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Brief Admission by Self-referral for individuals with self-harm at risk for suicide

Experiences among users, staff, and relatives, and a health-economic evaluation

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CLINICAL SCIENCES MALMÖ | FACULTY OF MEDICINE | LUND UNIVERSITY

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Experiences among users, staff, and relatives, and a health-economic evaluation

Rose-Marie Lindkvist

LUND
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DOCTORAL DISSERTATION

Doctoral dissertation for the degree of Doctor of Philosophy (PhD) at the Faculty of Medicine at Lund University, Sweden. To be publicly defended on the 17th of May at 08.30 in Segerfalksalen, Lund, Sweden

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Abstract

Brief admission by self-referral (BA) is an individualized crisis management intervention for individuals with self-harm at risk for suicide. The aim of BA is to support recovery by increasing autonomy for a target group with historically insufficient support when approaching crisis.

The overall aim of this thesis was to evaluate BA according to the objectives of healthcare to be person-centred and cost-effective. BA was considered from the perspectives of important stakeholders including users of BA (targeting those with prior extensive hospitalization and adolescents), relatives, healthcare professionals, and payers.

The thesis is based on five studies; four qualitative interview studies regarding experiences of BA among users, staff, and relatives, and one quantitative health-economic study based on a randomized controlled trial and four-year follow-up. A framework for person-centred nursing was used to summarize results. A framework for researching complex interventions was considered in relation to method.

In the qualitative studies BA was described as care delivery through processes of participation focused on individual needs. Study participants related access to BA to safety, independence, improved relationships, and well-being. BA was described as innovative and well-structured, contributing to improving the approach towards the target group. Perceptions of inattentive or unknowledgeable staff, low availability, and challenges of mixing BA with emergency care could induce negative beliefs of not being worthy or capable of receiving early help. In the health-economic analysis BA was associated with a significant effect on quality-adjusted life-years (QALYs). With 85 percent bed occupancy BA was also associated with lower costs for inpatient care, while lower bed occupancy could lead to increased costs. Uncertainty analyses indicated that access to BA was either cost-saving or associated with a cost per QALY gained of 59 000 euros. Cost-effectiveness was reduced when excluding individuals with a history of extensive psychiatric care. Inpatient care and related costs decreased over five years with access to BA.

To conclude, delivery of BA is likely to be person-centred with significant outcomes in terms of QALYs. Cost-effectiveness will depend on severity of illness and willingness to pay per gained QALY. Staff approach and availability are crucial elements.

Key words: brief admission by self-referral, self-harm, suicidal behavior, crisis management, cost-effectiveness, qualitative analysis, person-centered care, complex intervention

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Du blir aldrig färdig, och det är som det skall.

Tomas Tranströmer

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Abstract

Brief admission by self-referral (BA) is an individualized crisis management intervention for individuals with self-harm at risk for suicide. The aim of BA is to support recovery by increasing autonomy for a target group with historically insufficient support when approaching crisis.

The overall aim of this thesis was to evaluate BA according to the objectives of healthcare to be person-centred and cost-effective. BA was considered from the perspectives of important stakeholders including users of BA (targeting those with prior extensive hospitalization and adolescents), relatives, healthcare professionals, and payers.

The thesis is based on five studies; four qualitative interview studies regarding experiences of BA among users, staff, and relatives, and one quantitative health-economic study based on a randomized controlled trial and four-year follow-up. A framework for person-centred nursing was used to summarize results. A framework for researching complex interventions was considered in relation to method.

In the qualitative studies BA was described as care delivery through processes of participation focused on individual needs. Study participants related access to BA to safety, independence, improved relationships, and well-being. BA was described as innovative and well-structured, contributing to improving the approach towards the target group. Perceptions of inattentive or unknowledgeable staff, low availability, and challenges of mixing BA with emergency care could induce negative beliefs of not being worthy or capable of receiving early help. In the health-economic analysis BA was associated with a significant effect on quality-adjusted life-years (QALYs). With 85 percent bed occupancy BA was also associated with lower costs for inpatient care, while lower bed occupancy could lead to increased costs. Uncertainty analyses indicated that access to BA was either cost-saving or associated with a cost per QALY gained of 59 000 euros. Cost-effectiveness was reduced when excluding individuals with a history of extensive psychiatric care. Inpatient care and related costs decreased over five years with access to BA.

To conclude, delivery of BA is likely to be person-centred with significant outcomes in terms of QALYs. Cost-effectiveness will depend on severity of illness and willingness to pay per gained QALY. Staff approach and availability are crucial elements.

Populärvetenskaplig sammanfattning

”Man har liksom lättare att fixa livet, när man ibland kan ta en paus.”
(Citat från en person med tillgång till Brukarstyrd inläggning)

Brukarstyrd inläggning (BI) är en individualiserad och standardiserad krishanteringsintervention som är speciellt utvecklad och anpassad för personer med självskadebeteende och risk för suicid. BI riktar sig till personer som har behov av tillgång till extra stöd under perioder när de närmar sig kris. Syftet med BI är att erbjuda tidig återhämtning genom att öka brukarnas möjlighet att själva avgöra när de är i behov av en kortare inläggning. Tillgång till BI förutsätter att brukarna skriver ett individuellt kontrakt tillsammans med omvårdnadspersonal från en heldygnsvårds-avdelning som erbjuder BI och en kontakt från öppenvården. En BI kan vara upp till tre dygn och användas av brukarna upp till tre gånger per månad.

BI testades i en randomiserad klinisk studie i Skåne och har sedan 2019 tillhandahållits av de vuxenpsykiatriska klinikerna i Skåne (Helsingborg, Kristianstad, Lund och Malmö). Parallellt med studien för vuxna så anpassades och infördes BI även inom barn- och ungdomspsykiatrin i Skåne via kliniken i Malmö.

Syftet med den här avhandlingen var att utvärdera BI i relation till vårdens mål om att vara personcentrerad och kostnadseffektiv. Detta gjordes utifrån en rad olika perspektiv i totalt fem olika studier: fyra kvalitativa intervjustudier och en kvantitativ hälsoekonomisk studie.

Personer med tillgång till BI intervjuades om sina erfarenheter, med fokus på vuxna personer med en historik av omfattande psykiatrisk inläggning och ungdomar med tillgång till BI. Därutöver gjordes intervjuer med personal från öppenvården och heldygnsvården om deras erfarenheter av BI. Vi gjorde även gruppintervjuer med anhöriga till vuxna personer med tillgång till BI. Slutligen gjorde vi en hälsoekonomisk analys av BI med utgångspunkt i data från den kliniska studien som gjorts i Skåne och beräknade kostnader för sjukhusvård baserat på kliniken i Lund där det fanns en separat avdelning för BI sedan 2020. Personcentrerad omvårdnad användes som teoretiskt ramverk för att summera studieresultaten. Studiedesignen relaterades till ett metodologiskt ramverk för att utvärdera komplexa interventioner.

Studiedeltagare beskrev BI i termer av vård baserad på deltagande och goda relationer med personal som hade fokus på brukarnas individuella behov. Utifrån de erfarenheter som deltagarna beskrev så innebar BI ökad trygghet, autonomi och välmående. BI upplevdes även bidra till att förbättra relationer mellan brukare och anhöriga. Eftersom BI kunde användas av brukarna utan någon särskild bedömning var det upp till brukarna att avgöra när de hade behov av BI. Det innebar bland annat att de också kunde använda BI för att avlasta anhöriga. Deltagarna beskrev BI som ett innovativt och välstrukturerat koncept som bidrog till ett förbättrat bemötande i vården och ökat samarbete mellan vårdtagare, heldygnsvård och öppenvård.

Det fanns även flera utmaningar med BI. Upplevelser av ouppmärksam eller okunnig personal, brister i tillgänglighet och utmaningar med att BI tillhandahölls på avdelningar tillsammans med akuta inläggningar och tvångsinläggningar var några exempel på svårigheter som deltagarna delade med sig av. Dessa faktorer kunde förstärka känslor av att inte vara värd vård eller kapabel att hantera ansvaret som BI innebär. Det kunde i sin tur leda till att brukare avstod från att använda BI.

Den hälsoekonomiska analysen visade att tillgång till BI för vuxna kunde associeras med en signifikant vinst i termer av kvalitetsjusterade levnadsår. Effekten av BI på kostnader var beroende av beläggningsgrad. Med en beläggningsgrad på 85 procent var BI kostnadsbesparande, medan lägre beläggningsgrad kunde innebära ökade kostnader med BI. Osäkerhetsanalyser visade att tillgång till BI antingen var både effektivare och billigare än alternativet eller förknippad med en kostnad per vunnen QALY på ca 619 000 kr. Kostnadseffektiveten sjönk när personer med en historik av särskilt omfattande sjukhusinläggningar inklusive tvångsinläggningar exkluderades från analysen. Sjukhusinläggning och därtill relaterade kostnader minskade över fem års tid med tillgång till BI.

Sammanfattningsvis tyder resultaten av studierna på att BI har goda förutsättningar för att bidra till en mer personcentrerad vård. Kostnadseffektiviteten av BI som tillägg till sedvanlig vård för personer med självskadebeteende och risk för suicid beror på svårighetsgrad av sjukdom och samhällets betalningsvilja per vunnen QALY. Personalens bemötande och god tillgänglighet är avgörande faktorer för att BI ska ge avsedda effekter.

List of Papers

Paper I

Lindkvist R-M, Landgren K, Liljedahl SI, Daukantaitė D, Helleman M, Westling S. (2019). Predictable, Collaborative and Safe: Healthcare Provider Experiences of Introducing Brief Admissions by Self-referral for Self-harming and Suicidal Persons with a History of Extensive Psychiatric Inpatient Care. Issues in Mental Health Nursing. 2019;40(7):548-56. doi: 10.1080/01612840.2019.1585497.

Paper II

Lindkvist R-M, Westling S, Liljedahl SI, Landgren K. (2021). A Brief Breathing Space: Experiences of Brief Admission by Self-Referral for Self-Harming and Suicidal Individuals with a History of Extensive Psychiatric Inpatient Care. Issues in Mental Health Nursing. 2021;42(2):172-82. doi: 10.1080/01612840.2020.1789787.

Paper III

Lindkvist R-M, Westling S, Eberhard S, Johansson BA, Rask O, Landgren K. (2021). 'A Safe Place Where I Am Welcome to Unwind When I Choose to'-Experiences of Brief Admission by Self-Referral for Adolescents Who Self-Harm at Risk for Suicide: A Qualitative Study. Int J Environ Res Public Health. 2021;19(1). doi: 10.3390/ijerph19010300.

Paper IV

Lindkvist R-M, Steen Carlsson K, Daukantaitė D, Flyckt L, Westling S. Brief Admission by self-referral as add-on to usual care for individuals with self-harm at risk of suicide: Cost-effectiveness and 4-year health-economic consequences after a Swedish randomized controlled trial. Submitted.

Paper V

Lindkvist R-M, Eckerström J, Landgren K, Westling S. Brief Admission by Self-referral for individuals with self-harm and suicidal ideation: a qualitative study of relatives' experiences based on focus groups. Submitted.

Abbreviations

BA	Brief Admision by Self-referral
BASRCT	Brief Admission Skåne Randomized Controlled Trial
BPD	Borderline Personality Disorder
CAP	Child and Adolescent Psychiatry
DBT	Dialectical Behavior Therapy
DSM	The Diagnostic and Statistical Manual of Mental Disorders
FACT	Flexible Assertive Community Treatment
ICD	The International Classification of Diseases
ISAS	The Inventory of Statements About Self-injury
NICE	National Institute for Health and Care Excellence
NSSI	Non-Suicidal Self-Injury
NSSID	Non-Suicidal Self-Injury Disorder
TAU	Treatment As Usual
QALY	Quality-Adjusted Life Year
WHO	World Health Organization
WHODAS 2.0	World Health Organization Disability Assessment Schedule 2.0

Points of departure

As a child I loved to read and write. I learned to sing songs in English and French before I knew the languages, just by listening to the phonetic sounds.

My university education began in humanities, studying German and English. I learnt about linguistics and that correct translation is that of meaning in relation to context and who you are. The drive to understand meaning always triggered my curiosity.

Looking for structure (and a job) I found my way into economics. I liked the ambition in health economics to value what is most important to people in relation to their health and looking at cost from a societal level.

One afternoon at work (this was at a pharmaceutical company) I was in a meeting where someone presented the results of an employee survey. Below the graphs and figures were quotes from survey responders which engaged my emotions. The quotes said something that numbers just can't. This memory made an impact on me, and I think it was the beginning of my journey towards qualitative research.

I began studying public health. I learned about qualitative interviewing where there is time to listen, go deep into the stories, thoughts, and feelings. It meant coming back to language in a lovely combination of structure and complexity.

I met Kajsa and Sofie, my supervisors, by chance, as Kajsa presented a study idea (which became paper I in this thesis). They were looking for a student who could do qualitative interviews. I had read the book about the girls with self-harm who were treated in forensic care[1] and this 'BA'-project sounded so exiting and right. I immediately raised my hand: 'Do you have to be a nurse?' 'No'. Later, when I met Sofie she said they were also looking for a health economist. This was meant to be!

All the way through this work I have been dependent on colleagues and supervisors with the clinical and psychological insight that I lack. What I bring to the table is more of an outside perspective on healthcare, a quantitative background in health economics and newly acquired knowledge in qualitative research.

During this work I have had the pleasure of talking to some of those who are the reason that this work is done in the first place. Your personal stories and detailed perspectives are the core of this work.

Introduction

I had cut open veins and swallowed a scalpel. (..) I wished to be regularly admitted. I didn't tell the doctor because I was afraid that he would think that I exaggerated.
(Individual with access to BA, Paper II)

Individuals with self-harm at risk for suicide

This work is focused on individuals with recurrent self-harm and risk of suicide who are already in contact with psychiatry and in need of additional help from psychiatry to manage their symptoms. Considering all individuals with self-harm and suicidal behaviour in society they represent a small group with great suffering and high healthcare consumption. Treatment options at times of approaching crisis have been insufficient, especially in relation to how these individuals have been approached in the past by psychiatry as well as society at large. The research areas of self-harm and suicidal behaviour are vast with many different aspects to consider such as risk factors and correlations between self-harm and other factors, models for prevention, long-term and acute care treatment. While all these aspects are relevant for the target group of this work, the thesis is focused on the group with access to Brief Admission by self-referral (BA), an intervention used for crisis management and a care model which is complementary to other interventions, when these are found to be insufficient or unhelpful.

Definition and related diagnoses

Self-harm is defined broadly in this work as deliberate self-harm with a non-fatal outcome[2]. This may include direct forms of self-harm such as self-cutting, self-burning, and swallowing dangerous substances, as well as any other acts defined as self-harming by the individuals who are asked about self-harming behaviour. The definition of self-harm may therefore also include what is referred to as indirect forms of self-harm such as sexual self-harm or self-neglect[3].

A growing branch of research is focused on non-suicidal self-injury (NSSI) defined as direct, deliberate, and non-suicidal destruction of body tissue[4]. This definition is motivated by the need to separate NSSI from suicidal behaviour to facilitate proper

risk assessment and treatment[5,6]. NSSI has been presented as a disorder, referred to as non-suicidal self-injury disorder (NSSID) in the Statistical and Diagnostic Manual of Mental Disorders (DSM-5) by the American Psychiatric Association[7].

Symptoms of being at risk for suicide includes thinking about suicide (often referred to as suicidal ideation), planning or preparing for suicide and performing potentially self-harming actions intended to lead to suicide[8]. Risk of suicide in this work refers to symptoms of suicidal ideation as well as suicidal behaviour, including self-harm with the intention to attempt suicide.

Self-harming and suicidal behaviour are symptoms associated with emotionally unstable personality disorder or borderline personality disorder (BPD) as defined in international diagnostic classification systems, including the International Classification of Diseases by the World Health Organisation[9] and the DSM-5[7].

The relationship between self-harm and suicidality

Self-harm and suicidality both have intent built into the concepts. However, assuming or phrasing self-harming acts as 'intentional' or 'deliberate' on beforehand should be done with care, as self-harm may be perceived as unintentional and outside of own control in which case it may be difficult for an individual to relate to a specific intention of self-harm[10]. Suicidal ideation and suicide risk may also vary dramatically over short periods of time, from one hour to the next or over the course of one day[11].

Several theoretical models have been developed aiming to explain how and why individuals develop recurrent self-harm behaviour. Empirical research studying NSSI have found that emotion regulation and communication of distress are two common underlying functions of self-harm, among many others[12,13]. Emotion regulation, which seems to be the most common underlying function of self-harm, implies that self-harm is a way to handle internal feelings (an intrapersonal function). Self-harm may fulfil positive feelings of control and comfort, which are important to understand when responding to recurrent self-harm[14]. This differs from self-harm being used as a way to cry for help which is rather directed outwards in an interpersonal function[15]. In relation to suicidal ideation self-harm may be a way to avoid or reduce the risk for suicide, for example by using acts of self-harm as a distraction or using for example self-cutting as an alternative to taking a lethal overdose[14]. The latter is supported by lived experiences of how self-harm may be a potential way to stay alive rather than trying to end life[16].

NSSI has been identified as a potential gateway to suicidality[17] and predictor of suicidal behaviour, and even a better predictor than for example symptoms of depression, hopelessness, and diagnosis of BPD[18]. Frequency of self-harm[19], using more than one method of self-harm[20] and the choice of method for self-harming have all been found to be related to suicidality, where suicide attempts appear more

commonly associated with poisoning than for example self-cutting[21]. Novel research looking at self-harm and suicidal behaviour point towards the need to view NSSI and suicidality as endpoints on a spectrum of self-harm[3,22]. This is supported by research finding that suicidal and non-suicidal self-harm are levels of degree rather than different categories, and where one possibility to separate suicidal and non-suicidal self-harm could be to assess the severity, level of recurrency and degree of suicidal intent[23].

Epidemiology

Figures on prevalence of self-harm and suicidal behaviour vary depending on sample and method for measuring self-harm. The latter has been shown to account for about half of the variation seen in prevalence studies of self-harm. Prevalence estimated through a checklist for self-harm or by being anonymous typically result in a higher prevalence compared to other types of data collection of self-harm[24].

Self-harm appears to be more common among younger age groups. Around 17 percent of adolescents, 13 percent of young adults and about five to six percent of adults in community samples have reported self-harm[24-27]. Similar figures have been reported in Sweden[4]. Higher prevalence among adolescents compared to adults may be the result of hardships during younger years being replaced by a sense of agency and life improvements facilitating psychological growth[28]. Around 30 to 40 percent of those engaging in self-harm have reported suicidal behaviour[6,29,30], and potentially more in cases of early age of onset and longer duration of self-harm behaviour[31].

Research on self-harm in relation to gender have indicated that NSSI as well as suicidal behaviour is more common among women, which has been linked to women experiencing more psychological distress[32,33]. Men may have a higher risk of self-harm behaviour during preadolescence, with ADHD as one of the factors linked to suicidal ideation[34]. It has been suggested that gender differences in prevalence of NSSI may only be present during adolescence and disappearing in adulthood[35]. Suicide attempts appear to be more common among adolescent and young women compared to men, while adolescent and young men have a higher rate of suicide[36]. Being part of minority groups in terms of gender (such as being non-binary or trans) or sexuality (such as being gay or lesbian) has been associated with an increased risk of self-harm and suicidal behaviour. These elevated risks are complex and likely explained by multiple factors; minority stress is one of those most cited[37,38].

Prevalence of self-harm in clinical samples is higher than in community samples at about 20 percent among adults[39] and about 40-80 percent among adolescents in mental health treatment, internationally and in Sweden[39,40]. Prevalence rates of self-harm are considerably higher among individuals with psychiatric disorders[25]. A

history of mental health treatment has been linked to increases in suicidal behavior among individuals with self-harm[19]. Self-harm as well as suicide attempts, suicidal ideation and suicides are common, for example in those with eating disorder, mood disorders, including bipolar spectrum disorder and depression[41-43]. Self-harm and suicidal behavior are especially common among individuals treated in forensic care[44] and has been linked to adverse childhood experiences, related to for example abuse, neglect, parental alcoholism or parental mental illness[45,46].

In summary, numerous factors have been associated with self-harm and suicidal behaviour, including demographic, psychosocial, and clinical aspects, though it is not always clear whether they ought to be treated as risk factors.

Effects on quality of life and costs

Quantitative studies have shown that health-related quality of life is negatively associated with self-harm and suicidality among young individuals[47] as well as among adults, especially among those with severe self-harm and a history of extensive hospitalization[48]. A Swedish registry study on clinical outcomes associated with self-harm and suicidal behavior among youths showed increased risk of alcohol and substance addiction and that the risk for psychiatric inpatient care was especially high among those with both self-harm and suicide attempts[49]. In a Swedish sample of individuals in psychiatric inpatient care those with self-harm behavior had lower function and more inpatient care days compared to other individuals in psychiatric inpatient care[50]. Among individuals with BPD in inpatient care functioning over ten years has been shown to be difficult to achieve and maintain, partly due to low social functioning and even more due to a reduced capability to participate in education or working[51].

In terms of treatment costs, a Danish national registry study found that the inpatient care cost per self-harm episode was about $2248, where a small group with recurrent self-harm behaviour representing less than one percent of the study population accounted for about fifteen percent of the total hospital costs of self-harm in Denmark[52]. Total costs of care for self-harm among adults in Sweden in 2021 has been estimated to 380 million SEK or 286 000 SEK per person being care for, whereof 94 percent were inpatient care costs[53]. These numbers should be considered in relation to the fact that most individuals with self-harm are likely to be reluctant to seek help[22].

Societal costs related to mortality among individuals with self-harm are considerable[54]. Individuals with self-harm are at increased risk of suicide, both among adolescents[55] and adults[56], which is likely linked to high societal losses. For comparison, the societal cost of suicide and suicide attempts in Sweden was estimated to 18,7 million SEK per suicide and 3,1 million SEK per suicide attempt

in 2004 by the Swedish Rescue Services Agency (Räddningsverket), the majority of costs being lost productivity[57].

Treatment of self-harm

General treatment guidelines

Swedish recommendations for management of self-harm behavior[58], largely based on the guidelines by National Institute for Health and Care Excellence (NICE, covering healthcare in the UK), lastly updated in 2022[59], emphasize that individuals with self-harm behavior need to be approached with compassion, respect, and dignity. No specific model of care for individuals who have self-harmed or attempted suicide is recommended, mainly due to the importance of supporting provision of individually adapted person-centered care, and acknowledgment of a heterogeneous target group. Recommendations of care are therefore to ensure that individuals with self-harm attending emergency care are generally assessed, including assessment of risk for suicide. It should be noted that suicide risk instruments have not been shown to predict suicidal behavior[60]. Assessment and treatment need to be integrated and maintaining a therapeutic relationship is key in relation to suicide risk[61]. Special attention should be given if there are ongoing safety concerns and comorbidity that may be associated with self-harm.

Individuals with self-harm may be admitted for short-term prevention of additional self-harm episodes or suicide attempts. Interventions such as surveillance, shielding, and locked clinics have not been proven effective for individuals with self-harm and attempted suicide and may even aggravate self-harm during admissions[62], wherefore compulsory care, which may be provided in Sweden according to the Compulsory Psychiatric Care Act[63] need to be avoided and used only when considered absolutely necessary to imminently save lives[58]. Providing compulsory care to individuals with self-harm and suicidal behavior without available evidence of its effectiveness has been questioned from a legal point of view[64]. Protective and controlling measures may have negative effects on care[65], cause prolonged hospitalizations or provide false reassurance and be potentially dangerous[66]. The primary objective of compulsory care needs to be to reach voluntary care and discharge[58]. Intermittent surveillance, meaningful activities and well-educated staff may prevent self-harm during admissions[58].

Individuals who are admitted to hospital after self-harm should be referred to psychiatry services to meet and discuss aftercare and be provided with an individual care plan to handle risks based on a psychosocial assessment (looking into for example life situation, stressors, and protective factors). The plan should be put together in collaboration with skilled psychiatric professionals, and preferably also

involve family members or carers. Care should be characterized by continuity and team-based collaboration[58].

Swedish recommendations emphasize that a respectful, dignified and compassionate approach is likely to be the most effective way to help individuals in crisis[58]. One such approach could be to offer access to psychiatric self-admission to be used *before* a crisis, when in need of extra help or when approaching crisis, where BA is one model, among others. Psychiatric self-admission was recently evaluated by the Swedish National Board of Health and Welfare[67] (where Paper I-III in this thesis were included) and recommendations for psychiatric self-admission in Sweden were published in 2023[68]. They state that self-admission may be used as a complement to other care when considered appropriate and that self-admission should be characterized by a person-centered approach in collaboration between outpatient and inpatient healthcare and the individuals who are given access to psychiatric self-admission.

Experiences of care

Individuals who are in contact with healthcare due to self-harm or suicidal behavior are dependent on the skills and attitudes of those working in healthcare. Self-harm may evoke reactions of concern and compassion, but may also be responded with negative feelings such as disgust and fear[69] and seen as manipulative[62]. Negative attitudes may consist of being negative towards caring for individuals who self-harm as well as being skeptical towards self-harm, which in turn may lead to a fear of worsening symptoms and creating barriers against therapeutic alliances[70]. Qualitative research on mental health nurses working in psychiatric clinics has found that working with individuals with self-harm is emotionally demanding evoking feelings of sadness, guilt, frustration, and failure[71]. One possible outcome of negative experiences of care is that individuals with self-harm may be reluctant to seek help in the future[72]. On the other hand, meeting professionals with helpful attitudes, such as being empathic, present, and attentive is likely to create beneficial experiences[73]. The need for healthcare professionals to stay alert and respond to the individuals they care for when they express need or distress, while also keeping a professional distance is not easy. Nurses have described the ability to detect suicidal cues as an emotional competence which evolves with experience[71].

A Swedish web-based survey performed as background information for the national recommendations of self-harm treatment[58] regarding experiences of care among individuals with self-harm showed a generally low rating of healthcare. Participants shared experiences of negative attitudes and prejudice as well as experiences of violations in healthcare. More negative experiences were expressed among those treated in inpatient care compared to those who had only been treated in outpatient care[74]. Individuals with self-harm in inpatient care have shared experiences of factors that may lead to self-harm during admission, including feeling controlled by

staff, conflicts with other individuals who were admitted, feeling disappointed with their physician or when approaching discharge[62]. Inpatient care was described as 'storage' with a lack of care-related content. Other experiences were related to suffering of not being acknowledged by ignorant staff[74]. A recent report on experiences of care based on interviews with individuals in care and relatives was focused on compulsory care and psychiatric self-admission. Participants shared experiences of having difficulties talking about compulsory measures such as belting or injection, feelings of powerlessness, poor communication, limited influence, and lack of effect[75]. They also said that they thought that compulsory care could have been avoided with improved communication and that it had damaged their trust in healthcare. One of the groups who reported the most negative experiences were individuals who had been treated due to self-harm and suicide attempts. Positive experiences of compulsory care have also been reported, including finding it to be lifesaving and providing access to support, where the most positive experiences were related to how outpatient care or social services had managed to build a trustful relationship to the individuals afterwards[75]. This points toward the benefit of team-based collaboration and continuity in care. The perception of safety during admission in relation to suicidal impulse has been shown to be about feeling connection, protection and sensing a level of control, hence components going beyond safety in terms of for example a safe physical environment[76].

Psychiatric self-admission has generally been described in positive terms. Experiences include offering long-term recovery, enhancing self-understanding, building ability to detect early signs of own ill health and provide strategies to feel better. According to users and relatives this in turn improves confidence and provides feelings of empowerment, and facilitates seeing other people, working, studying and do other things perceived as meaningful[75]. Relationships and experiences of purpose in life through for example employment are factors which have been brought forward as important to help individuals reduce or stop self-harm[77]. Treatments focused on reducing acute self-harm may be experienced by those being treated as less needed compared to programs focused on psychosocial functioning[51], which in turn says something about the need to carefully consider chosen outcome measures when evaluating healthcare provided to individuals with self-harm. As an example, outcomes considered critical by NICE when reviewing evidence were, among others, repeated self-harm and suicide, but also quality of life and service user satisfaction[59], the latter being more closely linked to personal experiences of care.

Brief Admission by Self-referral (BA)

Background and development of a complex intervention

The ground for Brief Admission by self-referral (BA) was laid in the Netherlands decades ago, where crisis interventions were used on community level with the aim to prevent and shorten hospitalizations[78]. As admission rates rose in the Netherlands, attention was brought to the occurrence of prolonged hospitalizations, especially among individuals with BPD and self-harming behaviour. BA was developed to offer a short admission when needed and in a way which responded to the users' needs to develop autonomy. Another aim was to avoid negative effects of long hospitalisations that had been seen, such as increased self-harm behaviour. In addition, long hospitalisations had negative effects in terms of interrupting any ongoing outpatient care treatments. This all called for the need of effective crisis management[78]. Different versions of BA had been used in the Netherlands for many years before it was subject to research aiming to identify the content of BA and its role in the treatment process[78].

With reference to the Medical Research Council (MRC) framework for development of complex interventions[79], BA was defined as a complex intervention within a research project in the Netherlands[78]. This was done with reference to BA being complementary to other interventions, being flexible and individualized, including different activities (such as contract negotiation and self-referral to hospital), depending on different interactions with healthcare professionals who are expected to adjust their approach to the individual and expected to have several potential outcomes (such as preventing crisis, self-harm or suicide, foster autonomy and control, and prevent prolonged hospitalization). The research project[78] included a literature review of BA[80], a qualitative study on experiences of BA[81], a review of protocols for BA used by healthcare facilities[78], and a Delphi study (a process aimed to generate reliable consensus among experts through iterative questionnaires and feedback sessions[82]). In the latter a list of items linked to BA were rated by experts, to identify the relevant components of BA[83]. Theoretical background factors for BA which received consensus among experts included that the individual needs to be in charge of BA, that BA may promote autonomy, that BA may improve problem-solving and provide opportunity for learning how to manage crisis, that structure and clarity is important, that BA only should be offered together with outpatient care treatment, and that easy access to BA-beds is important for the outcome[83].

Standardization: content and structure

Based on the research on BA in the Netherlands and in a collaboration between researchers and clinical experts in the Netherlands and in Skåne, Sweden, a standardized version of BA was developed to be tested in the Brief Admission Skåne

Randomized controlled trial (BASRCT)[84,85]. Below follows a description of BA according to this standardized version aimed at individuals with self-harm at risk for suicide.

The content and structure of BA is based on an individualized contract which is negotiated between the individual which is offered access to BA, an outpatient care contact, and a representative (usually a nurse's aide or a nurse) from the clinic where BA is provided. The contract contains general information about BA as well as several individual parts which are discussed and agreed upon between the three parties before written into the contract and signed by all three. The general information states that the individual with access to BA (hereafter also referred to as the user) is responsible for bringing any medicine that they need, that the rules of the clinic need to be followed, that any destructive behavior during BA will lead to discharge from that ongoing BA, that users will be offered up to two daily supportive meetings lasting 15-20 minutes and that they are welcome to take part in any activities at the clinic. Meetings with physicians or psychologists at the clinic are not offered on BA. Users are free to leave the clinic when they wish to do so, for example to go for a walk or to attend an outpatient care appointment. Users are committed to continue any ongoing outpatient care treatment, such as DBT (Dialectical Behaviour Therapy – a treatment of BPD aiming to reduce self-harm and other factors affecting quality of life, including long or frequent hospitalization[86]). A BA contract does not affect access to other healthcare. The contract lasts for one year and may then be reviewed and renegotiated, at the initiative of the user.

The individualized parts of the contract which are written into the contract, usually by the users themselves during the negotiation, are details regarding personal goals for using BA, such as wanting to be able to continue an ongoing education, preventing self-harm or avoiding long hospitalisations. It is up to the users themselves to decide what their goals with BA should be, while their outpatient care contact and the representative from the BA clinic are present to support the user in identifying and formulating those goals. Another individualized part of the contract is a list of early signs of needing BA, such as early signs of crisis, which are also written into the contract. Finally, needs for being able to use and benefit from BA are written into the contract, such as how the user wishes to be approached by staff, actions, or activities that they may do to handle stress or destructive thoughts. Any other specific needs they might have, are also written into the contract, including arrangements that need to be considered before self-referral to BA, for example children or pets that will need to be taken care of. The user is responsible for arranging this and the plan of how to do it is written into the contract. All the way through the process of writing the contract autonomy is in focus.

To access BA the individual will call the clinic and state that they wish to self-refer to BA. The staff taking the phone call are instructed to welcome the individual with

warmth and agree on a time for arrival. The staff will also check that there is an available bed at the clinic, and if not, talk to the user about alternative actions to manage at home for at least another night. An admission may last up to three nights, and it may be used up to three times per months. It is up to the individual with a BA contract to decide when and how they wish to use BA according to their needs. Nursing staff who are working at clinics offering BA are educated in the approach of BA. This includes approaching users with warmth and encouragement, attentive listening, balancing a personal and professional approach. Staff reviews the contract before the user arrives and then meets with the user upon arrival to read through the contract together and to talk about what has caused the current situation and specific goals of the current BA (this is not the same as the overall goal of having a BA contract but more focused on here and now). Staff do not go through the content of bags at arrival, which is otherwise common within psychiatric inpatient care. This is part of signalling autonomy to the user. They agree on times for supportive meetings, and on time and day of discharge. The supportive meetings, which are voluntary but encouraged, are focused on the present moment. Users are encouraged to speak to their outpatient care contact about any other issues that may come up during the conversation or if they ask for a therapeutic intervention.

At discharge from BA users are asked for feedback on the current BA, how they think it went, if the goals were achieved and any thoughts on what might need to be changed until next time. Staff are encouraged to talk about BA as a learning process, which may be especially important if a user is discharged early due to contract violation, such as self-harm. Although serious it is important that early discharge is not seen as a failure and any expressed feelings of distress or sadness should be validated.

Clinical evaluation in adults (BASRCT)

Based on the standardisation of BA described in the manual for training and implementation developed for BASRCT and the trial protocol[84,85], 125 participants who were in contact with one of the four psychiatric clinics in Skåne (Helsingborg, Kristianstad, Lund and Malmö) were included in the trial beginning in 2015. Before starting the trial, staff at the clinics offering BA, healthcare professionals from outpatient care, the hospitals' leadership, staff in emergency care and any other individuals within healthcare who needed to know about BA were educated in BA. Work assignments which were new to nursing staff working at the clinics offering BA, including responsibility for receiving, signing in, and discharging BA users, were negotiated with unions.

Participant inclusion criteria in the trial were (1) ongoing episodes of self-harm and/or suicidal behaviour, (2) at least three symptoms of BPD, (3) at least seven days of inpatient psychiatric care *or* three emergency care visits in the last six months and (4) aged 18 to 60 years. Exclusion criteria were (1) lack of ongoing

contact with outpatient care, (2) unstable living circumstances, such as being homeless or in prison, and (3) diagnosis which affects inclusion criteria, such as self-harm primarily related to diabetic episodes[87].

Participants had a mean age of 32 years and 85 percent were women. They had had a mean of six NSSIs during the two weeks before assessment, 97 percent had had suicidal ideation in the last month and 80 percent suicidal behaviour during the last year. With respect to mental disorders 70 percent had depressive disorder and 58 percent were diagnosed with BPD. Other disorders included anxiety, posttraumatic stress disorder, substance-related disorder, among others. Study participants had been admitted to hospital for a mean of 54 days and had had six visits to an emergency department during the six months before the trial. They were randomised to receive access to BA, according to the description above, in addition to Treatment as Usual (TAU) or TAU alone (hereafter also referred to as the control group). TAU included for example contact with outpatient care and acute care when needed. The primary outcome measures of the trial were total number of days in hospital admission, including compulsory and voluntary admission as well as days on BA. The secondary outcomes were number of compulsory measures, the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0)[88], which assesses function in six different domains (cognition, mobility, self-care, getting along, life activities, and participation) and the five Self-harm Behaviour Groupings Measure[3]. These measures were collected at baseline, after six and twelve months.

Results of the trial indicated no differences in the primary outcome days in hospital admission between the groups, although there was a significant decrease in both groups over time. The same was seen for emergency care visits, indicating improvement in symptoms during the year of the trial. The BA group significantly reduced the number of days in compulsory care, which was not seen in the control group. With respect to WHODAS 2.0 the BA group reported a significant decrease in disability in one domain (mobility) compared to the controls, and significant reduction in disability in four domains while there was no significant reduction in WHODAS 2.0 domains within the control group. NSSI-change was not significantly different between the groups, although significantly reduced within the BA group over the year of the trial. There were no cases of increasing self-harm or suicidality in the BA group during the trial. One individual in the BA group had endangered others at the clinic. During the trial three individuals died by suicide, whereof none had accessed BA.

During the pilot phase of the trial a qualitative study was performed on experiences of BA during implementation[89]. Participants emphasized that the structure of BA, offering predictability when knowing it was available, and the approach from staff were the most helpful parts of BA. As there were accounts of negative attitudes from staff the study concluded that education of staff about attitudes in general and the BA approach in particular were key to successful implementation of BA.

The results of the trial were published in 2019[87] and resulted in BA continuing to be implemented in Skåne directed at the same target group as in the trial. At the end of the trial participants in the control group were offered access to BA and all participants in the trial were asked for consent to be followed for another four years with the aim to research long-term effects (some of which are included in Paper IV).

BA in child and adolescent psychiatry

Alongside the trial in adults BA was adapted and implemented in Child and Adolescent Psychiatry (CAP) in 2018 within the same region, Skåne, where one clinic in Malmö covers CAP inpatient care for the entire region. BA in CAP had a similar target group as among adults[90]. The background for implementing BA among adolescents were that individuals with severe recurrent self-harm at risk for suicide with a history of extensive emergency care including compulsory care had increased in number over time. One factor identified by healthcare as potentially contributing to this development of a treatment gap was perceptions of disruptive collaboration between inpatient and outpatient care[90]. BA appeared to be a possible response to these issues.

The model of BA for adolescents closely followed the manual for adults[84] with a few adaptations to fit adolescents from 13-17 years of age. Adaptations included participation of parents during contract negotiation, and possibility of involving parents during admission and discharge, a voluntary safety check of bags, and medication being handled by staff at the clinic. Implementation consisted of a thorough process of activities and strategies including planning, education, arranging the facilities and preparing documentation[90]. Uptake of BA in CAP increased over time as over 60 contracts were negotiated between 2018 and 2021. Staff reported being satisfied with the implementation process, that BA appeared to work well as a crisis management tool and that they perceived positive effects of access to BA among adolescents[90].

Effects of BA within CAP in Skåne were analyzed in an observational cohort study on 63 adolescents with access to BA who were followed for up to twenty months (median follow-up time 13.5 months)[91]. Fifty adolescents were females and three were males with an average age of about fifteen. Results indicated a reduced consumption of psychiatric emergency care during follow-up, including reductions in emergency care visits, psychiatric emergency care admissions as well as reductions in the total number of inpatient care days, including days on BA. No change was seen in terms of compulsory care. Adolescents reported being highly satisfied with BA, based on three questions related to contract negotiation, crisis management with BA, and recommendation of BA to others in a similar situation. The study confirmed that implementation of BA as a crisis management intervention for adolescents appeared to have been successful[91].

Theoretical framework

Person-centred nursing

Person-centred care means seeing the individual person, involve and adapt care to individual needs and goals, resources, and conditions[92]. The concept is recognized as a core in healthcare quality, globally and in Sweden[92-94]. When person-centeredness is being achieved healthcare is assumed to become equal as well as cost-effective[93], and thereby fulfil the objectives of healthcare according to Swedish law[95]. With reference to this a framework for person-centred nursing[96] was used as a basis for reviewing results of this thesis. The framework includes four constructs which imply effective person-centred nursing likely leading to person-centred outcomes when fulfilled[96].

Prerequisites refers to those working to deliver person-centred care. To be able to work with person-centred nursing professionals need to be competent, able to make decisions and have good insight into the content of the care being delivered. They also need to be able to communicate at different levels and wanting to provide the best possible care. Lastly, they need to know themselves, be aware of their own values, beliefs, and actions and how these may impact those being cared for.

The care environment, which lays the ground for the prerequisites, needs to be based on good leadership and organization, systems supporting shared power and shared decision-making, and an appropriate skill mix. The culture of the workplace should provide room for innovation and risk-taking. Evaluation of care quality should be based on multiple sources.

Person-centred processes are focused on the person being cared for and implies that healthcare professionals are working with the beliefs, values, and engagement among those being cared for to understand what they value in life and how they make sense of the current situation. This goes together with shared decision-making and participation based on what is important to the individual. The level of sympathetic presence and emotional intelligence among staff is important to respond properly to cues and to recognize the unique individual they care for. Part of this is being able to adapt to different levels of engagement when needed, especially when problems arise, to uphold a therapeutic caring relationship. Finally, seeing to physical needs is an essential part of care to achieve aspired outcomes.

Outcomes of person-centred care are the expected results. These include satisfaction with care and the care experience as a quality indicator, where experiences of being listened to are strongly related to satisfaction and involvement with care. Feelings of well-being are related to feeling valued. All these aspects contribute to creating a therapeutic culture.

The framework was further developed in 2017 with a fifth construct described as the macro context referring to for example the policy level in a system where person-centred nursing is operationalized[97].

Researching complex interventions

The Medical Research Council (MRC) framework for developing and evaluating complex interventions (which was applied in previous research on BA[78]) is an internationally recognized guidance on how interventions like BA may be evaluated[98]. The complexity of an intervention is depending on interactions with other interventions, requirements on those involved in delivering the intervention, the number of stakeholders, variations in outcomes and degree of individualization. The MRC guidance proposes that researching a complex intervention is designed to identify key research questions conducted from diverse perspectives based on appropriate methods[98]. Complex intervention research needs to go beyond efficacy and effectiveness, and for example use qualitative or mixed method design, to research how outcomes are brought about and how the intervention may interplay with the context, or to look at it from a systems perspective to learn about how the intervention and the surrounding system may affect and adapt to each other.

The framework proposed by MRC contains four different phases: Identification or development of an intervention (1), assessment of feasibility and acceptability (2), evaluation (3) and implementation (4). According to the guidance six core elements should be considered in each phase[98]: interaction with context, underpinning program theory, different stakeholder perspectives, key uncertainties, opportunities for refinement and improvement, and economic considerations.

The research on BA in the Netherlands[78] used the MRC framework for developing and evaluating complex interventions[79] as a theoretical basis to identify and develop the version of BA which was then tested in Skåne, beginning in 2015. When the research of this thesis began in 2018 feasibility of BA had been researched, and the phases of clinical evaluation and implementation were ongoing. In the discussion of the results of this thesis references will be made to the MRC framework.

Aims

> *"You are supposed to feel safe out there. At home. Really. Because that's where you are supposed to build up your life. Not here [in psychiatry]."* (Healthcare professional, Paper I)

The overall aim of this thesis was to evaluate BA in relation to the goals of healthcare to be person-centred and cost-effective. This was done by considering BA from the perspectives of important stakeholders including users of BA (targeting those with prior extensive hospitalization and adolescents), relatives, healthcare professionals, and payers. The thesis is based on five papers with the following specific aims:

- To illuminate staff experiences of providing BA to individuals with self-harm at risk for suicide with histories of extensive psychiatric inpatient care. (Paper I)
- To gain knowledge of the meaning of BA for self-harming individuals at high risk of suicide with histories of extensive psychiatric inpatient care. (Paper II)
- To illuminate adolescents' experiences of BA, and their suggestions on how BA may be further modified and improved to fit the target group. (Paper III)
- To analyse the cost-effectiveness of BA for individuals with self-harm at risk of suicide using data from a 1-year RCT and to analyse costs and outcomes before, during and after the trial using health register and follow-up data from four psychiatric health care facilities in southern Sweden. (Paper IV)
- To explore experiences of BA from the perspective of relatives to adults. (Paper V)

Methods

> *"The risk with statistics, economics and other (..) factors are that you may miss to look a little deeper."* (Relative to individual with access to BA, Paper V)

Design

This thesis was designed to evaluate BA from a range of diverse perspectives – from the individual using it, the professional working with it, the close relative, and from a payer perspective. Just as indicated in the quote above, stated by one of the relatives who participated in the research, one perspective is not enough to cover the complexity of an intervention like BA.

The thesis is based on four studies which were qualitatively designed, and one study which was designed for health-economic analysis. We used descriptive[99] and interpretative inductive study designs[100] to illuminate and interpret subjective experiences related to BA through individual interviews (Paper I and III) and focus groups (Paper V). Paper II was designed according to phenomenological hermeneutics based on lived experiences aiming to visualize the essential meaning of having access to BA[101]. In Paper IV, which was quantitatively designed, we followed standard design for health-economic evaluation to assess cost-effectiveness based on inpatient care costs and quality-adjusted life years (QALYs), a composite measure of outcomes on morbidity and mortality[102]. See Table 1.

Table 1. Overview of studies presented in this thesis.
BASRCT: Brief Admission Skåne Randomized Controlled Trial. CAP: Child and Adolescent Psychiatry. QALY: Quality-adjusted life year. WHODAS 2.0: World Health Organization Disability Assessment Schedule.

Paper	Design	Sample	Data collection	Analysis
I Staff	Inductive qualitative	12 healthcare professionals working with BA in Skåne.	Individual interviews	Qualitative content analysis
II Users	Inductive qualitative	7 adults with access to BA with >180 days of inpatient care the year before BASRCT.	Individual interviews	Phenomenological hermeneutic method
III Users	Inductive qualitative	19 adolescents who had accessed BA at CAP clinic in Malmö.	Individual interviews	Qualitative content analysis
IV Health economics	Deductive quantitative	117 adults in BASRCT, 81 of which were also in 4-year follow-up	Medical records Real care prices QALYs through WHODAS 2.0	Incremental cost-effectiveness ratios during BASRCT. Care consumption and health utility during follow-up.
V Relatives	Inductive qualitative	14 close relatives to adults with access to BA in Skåne.	Focus groups	Reflexive thematic analysis

Participants and recruitment

Paper I included twelve healthcare professionals in the region Skåne working with adult individuals with access to BA. They were working either at a clinic providing BA (n=8) or in outpatient care (n=4). The focus of the study was on the professionals' experiences of BA for eleven individuals who participated in BASRCT and who had been hospitalized in inpatient psychiatric care for at least 180 days prior to inclusion in BASRCT. A total of 116 healthcare professionals were invited to participate, of which 98 were working at clinics providing BA to the individuals in focus and 18 worked in outpatient care with the same individuals. Among participants were seven nurses' aides, two nurses, two psychologists, and one psychiatrist. Invitations to participate were sent out to all eligible participants by email by the interviewer (RML), including one reminder, and followed up by telephone to those interested in participating.

Paper II included seven out of eleven adults with access to BA, who had participated in BASRCT and who had had at least 180 days of psychiatric inpatient care before

inclusion. The participants had been hospitalized for a mean of 260 days (198-354 days) the year before baseline, whereof 134 days (12-290) in compulsory care. The participants (six women and one man) were 22-51 years old with 3-6 different psychiatric diagnoses each. In the weeks before inclusion in BASCRT the individuals had had a mean of five self-harm episodes and two had made suicide attempts. Life-time frequency of self-harm episodes were estimated to be between 261 and 6322 per person, based on the Swedish version of Inventory of Statements About Self-injury (ISAS)[103,104]. Contact information to all eligible participants was provided by the principal investigator of BASRCT (Sofie Westling) to the two interviewers, who were registered nurses specializing in psychiatric nursing at Lund University.

Paper III included 19 out of 54 adolescents (51 women and 3 men) who had accessed BA since it had been implemented in CAP in 2018 up until February 2021 according to the targeting and criteria described above in the section on implementation of BA in CAP. Participants were 14-19 years at the time of being interviewed, all women according to legal gender, whereof ten had an active BA-contract and nine had not due to having turned 18. A BA coordinator at the CAP clinic in Malmö which was responsible for delivering BA to adolescents took initial contact over telephone and asked for permission to give the adolescents' contact information to the interviewer (RML) to receive more information among those interested.

Paper IV included data on 117 adult individuals who were included in BASRCT according to the beforementioned inclusion and exclusion criteria and who had at least one data point of follow-up. Participants were 20-54 years old (mean 32) whereof 98 women, 14 men and 5 others, according to self-reported gender. Eighty-one of those included in BASRCT gave their consent to be included in follow-up which lasted until five years after BASRCT baseline. Sixty-three study participants completed the long-term follow-up (See participant flowchart, Figure 1, Paper IV).

Paper V included 14 close relatives to adults with access to BA in Skåne. Relatives were defined broadly, including family and partners as well as neighbours, personal assistants, and friends. Among the participants eight were parents, five were partners or spouses and one was a parent-in-law. They were reached by sending out letters to all adults with a BA-contract in Skåne in 2023 (479 letters), with information about the study and contact information to the interviewer (RML) which the receivers could pass on to their relatives. Besides letters, information was posted at hospital clinics, in social media and e-mails to members through SHEDO (the Self-Harm and Eating Disorder Organization) in Skåne. All 14 participants were reached through the letters.

Setting

All studies took place in Region Skåne with 1.4 million inhabitants, whereof about 280 000 children. BA had been offered in Skåne to individuals with recurrent episodes of self-harm and/or suicidality beginning in September 2015, when BASRCT began including adults. BA for adults was provided by the four psychiatric clinics in Skåne, in the cities of Helsingborg since 2017, Kristianstad since 2016, and in Lund and Malmö since 2015. During BASRCT BA was offered at the same clinics as other psychiatric admissions, including acute admissions and compulsory care. After BASRCT BA was provided according to local circumstances and demand for BA in adult psychiatric care. A separate BA clinic with eight beds opened in Lund in 2020. Helsingborg provided BA in a separate corridor attached to the emergency inpatient care clinic with four rooms dedicated for BA. Malmö and Kristianstad provided BA in clinics mixed with emergency care admissions, including compulsory care. These clinics contained both single and shared rooms.

BA for adolescents, implemented in 2018, was provided by the CAP clinic in Malmö, which covered all inpatient care CAP in Skåne, mainly treating 13–17-year-olds. The clinic offering BA had eleven beds and there was no specific number of beds dedicated to BA or other psychiatric inpatient care, since this was adapted according to the demand.

Data collection

For Paper 1 in-depth interviews (lasting 48–74 minutes) were held face-to-face June–September 2018 at the healthcare professionals' workplace. A semi-structured interview guide with questions relating to experiences of working with BA and thoughts of potential improvements and adaptations was used as support during interviews. A pilot interview, also included in the analysis, was performed which resulted in some minor adjustments to the interview guide. Qualitative inquiry was practiced through non-leading, open questions.

For Paper II in-depth interviews (lasting 25-56 minutes) were held September-October 2018 with participants, either in their homes or at a psychiatric clinic. Interviews were based on a semi-structured interview guide regarding experiences and main features of BA and reflections on improvements and adaptations. Participants' descriptions were followed up with open-ended and non-leading questions.

For Paper III in-depth interviews (lasting 15-69 minutes) were held between September 2020 and February 2021. Interviews began with an open question on the

overall experience of BA. A semi-structured interview guide was used containing open questions regarding access to BA. The guide was tested with a pilot interview, included in the analysis. Adolescents were invited to share any experiences of BA, positive and negative, and to provide examples of how they had used BA and what access to BA had meant to them. Relevant follow-up questions were asked to gain depth and they were also asked about their ideas on how BA could be further improved for adolescents. As this study coincided with corona pandemic restrictions the first interview was performed face to face and the other 18 were performed over the telephone, two of which with a parent present as support.

Paper IV was based on data from 2015 to 2022. Days admitted to hospital were collected from medical records per six months from one year before BASRCT baseline until four years after the trial had ended. This included days in psychiatric inpatient care (voluntary, compulsory, and BA) and at other clinics for any treatment related to self-harm or suicidality. Coercive measures and emergency care visits were also collected. Unit prices were based on real prices for resource inputs in 2020 from representative departments at the psychiatric clinic in Lund (Table 1, Paper IV). Non-psychiatric care related to self-harm was based on regional price lists. WHODAS 2.0 questionnaires answered by the participants during BASRCT were converted to QALYs using a validated country-independent mapping function[105]. The items from WHODAS 2.0 which were included in the mapping function covered a range of activities related to difficulties due to health conditions. This included ability to concentrate, have a conversation, mobility, self-care, getting along with people who are close, taking care of the household, participate in social activities, and effects of the health condition on financial resources and family.

For paper V we performed three focus groups between August and November 2023, held in Lund, Malmö, and Helsingborg at hospital premises. The focus groups lasted 83, 99, and 100 minutes. Interviews were moderated by RML with one other colleague present as assistant moderator. A semi-structured interview guide was used with open questions relating to experiences of BA from the relatives' perspectives. The interview guide had been reviewed by representatives from SHEDO and the Swedish Partnership for Mental Health (Nationell Samverkan för Psykisk Hälsa; NSPH)[75].

Analysis

For Paper I and Paper III verbatim transcriptions of audio-recorded interviews were analysed inductively with qualitative content analysis to illuminate the latent level of experiences related to working with BA and having access to BA, respectively[106,107]. Transcripts were read several times, divided into meaning units, condensed and coded. Codes were reviewed, grouped, and regrouped into

subthemes and themes based on text-driven inductive interpretation. All steps were performed by RML with support from KL until joint agreement was reached based on discussions and reflections. Data was managed with software developed for qualitative analysis (OpenCode)[108].

For Paper II verbatim transcriptions of audio-recorded interviews were analysed with phenomenological hermeneutics performed in three methodological steps; analysed as a whole, analysed in parts (structural analysis), and analysed in relation to theories to arrive at the interpreted whole[101]. The latter was a process of critical reflections between co-authors and literature to find relevant associations which could expand our understanding of the phenomenon under study (access to BA). By doing so individual experiences were analysed with the purpose of arriving at the essential meaning of the phenomenon. The process was led by RML and supported by KL. In the structural analysis, data was managed with software developed for qualitative analysis (OpenCode)[108].

For Paper IV analysis consisted of two parts, following standard methods for economic evaluation[102]. The first part consisted of a health-economic analysis (cost-utility) for access to BA based on BASRCT analysing the cost per QALY gained of BA as an add-on to usual care compared to usual care alone, the latter including for example contact with outpatient care and acute care when needed. This part of the analysis was based on all participants with follow-up data (n=117). Cost differences between the groups were calculated as the differences in costs between the year of the trial and the year prior to the trial to manage individual-level variations in costs. Incremental cost-effectiveness ratios were calculated as the differences in costs divided by the difference in QALYs gained during the trial, the latter being based on converted WHODAS 2.0 scores[105,109]. Missing data on QALY was imputed using multiple imputation assuming data was missing at random and based on an imputation model with age, educational level, BPD, and sex as auxiliary variables, which were the same variables which had been used in the imputation model in the RCT[87]. Those who died during the trial were given zero health utility from that point onward. Sensitivity analyses included subgroup analyses (available cases, complete cases, and individuals with less than 180 annual admission days at baseline), non-parametric bootstrap resampling to assess uncertainty of incremental cost-effectiveness ratios and multiple imputation of missing data on QALYs (cost data were complete). The second part (n=81) analysed demand for and costs of psychiatric inpatient care during a four-year post-trial follow-up where both groups in the former RCT could access BA. Data on health utility based on converted WHODAS 2.0 scores collected at the end of follow-up was also included. Analyses were performed by RML with support from the co-authors. Analyses were performed using IBM SPSS Statistics 27[110].

For paper V verbatim transcriptions of audio-recorded interviews were analysed with reflexive thematic analysis in an inductive approach from a constructionist perspective[100,111-113]. We engaged in the analytical phases as follows: to familiarize

ourselves with the data we kept reflexive notes on analytic observations such as ideas of themes that came up during transcription, when reading the interviews, highlighting, and commenting on text exerts. This phase happened just as much away from the desk as in front of it with notes being taken at the kitchen table or with voice memos while listening to interviews when walking the dog. Initial codes were generated from notes, reflections, and discussions between the authors and then rewritten, and then again discussed, reflected upon, and adjusted. Some codes were latent, others semantic and close to the original data. The generation of themes was a process of clustering and re-clustering codes from different perspectives, relating to positive and negative experiences of BA and suggestions of improvements of BA, and based on different meaning-based concepts related to the experiences of BA (access, independence, and recovery). Codes were then grouped in a process of defining, naming, and reviewing themes ending in a tabular roadmap of what we thought the relatives were trying to tell us, which was then used to tell our story of the analytical outcome (See table 3, Paper V). Analysis was driven by RML with support from KL and JE. Analysis was partly performed using software developed for qualitative analysis (NVivo 14)[114].

Ethical considerations

Study participants gave consent to participate after being given information about the studies orally as well as in writing. All participants were given the opportunity to ask and receive answers to any questions they might have had about the studies and study participation beforehand. It was emphasized that participation was voluntary and could be stopped at any time. Study data was stored safely and separate from personal data. The authors had no potential conflict of interest. None of the authors performing data collection and analysis were involved in the care of the interviewed participants, directly linked to the participating clinicians, or employed at the clinic. None of the organizations contributing with funding had any role in the research, influence of its results or the interpretations of the findings.

For participants who were below the age of 15 (Paper III) legal guardians were asked for consent. The children were contacted by the interviewer first after consent had been given by legal guardians. The children assented to participate in the study and were also informed that they could choose to have a legal guardian or other individual of their choice present for support during the interview.

To reach participants in Paper V we applied to the regional health authorities after the study had been approved by the ethics committee for approval to use postal addresses of those who had BA contracts in Skåne. This was done to be able to send out information letters about the study. All letters were handled by a secretary at the

clinic. The interviewer did not have access to personal data about those receiving letters or their relatives unless they made contact themselves.

All studies were granted required ethical approvals; Paper I and II (2018-313), Paper III (2020-01840), Paper IV (2014-570, 2016-10, 2016-81), and Paper V (2019-02557, 2020-02098, 2023-00582-02).

This thesis, being mainly based on qualitative data, had a particular focus on making the voices heard among those affected by BA. Reaching out to, asking open questions, and taking the time to listen to those with access to BA, when evaluating BA, may be especially important given the target group. The quote below from one study participant illustrates this.

> *"The most difficult thing with this interview is… the feeling of having been stamped as a borderline-patient so many times. The attitude that I sit here and say it like this because I have a skewed picture of how things are. I react too strongly on things. I get too upset (…) So what I tell you is therefore twisted. And of course, this is from my perspective, of course. But it can also be that this is indeed accurate. Even though I have borderline, it can actually be valid."* (Adult with access to BA, Paper II)

Results

> *"It wasn't like I suddenly felt all damn fine. That's not how it works. But still, it felt like I had gotten some time to breathe. And to, like, take a break. And that I could actually tackle my problems when I get out."* (Adolescent with access to BA, Paper III)

For this section the results of the qualitative studies were reviewed to be presented according to the four original constructs within the framework for person-centred nursing; prerequisites (referring to those working to deliver person-centred care), care environment, person-centred processes and outcomes[96]. This was done by reviewing all the results sections of the four qualitative papers and with the use of four colours highlight parts according to the four constructs. The highlighted text was then compiled to summarize results by construct and to shed light on how the results of the qualitative research in the thesis align with the goal of person-centred care, and under what circumstances or in what perspectives BA may or may not function as a person-centred intervention. Results of the health-economic analysis were considered in relation to person-centred outcomes in terms of QALYs, while effects of BA on costs and cost-effectiveness are presented in a separate section.

In the text below the following definitions are used: 'HCP' refers to healthcare professionals who participated in Paper I, meaning individuals who were working in adult psychiatry with individuals in psychiatric care, including individuals with access to BA and specifically also with those individuals included in Paper II. 'Adults' refers to study participants in Paper II, meaning adults with access to BA, who had participated in BASRCT and who had had at least 180 days of psychiatric inpatient care before inclusion. 'Adolescents' refers to participants in Paper III, hence adolescents who had accessed BA through CAP. 'Relatives' refers to study participants in Paper V, meaning relatives to adults with access to BA, the latter referred to as 'loved ones' in the text below.

Prerequisites

Enthusiasm and harmonisation in approach

HCP said that enthusiastic professionals with drive and motivation were crucial for successful implementation of BA (Paper I). Wanting to provide the best possible care, they described it as a privilege to work preventively to provide help and hope in an open, joyful, and fulfilling approach where they were able to welcome individuals to the clinic. This was mirrored against experiences of disrespectful behavior among colleagues towards individuals with self-harm and a history of extensive hospitalization. HCP shared experiences of incompetent approaches among colleagues implying that self-harm behavior should be ignored because it was a deliberately uncooperative and attention-seeking behavior. They also shared experiences of the challenges working with this group of individuals with self-harm which had resulted in fatigue and frustration among staff due to not being able to help them effectively (Paper I). HCP reflected on their own shifts in thinking, describing BA in terms of moving away from concepts such as 'hopelessness' or 'never' to thinking more in terms of 'not now/not yet'. They said that this was a different attitude towards individuals who may have felt like being hopeless cases, given their history of extensive admissions including compulsory care (Paper I). HCP shared experiences of how BA, through the education and learnings from the contract negotiation process, had contributed to an ongoing shift within psychiatry towards a more professional and harmonized approach. Implementation of BA had increased their own and others competence in approach, being especially helpful for staff that previously had tended to be either too firm or too limitless in their approach (Paper I). Implementation of BA at the clinic had contributed to spillover effects on all admitted individuals, also patients in other forms of inpatient care than BA, as the structured approach had helped staff to be validating as well as able to require responsibility from those admitted (Paper I).

Adults shared positive experiences of how staff had shown increased consideration towards them as well as requiring increased responsibility, saying that this change in approach among staff had contributed to a sense of distancing them as persons from their problems (Paper II). They had experienced staff as welcoming, positive, and engaged, and flexible towards individual needs, which they expressed as being crucial for BA to work as intended (Paper II). Adolescents shared similar experiences of meeting dedicated and educated staff on BA, which they sensed were specialized in self-harm, and able to strike a balance between sticking to the structure and staying flexible to the adolescents' individual needs (Paper III).

Challenges in approach

Adolescents shared experiences of staff not following the BA-contract, such as stopping them from going outside during BA (Paper III). They said that being questioned by staff was perceived as especially challenging on BA due to their own strong feelings of uncertainty and hesitation when self-admitting to BA (Paper III). Adults shared experiences of being persuaded to stay on BA when wanting to leave to seek acute care and how this had ended in an overdose on BA and feelings of failure (Paper II). Relatives shared experiences of how staff had acted with rigidity and pressured their loved ones to stay three full days on BA instead of encouraging and respecting their loved one's wish to leave early (Paper V).

Another aspect relating to BA and approach in healthcare which was mentioned in the interviews were experiences of being rejected at the emergency care unit within adult psychiatry. Individuals working at the emergency care unit had referred to access to BA as an argument to not receive individuals to emergency care (Paper II and V). This was described as possibly linked to limited resources within emergency care, where individuals working at the emergency care unit might find it easier to prioritize an individual without BA thinking that individuals with access to BA at least has an additional option to access psychiatric inpatient care (Paper V).

The care environment

Collaborative care with continuity

HCP described BA as contributing to strengthening the link between outpatient and inpatient care, beginning with the collaborative contract negotiation (Paper I). Adults said that they experienced BA as a support in relation to ongoing treatments such as DBT, emphasizing that active support from their outpatient care contact was important to learn to self-admit to BA in time (Paper II). This was echoed by relatives, who referred to BA as a team-based complementary service alongside for example DBT and FACT (Flexible Assertive Community Treatment) (Paper V). Relatives said that BA contributed to creating a coherent safety net for a group of individuals who otherwise easily lose context (Paper V). They also described BA in terms of offering some continuity in relation to inpatient care by being an open offer in a system perceived to be otherwise characterized by alive-keeping storage behind locked doors. Relatives said that with BA they did not have to wait and start over with emergency care every time their loved ones were approaching crisis (Paper V).

Structure

HCP said that the fixed articulated structure of BA was a help for everyone involved to stick to it and helping them to do a good job (Paper I). The predictability which came with the structured approach of BA was experienced to create a sense of safety at the clinic with few unforeseen events as everyone knew what to expect (Paper I). Scheduling appointments everyday was described by HCP as improving connection between staff and individuals on BA. Adults echoed this by sharing experiences of a positive atmosphere and a structured approach at arrival (Paper II). The prebooked daily meetings meant that they did not have to worry about being noticed (Paper II). HCP described experiences of BA users being more relaxed and less reactive, which they related to the organization of BA (Paper I). They described individuals on BA as more predictable meaning that staff for example did not have to count the minutes when BA-users were taking a shower, as they were less worried about BA-users harming themselves (Paper I). Adults described a scheduled length of stay and a three-day limit as a guarantee against prolonged hospitalization (Paper II).

Mixing BA with emergency care admissions

Adults described struggles of learning early help-seeking with BA organized within an emergency care setting which they perceived as triggering, awakening traumatic memories of previous emergency admissions (Paper II). Being less sick than others at the clinic had made them feel insignificant and misplaced, wanting help from staff but thinking that staff needed to prioritize other admitted individuals (Paper II). Relatives shared similar experiences of the mixed clinic as a triggering environment making their loved ones feel less worthy, which they said had increased the threshold to use BA when needed (Paper V). Relating to this, one relative shared positive experiences of switching from a mixed to a separate BA clinic. Adolescents described the clinic as a potentially triggering and contagious environment where they had seen others self-harm (Paper III). HCP shared experiences of being concerned about ethical struggles in relation to how to prioritize their own work, arguing for a separate BA clinic (Paper I). They described experiences of dilemmas as they had prioritized individuals on BA before others, which had felt undignified towards those already admitted and very sick (Paper I). Relatives shared experiences of how staff at the mixed clinic had made their loved ones feel guilty for seeking BA, implying that another person in inpatient care had to be moved, which in turn had made it difficult for their loved ones to dare seek BA again (Paper V). The challenge of BA being provided at a mixed clinic could however also be outweighed by professional staff, who were able to stay attentive to needs and be precise, such as saying ‘in 20 minutes’ when not being able to attend to an individual on BA due to more acute needs among those being acutely admitted (Paper II).

Experiences of limited recourses

Relatives emphasized that there were too few beds devoted to BA, which had resulted in BA repeatedly not being available when needed (Paper V). They said that being rejected when calling for BA was a risky failure, which could trigger intense, difficult emotions that could be experienced as traumatic for participants and increase the threshold to call again, especially when being new to BA (Paper V). Adults shared experiences of being rejected when calling for BA, saying that it was tough when having collected the courage to call and already being very tired (Paper II). Adolescents emphasized the value of feeling welcome at any time and wished to be able to also self-admit after 8 pm (which was the set time limit for calling regarding BA at the time of the study) since their distress tended to increase during evening hours (Paper III).

Innovation and leadership

HCP emphasized the joy and inspiration they felt of working at the forefront and be an active part of what they described as an ongoing shift within psychiatry. They described BA in terms of testing their limits, contributing to keeping an open mind, and questioning routines and beliefs of how suicidal individuals belong in hospital (Paper I). They stressed the importance of enthusiastic support from the leadership being available when needed. They argued that the successful implementation of BA was partly related to the fact that the initiative was driven by a project leader who was a physician, implying a certain level of authority within the healthcare hierarchy (Paper I). They also stressed the value of BA meaning increased decision power and independence among nursing staff, who were responsible for receiving individuals on BA, managing supportive meetings and discharge. HCP said that this had resulted in experiences of a reduced hierarchy at the workplace, work satisfaction, and a more effective use of available competence.

Person-centred processes

Processes of change through participation and trust

HCP said that working with BA meant fostering independence through active decision-making and influence on own care. As HCP had adapted to the users' wishes and needs, they had experienced how individuals on BA had changed from being passive to being active. They described individuals on BA as influential, and informed, proud to have decision power and ability to act (Paper I). Adults described positive experiences of no longer having control taken away by compulsory measures and of not being put under observation (Paper II). They described the value of how remaining in control meant not having to lose self-respect or becoming

unmanageable (Paper II). BA meant liberation from distrust when not having their bags checked and being able to take their medication without having to involve staff (Paper II). They said that being trusted promoted a wish to protect others by not bringing anything dangerous to the clinic (Paper II). Gaining the authority to avoid having to wait and get worse meant being relieved from meaningless struggles of trying to explain themselves to a physician (Paper II). They described BA as a learning process for developing self-compassion and self-care while allowing for some disability (Paper II). Relatives described the relief of experiencing a lowered threshold to care, being only a phone call away. Not having to fight an obstructive system had meant that they and their loved ones were spared from humiliating processes of telling their lives story or persuade emergency care staff of how ill a loved one were (Paper V). Adolescents described how they had gained confidence when practising to stand up for themselves (Paper III). They described previous experiences of the emergency care unit where they had suffered long hours of waiting for a physician assessment. Having someone else decide on their needs had sometimes led to measures perceived as unnecessary, such as supervision, they said (Paper III).

HCP expressed that the contract negotiation, where needs and wishes during BA were articulated beforehand granted BA users influence. Through words written on paper from a stable position, HCP perceived that BA users were granted influence on a new level. HCP in outpatient care described how they had included BA as part of the crisis plan which they had laid together with their clients. The contract revision was described as an evaluation tool where progress could be acknowledged, and the contract could be adapted to fit current needs. HCP said that this way of working had resulted in redefining failure where they together with BA users could find a way forward together, digging as detectives to identify early signs of crisis to help users reach out for BA in time (Paper I). Adults described the contract negotiation as a learning process to keep the contract up to date for their individual purposes in a collaborative process with staff (Paper II). Adolescents described the contract negotiation as somewhat uncomfortable, having to put own weaknesses on display, while also pointing at the importance of being open. They said that it had been difficult to identify early signs of crisis and goals beyond ‘feeling better’, but that staff and parents had helped them out (Paper III).

HCP said that not being overly protected had supported growth among BA users. Leaving children or pets to others during BA and experiencing some guilt in doing so was a natural part of a healthy way of living (Paper I). Adolescents described experiences of unfairness when being dismissed after self-harm, but also experiences of being motivated to abstain from self-harm, knowing it would lead to discharge from help that they needed (Paper III).

Relationships

HCP described experiences of a shift from a destructive 'cat and mouse'-like relationship with those being admitted towards one characterized by partnership focused on meaningful recovery. They said that the move away from mistrust had meant that energy and focus had shifted towards trying to get better instead of trying to be or stay admitted (Paper I). This was contrasted to how high control was experienced to create a false sense of security and trigger self-harm. HCP shared experiences of fewer triggers and conflicts on BA compared to acute admissions (Paper I). They shared experiences of getting to know BA users better than before when they had only met them during periods of deep crisis and chaos (Paper I). Giving BA users increased autonomy and responsibility of their own well-being had led to reduced hierarchy and improved relations between them as staff and those admitting to BA. HCP said that it had meant giving back dignity and trust (Paper I).

Adults emphasized the importance of long-lasting close contact with professionals involved in their care, in inpatient care as well as in outpatient care (Paper II). Being familiar with staff was perceived as important because it meant not having to explain themselves. Adults described BA as a strategy to tackle feelings of isolation and loneliness (Paper II). Being too dependent on a certain member of staff could however also be experienced with shame (Paper II). Feeling welcome and even praised had contributed to a sense of changed negative attitudes from staff on them as attention-seekers and this had made it easier to use BA (Paper II).

Reviewing the contract together with staff upon arrival and having daily supportive meetings during BA were appreciated. Adults described the meetings as an opportunity to express needs here and now, which staff could adapt to (Paper II). Relatives said that talking to staff was an important reason for their loved ones to seek BA. Coming back to an ongoing conversation was brought forward as helpful, predictable, and familiar (Paper V). Relatives described how their loved ones had experienced a positive meal together with others at the clinic or discussed pictures of their pets with staff. They said that having something new to talk about and experiencing a change of environment and a little fun in all the not so fun were examples of small things that made a big difference (Paper V). Adolescents talked about the value of being listened to and approached with empathy without being judged. This had helped them to dare to take a first step to talk openly, having some weight lifted off their shoulders and feeling understood. They described the importance of talking also about the little things, such as the meaning of a song and of being saved by talking to staff during BA who had just kept them company or distracted them from self-harm impulses, for example by playing cards (Paper III).

Seeing to physical needs

Adults described their view on the primary objective of BA as being a way to fulfil basic needs of rest from everyday life (Paper II). Through BA they had been able to let go of daily duties and excessive thinking to just relax and sleep. Access to BA meant access to a space where they could just be, sink down, listen to music, read, or craft and not having to deal with everyday things, such as dishes, cleaning, cooking, laundry, and work. If they wanted to go outside for a walk, they could do so without pre-approval. Thereby BA had served as a brief break from stress (Paper II). Relatives described BA in similar terms, as a chance to relax, a healing stillness where their loved ones had been able to let go of despair for a while by slowing down, being served food, and take some time to read or craft (Paper V). Adolescents described using BA to get back on track with routines of sleeping, eating, and walking outside (Paper III). BA was referred to as a place where they could escape the worst despair, take a break from life, let go of everything and just focus on here and now (Paper III). Part of this was being able to self-admit to BA without having parents accompanying them. Being at the clinic without parents was described by the adolescents as giving them an opportunity to focus on themselves. Not having to take parents' feelings into account had meant that the adolescents did not have to hold back and control themselves by for example avoiding crying to spare parents (Paper III). Relatives also emphasized the value of their loved ones being able to leave home for a few days and do something on their own for a change (Paper V). HCP described BA as well-tailored to meet the needs among individuals with self-harm (Paper I).

Needs to address beliefs of not being worthy or capable

Adults shared experiences of questioning their right to take up a bed simply because of thoughts of self-harm or need for recovery (Paper II). They said they were feeling guilty for causing extra work or disturbing staff, which could result in them trying to stay out of the way during BA or deciding to leave early. They described themselves as being strange, difficult, and ill-functioning individuals, worrying about irritating staff, even when staff was encouraging (Paper II). They said that sensing that staff did not view their help-seeking as unjustified or exaggerated was important (Paper II). Adolescents shared experiences of not wanting to take a bed from someone else in higher need, and shared feelings of guilt for what they had put others through, especially parents (Paper III).

Adults said that not being checked or controlled had made them feel like staff were less engaged, struggling to believe in their own ability to handle the responsibilities of BA (Paper II). HCP had perceived the same thing, describing that reduced control could evoke feelings of being unguarded and unsafe during BA since prior admissions had been a way to block self-harm by locking in and controlling the

individuals (Paper I). Adolescents shared experiences of feeling less prioritized than others on emergency admissions, wishing to be treated equally, for example by being assessed for suicide risk and offered meetings with a physician or psychologist (Paper III). They shared experiences of having wished for a quicker solution than a BA-contract, with reference to always living with the evil self-harm demon which made them feel better short-term (Paper III).

Adults described the challenges to act in time to avoid being trapped in hesitation to call about BA, saying that support from others at moments like that was important (Paper II). Relatives described how their loved ones tended to lose confidence to call for BA when they needed to, which turned into a struggle of timing BA (Paper V). Relatives therefore said that it could take a long time to learn to use BA, even over a year, and that this required patience, especially towards those with prior trauma related to compulsory care. They shared experiences of how 'a speck of dust' may overturn everything and become a hurdle to call for BA (Paper V). Relatives suggested to put in efforts into mapping hurdles to call about BA to be able to address them, especially for those new to BA (Paper V). They also said that it could be of value to put efforts in from healthcare to meet their loved ones halfway when they had collected courage to call about BA and the clinic was full. Relatives suggested that it might be an idea to offer a queue system or call back (Paper V).

Person-centred outcomes

Feeling safe

HCP brought forward the value of BA in terms of providing a sense of safety beyond the walls of the hospital by being available when needed (Paper I). Adults described experiences of worthiness and respect when being welcome to receive care based on their own unique needs (Paper II). They said that they had felt a reduced reluctancy to seek help knowing that the risk of rejection was lower with BA. They said this meant that they were no longer forced to self-harm or act in a drastic way to get help – they did not have to prove their need 'in blood' (Paper II). Relatives described BA in similar terms, as access to pre-emergency help with less drama and a relief from a fearful unwelcome waiting for rejection at the emergency care unit (Paper V). They said that just having a BA contract, and knowing BA was available, was helpful in terms of providing safety and predictability to their loved ones (Paper V). Adolescents described BA as access to professional support with less drama in a safe environment, and how having BA to lean upon was helpful also when not using it. They said that access to BA had been a relief for the whole family, as they knew what to expect and no longer needed to fear rejection, and they said that they had enjoyed being able to decide themselves when and how to make use of BA before full-blown crisis (Paper III).

Building independence

HCP described BA in terms of learning by doing through stepwise practise to manage own well-being, which they said had the prospect of building up a competence for healthy living in the long term, comparing it to emergency care as merely temporary protection at a locked clinic (Paper I). They shared experiences of how they had seen those using BA learning to take care of themselves. HCP said that they had experienced how BA users went home after a brief three-day break on BA to continue with real life with a feeling of having successfully taken care of themselves (Paper I). They described BA as a small stopover which made it easier to seek help earlier as well as being discharged earlier (Paper I). Adults described BA as support with control and flexibility which they experienced as becoming more independent and keeping their integrity (Paper II). They shared experiences of having found it to be easier to manage life when having the possibility to take a break with BA (Paper II). They also said that BA had reduced the risk for self-harm by making them more aware of their own role and responsibility, rather than relying upon the level of external protection from self-harm. They shared experiences of being less of a burden to their families as they were becoming more independent and how using BA could almost feel like giving their partner a gift (Paper II).

Relatives said that BA had contributed to making their loved ones become more equal adults being able to use BA to unburden their relatives (Paper V). They described BA as a learning process which was building ability through control, offering autonomy for both relatives and their loved ones (Paper V). In relation to this, relatives also described how they themselves sometimes had struggled with letting go of control and the need to back off, admitting that they had forced loved ones to use BA to relieve themselves from informal care for a few days (Paper V).

Adolescents shared experiences of how seeking help early was building their ability to notice their own early signs of being on the road to self-harm and to actively choose alternative strategies. They described how they had been looking through their BA contract at home to remind themselves of their strategies to prevent self-harm. They said that they had found it to be liberating, motivating, and challenging to take responsibility to seek help, having never sought help actively before, and how this had developed their self-care ability. They reflected upon how they had learnt that waiting to call for BA would eventually lead to emergency admission. They shared experiences of the benefit of taking time to catch up with feelings instead of pushing them away. Adolescents described BA as a way to get help according to their own needs without losing their freedom. They said that their ability to remain in charge had reduced their resistance to seek help. BA meant freedom from having to explain themselves or wait for an assessment. It gave them enough time to get the break that they needed without being locked in, controlled, and monitored, and without feeling overwhelmed after a long admission. They

expressed that they were feeling proud to be able to ask for and receive help in time (Paper III).

Experiencing well-being and prevention

HCP described the joy of seeing users of BA appearing to feel better and prepared to go home after only a few days and said that BA offered hope, not by curing but by being enough to recover 'from twenty to ninety percent' (Paper I). As those using BA came to the hospital at an earlier stage before being highly suicidal and anxious, they were perceived by staff as more stable and more themselves (Paper I). Adults said that they thought that access to BA had prevented them from self-harming, attempt suicide and reduced the risk of ending up in prolonged hospitalization (Paper II). Relatives described BA as valuable in terms of making their loved ones feeling empowered and less guilty, increasing quality of life for both their loved ones and for them as relatives (Paper V). Relatives described experiences of being able to let go of control and daring to sleep when not having to constantly check on their loved ones. They shared experiences of how BA had offered them a breather from the constant presence of ill health they had in their lives as relatives to a loved one with suicidal and self-harm behaviour. Relatives also described how they had been able to tend better to the rest of the family and enjoy work more when being less interrupted due to emergencies (Paper V). Being able to focus more on their own needs, relatives said they had been able to for example take care of their own mental illness or other aspects of life which had been set aside (Paper V). BA had offered virtuous cycles of rest and recovery providing time off for both the relatives and their loved ones, as they were able to rest apart and meet again feeling better. All these effects combined were described as valuable for the relatives' relationships to their loved ones. The social value of BA had reduced the relational strain between the relatives and their loved ones (Paper V). Adolescents said that BA had saved them from self-harm by helping them to avoid acting on impulses, especially during times where they were struggling with feelings of not wanting to live (Paper III). They described how BA had helped them to keep themselves together, stay in touch with life, avoid complete exhaustion and manage the school semester when being able to access brief breaks on BA. Adolescents shared experiences of reduced stress as their burden on their parents was reduced when the adolescents self-admitted for a few days on BA. They said that these breathers had helped them to tackle life and that they thought it had prevented them from ending in longer hospitalisations (Paper III).

Quality-adjusted life years

QALY calculations based on converted WHODAS 2.0 responses showed that access to BA was associated with a QALY gain of 0.078 during the year of the trial

(Table 3, Paper IV). This difference was found to be statistically significant when comparing the means between the randomized groups in an independent samples test ($t115 = 3.988$, $p<0.001$, Cohen's d: 0.738, 95% Confidence interval: 0.361–1.111). There were two deaths in the control group (meaning that they received zero health utility from that point onward). A significant gain in QALYs associated with access to BA remained when excluding these two. Given that the differences in QALY were found to be significant and positive access to BA was associated with increased quality of life.

Costs and cost-effectiveness

Costs

Analyses on effects of access to BA on inpatient care costs based on BASRCT (n=117) indicated ambiguous results. With an estimated 85 percent bed occupancy rate annual costs for the group with access to BA were 4800 euros lower compared to the control group without access to BA, while BA was associated with increased costs of 4600 euros per participant during the year of the trial when calculations were based on the actual bed occupancy rates during the year 2020 (Table 2, Paper IV).

The long-term follow-up (n=81) where individuals were followed up to five years with access to BA indicated a decrease of over fifty percent in annual inpatient care days and related costs over time. Costs reduced from an average of 70 000 euros per person per year to below 30 000 euros per person per year (see Figure 3 in Paper IV). The majority of the study participants had chosen to self-admit to BA multiple times during the follow-up years. Over the five years of follow-up ten participants died, whereof seven by suicide or suspected suicide (Paper IV).

Cost-effectiveness

Dividing the difference in costs with the difference in QALYs between the two groups in BASRCT resulted in an incremental cost-effectiveness ratio (cost per QALY gained) ranging from 59 000 euros to BA being cost-saving (Table 4, Paper IV). Figure 1 shows cost-effectiveness results based on 85 percent bed occupancy rates and 1000 bootstrap replications where incremental costs and gained QALYs were created through random resampling of 1000 samples of cost- and QALY-pairs of the individual-level data from BASRCT. As indicated by the significant effect on QALYs associated with access to BA, no samples were in any of the two quadrants to the left, meaning that all samples indicated a QALY gain with access to BA. Results in terms of costs were ambiguous spread between the two quadrants to the

right. Figure 1 also contains the corresponding cost-effectiveness acceptability curve, showing the likelihood of BA being cost effective at different levels of willingness to pay per gained QALY. With zero willingness to pay per QALY gained BA was 64 percent likely to be cost-effective, corresponding to 64 percent of the dots in the scatter plot below being in the lower right quadrant. With increasing willingness to pay per gained QALY the likelihood of BA being cost-effective increased, being above 90 percent at a willingness to pay per QALY of at least 210 000 euros.

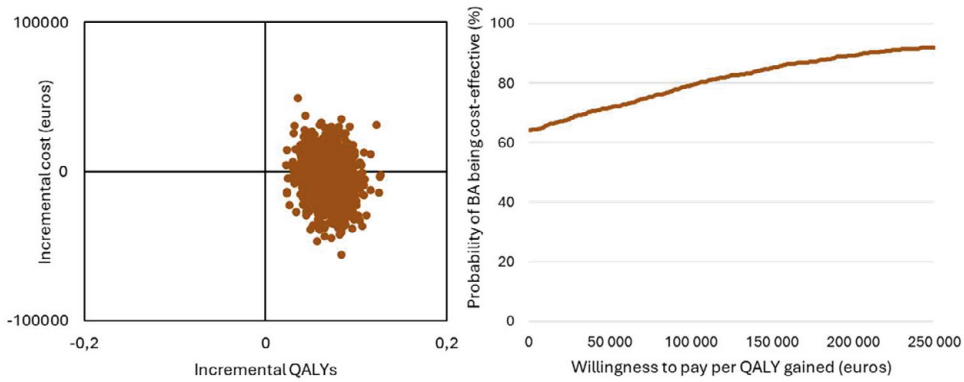

Figure 1. Scatter plot of 1000 bootstrap replications of incremental costs and QALYs gained with BA compared to usual treatment alone (to the left) and cost-effectiveness acceptability curve based on a bed occupancy rate at 85 percent (to the right) (n=117)

In a separate analysis, individuals with a history of more than 180 days of inpatient care during the year before entering the trial, consisting of 16 individuals (nine of which had been randomized to have access to BA) were excluded from the analysis. These individuals had combined been admitted over 4000 days in inpatient care (mean 254 days per person), whereof 40 percent (1623 days in total) in compulsory care during the year before the trial. Most of them (13 out of the 16) had been admitted to compulsory care during the year before the trial and six of them had been in compulsory care more than half of the inpatient care days they had had the year before the trial. This group represented 14 percent of the study population (n=117) and accounted for 39 percent of inpatient care costs during the year before the trial and 24 percent of the costs during BASRCT. Excluding this group from the analysis was a way to estimate the effect of access to BA among a group of less severely ill individuals. Results indicated an increased cost per QALY gained (Table 4, Paper IV).

Discussion

"I believe [Brief Admission] has resulted in more admissions and helped me more with self-harm. Without BA, I don't think I would have sought so much help." (Adolescent with access to BA, Paper III)

General discussion of the findings

This thesis evaluated BA in relation to diverse stakeholder perspectives and health economics, both of which are core elements when researching a complex intervention according to the MRC framework[98]. The qualitative studies also covered several aspects of BA in relation to context and interaction with the care environment, which is another core element in the MRC framework[98]. In the following discussion the overall results are discussed in relation to person-centered nursing and health-economics and related to other research. Key aspects of results relate to value and approach, potential pitfalls, organization, and staffing.

The value of BA

Results relating to the value of BA are recognized from prior research. The possibility to use BA to rest, prevent self-harm and potentially iatrogenic hospitalizations with BA has been indicated before[115]. Being able to use self-referral as a timeout to maintain or regain routines when life was difficult, sensing increased security knowing help was available as well as being able to take responsibility by learning more about own early signs of deterioration and being involved in own care has also been seen in previous research on psychiatric self-referral[116,117]. The aspects of BA offering access to social contact, relaxation, and support to fulfil physical needs of sleep and food are essential aspects of person-centred processes[96]. A Danish interview study where individuals with access to self-referral were compared with individuals without access to self-referral indicated that those with access to self-referral were more hopeful, confident, and active, appearing to be closer to live a normal life, concluding that self-referral supports recovery[118]. The safety of experiencing improved access to care on their own terms, indicated care satisfaction linked which is specified as an expected outcome of person-centred care[96]. A Swedish study of effects on psychiatric symptoms and quality of life

indicated significant positive changes during self-admission[119]. The significant gain in QALYs associated with BA in Paper IV is potentially combining the value of the admissions and the value of having access to them, as measurements were not depending on usage.

The beneficial effects of BA related to close relatives in terms of seeing each other getting rested and experiencing improved relationships supported the notion of recovery as a social process[120]. Given the shared experiences in the qualitative studies this effect may well have contributed to some of the positive effects of access to BA on QALYs, for example captured through WHODAS 2.0 items related to 'getting along with people who are close'[88]. Improved possibility to maintain relationships with the help of BA has also been found in prior research[117]. Relief of relatives, who are likely to live with anxiety and fear[121], was a motive for about ten percent of patient-controlled admissions in a Danish study, although handling mental, social, or practical problems were more common motivators for self-admission[122]. Notably, using BA for the sake of an overburdened family member was one of the indications for BA which there was high consensus for in the Delphi study looking at components of BA[83].

Study participants described how BA through positive experiences of care and contact with staff, as well as not having to compromise freedom, reduced their resistance towards help-seeking. This fits well with prior research pointing at the importance of the care relationship, perceptions of being listened to for seeking care and how negative experiences of care may affect future help-seeking[72]. Increased help-seeking with BA is indeed motivated if historically avoided as was implied by study participants. It raises the question to what extent psychiatric self-admission may affect hospitalization rates and needs to secure availability, as a BA-contract offers access up to over 100 days of admission annually without gatekeeping. Quantitative studies in Sweden (BASRCT[87]), Denmark[123], and Norway[124,125] have showed no impact on total service use when comparing groups with access to self-admission to groups without access. Our study added to this by showing effects of access to BA on admissions and costs which were more than halved over five years.

The value of BA in terms of cost-effectiveness will depend on the willingness to pay per QALY gained. In Sweden there is no specified threshold of cost per QALY gained for an intervention to be considered cost-effective. Substantial weight is being placed on severity of disease[126]. The objective of Swedish healthcare is to ensure good health on equal terms with respect to human worth, need and cost-effectiveness – in that prioritized order[95]. Healthcare should be provided with good quality, accommodate needs for safety, continuity and security and build on respect for autonomy and integrity, according to the national healthcare law. In the qualitative studies our participants shared experiences of a range of benefits with BA in terms of providing care more in line with worthiness, autonomy, safety, and continuity. This should be considered when assessing the willingness to pay for an intervention like BA, as not all these effects may be captured in QALY and cost

measures. If BA contributes to a more person-centred care this may have a value in itself, considering the ethical platform which is set to guide Swedish healthcare.

The approach

The contact with experienced staff and prebooked supportive meetings were crucial according to qualitative results. Relationships with staff and individualized welcoming approaches will likely lay the ground for the opportunity to encourage self-admission, as mentioned before[127]. Boosted competence in approach with spillover effects on the general culture of the workplace in a direction of a more balanced and harmonized approach indicates the link between care environment and prerequisites for person-centered care[96]. Knowledge, motivation, and enthusiasm among nursing staff as crucial factors for BA has been lifted in prior research[116].

The effect of the organization of BA on the outcome is, according to the results of the qualitative studies, largely mediated by the ability among healthcare professionals to respond to events or a sudden emergency on a mixed clinic without losing attentiveness to individuals who have self-referred to BA. Staff could run the risk of becoming too eager in relation to BA or temporarily lose sight of the goal of supporting BA users to make the right decisions to get the best possible care for themselves at every given moment. A balanced approach was one which supported and motivated without pressure or agenda, and constantly with the perspective of the individual seeking BA in mind, whether this was to leave BA a day early or needing to leave BA for emergency care. Effects of staff competence on the sense of safety during BA is recognized from other research on self-admission[127].

Outpatient care contacts play an important role for BA, being dependent on the link between outpatient and inpatient care but also strengthening professional collaboration, which has been found in previous research on experiences of BA among healthcare professionals[128]. Professionals from outpatient and inpatient care may contribute with different perspectives, having seen the individuals in different states, which may add value in the process of writing the individualized contract[128]. Outpatient care professionals being aware of BA and actively supporting users in when and how to use BA was brought forward as important for BA to have an impact. Other research has found BA to serve as a useful complement to outpatient treatment which may increase outpatient treatment opportunity[129].

Potential pitfalls

As given by all four qualitative studies the availability of BA was crucial. BA being available when needed was the basis for feeling safe having the contract. Other qualitative research has described denial of BA as feeling like a betrayal, leading to lost confidence, and unwillingness or difficulty to call again according to

experiences among relatives[115,121], and being an apparent area of improvement according to experiences among users[116]. A high enough bed occupancy is relevant for cost considerations, while securing availability through enough number of beds is crucial for psychiatric self-referral to provide safety[130]. The separate clinic for BA in Lund, which made it possible for us to separate costs for BA from other admission types, had eight beds and an average bed occupancy rate at 49 percent during its opening year 2020. Over time the bed occupancy rate increased approaching full bed occupancy by 2023 (see Figure 2).

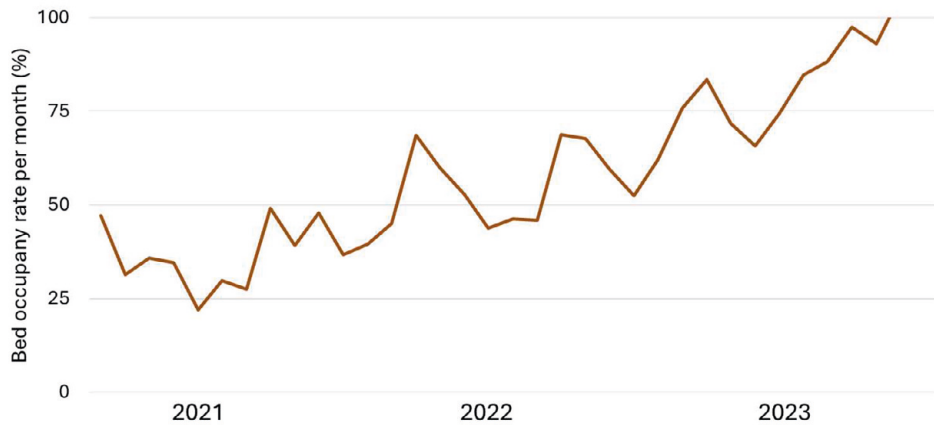

Figure 2. Average bed occupancy rate (%) per month at the BA clinic in Lund from 2021 to 2023.

With 228 BA-contracts by May 2023 the number of denials at the BA-clinic in Lund during 2023 varied between two and eighteen per month with an average of seven per month, based on statistics collected by staff working at the clinic, why it was decided to increase the clinic from eight to ten beds in 2024. Hence, around 29 contracts per bed was assessed to be too limiting in terms of availability. For comparison, when psychiatric self-admission was introduced in Denmark the minimum to maximum number of contracts per bed were estimated to between 15 and 35[122]. There will continuously be a need to monitor availability and assess the optimal number of contracts per bed in relation to available human resources and costs to maintain the value of BA.

Staff's ability to understand views on psychiatry and possible prior negative experiences from care and how these can be addressed are crucial to avoid or handle events or aspects of BA which may hamper future help-seeking. Those with a history of extensive admissions appeared to be more affected by their history of care, especially in relation to compulsory care. Sensing that staff had unprofessional attitudes or were uneducated in BA, by for example being unaware of contract content or not knowing the objective of BA could lead to hesitation among users to

come back, confirming how good insight into content of care is an important prerequisite for BA to be person-centered[96]. Not being checked or controlled by staff could be perceived as staff not caring as much due to previous experiences of high control and compulsory care.

The mixed clinic, where BA is provided together with emergency admissions including compulsory admission may be potentially triggering, remind individuals with access to BA of negative experiences from prior emergency admissions, or expose them to others in crisis and acts of self-harm. This was brought up in all four qualitative studies. Although these factors, which may delay recovery during BA, were emphasized more in the studies focusing on individuals with a history of extensive admissions (Papers I and II), adolescents shared similar experiences of sharing the clinic on different conditions, making them doubt themselves and their right to take up a bed and time from staff. This may imply that there is a higher need for staff to work even more with users' beliefs at mixed clinics as those admitted to BA may compare themselves to others on emergency admission. It should be mentioned that there were also examples of individuals who felt safe coming back to a clinic and staff they knew from before and who could support them and discuss strategies in relation to BA, regardless of what admission type they were on. Parallels may be drawn to the parents' experiences of BA relating to safety and well-being for their children as well as unworthiness and abandonment[131].

Organization

The uptake area, the expected need for BA contracts, expected usage of BA, staff availability and recruitment possibilities, available premises and budget all affect the decision on how to best provide BA. Separating BA from other admission types may improve conditions for adapting the organization to the BA concept, with features such as less restrictions, unlocked doors, and a calm environment as everyone is in a milder state of illness[67]. It may also make it easier to establish a common way of working, maintain competence among staff and facilitate recruitment and leadership[67]. The care environment is a major contributor in terms of limiting or facilitating person-centred processes and outcomes[96]. However, one to two beds on BA are hardly motivating its own clinic and would likely be costly in terms of staff. More beds dedicated to BA will on the other hand require a larger uptake area, which may affect travel distances from home to the clinic, and the perception of access for individuals with BA-contracts. This was mentioned as negative by adolescents who had access to BA in one city in the region, while four clinics in four different cities within the region provided BA for adults.

Content and target groups for psychiatric self-admission differs across regions and countries[67,122]. This may have implications for how psychiatric self-admission is best organized. For example, in the Stockholm region, individuals seeking patient-controlled admission (PCA), aimed at individuals with severe psychiatric

conditions, are assessed upon arrival for the need of regular intake. PCA may also be converted into a regular admission if deemed necessary[132]. Considering this it may be of value to provide PCA at mixed clinics with access to physicians and psychologists, to ensure coherent care, where individuals do not have to switch clinic if PCA is converted into regular admission. On BA, on the other hand, it may be of value to keep admission types separate since help-seeking and admittance procedures and care are clearly separated and different from acute admissions.

Staffing

With BA nursing staff were given new work tasks with increased agency, becoming responsible for receiving individuals on BA, independently seeing to them during admissions and conducting scheduled supportive meetings. Healthcare professionals described this as an effective use of available professional competence. Nursing staff described experiences of being strengthened in their professionalism and experiences of positive outcomes with BA. Positive effects of this could include reduced work-related stress[133] and increased work satisfaction[130], which may be important considering descriptions of frustration among staff caring for individuals with self-harm behavior[71]. Other research has shown that employees at the CAP clinic in Malmö providing BA scored a high satisfaction with the implementation process of BA, acceptance of the model and its benefits[90]. One contributing factor could be that the implementation of BA in CAP in the Skåne region was based on a process developed by a team which also included nurses' aides, hence, those who were the primary contacts for adolescents on BA[90]. Although generally viewing BA positively, experiences of lack of agency among staff, such as a sense of not being recognized as knowledgeable or excluded from being involved in planning and implementation, has been perceived as a hurdle for implementing BA for adolescents within CAP in the Stockholm region in Sweden[134]. This points toward the importance of professionals to sense involvement in decisions and good insight into care[96].

With similar bed coverage between acute admission and BA, costs were lowered with BA, which is explained by lower costs for staff accounting for the majority of costs at the BA clinic. At the same time BA users were appreciating the staffing on BA, their approach, and the predictability of BA, being relieved from negative experiences of assessments and denials, which users especially associated with physicians. A Norwegian study on psychiatric self-admission implied a more efficient use of professional resources as the intervention is meeting needs when led by nursing staff[130], while implementation of psychiatric self-admission was associated with increased costs in Denmark[135]. The fact that contacts with physicians or psychologists were not included on BA and that no extra staff on BA was needed for surveillance and other compulsory measures which were used within emergency care, reduced staffing costs for BA compared to emergency admissions.

Methodological considerations

In this section the methods are critically discussed, beginning with the trustworthiness of the qualitative studies in relation to recommendations for the methods used (qualitative content analysis[106], phenomenological hermeneutical method[101], and reflexive thematic analysis[100,111,113]). Thereafter follows a section on the health-economic analysis in relation to assessment of economic evaluations[102]. Methodological considerations end with a section on self-reflective notes.

Trustworthiness of the qualitative research

Qualitative content analysis

For qualitative content analysis (Papers I and III), used to analyze experiences of BA from the study participants' perspectives, interrelated concepts like credibility and transferability are relevant to consider in relation to the research procedures[106].

All individuals with potential experiences in relation to the study aims of Paper I and III were invited to participate. Participants in Paper I represented different parts of Skåne, had different professions, and represented both outpatient and inpatient care. This means that the participants may have varying experiences in relation to BA, looking at it from different perspectives, which relate to the credibility of the research in terms of richness[106]. In Paper III only women participated in the study which may have affected transferability, as results cannot necessarily be transferred to other groups. For Paper III most of the interviews were performed over the telephone, because of restrictions in Sweden during 2021 related to the corona pandemic. Interviewing over the phone may have affected results, by for example making interviews shorter due to a sense of distance between the interviewer and the participants. However, there may also have been positive effects in terms of participants having an easier time opening up to a stranger when not meeting in person. Some adolescents in Paper III had current access to BA at the time of the interview and others had had it before but not at the time of the interview. This may have affected the ability to recall.

We were two researchers who were involved in the analyses, reviewing data independently and discussing the division of data into meaning units, condensation, coding, and our interpretations. This process was rigorous with many hours of meetings where we sometimes easily agreed and other times had longer discussions with respect to our understanding of the data and how we interpreted it. Representative quotes were used throughout the presentation of results to exemplify how results were linked to the data and enhance the readers ability to assess transferability[106]. Examples of meaning units from the interview data, coding, sub-themes, and themes are exemplified below (Table 2)

Table 2. Examples of meaning units, condensed meaning units, codes, subthemes and themes in the qualitative content analysis performed in Paper I and Paper III.

	Meaning unit	Condensed meaning unit	Code	Subtheme	Theme
Paper I (health care professional)	*"..this safety that you get when having access to inpatient care*	The safety of having access to inpatient care	BA means safety	Sensing safety and security	Introducing and maintaining predictability
	without having to fight for it the way that they used to do."	BA gives access to inpatient care without having to fight to get in	Access without having to fight	Being able to welcome and meet needs	Replacing the "cat and mouse"-game with playing on the same team
Paper III (adolescent with access to BA)	*"Then I had had plans for a pretty long time of doing an intoxication. But I managed to somehow stop a little in time.*	Managed to stop plans of an intoxication in time	Stopped plans of intoxication in time (with BA)	Saving yourself from impulses to self-harm	Feeling safe and relieved
	So I called them. And I got a spot. Eh. And went there the same day."	I called, got a spot and went there the same day	Called – got a bed – went the same day	Having access with less drama	

Phenomenological hermeneutical method

In Paper II a phenomenological hermeneutical approach was used, meaning creating a text (interviews), interpreting the text and formulating the results[101]. The interviews, performed by two registered nurses specializing in psychiatric nursing programs at Lund University, were rich in content because of the interviewers' presence and thoughtful interaction with engaged study participants. However, the interviewers were not involved in the interpretation. It is likely that the understanding of the interview texts, constructed through the interactions between the interviewers and those being interviewed[101], was affected by that. In hindsight it might have been an idea to have let the interviewers at least read through our interpretation and ask them to share their reflections on it.

The interpretation was a dialectic process, moving between structural analysis (dividing the text into meaning units which were condensed and assembled to subthemes and themes), reading, and 'feeling' the text and relating it to our aim, our preunderstanding, relevant research, and concepts or theories which could be used to enhance our understanding of the meaning. Although the process followed a logical order (reading to get an overall impression, followed by a detailed analysis, followed by summaries and reflections) this was a creative dynamic process were

we were moving back and forth, in line with the approach[101]. Us performing the interpretation affected our comprehensive understanding, especially our backgrounds in public health and psychiatric nursing and our preunderstandings of concepts, for example related to nursing and human rights.

We used (sometimes rather long) quotes together with descriptions of our interpretations to remain close to the lived experiences of the study participants and disclose our interpretations. One particular learning during this study was the notion that when a study participant was struggling to find the words, perhaps even saying 'it is difficult to explain' or 'I can't explain', this was often preceded or followed by what we sensed to be true narratives, where we paid extra close attention to what was being expressed.

Reflexive thematic analysis

For Paper V we started by having an open discussion in the group among us involved in the study regarding choice of analytic approach, deciding on a reflexive thematic analysis due to wanting to research experiences inductively in an open and deliberate way[111]. We wrote individual self-reflections and shared them among us involved in the analysis. Reflections related to who we were, our prior experiences in relation to the study aim and our theoretical backgrounds. We saw it as a strength that there were three of us involved in the analysis with both similarities and differences in background. While two of us had studied BA in Region Skåne previously, one of us had researcher experience from a similar model in Stockholm, contributing to a valuable additional perspective adding to the reflections on the data. Our approach to working deliberately was to openly discuss how we were approaching the work going forward through the analytic phases.

We invited participants to focus groups to increase the likelihood of rich data focused on the relatives' perspectives, hoping to stimulate interaction for enriched data[136]. The passive recruitment strategy through mailings and posted information at the clinics and online may have made it more difficult to motivate participation. Family members being more likely to focus on their loved ones' life situations and suffering, rather than their own during interviews, has been a challenge in previous interview studies considering relatives' experiences of BA[121,131]. This also happened during our focus groups but perhaps to a lesser extent, as the study participants appeared to be engaged by meeting others in similar situations.

In our work we were aiming to understand the world of the relatives from their individual perspectives, while also aiming to stay aware of how our own backgrounds might shape interpretations throughout our planning of the work, our interactions during the focus groups and engagement with the data. With respect to reporting in Paper V we wrote the method section in first person to be open about our subjective views and referred to 'data generation' instead of 'data collection' to imply our own active roles in cocreating the data. We tried to be rigorous in our

descriptions of how we engaged with the data for transparency. Below is an example of data extracts, coding and reflective notes linked to meaning-based concepts.

Table 3. Examples of data extracts with coding and reflective notes linked to meaning-based concepts in the reflexive thematic analysis performed in Paper V.

Data extract	Coding	Reflective notes	Meaning-based concept
E: I think my partner has had difficulties at some point to call for a bed and so on. And that it was… *C: Because she couldn't call and had difficulties…?* *E: Right, I mean, she didn't have that capacity just then. To make contact like that.*	Access decreases with capacity to take contact	Difficulties/ reduced capacity to make contact in the way BA requires, affects the sense of access	Access
F: Without being forced. She is not being admitted to inpatient care. And that means so much. Like, she is here voluntarily.	The significance of free will	Without force, not (regular) inpatient care.	Independence
F: I mean, I think it is so good here. And so does my daughter. And I also think it it is so nice. Because then I know that she is not.. Because I, like, as a mother, calls 'have you eaten today?' And then she doesn't answer the phone. And then.. yes.. she doesn't answer the phone. Because she doesn't have the energy, because she doesn't, like, have the capacity to answer the phone. Yes. And then I know that, yes but now she is here. She gets routines, she gets food.	Relief Relaxing without worry Not having to chase her on the phone	The section gives an insight into how the mother is constantly watching over her child.	Recovery

Quality of the health-economic assessment

Our health-economic analysis fulfil several requirements for an analysis of good quality, including examining both outcomes and costs of two alternatives, were one was usual care, thereby comparing relevant alternatives, analysed incrementally based on a clearly defined target group[102]. Analysis was based on a randomized controlled trial which in turn followed a protocol based on a standardized intervention with a manual[84,87], which is still in use today. Therefore, our analysis can be said to be relevant for clinical practice. BA was developed for and analysed on individuals with self-harm behaviour, hence results may not be valid for other groups.

Unit costs based on real-life cost of healthcare and long-term observation collected form patient records points towards good reliability. Costs were based on objective data collection without any recall bias or missing data, as would have been the case if study participants had self-reported inpatient care. QALY calculations based on WHODAS 2.0 were performed with a country-independent mapping function since no function was available for Sweden. Similar results were found when using the

only mapping function available based on a European country (Slovakia). WHODAS 2.0 assesses the last 30 days but was used as basis to calculate QALYs for the last six months, which may have affected results. Uncertainty analyses were performed through bootstrapping, scenarios, and subgroup analyses.

Costs not considered in the analysis include outpatient care costs, indirect costs in terms of lost productivity, costs related to mortality and other societal costs which may be relevant for the studied group, such as costs for police or rescue services related to suicide attempts or suicides or legal costs related to compulsory care. Considering the results of the qualitative studies, it would be relevant also to include outcomes of BA for relatives.

Self-reflective notes

I was very aware of my own bias towards BA from the beginning – because I fell in love with the idea and was inspired by the different and free set-up. I did not want the studies to show that BA was a bad idea. I think that being aware and saying it out loud to colleagues was a way for me to make sure it did not affect results (too much). Being a middle-aged mother without clinical experience would have affected positionality during the interviews, especially in relation to the adolescents (Paper III). In my life, I have experienced mental illness among those close to me, mainly when I was a child. I have seen the suffering of loved ones to those who are mentally ill. I have experienced the value of engaged people stepping in. This will have affected my listening, questions and interpretations of the experiences shared in the interviews.

In relation to the different designs and analytic approaches used in the qualitative studies, qualitative content analysis felt like a good way to start my qualitative journey, with good guidance from supervisors. In the phenomenological hermeneutic analysis[101] in Paper II I learned a lot about the value of moving back and forth between small parts and the bigger picture and about thinking more actively in terms of metaphors and theory but it was also a struggle where I sometimes felt steered by the method-paper. This was quite the opposite when working with reflexive thematic analysis in Paper V. I became aware of my quantitative background and differences in views within qualitative research. In the world of reflexive thematic analysis my knowledge of qualitative research was brought a bit upside down as concepts like triangulation, member checking and consensus according to Braun and Clarke are stemming from positivistic perspectives[111]. I realized that these perspectives are deeply rooted in me. I like them, they make me feel safe because they offer a sense of order. Being able to set them aside, be more confident in my interpretations and the way I engaged in the analysis was developing – and made sense. Still, I am glad I did not start with reflexive thematic analysis.

Conclusions and implications

> *"It is a little like an open entry to healthcare." "The problem is that the worse you feel, the more it turns into "no, they don't want to have me there".* (Quotes from relative to individual with access to BA, Paper V, and individual with access to BA, Paper II)

This thesis studied the value of BA from two different perspectives: value in terms of person-centred outcomes and value in terms of health economics. Results point toward BA as being characterized by person-centered nursing for individuals with self-harm behavior. Qualitative studies with users, healthcare professionals and relatives pointed at experiences of BA to meet individual emotional and physical needs and support independence, based on participation and trust. Major outcomes of BA at the individual level, based on shared experiences, included an increased sense of safety going beyond the walls of the hospital, increased autonomy and well-being, and prevention of self-harm and emergency care. Outcomes were experienced to expand beyond users, encompassing recovery among relatives and families and improved relationships as users could use BA to take care of themselves as well as loved ones. A health-economic analysis based on a randomized trial indicated that BA was associated with a significant gain in quality-adjusted life years while cost-effectiveness depended on willingness to pay, severity of illness and bed occupancy rates.

The major hurdle for BA to function as intended were the beliefs among individuals with access to BA of not being worthy or capable of seeking and receiving help. These inner beliefs were largely shaped by prior experiences of care being unavailable, controlling, and disrespectful. The major facilitating factor for BA to reach intended outcomes was the relationship with nursing staff. The ability for staff to respond effectively to the needs of those at BA was experienced to be the result of their competence and experience and the organization of BA, where too few beds or mixing BA with emergency admissions, may be challenging.

Healthcare professionals need to be constantly aware of the hesitation and self-doubt which is likely present in an individual seeking BA. They need to actively work to understand the objective and content of BA and stay aware of how their actions may affect those with access to BA. Close relatives may be a valuable resource to gain insight into individual needs and potential pitfalls which may make BA difficult to use.

Future research

Future research may look at the burden of relatives in quantitative terms to include effects of BA on informal carers by for example costing carer time and measuring outcomes for relatives to individuals with or without access to BA[137]. Results of such a study could be used in a health-economic evaluation of BA from a societal perspective.

The variation which was seen in relation to effectiveness and usage of BA during the year of BASRCT and years of follow-up calls for a need to learn more about how and why usage and benefit of BA varies between individuals, for example in relation to individual characteristics, prior and ongoing treatment, and individual evaluation of the quality of BA. Results could contribute to information about potential inequality effects and provide insight into the planning of provision of BA.

The many qualitative studies which have been published during the last decade regarding experiences of psychiatric self-admission may call for a meta-synthesis to integrate findings. In relation to this it will also be important to perform a descriptive analysis of differences between current models of self-admission, including how and why they were developed and implemented, their structure and targeting.

With reference to results pointing towards BA strengthening as well as being strengthened by collaboration between inpatient and outpatient care it would be interesting to learn more about how combinations or 'packages' of care may contribute to care continuity, care satisfaction and outcomes, such as the combination of BA and DBT to learn more about systemic effects and complement research of isolated interventions.

Research on BA for adolescents is an area which will need to be explored further. For one thing, there are no controlled trials evaluating BA for adolescents. In addition, experiences of BA from the perspective of healthcare professionals working in CAP may provide additional important perspectives in relation to BA for adolescents. Another aspect could be to involve friends in research, considering that help-seeking is key within BA and adolescents are known to primarily turn to their friends for help and support[27,138].

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