family, such as physical and sexual abuse. Further, it was common for young people to experience violent crimes that were traumatizing (Jansson & Björck, 2012).

Prior to a court decision on compulsory care, an assessment is conducted by child welfare services that involves an evaluation of the youth's problems in relation to the legal grounds for placement stated in the Care of Young Persons (Special Provisions) Act. Only young people considered to need "special supervision" (The Care of Young Persons Act §12) are referred to secure youth homes. For further discussion of the legal grounds for compulsory care in relation to secure youth homes, see Enell et al. (2022).

A smaller proportion (approximately 5%–6%) are placed in secure youth homes because of a sentence in accordance with the Law on Young Offenders (SFS1998:603, 1998). Swedish law states that an adolescent between the ages of 15 and 17 who has committed a crime for which the penalty is imprisonment should be sentenced according to the Law on Young Offenders, with a maximum sentence of 4 years (SFS1962:700, 1962; SFS1998:603, 1998). In 2019, most youths placed in secure institutions in accordance with their sentencing were boys who received an average sentence of 357 days. The most common crimes were drug offenses, robbery, assault, and theft (The Swedish National Board of Institutional Care, 2020).

Despite the differing legal grounds for their placement in secure youth homes, youths with different problems are often referred to the same units and are subject to the same restrictions (see, for example, Enell et al., 2022; Nolbeck, 2022). This means that no distinction is made, either spatially or socially, between young people with different types of problems in the context of secure youth homes. In practice, young people with, for example, substance abuse issues, youths with neuropsychiatric and psychiatric problems, somatic health problems, and adolescents who have committed serious crimes will all be placed in the same unit (Nolbeck, 2022).

When placed in a secure youth home, youths may be enrolled in either an acute, assessment, or treatment unit. An acute or assessment unit is usually the first port of call – these units, which are often used for immediate placements, aim to assess the youth's continued need for care. The treatment units focus on care and treatment, and placements in these units are usually longer than in acute or assessment units. Treatment at secure youth homes is based on the contact personnel function (i.e., is based on interactions with caseworkers) and aims to provide young people with "better conditions for a socially functioning life without addiction or crime," as stated by the Swedish National Board of Institutional Care (2022). In addition to the contact personnel function, a range of step-by-step guideline-based treatment programs are used, and youths have access to psychological treatment and healthcare while under enrollment. However, previous research on institutional care has shown poor rehabilitation outcomes with respect to both criminality and healthcare issues, and relapse or reenrollment is common (Osgood et al., 2010; Ståhlberg et al., 2017).

Secure institutions for youths are subject not only to special laws but also to the staff's legal mandate to use coercive means. These means include visitation of room or body, control of mail, restrictions on Internet and telephone use, and solitary confinement (SFS1990:52, 1990) – the latter of which may be considered the most interventional of the restrictive measures, as it involves physical restraint and legally legitimized acts of violence by staff (Barnrättsbyrån, 2021, 2022).

Previous Research

The borderland status of secure institutions for youths, as manifested in their aim of offering both care and treatment (Silow Kallenberg, 2016), creates a tense environment that places high demands on its inhabitants, for example, in terms of adaption to regulations and security requirements (Biszczanik & Gruber, 2021). Even though there is some previous research on youths in secure institutions (see, for example, Henriksen & Refsgaard, 2020; Vogel, 2012), and what constitutes care and treatment (see, for example, Harder et al., 2013), knowledge of the physical design of the Swedish secure institutions, as well as of the specific individual characteristics of the youths placed in them, is

generally scarce (Nolbeck & Thodelius, 2019). Thus, the design of care environments for young people has so far rested on knowledge from other fields. For example, the spatial and physical environmental aspects of institutions and their relationship to health and well-being have been studied in a variety of healthcare contexts, including forensic psychiatry (Alexiou et al., 2016; Olausson et al., 2019, 2021; Wijk et al., 2019), elderly care (Nordin et al., 2015, 2017; Wijk, 2001), intensive care (Olausson, 2014), and psychiatry (Ulrich et al., 2018).

Studies have indicated the influence of spatial aspects on mental well-being, stress, and the ability to heal and reorient oneself (Evans, 2003; Huey & McNulty, 2005; James & Olausson, 2021; Notley et al., 2012; Svensson, 2010; Ulrich, 1984; Ulrich et al., 1991, 2012). Previous research has also highlighted the importance of environmental solutions for balancing social interaction, privacy, and bodily integrity (Evans, 2003) and for enabling observation to decrease aggressive behavior (R. S. Ulrich et al., 2012).

Offering an environment that is safe and promotes behavioral change is of vital importance, as many young individuals placed in secure care grew up in environments that failed to meet their needs. Subsequently, they developed coping strategies that may have been suitable in their previous circumstances but that may prove destructive in the long term (Cassidy & Mohr, 2001; Levenson, 2017). Such coping strategies, as for example such as acting out and using verbal or physical violence, may have been useful to protect themselves from threats, or a way to let go of strong emotions in a different context. These coping strategies, however, have significant implications, as they often involve heightened vigilance and overreactions to events in the environment that cause fear or stress. This may lead to reactions, including externalized behavior, self-harm, or the formation of destructive self-images. These are responses that can, in the long run, lead to worsening and segmented problems and the development of psychopathology.

Previous studies of the care environment of secure institutions for youths have shown that the youths often perceive the spatial environment, the objects, and staff actions as limiting and controlling rather than in terms of care and support. This causes young people to oscillate between adaptation and resistance, ultimately learning to adjust to the institutional environment, leading to a social distance between youths and staff that undermines treatment alliances. Research has also shown that the physical environment of the institution as well as the controlling practices of staff reinforced young people's image of themselves as dangerous, problematic, and norm breaking (Nolbeck, 2022; see also Henriksen, 2017).

In a previous review (Nolbeck & Thodelius, 2019) of research on the physical and spatial environment in secure youth institutions, a significant shortcoming became evident. The analysis showed that the absence of research in this area has a potential risk of neglecting the

variations that exist between different institutions and their target groups in terms of individual factors, time dimensions, and care ideologies. This can undermine prevention and rehabilitation efforts, which are largely based on being specific (cf. Ekblom, 2011; Wikström, 2007). This underscores the challenges of directly applying findings on care environments for adults to care environments for youths (Nolbeck, 2022; see also Nolbeck et al., 2020).

Previous research indicates that the physical and spatial environment is significant and aligns with the past experiences and requirements of young individuals. Therefore, it must be considered when planning secure care. Thus, to develop more constructive coping strategies, young people in secure care need support and help in an environment that signals warmth and security – in both spatial and social terms (Levenson, 2017). To enable a safe and transformative environment that promotes prosocial change, knowledge of the characteristics of the youths placed there as well as of the specific spatial factors is needed, which underlines the relevance of the present study.

Objectives and Aim

This study aimed to describe secure institutional youth care homes in Sweden in terms of the conditions of their spatial environments and the individual characteristics of the youths placed there at the points of admission and discharge.

Materials and Methods

Due to the lack of data on spatial factors in secure Swedish institutions for youths, this study combined two different datasets to enable a descriptive analysis. The results are discussed in relation to previous research and theories.

Study Sample and Data Collection

Data obtained from one official register and one web-based survey concerning the physical and spatial aspects of youth homes were used in the present study. Data about the youths at the points of admission and discharge from secure youth homes were requested from the Swedish National Board of Institutional Care. The data from the register cover the period from January 1, 2006, to December 31, 2016, with youths still enrolled or reenrolled at any institution excluded for ethical reasons.

The Adolescent Drug Abuse Diagnosis (ADAD) is a standardized interview developed by the Philadelphia Psychiatric Center in the late 1980s (Friedman & Utada, 1989). In the 1990s, the ADAD was translated into Swedish and adapted to Swedish conditions by the Swedish

National Board of Institutional Care (Carpelan & Hermodsson, 2004). ADAD-IN (the Swedish version of ADAD) is a multidimensional structural interview that is used at adolescents' point of admission to any secure institution.

ADAD-IN has three purposes: to enable youths to be more involved in their care, to form the basis for assessment and treatment planning, and to facilitate the evaluation of care and treatment on the national level (The Swedish National Board of Institutional Care, 1997). ADAD-IN consists of nine sections, with a total of 150 items corresponding to different areas of life: physical health, school, work, leisure time, friends, family, psychological health, crime, alcohol use, and drug use. Three outcome scores are applied for each of the nine sections: one interviewer severity rating, one adolescent self-rating, and one composite score. In this study, we used the adolescent self-rating score, as our interests were to understand how adolescents perceive themselves and their conditions. For the self-rating, the youths are asked to report their behaviors and experiences as well as their severity and frequency (Friedman & Utada, 1989; The Swedish National Board of Institutional Care, 1997). A psychometric study of the Swedish version of the ADAD showed good inter-rater reliability with moderate internal consistency, and the results for concept validity were comparable to those from other countries using other versions (Börjesson et al., 2007; Ybrandt et al., 2008).

The ADAD-UT ("UT" is Swedish for "OUT") is a structured discharge interview that is less extensive but is still partly based on the ADAD-IN interview. The questionnaire consists of one section in which the staff report their observations, and another section directed at the youth. The staff section includes questions on where the youth was discharged to (e.g., their home, another institution, or a treatment home), whether they had been involved in any violent incident with the staff or another youth, whether they had a positive drug test, and whether they had been subjected to solitary confinement or been cared for separately during the care period. It also includes questions about cooperation with family and social services and the kinds of interventions the youth received during their institutional stay. The section of the questionnaire aimed at the youth consists of questions regarding their experience staying at the youth home, whether they had been able to take part in their care, and the kinds of interventions they had received. The ADAD-UT is also used to evaluate activities at the institutional and national levels (The Swedish National Board of Institutional Care, 2009). There are cases in which ADAD-IN and ADAD-UT may be administered several times to the same individual, such as when a youth is reenrolled and placed in another secure youth home. In the current study, the first available ADAD-IN and ADAD-UT data were used, and the sample of youths was thus selected in relation to their first admission and first discharge from any secure youth home. The selected variables are described in further detail below.

Since the ADAD-IN and ADAD-UT interviews do not include factors related to the spatial environment, the register data were supplemented with a survey on environmental characteristics sent to the heads of units ($N = 91$) at secure institutions for youths in Sweden. The purpose of the survey was to map the characteristics of the spatial environment at the unit level, which can be assumed to influence the activities, rehabilitation efforts, and enabling of criminal activities of the adolescents under care. An initial review was undertaken to map the research field and identify variables that should be included in the survey (Nolbeck & Thodelius, 2019). The review included 32 articles that were analyzed through a qualitative content analysis, where manifest keywords from previous care environment research were used to code and thematize. The manifest keywords were nature, visibility, overcrowding, and interaction, which are the elements of previous research in human or environmental interactions considered significant for well-being and rehabilitation (Bodin Danielsson, 2015; Huey & McNulty, 2005; Ulrich et al., 2008, 2018; Uzzell & Moser, 2006). The findings were thematized into three themes: institutional conflicts and indirect stigma; stigmatizing roles – coming to terms with the institution; and location of the exit process (for further description of the findings, see Nolbeck & Thodelius, 2019). Based on the abovementioned review, the survey was developed to include variables that had proven important in previous research as well as variables that had been identified as crucial in research, but which had not yet been investigated.

The survey included responses from the heads of units for 36 units at secure youth homes. The units represented in the survey were identified in a codebook of units from the Swedish National Board of Institutional Care due to the study's focus on spatial factors. We were unable to identify individual-level data for 16 units, which hence were excluded from the individual-level data. This means that while 36 units are represented in the survey, 18 units and 1,859 youths enrolled in these units are represented in the individual-level data at admission and discharge to secure care.

The web-based survey was administered from March 27, 2020 to April 24, 2020. It had a response rate of 39.6%. According to previous research, the acceptable response rate for web-based surveys without reminders range from 25% to 30%. Studies show that several factors may contribute to response rates to web-based surveys not being higher, including survey fatigue, competing demands, and privacy concerns (Baruch, 1999; Baruch & Holtom, 2008; Menon & Muraleedharan, 2020). During the survey period, two reminders were sent to unit heads who had not yet answered the survey. The survey consisted of 44 questions (comprising 36 multiple-choice questions and eight open-ended questions in which the respondent could add descriptions of the environment or make clarifications). The survey consisted of background questions, questions about the youths' private bedrooms, and questions on the spaces for coercive means related to solitary confinement and separate

care. It also included questions on spatial solutions facilitating and enabling observation and surveillance, questions on common areas, and questions on spaces for activities and possibilities for outdoor activities.

Selected Variables

Below is a presentation of all the variables included in the descriptive analyses.

Variables related to personal traits (e.g., age, gender, median age at onset of alcohol use, smoking status, parents living together, placement according to which section of the law, and sentence according to the Law on Young Offenders) were chosen from the ADAD IN based on previous research on youths with delinquent behavior (Nordahl et al., 2007). Two variables related to the type of unit (gender: girls, boys, or mixed, and type of activities at the unit as described above: acute or assessment, treatment, or combined) were chosen from ADAD IN. These variables were chosen based on previous research showing gender differences related to youths' behavioral problems (Nordahl et al., 2007) and to be able to assess the distribution of the population regarding the type of unit (i.e., acute or assessment, treatment, or combined).

Furthermore, in addition to including the variables from ADAD IN on the youths' physical and mental health problems, two indices were constructed to assess the burden of internalized and externalized psychosocial problems in the population (Bonta & Andrews, 2007; Nordahl et al., 2007). The index of internalized psychosocial problems ($\alpha = .874$) was created from the ADAD IN variables "sleeping problems," "frequent headaches," "frequent stomach-aches," "lack of self-confidence," "feelings of not belonging," "difficulty expressing emotions," and "afraid of hurting oneself physically." The index of externalized psychosocial problems ($\alpha = .888$) was created from the ADAD IN variables "afraid of hurting someone else physically" and "often lacking impulse control when angry." Both indices were created as additive indices, meaning that all variables in the index had the same weight and were summed up. For internalized psychosocial problems, the index ranged from 0 to 7, and for externalized psychosocial problems, the index ranged from 0 to 2, where higher numbers indicated a more severe problem burden.

From the ADAD UT question "Have the youth experienced any of the following?" we included the items "self-harm," "solitary confinement," "escaping," "temporary placement at another unit," "alcohol use," and "use of narcotics." The variables were chosen as indicators of norm-breaking and antisocial behavior in relation to previous research on youths' behavioral problems (for example, see Nordahl et al., 2007). We also chose the ADAD UT variables: "Have you felt at home at the unit?" "Have you felt at home in your private bedroom?" "Have you felt safe at the unit?" and "Have you had the opportunity to influence the daily activities of the unit?" as a measure of the youths' experiences of the environment at the secure institution. From

ADAD UT, we also chose variables on where the youth is discharged to as well as mean age at discharge.

Variables related to the youths' private bedrooms, spatial preconditions for control over comfort aspects of their bedrooms, physical arrangements concerning observation and surveillance, and opportunities for outdoor activities were obtained from the survey and chosen based on previous research on care environments (Nolbeck & Thodelius, 2019; Ulrich et al., 2008).

Ethical Considerations

This study was approved by the Ethical Review Board (ID No. 028–18) and followed the principles of research ethics (The World Medical Association, 1964). All data were anonymized by the registrars before being handed over to the researchers. Individuals who were still enrolled and cared for at secure institutions for youths at the time of the study were excluded for reasons of integrity and ethics.

Results

The youths: Characteristics of the study sample

In the study sample, the mean age of the youths entering the secure institutions for youths was about 15 years old at the time of registration in ADAD IN (Table 1). At the time of admission, their ages ranged from 9 to 20 years. About 90% of the population identified themselves as boys, and close to 10% identified themselves as girls. Most of the youths in the study had unplanned enrollment (74.1%). Regarding family relations, many of the youths had divorced parents (63.2%) or parents who had never lived together (4.8%). In general, a significant proportion of the youths reported health-related problems, both physical and mental. Slightly over 50% of the youths reported sleep problems, about a fifth (21.7%) said they often suffered from headaches, and 12% reported frequent stomachaches. In terms of psychosocial problems, 56.3% reported that they lacked impulse control when angry, more than a third said they had trouble expressing their emotions, and 7.1% reported having harmed themselves in the last 30 days. Regarding relationships with others, 15.7% reported feelings of not belonging, and 24.1% reported being afraid of hurting another person.

Correlations were found between sleep problems, headaches, stomachaches, and psychosocial problems. Regarding the burden of internalized and externalized psychosocial problems in the population at admission, our results show that 27.8% of the population did not have any internalized mental health problems, 26% had one problem, 20% had two problems, and 26.2% had three or more problems. Regarding externalized mental health problems, 39.1% reported having none,

Table 1. Descriptive statistics of the study sample at admission. Data from ADAD in are presented in numbers and valid percentages.

	Sample of youths admitted to secure institutions for youths, 2006–2016 ($n = 1,859$)	
Variables	n	%
Mean age (SD)	1.859	15.4 (1.6)
Gender		
Male	1.668	90.1
Female	183	9.9
Placement according to section of the law		
Unplanned/acute (TCYPA §6)	1.293	74.1
Own destructive behavior (TCYPA §3)	272	15.6
Difficult home conditions (TCYPA §2)	7	0.4
Placement due to both §2 and §3	63	3.6
Voluntary placement (Chapter 4, §1 TSSA)	28	1.6
Sentence according to the Law on Young Offenders	82	4.7
Type of unit		
Boys	1.193	81.0
Girls	91	6.2
Mixed	185	12.6
Parental marital status		
Married	364	24.8
Divorced	928	63.2
Never lived together	70	4.8
Physical and mental health problems		
Sleeping problems	747	50.8
Frequent headaches	319	21.7
Frequent stomachaches	176	12.0
Lack of self-confidence	335	22.9
Feelings of not belonging	229	15.7
Difficulty expressing emotions	494	33.8
Often lacking impulse control when angry	824	56.3
Afraid of hurting oneself physically	170	11.6
Afraid of hurting someone else physically	353	24.1
Intentionally injured oneself in the last 30 days	74	7.1
Smokes	1.124	77.8
Median age at onset of alcohol use	1.451	14.0

TCYPA = The Care of Young Persons Act. TSSA = The Social Services Act.

Table 2. Burden of internalized and externalized psychosocial problems in the population at admission. Data from ADAD in are shown in numbers and valid percentages.

	Sample of youths admitted to secure institutions for youths, 2006–2016 ($n = 1,859$)	
Variables	n	%
Internalized psychosocial problems ($a = .874$)[a]		
No problems	399	27.8
One problem	373	26.0
Two problems	288	20.0
Three or more problems	377	26.2
Externalized psychosocial problems ($a = .888$)[b]		
No problems	566	39.1
One problem	586	40.5
Two problems	295	20.4

[a]The 0–7 index was created from the ADAD IN variables "sleeping problems," "frequent headaches," "frequent stomachaches," "lack of self-confidence," "feelings of not belonging," "difficulty expressing emotions," and "afraid of hurting oneself physically."
[b]The 0–2 index was created from the ADAD IN variables "afraid of hurting someone else physically" and "often lacking impulse control when angry."

40.5% had one problem, and 20.4% had two problems (Table 2). These statistics indicate multimorbidity and variations in problem severity within the population.

The Institutional Environment

This section presents the results of a web-based survey regarding the institutional environment. As mentioned above, the survey included responses from the heads of units at 36 secure youth home units. The descriptive findings are presented below, together with quotes from the open-ended questions.

The analysis is mainly based on data from treatment units (50%), followed by discharge and combined units (22.2% each). Few of the respondents who answered the survey represented assessment (11.1%) or acute units (8.3%). The number of beds for youths and the number of available rooms (i.e., the youths' own rooms, the living rooms, and the kitchens) varied between the units in the survey. The mean number of beds was, at an overall level, 7.2 (range 4–12) (Table 3). The result regarding beds is consistent with information from the Swedish National Board on Institutional Care, which, after manual calculation, shows that the average unit consists of 7.75 beds (The Swedish National Board of Institutional Care, 2018). As Table 3 shows, the number of rooms also varies among the different types of units. The average was 11.8 rooms (range 4–21), but acute, assessment, and combined units generally had a higher number of rooms compared to treatment and discharge units (Table 3).

The results in Table 3 may indicate that, on a general level, crowdedness is an issue in secure youth homes, since it can be assumed that private bedrooms are included in the respondents' answers. This means, for example, that at treatment units, on average, six people will need to share four rooms for social interaction. Tentatively, this makes it difficult for the youths to find privacy while spending time in the common areas.

Furthermore, about one in three of the young people had their own private bedroom with their own shower and toilet (20.0% in the acute and assessment units and 38.1% in the treatment units; see Table 4). The lack of possibilities to maintain integrity can be considered a problem, as supported by the answers to the open-ended questions, such as "It's a disaster to be forced to share!" Another respondent stated, "We have shared toilets and showers, which causes a lot of conflicts . . .."

Table 3. Number of beds and rooms available in the units ($n = 36$).

	All units ($n = 36$)	Acute-, assessments- and combined units ($n = 15$)	Treatment- and discharge units ($n = 21$)
Number of beds (mean and standard deviation)	7.2 (±3.2)	8.8 (±4.3)	6.1 (±1.3)
Number of rooms (mean and standard deviation)	11.8 (±7.0)	14.0 (±9.6)	10.2 (±3.8)

Table 4. Descriptive statistics of the institutional environment. Data from the study survey are presented as the percentage of respondents ($n = 36$) who answered "yes".

Variables	All units ($n = 36$)	Acute, assessment, and combined units ($n = 15$)	Treatment and discharge units ($n = 21$)
Youths have their own private bedrooms with own bathrooms	30.6	20.0	38.1
Youths' ability to control spatial comfort aspects of their private bedrooms[a]			
Intake of fresh air from outside	33.3	26.7	38.1
Lighting	80.6	80.0	81.0
Temperature	22.2	13.3	28.6
Intake of daylight	77.8	80.0	76.2
Spatial preconditions for observation and surveillance			
Designated room for care in private	55.6	73.3	42.9
Presence of staff station with plexiglass	69.4	80.0	61.9
Presence of surveillance cameras	58.3	60.0	57.1
Youths' opportunity for outdoor activities			
Can go out to smoke whenever they want without staff present	13.9	6.7	19.0
Can go out whenever they want in an unfenced outdoor environment without staff present	19.4	6.7	28.6

[a]Multiple choice question.

In addition, the survey shows that it is difficult for the youths to have control over features associated with comfort, such as regulation of the temperature, ventilation, or fresh air intake. The answers to the open-ended questions show that it is common for the temperature in the private bedrooms to be high in summer and low in winter. As one respondent put it, "Poor ventilation: cold in winter and very hot in summer. The unit is worn out." The responses also show that the lack of control of stimuli not only creates poor comfort but also constitutes a more general problem for young people with various disabilities, as they cannot control the number of impressions. As one head of unit expressed it, "Young people with disabilities such as autism and ADHD are in great need of space and of fewer stimuli, especially from other youths."

Table 4 also shows that features associated with comfort are more difficult to control in acute, assessment, and combined units compared to treatment units. However, even at treatment and discharge units, spatial control in private bedrooms primarily consists of the youths being able to turn the lighting on and off and regulate daylight intake with the help of curtains or blinds.

Furthermore, the survey shows that when a youth needs care in private, it is difficult to implement this well due to spatial conditions. Only 55.6% of units have a special space for care in private (73.3% in acute, assessment, and combined units and 42.9% in treatment and discharge units, respectively). In some cases, youths need to be transported to another institution or unit when a decision on care in private is to be enforced. In extreme cases, this can mean transporting the youths several kilometers, as illustrated by the following

quote from one respondent: "The youth is transported to an institution located [20 kilometers] away. The [other] unit has [a designated space for] care in private, which [the respondent's unit] does not have."

Furthermore, the survey shows that the respondents are generally of the opinion that a nice and welcoming homelike environment creates good conditions for care and treatment. According to most respondents, an environment that is functional and adapted to the needs of young people while looking nice and conveying value thus constitutes the starting point for a good relationship. From the answers to the open-ended questions, the respondents also seemed to believe that a nice environment motivates young people to keep the area around them neat and tidy and prevents vandalism. An environment that, on the contrary, is worn out, nonfunctional, or broken, conveys the message that the young people do not have to care about it. According to the respondents, this indirectly increases the risk of dissatisfaction and escapes, and, overall, constitutes an environment that is not suitable for children. As one respondent put it, "[If we have] a whole and clean unit, the risk of vandalism is not so big." Another respondent commented, "Bright and pleasant premises increase well-being tremendously and reduce the risk of unpleasantness and escapes. I would not have wanted my child to stay on these premises."

The survey shows that a "whole [not broken] and clean" environment helps motivate young people to keep their private bedrooms tidy. There is also the perception that a cared-for environment conveys value to young people, creates harmony, and contributes to less violence. As one respondent put it:

> When the environment is whole and clean, it is easier to motivate the young people to keep their rooms clean and tidy. If a youth should scribble [on a surface] or destroy [things], this is immediately noticed and addressed. Young people are perceived to be in greater harmony, and less violence occurs. This applies to anyone. What do you prefer to come home to after a day at work, a tidy and nice apartment that has value, or a messy, dirty one that causes irritation?

A recurring theme that emerged in the survey is that a nice environment is not only functional and adapted to the needs of the young people and supports the staff's opportunities to work with the young people but also contributes to the young people's sense of self-worth. This, in turn, is assumed to positively affect the treatment work with them, as explained by one respondent: "Self-worth and self-esteem also increase when they have a nice and calm environment, which are important prerequisites for good treatment." Conversely, a worn and run-down physical environment is perceived to worsen young people's well-being and negatively affect their self-image.

Another theme that recurs in the survey responses is that having a nice environment that contributes to self-worth and self-respect appears to be closely linked to the environment in the unit being as homelike as possible. At the same time, it also emerges that safety work must be constantly

prioritized, as one respondent put it: "It is important to have control of 'hidden areas' to prevent vulnerability [and] conflicts. [It is] important with the environment based on our dynamic safety work—[the environment should be] as homelike as possible."

However, the survey shows that there is a risk that the spatial arrangements for security can rule out the homelike environment in the unit. The responses show that just almost 70% of the units have spatial solutions for surveillance through a staff station (i.e., an exposed area with large glass sections). Slightly fewer respondents (58.3%) stated that there are surveillance cameras in the unit. Furthermore, only 19.4% of respondents stated that the young people can go out whenever they want without the supervision of staff and in an environment that is not fenced. The answers to the open-ended questions show that risk assessments and security clearances are required to varying degrees, depending on whether the young person is to be given the opportunity to go out without staff in the enclosure or without staff in the institutional area. It also appears that smoking is scheduled; however, this is dependent on staffing.

At discharge

The mean age at discharge was 15.8 years; the youngest was aged 9 years and the oldest was aged 20 years (Table 4). The most common destination after discharge was another treatment institution (34.8%), followed by the parental home (33.8%). Regarding norm-breaking behavior during institutional placement, the most common behavior was being physically violent against other youths (11.2%), followed by being subjected to solitary confinement (10.8%), and being physically violent against the staff (9.8%). While most of the youths reported having felt at home at the unit (73.4% felt at home "quite a lot" or "a lot"), about a quarter (25.6%) stated that they felt only a little at home or not at all at home. A slightly higher percentage did not feel at home in their private bedrooms (40.1% "not at all" or "a little"). From the 2014 survey onward, one question regarding feelings of safety and one regarding the ability to influence daily activities in the ward were added to the ADAD UT questionnaire. Of the population from 2014 onward ($n = 369$), most youths reported feeling safe at the unit during their institutional placement (83.4% "quite a lot" or "a lot"), and about half (49.9%) reported being able to influence daily activities "quite a lot" or "a lot." The most common length of stay was less than 1 year (62.6%). However, some individuals were enrolled for as long as 4, 5, or 7 years (Table 5).

Table 5. Descriptive characteristics of the population at discharge. Data from ADAD UT are presented in numbers and valid percentages.

Variables	Sample of youths admitted to secure institutions for youths, 2006–2016 (n = 1,859)	
	n	%
Mean age (SD)	1.594	15.8 (1.7)
Discharged to:		
Other treatment institution	551	34.8
Parental home	535	33.8
Foster home	288	18.2
Other[a]	65	4.1
Secure institution	35	2.2
Aftercare	24	1.5
Independent living	21	1.3
Relative	20	1.3
Supported housing	7	0.4
Psychiatric clinic	4	0.3
Custody	2	0.1
Prison	1	0.1
Norm-breaking behavior during time of placement		
Positive drug test (not at admission)	92	4.9
Physical violence against staff	192	9.8
Physical violence against other youths	209	11.2
Self-harm	65	3.5
Solitary confinement	200	10.8
Escaping	175	9.4
Temporary placement at another unit	103	5.5
Alcohol use	25	1.3
Drug use	67	3.6
Have you felt at home at the unit?[b]		
Not at all/a little	336	25.6
Quite a lot/a lot	966	73.4
Have you felt at home in your private bedroom?		
Not at all/a little	528	40.1
Quite a lot/a lot	776	58.9
Have you felt safe at the unit?[c]		
Not at all/a little	55	14.9
Quite a lot/a lot	308	83.4
Have you had the opportunity to influence the daily activities of the unit?[c]		
Not at all/a little	176	47.7
Quite a lot/a lot	184	49.9
Duration of the placement		
Less than a year	982	62.6
One year	479	30.5
Two years or longer	108	7.0

[a]No data available on what "other" refers to.
[b]Results exclude incorrectly coded and missing data.
[c]Question added in 2014 (n = 369).

Discussion

In this study, we aimed to describe secure institutional youth care homes in Sweden in terms of the conditions of their spatial environments and the individual characteristics of the youths placed there. The results are discussed below in relation to previous research in this area, with brief theoretical notes.

The results show that a high percentage of the youths were enrolled under acute circumstances, were burdened by physical and mental health problems, had experiences of separation, and had an early onset

of alocohol use. These results are in line with previous research on youths in secure youth homes (see, for example, Vinnerljung & Sallnäs, 2008; Vogel, 2012). However, no previous study has presented descriptive quantitative data on the spatial and material environments of secure youth homes, meaning that our study fills an important knowledge gap.

The results related to the environment of secure youth homes show that the youths' possibility of maintaining their bodily integrity was restricted. This is based both on the number of available rooms in relation to the number of placed youths and on the fact that most of the youths were forced to share a bathroom, which made it difficult for them to protect their privacy, especially when it came to hygiene and toilet visits. Maintaining one's bodily integrity, such as changing clothes and performing hygiene routines in private as well as withdrawing from social interaction to be private, is of high importance (Ulrich et al., 2008). Tentatively, this may be especially true in relation to young persons with extensive care needs in order to reduce their experience of the institutional environment as one characterized by control (Henriksen, 2017; Nolbeck, 2022).

Furthermore, the results show what can be interpreted as tension between different aspects of control. The environment appears, from the perspective of the respondents, to be an important part of everyday life at the youth home that deserves active consideration. It needs to be considered as both hopefully constituting a resource for staff in their work with the young people and, at the same time, offering homelike opportunities for the young people to control their environment. In other words, as a member of staff, you must be both in control of the environment and aware of the risks it can pose, while also actively striving to create an environment that supports a sense of home for young people and allows them to feel in control. Although the institution may provide a "homelike" everyday life as a basis for care and treatment, it is also a strictly regulated and security-oriented environment (Biszczanik & Gruber, 2021; Nolbeck, 2022; Wästerfors, 2019), a fact that is further accentuated through the staff's legal mandate to use coercive means such as solitary confinement (SFS1990:52, 1990). Being able to, within these strictly regulated preconditions, offer the youths as homelike an environment as possible with opportunities for them to control their environment is thus important in relation to care and treatment – a point that was also made by the respondents to the survey. Previous research has shown that rather than responding to the youths through control, repression, and correction (de Valk et al., 2016) and instead showing empathy and commitment, alliance, and being reliable and respectful are what works in institutional youth care (Harder et al., 2013; van Gink, 2019; van Gink et al., 2020). A homelike environment could support such social practices, as has been identified in previous research (Nolbeck, 2022).

Thus, according to the respondents, a pleasant and functional environment constitutes a basis for both maintaining control over the situation and offering the young people control over their environment and situation as much as possible. Thus, the environment should both offer "control functions," that is, it should support staff members' work with young people and enable them to prevent risks, slow down unwanted developments, and offer the young people "control opportunities." However, previous research has shown that this seems to be a simultaneously challenging and necessary balancing act. For example, environments without suitable limits can pose a safety risk by hindering staff members' ability to stay in control of situations while also conveying a sense of loss of control (Henriksen & Refsgaard, 2021; Nolbeck, 2022; Nolbeck et al., 2023; R. S. Ulrich et al., 2012).

In previous studies, we have seen that the idea of the "secure institution" is often interpreted as security-inscribed and dominated by spatial solutions for control and surveillance (i.e., surveillance cameras and staff stations with glass walls enabling an overview), giving rise to both control practices by the staff and feelings of social exclusion and enforced negative self-images among the youths (Nolbeck et al., 2020, 2022; see also Henriksen, 2017). Related to the fact that many young people have what can be defined as behavioral problems and grew up in environments that were unable to meet their needs in either social or material terms, unsuitable environments dominated by control and surveillance can be problematic. In addition, the environments in which the youths grew up posed a threat to their development through repeated traumas, subsequently leading to the development of coping strategies that may have been appropriate to that time and context, but that can become destructive in the long run (Cassidy & Mohr, 2001; Levenson, 2017). Hence, it can be tentatively concluded that to be placed in an environment dominated by spatial solutions for surveillance, with restrictions on movement, broken and unsuitable spaces, with a restricted possibility of maintaining one's bodily integrity, not only constitutes a risk of re-traumatization (Cassidy & Mohr, 2001; Levenson, 2017) but may also risk being counterproductive in relation to care and treatment through the values thus conveyed, as pointed out by the respondents.

The present study contributes to the field of research on youths in secure institutional youth care by contributing knowledge on the spatial environment as well as on specific characteristics of the youths placed there. The results highlight the importance of offering care environments that offer "control functions" for the staff members' work with young people, that is, functions facilitating observation and control over the environment, while at the same time offering the young people "control opportunities." Such environments need to be as homelike as possible, while at the same time

maintaining safe care for young people and a safe working environment for the staff. Future research needs to further explore the relationship between the care environment, the characteristics of the youths, and the outcome of care.

Strengths and Limitations

As this study is descriptive in nature, a more extensive statistical cause-and-effect analysis would need to be undertaken to discuss the relationships between spatial factors and individual characteristics.

Regarding the general consistency between our sample and other young people in secure institutions for youths, acute admissions were more frequent in the study population, even though the official statistics show a weak decreasing trend within the last decade, The Swedish National Board of Institutional Care, 2012, 2020). The mean number of placements in our study (8.47) was slightly higher than the average for all secure institutions for youths (7.75) (The Swedish National Board of Institutional Care, 2018).

Most youths in the study population (62.6%) had been cared for at the secure institution for less than 1 year. However, information on possible reenrollment was not included. The average age and the proportion of girls in our study population were slightly lower compared to those of the population in youth homes in general (see, for example, The Swedish National Board of Institutional Care, 2012, 2020). Although the ADAD data proved to be sufficiently stable for our analyses, there was some statistical loss for some variables. More stable data as well as control over more factors would have increased the validity of the study.

Moreover, the reliability of the web-based survey has not yet been tested. Nevertheless, as the survey questions aimed to gain information on spatial factors, one can argue that they left little room for interpretation.

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