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## What matters when implementing Flexible Assertive Community Treatment in a Swedish healthcare context: A two-year implementation study

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#### ABSTRACT

Despite the lack of scientific evidence for the effectiveness of Flexible Assertive Community Treatment (Flexible ACT), the model disseminates rapidly in the mental health services in a number of countries. This is in contrast to many evidence-based practices that often face comprehensive implementation barriers. Knowledge is needed on the dissemination of Flexible ACT to understand the relative success. The aim of this study was to explore program fidelity and factors influencing the implementation of Flexible ACT in a Swedish healthcare context over a 2-year period. Seven mental healthcare teams who decided to implement Flexible ACT were included in the study. Interviews were conducted regularly with project leaders and team leaders, and steering group meeting notes and implementation progress reports were collected during a 2-year period. Flexible ACT fidelity assessments were conducted 6 and 18 months after implementation started. Data was analysed using conventional and directed content analysis and the Sustainable Implementation Scale. All teams reached at least good fidelity 6 months after implementation, and the fidelity scores remained stable over an 18-month period. An active national initiative and support to implement Flexible ACT, as well as a willingness among managers and staff to implement the model, contributed to the seemingly swift and easy implementation. Despite the highly sectored Swedish healthcare context, implementation of high fidelity Flexible ACT was possible. Positive mental health professional attitudes, belief in the practice, and desire to offer the practice appear to have central roles when implementing new practice models in mental healthcare.

#### **KEYWORDS**

Evidence-based practice; implementation; integrated care; mental health; severe mental illness

#### Introduction

Despite overwhelming research evidence in favor of many evidence-based practice (EBP) models, implementation is difficult and takes many years to implement across multiple healthcare contexts (Damschroder, Aron, Keith, Kirsh, Alexander, & Lowery, 2009; Fixsen Naoom, Blas, Friedman, & Wallace,

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2009). Many of these models also fail to translate into effective client healthcare outcomes (Damschroder et al., 2009; Hasson, Andersson, & Bejerholm, 2011). This results in many persons with severe mental illness not receiving evidence-based care (Hasson et al., 2011). Implementation barriers arise at multiple levels, i.e., client, team/group, organizational, and policy/political levels (Damschroder et al., 2009; Hasson et al., 2011; Fixsen et al., 2005). As a result, implementation research has emerged in relation to translating effective EBP research models into effective healthcare outcomes. This research is extensive and shows that a range of factors influence the implementation process in a dynamic way (Damschroder et al., 2009; Fixsen et al., 2009). Staff selection, pre- and in-service training, ongoing consultation and coaching, staff evaluation, decision-support data systems, administrative supports, and system interventions are usually described as core implementation components or implementation drivers (Fixsen et al., 2009). Additionally, these components compensate one another to some extent, i.e., a weakness in one component can be overcome by strengths in other components (Fixsen et al., 2009). Moreover, the importance of the outer-setting, and its impact on the implementation process have been emphasized (Damschroder et al., 2009; Durlak & DuPre, 2008). This outer-setting includes the organizational, social, political, and economic circumstances in which the mental health services are provided. Likewise, the inner-setting is important, and includes administrative support, good organizational fit, and verified local needs for implementing the model. Consultant trainers in combination with an active local leadership are shown to facilitate implementation of EBP models (McHugo, Drake, Whitley, et al., 2007; Torrey, Bond, McHugo, & Swain, 2012). To date, there remains a lack of consensus on which factors contribute to the most effective EBP implementation, and which implementation factors impact the sustainability of such models (Torrey et al., 2012).

The background for this implementation study of the Flexible Assertive Community Treatment (Flexible ACT) model in Sweden is the increased interest in integrated teams and outreach services to better meet the needs of persons with severe mental illness (CEPI, 2014a). As part of this trend, the Swedish Association of Local Authorities and Regions (SALAR) has stimulated the establishment of integrated outreach services. One prioritized model is the Flexible ACT model. Flexible ACT was developed in the Netherlands in 2003 to provide flexible, integrated treatment services to the entire group of persons with severe mental illness within a region (van Veldhuizen, Delespaul, Kroon, & Mulder, 2015). This contrasts with Assertive Community Treatment (ACT) teams that provide persistent and intensive services only for the approximately 20% most severely mentally ill people in a region who are difficult to engage in treatment (Mueser, Deavers, Penn, & Cassisi, 2013). In Flexible ACT, a multidisciplinary recovery oriented team provides individual care, including case management and home visits, and team care with intensive, full ACT when needed (Nugter, Engelsbel, Bähler, Keet, & van Veldhuizen, 2016). The care switches from individual care to team care when a client is in crisis or at risk of relapse, and is put on a digital Flexible ACT board (van Veldhuizen et al., 2015). Despite the limited and not conclusive scientific evidence for the effectiveness of the Flexible ACT model, a large number of mental healthcare teams in the Netherlands, Sweden, Norway, and England have implemented the model within a short time period (CEPI, 2014a; van Veldhuizen et al., 2015; Bond & Drake, 2007; Lexén & Svensson, 2016). This has made it difficult to organize a randomized controlled trial because of problems with providing a usual care control group (van Veldhuizen et al., 2015; Lexén & Svensson, 2016). The rapid dissemination of Flexible ACT is an interesting phenomenon as it usually takes many years before a treatment model becomes implemented and established as a best practice (Damschroder et al., 2009; Fixsen et al., 2009). One reason for the rapid dissemination of this model might be that the model is highly valued by mental healthcare staff due to advantages in work procedures when handling clients in crisis, increased quality of care, and a better psychosocial work environment (Lexén & Svensson, 2016). Few studies, if any, have explored implementation of this kind of treatment model that, despite scant research evidence, has disseminated within a short time period and with little implementation effort. Knowledge in this area may help further explain why a specific model is effective in a particular setting, and to provide ideas in how to facilitate and shorten implementation time for EBP models in healthcare (Damschroder et al., 2009). Exploration of implementation of Flexible ACT in a Swedish context is particularly interesting because integrated models, such as ACT (Markström, Bejerholm, Svensson, & Bergmark, 2015) and Individual Placement and Support (Hasson et al., 2011; Bejerholm, Larsson, & Hofgren, 2011), have been shown to be challenging and face many barriers during implementation because of how healthcare and the social welfare system are organized. The aim of this study was to explore program fidelity, and factors influencing implementation of Flexible ACT, in a Swedish healthcare context over a 2-year period.

#### Methods

This longitudinal implementation study of the Flexible ACT model was conducted during 2013 to 2016. A qualitative method was chosen to describe the Flexible ACT implementation process since little is known about the study area, in keeping with Hsieh and Shannon (2005). The main strength of using qualitative methods is that they are valuable in providing rich understanding of complex phenomena and to develop theories and generate hypothesis that can be used for further research (Creswell, 2007; Sofaer, 1999). The present

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study was designed and written in accordance with the consolidated criteria for reporting qualitative research, COREQ (Tong, Sainsbury, and Craig, 2007).

#### Eligibility, inclusion, and study setting

Eligibility criteria were mental healthcare teams who implemented Flexible ACT during 2013 to 2015. Seven mental healthcare teams in southern Sweden consented to take part in the study and were included. All teams were multidisciplinary and included psychiatrists, case managers, psychiatric nurses, social workers, psychologists, occupational therapists, and physiotherapists. The teams primarily worked with clients with psychosis, and had full responsibility for treatment services. Each team already used a general case management model. The two project leaders responsible for model implementation employed by the SALAR gave informed consent to take part in the study.

#### **Data collection**

#### Meeting notes and project progress reports

Local and central steering group meeting notes and the SALAR implementation progress reports were collected throughout the entire implementation period. The nature and number of data sources used are presented in Table 1.

#### Interviews with project leaders and team leaders

Using the steering group meeting notes and progress reports as a starting point, open-ended individual interviews about the current state of the implementation were conducted with the two project leaders every fourth month. At the end of implementation, a final interview was conducted to gather their reflections on the previous project period. Individual interviews were also conducted with team leaders when the team decided to implement the model, and 18 months after implementation. The start of implementation was regarded as the time point when the first client was put on the digital Flexible ACT board. Questions asked during the interviews related to: 1) steering, 2) organization, 3) inner-setting, and 4) outer-setting. The interviews were digitally recorded with consent from the participants and performed by

| Table 1.   | Nature a  | and number    | of data | sources | used | in the | study | of | implementation of Flexible | 2 |
|------------|-----------|---------------|---------|---------|------|--------|-------|----|----------------------------|---|
| ACT in a S | Swedish ł | healthcare co | ontext. |         |      |        |       |    |                            |   |

| Data sources  | n  |
|---|----|
| Project leader interviews (every fourth month)                                  | 10 |
| Flexible ACT team leader interviews (before and 18 months after implementation) | 14 |
| Local and central steering group meeting notes                                  | 14 |
| Implementation project progress reports   | 3  |
| Flexible ACT fidelity assessments (6 and 18 months after implementation)        | 14 |

telephone or at participant worksites. The interviews lasted for about 45 minutes, and ranged from 30 to 90 minutes.

#### Flexible ACT fidelity evaluations

Program fidelity was assessed using the Flexible ACT fidelity scale (Bähler, van Veldhuizen, van Vugt, Delespaul, Kroon, Lardinois, & Mulder, 2010), the Swedish version (CEPI, 2014b) 6 and 18 months after the teams started working according to the model. The scale includes seven main-categories: 1) team structure, 2) program process, 3) diagnostics, treatment, and interventions, 4) organization, 5) community care, 6) monitoring, and 7) professional development. There are 60 criteria, each rated on a 5-point scale that ranges from 1 to 5. An average score of  $\leq$ 3.4 is considered good fidelity and  $\leq$ 4.1 is exemplary fidelity.

#### Assessment of implementation characteristics

The Sustainable Implementation Scale (SIS) (Markström, Svensson, Bergmark, Hansson, & Bejerholm, Submitted) was used to assess implementation characteristics before, at 6 months, and at 18 months after implementation based on collected interview data, meeting notes, implementation progress reports, and fidelity evaluations. The SIS consists of three main categories: 1) local organization level factors, 2) team level factors, and 3) continuous support strategies (Table 2).

In total, there are 24 items (factors/strategies), each rated on a 3-point scale (1 = not in place, 2 = partially in place, 3 = fully in place). The total score was 72, with ratings distributed between local organizational level (12 items, maximum 36 points), team level (7 items, maximum 21 points), and continuous strategies for support (5 items, maximum 15 points). The SIS has good reliability and acceptable internal consistency (Markström et al., Submitted).

#### Data analyses

First, the interviews were transcribed verbatim, transcripts and meetings notes were read repeatedly and coded line by line, and the codes were merged into categories for each separate team using conventional inductive content analysis (Hsieh & Shannon, 2005). Next, using directed content analysis, the categories for each team were sorted into a) strategies, b) success implementation factors, and c) implementation barriers in chronological order (i.e., before implementation, and 6 and 18 months after implementation). The goal of directed content analysis is to validate and extend a theoretical framework or theory, and thus it was considered an appropriate analysis method for approaching the study aim. Results from the content analysis and the fidelity assessments were used to assess implementation characteristics for each team with the SIS. Third, each of the SIS implementation factors were compiled by the number of teams where

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| Sustainable Implementation Scale (    | SIS) categories and items   |
|---------------------------------------|---|
| Local organizational<br>level factors | <ol> <li>Assessments of needs and resources for the model that<br/>will be implemented</li> <li>Experiences of similar models</li> <li>Model legitimacy in the organization</li> <li>Model "organizational fit," adaptiveness</li> <li>Implementation climate</li> <li>Traditions of cooperation and collaboration</li> <li>Engagement of opinion leaders and decision makers</li> <li>Available champions or experts at management level</li> <li>Available external champions or experts</li> </ol> |
| Team level factors                    | <ol> <li>Political decisions and strategies for local financing</li> <li>Deliberately composed steering group</li> <li>Engagement of collaboration partners</li> <li>Sensible recruitment and staff selection</li> <li>Pre-service and in-service training and consultation</li> <li>Available leader who supports the model</li> <li>Facilitation of collaboration with partners</li> <li>Concrete strategies to disseminate information about the model</li> </ol>                                  |
| Continuous strategies for support     | <ol> <li>contracted stategies to disseminate momentation about the model</li> <li>Feedback to financiers and decision makers</li> <li>Continuity among involved staff and managers</li> <li>Continuing training</li> <li>Ongoing supervision and consultation</li> <li>Recurrent assessment of program fidelity</li> <li>Reserved time for evaluation and reflection</li> <li>Technical and administrative support</li> </ol>   |

 Table 2.
 Sustainable Implementation Scale categories and items (Markström et al., Submitted)

 used to assess implementation of Flexible ACT.

each factors or item was not in place, partly in place, or fully in place before, 6 months after, and 18 months after implementation. In the last step, the overall mean of each Flexible ACT fidelity scale category and the team average SIS score before, after 6 months, and after 18 months were calculated.

#### Results

#### Descriptions of the implementation process and strategies

Descriptions of the implementation process and strategies are based on analysis of the meetings notes, progress reports, and interviews with project leaders. During the initial phase of the implementation, the two project leaders (who also served as Flexible ACT experts/champions) spent time providing information and establishing contacts on different levels in mental healthcare and social welfare services. In Sweden, the delivery of health and care services is divided between these two authorities. Local steering groups were assembled strategically, and included leaders from the two authorities. The goal was to stimulate increased cooperation between the services and an increased interest in the model. After approximately 6 months, the project leaders started to provide information, training, and consultation to mental healthcare teams who showed interest in the model. First, the teams were provided with information and the opportunity to visit and participate in a Flexible ACT team meeting in Sweden where high fidelity Flexible ACT had already been implemented. This team was used as a role model throughout the implementation process. Some teams travelled to the Netherlands to visit one of the original Flexible ACT teams for inspiration and to gain knowledge. When the team decided to implement the model, they were provided with half-day pre-training in Flexible ACT that was based on case studies and exercises. Project leaders met with each team once a month on a regular basis for the first 6 months after implementation, then less frequently to give on-going supervision and consultation. After 6 months, the project leaders tried to create networks of teams interested in Flexible ACT. The aim was to develop long-term structures for Flexible ACT implementation and sustainability. Project leaders were in continuous close contact with mental healthcare services, and when a new team showed interest in the model, they provided information, training, and consultation. Rumours of Flexible ACT advantages spread from team to team, and served as a driving force for model dissemination. Furthermore, the project leaders participated in a central implementation steering group with project leaders who were responsible for implementing other service models, implementation researchers, and SALAR representatives. In summary, the main implementation strategies were to apply a top-down strategy, and build on team interest in implementing the model. The project leaders also strategically implemented the model in existing multi-professional psychosis teams who worked with the case management model and therefore had good preconditions for model implementation.

#### Flexible ACT fidelity scores 6 and 18 months after implementation

Program fidelity assessments 6 months after implementation of Flexible ACT showed that six teams had reached good fidelity, and one had reached exemplary fidelity (Table 3). The average total score was 3.7 of 5, ranging from 3.6 to

| Flexible ACT-Categories      | Теа | m 1 | Теа | m 2 | Теа | m 3 | Теа | m 4 | Теа  | m 5  | Теа | m 6 | Теа | m 7 | Ave<br>sco | rage<br>ore |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|------------|-------------|
| Post-implementation<br>month | 6   | 18  | 6   | 18  | 6   | 18  | 6   | 18  | 6    | 18   | 6   | 18  | 6   | 18  | 6          | 18          |
| Team structure               | 3.9 | 2.8 | 2.9 | 3.3 | 2.7 | 3   | 3.6 | 3.6 | 3.7  | 4.1  | 3.1 | 3.7 | 3.8 | 3.9 | 3.4        | 3.5         |
| Team process                 | 3.6 | 3.9 | 3.8 | 4   | 4.1 | 3.9 | 3.6 | 3.9 | 3.9  | 4.6  | 3.7 | 4.1 | 3.4 | 3.7 | 3.7        | 4.0         |
| Diagnostics, etc.            | 3.9 | 4.1 | 3.8 | 4.5 | 3.9 | 4   | 4.2 | 4.3 | 4.8  | 4.6  | 4.4 | 4.5 | 4.3 | 4.8 | 4.2        | 4.4         |
| Organization                 | 5   | 5   | 4.4 | 4.7 | 4.8 | 5   | 4.1 | 4.1 | 5    | 5    | 4.6 | 4.8 | 4.4 | 4.9 | 4.7        | 4.8         |
| Community care               | 4.8 | 4.8 | 3.8 | 3.8 | 4.4 | 4.4 | 3.4 | 3.4 | 4.6  | 4.8  | 3   | 4   | 4.4 | 4.6 | 4.1        | 4.3         |
| Monitoring                   | 2   | 2   | 1   | 2.5 | 2   | 2   | 1   | 3   | 3    | 3.5  | 2   | 2   | 1   | 1   | 1.7        | 2.3         |
| Professional development     | 3.8 | 3.8 | 4   | 4.8 | 5   | 4   | 4.2 | 3.4 | 3.8  | 4.8  | 3   | 2.8 | 3   | 2.4 | 3.8        | 3.7         |
| Average Flexible             | 4.0 | 3.7 | 3.6 | 4   | 3.9 | 3.9 | 3.7 | 3.8 | 4.2* | 4.6* | 3.7 | 4.0 | 3.8 | 4.0 | 3.7        | 3.9         |
| ACT-score                    |     |     |     |     |     |     |     |     |      |      |     |     |     |     |            |             |

 Table 3.
 Flexible ACT fidelity scores at 6- and 18-month follow-up for seven multidisciplinary mental healthcare teams.

\*Good fidelity  $\leq$ 3.4; Exemplary fidelity  $\leq$ 4.1.

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4.2. As can be seen in Table 3, teams reached good or exemplary fidelity in most categories (except monitoring).

Eighteen months after implementation, the average total Flexible ACT score had increased to 3.9 of 5, ranging from 3.7 to 4.6 (Table 3). Each team was rated as having good fidelity, and one had exemplary fidelity. The fidelity scores increased in each category except for professional development, where the fidelity decreased slightly because of a decrease in reflective practice and education. The largest increase in fidelity score was in "monitoring."

# *Flexible ACT implementation characteristics before implementation, and after 6 and 18 months*

The average total SIS score before implementation of Flexible ACT was 48.9 of 57 (range: 45–52 points), 57 of 72 (range: 59–62) after 6 months, and 53.2 of 72 (range 49–55) after 18 months. The number of teams where the factors or items were not in place, partly in place, or fully in place is shown in Table 4.

#### Local organizational level factors

On the SIS local organizational level, teams scored an average of 31.4 of 36 points before implementation, 31.7 points after 6 months, and 28.3 points after 18 months. Most local organizational level factors were partly or fully in place at the start of the implementation and remained stable during implementation (Table 4). The only implementation factor that was completely lacking throughout implementation was "available champions or experts at management level." One successful local organizational level factor was SALARS recruitment of external champions or project leaders with the right model knowledge and the right personal characteristics. They were described by the team leaders as visionary, knowledgeable, experienced in the area, engaged in the implementation mission and target group, flexible, creative, able to think outside the box, socially competent, and trustworthy. Team leaders described the need to develop new, consistent work procedures on the part of the teams and themselves to handle consumer crises at the time of implementation. Additionally, they saw advantages in model implementation. For example, the shared caseload made staff feel less alone in handling consumer crises, reduced stress, and gave an overview of the consumers who needed more intensive care. Thus, Flexible ACT had high clinical relevance, and rumours of the advantages of Flexible ACT were described as spreading from team to team. Another advantage was that each team already worked with case management at the time of implementation, and this made the Flexible ACT implementation steps small. Some teams already had crises resolution teams linked to their services, worked with multi-agency cooperation, or had an inpatient service that gave them control over admissions and discharges. Overall, these served as good preconditions for becoming a high

| The matrix for implen            | The matrix for implementation outcomes categories and items | Befornu | Before implementation,<br>number of teams | itation,<br>ams | A n    | After 6 months,<br>number of teams | chs,<br>ams | JU<br>DU | After 18 months,<br>number of teams | ths,<br>ams |
|----------------------------------|---|---------|---|-----------------|--------|------------------------------------|-------------|----------|-------------------------------------|-------------|
|                                  |   | Not in  | Partially                                 | Fully           | Not in | Partially                          | Fully       | Not in   | Partially                           | Fully       |
| n = 7 for each component or item | onent or item   | place   | in place                                  | in place        | place  | in place                           | in place    | place    | in place                            | in place    |
| Local organizational             | 1. Assessments of needs and resources for the               | 0       | 0   | 7               | 0      | 0                                  | 7           | 0        | 0                                   | 7           |
| level factors                    | model to be implemented                                     |         |   |                 |        |                                    |             |          |                                     |             |
|                                  | 2. Experience of similar models                             | 0       | 0   | 7               | 0      | 0                                  | 7           | 0        | -                                   | 9           |
|                                  | 3. Model legitimacy in the organization                     | 0       | -   | 9               | 0      | -                                  | 9           | 0        | -                                   | 9           |
|                                  | 4. Model 'organizational fit', adaptiveness                 | 0       | ę   | 4               | 0      | 2                                  | 5           | 0        | 2                                   | S           |
|                                  | 5. Implementation climate                                   | 0       | 2   | 5               | 0      | -                                  | 9           | 0        | -                                   | 9           |
|                                  | 6. Traditions of cooperation and collaboration              | 0       | -   | 9               | 0      | 0                                  | 7           | 0        | 0                                   | 7           |
|                                  | 7. Engagement of opinion leaders and decision makers        | 0       | 0   | 7               | 0      | 0                                  | 7           | 0        | 7                                   | 0           |
|                                  | 8. Available champions or experts at management level       | 7       | 0   | 0               | 7      | 0                                  | 0           | 7        | 0                                   | 0           |
|                                  | 9. Available external champions or experts                  | 0       | 0   | 7               | 0      | 0                                  | 7           | m        | 0                                   | 4           |
|                                  | 10. Political decisions and strategies for local financing  | 0       | 7   | 0               | 0      | 7                                  | 0           | 0        | 7                                   | 0           |
|                                  | 11. Deliberately composed steering group                    | 0       | 0   | 7               | 0      | 0                                  | 7           | 7        | 0                                   | 0           |
|                                  | 12. Engagement of collaboration partners                    | -       | -   | 5               | 0      | 2                                  | 5           | 0        | -                                   | 9           |
| Team level factors               | 1. Sensible recruitment and selection of staff              | 9       | 0   | -               | 9      | -                                  | 0           | 9        | -                                   | 0           |
|                                  | 2. Pre-service and in-service training and consultation     | 0       | 0   | 7               | 0      | -                                  | 9           | S        | -                                   | -           |
|                                  | 3. Available leader who supports the model                  | 0       | 0   | 7               | 0      | 0                                  | 7           | 0        | 0                                   | 7           |
|                                  | 4. Facilitating collaboration partners                      | -       |   | 5               | 0      | 2                                  | S           | 0        | -                                   | 9           |
|                                  | 5. Concrete strategies to disseminate information           | 0       | 0   | 7               | 0      | -                                  | 9           | 4        | -                                   | 2           |
|                                  | about the model   |         |   |                 |        |                                    |             |          |                                     |             |
|                                  | 6. Feedback to financiers and decision makers               | 0       | 0   | 7               | 0      | 0                                  | 7           | 0        | 7                                   | 0           |
|                                  | 7. Continuity among involved staff and managers             | 0       | 2   | 5               | 0      | 2                                  | 5           | -        | 4                                   | 2           |
| Continuous support               | 1. Continuing training                                      | *       | *   | *               | 0      | -                                  | 9           | 9        | 0                                   | -           |
| strategies                       | 2. Ongoing supervision and consultation                     | *       | *   | *               | 4      | 0                                  | с           | 5        | -                                   | -           |
|                                  | 3. Recurrent assessment of program fidelity                 | *       | *   | *               | 0      | 0                                  | 7           | 0        | 0                                   | 7           |
|                                  | 4. Reserved time for evaluation and reflection              | *       | *   | *               | 4      | -                                  | 2           | 4        | -                                   | 2           |
|                                  | 5. Technical and administrative support                     | *       | *   | *               | 0      | 0                                  | 7           | 0        | 0                                   | 7           |
|                                  |   |         |   |                 |        |                                    |             |          |                                     |             |

Table 4. Assessment of Flexible ACT implementation characteristics using the Sustainable Implementation Scale (SIS) (Markström et al., Submitted) before,

\*factor or item could not be scored before implementation.

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fidelity Flexible ACT team. Other successful implementation factors were that each team had at least one team member who served as the driving force for developmental work. Moreover, the project leaders served as experts or champions. The teams and their work management agreed to beforehand when planning a long-term perspective for model implementation. Local and central steering groups were available during most of the implementation period, and social welfare services and other related services were positive toward the model. Barriers for implementation were an initial resistance to change in some teams. This resulted from having recently implemented many EBPs in accordance with the Swedish national guidelines on psychosocial interventions for people with schizophrenia and related disorders. Other barriers on this level were difficulties with privacy issues between mental healthcare and social welfare services. Not all teams had access to external experts or champions at the end of the implementation. Moreover, a deliberately composed steering group was "not in place" for every team despite teams continuing to request ongoing training and supervision support.

#### Team level factors

Teams scored an average 18.6 of 21 points on SIS team level factors before implementation, 18.3 points after 6 months, and 14.4 points after 18 months. On the team level, successful implementation factors were that team leaders and their management were positive and supported model implementation. Efforts to increase knowledge on Flexible ACT were a successful implementation factor, as were structured training and consultation. According to the fidelity assessments, most teams had good continuity among staff and team leaders. One team had a high number of staff turnovers between the 6- and 18-month fidelity assessments but still had good fidelity at the 18-month assessment. Staff turnover in social welfare services could also function as an implementation barrier. Other barriers on this level were that the training and consultation were limited in time, internal conflicts among team members, and inadequate staffing. For example, some teams had too few psychiatrists in relation to the team caseload or lacked important key personnel such as peer support workers, Individual Placement and Support specialists, or rehabilitation specialists (e.g., occupational therapists).

#### Strategies for continuous support

Continuous support strategies were not in place prior to implementation. Six months after implementation, the teams scored an average of 12.4 of 15 points on the SIS strategies for continuous support. After 18 months, they scored 10 of 15 points. An important factor for success was that all teams were initially provided with continuing training, supervision, and consultation. Another factor was that implementation researchers regularly performed fidelity assessments and provided teams with feedback on how to improve their

program fidelity. All teams initially reserved time for evaluation and reflection. However, by the end of implementation, many teams did not have time for evaluation, reflection, continuing training, and ongoing supervision and consultation. Each team had good technical and administrative support throughout implementation. For example, teams had secretaries and were provided with an Excel-based Flexible ACT board.

#### Discussion

Despite a highly-sectored healthcare context in the Swedish setting, this study shows that it is possible to implement high fidelity Flexible ACT within 6 months. Moreover, program fidelity stayed stable over 18 months. One explanation for the quick and easy implementation is the combination of an active national initiative and implementation support with resources such as credible implementation project leaders who also function as Flexible ACT champions and work closely with the mental healthcare teams, providing them with training and consultation. A willingness among managers, team leaders, and staff to implement the model also played a role. These factors were previously shown to be important when implementing EPBs (Damschroder et al., 2009; Fixsen et al., 2009; Hasson et al., 2011; Durlak & DuPre, 2008; Markström, 2014; Meyers, Durlak, & Wandersman, 2012). Moreover, even if implementation support was limited in extent and time, the willingness among team leaders and staff to implement the model may compensate for this weakness. The studied teams had good organizational conditions and were already working with case management, had multiagency cooperation, and provided treatment services according to Swedish national guidelines. The teams therefore had favorable conditions for model implementation as shown by high SIS scores on local organizational and team levels. Implementation research describes the most important implementation steps as happening on an organizational level, before the team starts to deliver the new service (Markström, 2014). In summary, this study further emphasizes the importance of an active and thought-out implementation strategy when implementing EBPs, and the importance of a thorough mapping of prerequisites on organizational level beforehand. This study also highlights the importance of understanding mental health professional attitudes toward the practice that will be implemented.

Despite the highly-sectored Swedish healthcare context, Flexible ACT implementation was quick and easy. This is in contrast to other integrated services such as ACT, case management (Markström et al., 2015), and Individual Placement and Support (Bejerholm et al., 2011). Integrated services place collaborative high demands on the mental healthcare and social welfare services (Markström et al., 2015; Bejerholm et al., 2011). For example, if a Flexible ACT team case manager provides housing support to a client in crisis,

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this is a violation of law if performed without a formal decision from the social welfare service (Nymark, 2014). In addition, different documentation systems and principle of privacy are implementation barriers for integrated services in Sweden. Based on these experiences, one would expect that it might take years to implement Flexible ACT in Sweden. Nevertheless, many of the teams reached full implementation, according to Fixsen's implementation stages (Fixsen et al., 2005), and started to work with model sustainability within a 2-year period. One explanation for the rapid implementation may be that Flexible ACT created a common action space between mental health and social welfare service professionals when working closely to help a client in crisis (Lexén & Svensson, 2016). The common action space was described as creating a common spirit, understanding, and increased involvement and participation for all involved. A second explanation may be that most of the teams already worked with case management, and had built a relationship of trust and cooperation with the social welfare service professionals. Successful implementation requires employees with the right knowledge and skills to do the job (Hoge, Tondora, & Stuart, 2013; Schoenwald, Garland, Chapman, Fraizer, Sheidow, & Southam-Gerow, 2011; Siskind & Wiley-Exley, 2009). Furthermore, professionals who recognize a specific need for a new working method have shown a higher ability to implement a new program with high fidelity. The Flexible ACT model was built into regular work routines, thereby making it easier for the professionals to work with the model, and harder to do otherwise. This has also been shown to facilitate implementation (Torrey et al., 2012). A third explanation may be the high clinical relevance, which is also described in a previous study (Lexén & Svensson, 2016). Positive attitudes, belief in the practice, and desire to offer the practice are crucial successful implementation factors for EBP (Torrey et al., 2012). Each team was enthusiastic about this change, and there was a high degree of fit and comparability between the staff norms and values in relation to those of Flexible ACT. This is consistent with the research findings of Damschroder and colleagues (2009). Interventions such as Flexible ACT, which are originally developed as a good solution to a problem, are also easier to implement (Damschroder et al., 2009). However, in light of today's increased EBP work demands, Flexible ACT sustainability might be affected negatively because of the limited and not conclusive scientific evidence. There is a need to perform randomized controlled trials to ensure that persons with severe mental illness benefit from the model.

#### Methodological considerations

This study was limited in time and only describes the first two years of Flexible ACT implementation in Sweden. There is a need for longitudinal

studies of model sustainability. SIS is a new relatively untested instrument for mapping implementation characteristics, but gave a good overview of the implementation process and its characteristics. The use of directed content analysis might have limited study trustworthiness, since it increases the risk of finding evidence that is supportive rather than non-supportive of what is already known (Lincoln & Guba, 1985). However, the initial use of conventional content analysis may have limited this risk. Moreover, using a framework in analysis is described as a productive analysis approach to support and extend an already existing theoretical framework, and thereby increase study trustworthiness (Hsieh & Shannon, 2005). An expert in the implementation field was invited to review the analyses, results, and comment on the article manuscript in order to increase study credibility. The authors have different backgrounds (nursing, occupational therapy, and social work) that made it possible to challenge each other's interpretations during data collection and analysis. In addition, a detailed description of methods was made, and the different data sources made data triangulation possible, further enhancing credibility (Lincoln & Guba, 1985). A detailed description of the study setting was made to increase the ability of readers to assess transferability of findings to other settings.

#### Conclusions

Despite the highly sectored Swedish healthcare context, implementing high fidelity Flexible ACT was possible within a short time period. This contrasts with other integrated service models such as ACT. This study contributes to the implementation field by providing an example of a fast and easy implementation of an integrated service model. This can function as a role model for others. Mental health professional have positive attitudes toward Flexible ACT, believe in the practice, and want to offer the practice. They may therefore have a central role to play when implementing new practice models in mental healthcare, and these attitudes may overrule scientific evidence (or the lack thereof).

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#### Research involving human participants and/or animals

The study was conducted in compliance with the established guidelines of the Declaration of Helsinki. Each participant gave informed consent for study participation.

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