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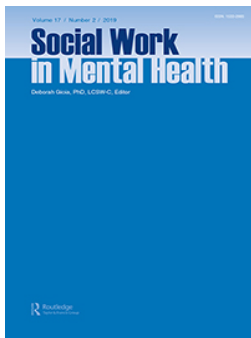
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# Implementation of evidence-based interventions: analyzing critical components for sustainability in community mental health services

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## ABSTRACT

This study analyses the implementation and sustainability of evidence-based community mental health services in the form of publicly financed Individual Placement and Support programs. Critical implementation components and program fidelity were assessed after one year. After two years, program fidelity was assessed once again. After three years, the programs' sustainability was assessed and semi-structured interviews performed, in order to deepen the understanding of implementation. Interviews and documents provided the quantitative and qualitative data, which were analyzed by the use of the Supported Employment Fidelity Scale, the Sustainable Implementation Scale (which was developed in a connecting study), and qualitative content analysis. Despite promising fidelity results after one year, eight out of 14 programs were terminated within three years. Implementation of integrated evidence-based programs in community-based settings is a delicate undertaking. Implementing agencies can benefit from rigorous preparation before program start, especially concerning the circumstances at the organizational level, such as making plans for collaboration, financing and assessments of program fidelity.

## KEYWORDS

Community mental health; evidence-based; implementation; IPS; practice; Psychosocial

## Introduction

In most western countries, Community Mental Health Services (CMHS) are being developed as a replacement for large institutions. Health ministers across Europe have committed to this development and also to creating solutions based on evidence (World Health Organization (WHO), 2005). A country's CMHS plan is supposed to promote a full range of services in order to enable people to live independently and be included in the community (World Health Organization (WHO), 2011). Individuals' access to the labor market is considered an important part of their inclusion in society. This study has looked at a national initiative to implement the Individual Placement and Support (IPS) employment model to examine which factors could facilitate sustainable implementation.

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The de-institutionalization of psychiatric care has put demands on the service organizations involved to carry out effective interventions and to collaborate in order to integrate their services in community settings. The range of different types of intervention has been and still is growing. In order to select the types of services that are most effective, an approach commonly used internationally is to implement an evidence-based practice (EBP) (Thornicroft, Alem, Drake, & Ito, 2011). EBP is supposed to combine the use of the best research evidence available, the providers' experience, and the users' preferences (Aarons, Wells, Zagursky, Fettes, & Palinkas, 2009; Gambrill, 2011). One example of such intervention is the IPS model, often referred to as the evidence-based approach of Supported Employment (Rinaldi, Miller, & Perkins, 2010). IPS is designed to support people with severe mental illness in gaining and keeping competitive employment (Lexén, Emmelin, & Bejerholm, 2016). Several randomized controlled trials have claimed that IPS is more effective than other interventions in supporting individuals to improve their opportunities to gain employment (Arbesman & Logsdon, 2011; Bejerholm, Areberg, Hofgren, Sandlund, & Rinaldi, 2015; Bond, Drake, & Becker, 2008, 2012). Moreover, IPS is supposed to support the service users' recovery, match their own preferences, and provide them with no time-limit access to a specialized support team (Areberg & Bejerholm, 2013). One of the IPS principles states that psychiatric care should be integrated in the support.

Although there is a growing body of evidence of the efficacy of selected EBP models in experimental settings, difficulties have been reported in implementing these same models in real-life settings, a phenomenon sometimes referred to as the "efficacy-effectiveness gap" (Thornicroft, Ruggeri, & Goldberg, 2013). The field of implementation science has emerged to bridge the gap between research and practice and to find strategies to conduct effective implementation of effective models (Ogden & Fixsen, 2014). In this context, "implementation" has been defined as a "specified set of activities designed to put into practice an activity or program of known dimensions" (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005, p. 5). In order to specify these activities and the phases in which they should be adopted, several research reviews have been conducted, such as Damschroder et al. (2009), Durlak and DuPre (2008), and Fixsen et al. (2005). Some researchers have produced models and frameworks designed to improve research and practice. Examples of such works are *the Stages of Implementation* and *the Core Components of Implementation* described by Fixsen, Blase, Naoom, and Wallace (2009), *the Quality Implementation Framework* (Meyers, Durlak, & Wandersman, 2012), *the PARIHS framework for implementation* (Kitson, Harvey, & McCormack, 1998; Rycroft-Malone et al., 2002), *the Consolidated Framework For Implementation Research* (Damschroder et al., 2009), and *the Grol and Wensing Implementation of Change Model* (Grol, 2013). Theories and frameworks derived from implementation science have contributed fruitful insights in opening the "black box" of implementation; i.e., identifying core components to explain and evaluate outcomes in order to support the

development of improved implementation. However, some researchers have claimed that there are limitations to the implementation science approach, and that policy and organization research could contribute fruitful insights to deepen the analysis (Johansson, 2010; Nilsen, 2015). Since overarching conditions are affected by how politicians formulate policies, the introduction of new interventions in the field of CMHS is not an isolated phenomenon linked to local organizations (Bergmark, Bejerholm, & Markström, 2015). A policy based on abstract objectives and vague definitions, combined with a lack of resources, has limited possibilities of being successfully implemented. Another important question concerns the definition of “successful implementation”: the *result of the implementation* (or output), which is the main focus of the present article, relates to assessment of the degree to which a policy has been put in practice. In contrast, the *policy effect* (or outcome) relates to assessment of the degree to which the *intentions* of a policy have been achieved (Hill & Hupe, 2009).

Moreover, the implementation result is affected by vertical and horizontal inter-organizational relationships. Vertical inter-organizational relationships refer to the hierarchical conditions, which influence the financing, planning, control, and evaluation of a project. Horizontal relationships refer to collaboration with actors on the same hierarchical level as the project (Jensen, Johansson, & Löfström, 2006), where a shared approach to problem-solving is sometimes more important than formal devices. Hogwood and Gunn (1984) have argued that there is no such thing as “perfect implementation.” A prerequisite to achieving that would include a completely unitary administrative system, but in reality many organizations are characterized by departmentalism, professionalism, and the activities of many groups with their own values, goals, and interests to protect. Therefore, it is a potential barrier if the implementing agency is dependent upon other agencies for success (Hill & Hupe, 2009).

The data collected for this study are from IPS programs supposed to be implemented within a CMHS context in Sweden. Several of the country’s political steering documents, including national guidelines (Socialstyrelsen, 2011), advocate implementation of the IPS model with high program fidelity. It has been shown that the implementation of EBP programs in diverse contexts involves different types of challenges in terms of high fidelity versus local adjustments of the model and of the organizations’ culture and potential for change (Corbière et al., 2010). Therefore, it is important to understand some of the characteristics of the national context for implementing CMHS interventions. Broadly speaking, the mental health care services in Sweden’s 20 county councils are responsible for providing medical care and psychiatric treatment to people with mental illness, and the social services agencies in the 290 municipalities are responsible for providing social support. These two areas of responsibility overlap each other, and the diffuse borders between them are constantly being adjusted to be in line with political decisions. The responsibility for providing occupational rehabilitation is publicly financed and is shared between municipalities, employers, the

Social Insurance Agency, and the Public Employment Service. In order to provide IPS, the municipalities and county councils have to collaborate or even merge their services, a move that has been described as very difficult (Markström & Lindqvist, 2015). In addition, the significant roles of the Social Insurance Agency and the Public Employment Service when IPS is put into practice have sometimes appeared to be aggravating factors (Bejerholm, Larsson, & Hofgren, 2011; Hasson, Andersson, & Bejerholm, 2011). A recently published in-depth study of three of the IPS programs included in this article showed that it was possible to implement IPS with high fidelity in a Swedish municipality context (Bergmark, Bejerholm, & Markström, 2018). The results did also indicate barriers in the form of collaboration problems within and between the organizations involved and deficiencies in financing, which meant that two of the three programs were forced to shut down within two years of the project start.

Several studies have claimed that IPS, when implemented with high fidelity, is an effective model for individuals to gain competitive employment. Political decisions and policies governing the field of CMHS and also the outcomes for users of the services are considered important research areas. At the same time, there is a knowledge gap concerning what happens from the time the policy is formulated to the time the service is provided to CMHS users; i.e. “the black box” of implementation. To reduce this gap, this study has focused on the strategies used by those organizations supposed to execute the implementation. The aim has been to analyze critical implementation components at different organizational levels to gain an increased understanding of how to ensure that evidence-based CMHS initiatives will sustain.

## Methods

### *Overall study design and data collection*

This prospective mixed methods study runs over three years, and a number of data sources were used. Program fidelity data were collected and assessed by using the Supported Employment Fidelity Scale (SEFS) (Becker, Swanson, Bond, & Merrens, 2008). To study the implementation process, a concurrent nested design was used, meaning that quantitative and qualitative data were collected simultaneously, and the qualitative method was nested, or embedded, within the predominant quantitative method (Creswell, Plano Clark, Gutmann, & Hanson, 2003). The “Sustainable Implementation Scale” (SIS) (Markström, Svensson, Bergmark, Hansson, & Bejerholm, 2017) helped to identify critical components that facilitated or hampered the implementation. In order to enrich the description of critical implementation components and give the participants a voice in the organizational change processes, the implementation components were further explored using qualitative data analysis. The reason for our use of this design was

to better understand the research problem by converging both quantitative (broad numeric trends) and qualitative (detailed views) data (Creswell, 2009).

In 2011, the National Board of Health and Welfare announced that municipalities could apply for government stimulus grants to start IPS programs. 16 municipalities had their applications accepted, received funding, and then started their IPS programs in 2012. Letters containing information and an invitation to participate in the present study were sent to these 16 municipalities. Fourteen municipalities accepted, and two declined because of their limited opportunities to provide data. Since municipalities in Sweden have no multi-disciplinary psychiatric teams already in existence and available in their organizations, IPS implementation in this context involved collaboration with the county councils' mental health care services and also the Social Insurance Agency and Public Employment Service in order to form the actual IPS teams. The data used in this study have been collected from 14 IPS programs located at nationally diverse sites. To study the implementation of the programs, interviews were used to collect data and formed the basis for all assessment; i.e., *assessment of program fidelity*, *assessment of implementation components*, and the *programs' survival and sustainability*.

Data for *program fidelity assessment* were gathered on two occasions. The first assessment was conducted after one year, and included 13 programs since the team on one program declared that they did not have the time to participate and collect fidelity data. The second assessment was conducted after another year of implementation, and included 10 programs since four programs had been terminated at this time. In order to perform valid assessments of program fidelity, all interviews with staff, leaders, clients, and representatives from job centers were performed according to the well-established Evidence-Based Supported Employment Fidelity Review Manual (Becker, Swanson, Bond, & Merrens, 2011). Data for *assessment of implementation* and the *programs' sustainability* were gathered after one and three years in the form of interviews with key informants from each program and a study of the documents, such as steering documents and the program applications submitted in writing to the Board. As part of this study, and in order to assess the implementation of the programs, we developed a tool that we called SIS. SIS has been tested concerning predictive validity for the survival of services and concurrent validity in relation to program fidelity in services, and showed good reliability with acceptable internal consistency (the development and pilot-testing of this scale have been comprehensively described in an article by Markström et al. (2017)). In the case of the interviews held after one year, both the interview protocols used and the following data analysis were based on SIS. The second interviews were used to collect data of the programs' status after three years and additional qualitative data concerning the implementation (for descriptions of the assessment procedures for implementation and sustainability, see the following sections). To identify explanatory statements that illustrated the informants' retrospective views of what they considered to have been facilitators and barriers to the

implementation of the programs, the interview-data were analyzed qualitatively (Creswell, 2009). A directed content analysis model was used (Hsieh & Shannon, 2005), in which the initial coding categories corresponded to the implementation components in SIS (Table 2). These statements are presented in the form of quotes in the results section, in order to improve our understanding of the implementation activities. The design used made it possible to study the way in which implementation strategies during the early stages affected the sustainability of the programs over time.

A purposeful sampling of informants was performed (Palinkas, 2014), based on which individual or individuals from the project organizations had the most information to provide. In most cases, the informants were carrying out the role of project leader or director. At the *first interview*, telephone interviews (50–90 minutes long) were conducted at eight sites with one informant, and at three sites with two informants. In addition to participating in the present study, the three remaining sites participated in a previously published in-depth study (Bergmark et al., 2018). At these sites, face-to-face interviews were conducted with managers, project leaders, collaboration partners, and staff. At the *second interview* (20–60 minutes long), in order to assess the programs' sustainability, additional questions were included in the interview protocol to ensure we received information on the programs' current status, organization, and financing. The interview data was validated by the funding application submitted to the Board by each municipality. Despite some of the programs having been terminated and some of the staff involved moving to other jobs, we managed to make contact with the individuals in order to perform the second interviews.

### **Assessments of program fidelity**

SEFS consists of 25 items in the sections staffing, organization, and services. Each item is rated on a five-point response format, and the total score ranges between 25 and 125 points. The results correspond to four categories as follows:

- 115– 125 = Exemplary Fidelity
- 100 –114 = Good Fidelity
- 74– 99 = Fair Fidelity
- 73 and below = Not Supported Employment

The assessments followed the same three-step procedure. In the first step, the programs' project leaders or those in an equivalent position administered the SEFS data collection. In the next step, two independent IPS experts arranged a consultation and validated the results. In the third and final step, a document analysis of the programs' registered data was carried out to refine the fidelity assessments.

### **Assessments of implementation components**

SIS is based on the following four major research reviews:

- (1) The *Consolidated Framework for Implementation Research*, which describes constructs in five domains: intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and the process of implementation (Damschroder et al., 2009).
- (2) Durlak and DuPre's (2008) research review, which has identified 23 *contextual factors* from more than 500 quantitative studies and 81 additional reports.
- (3) The two frameworks related to *implementation stages* and *core implementation components* for EBP programs, as described by Fixsen et al. (2009).
- (4) The *Quality Implementation Framework*, which describes 14 critical steps in four phases: initial considerations regarding the host setting, creating a structure for implementation, ongoing structure once implementation begins, and improving future applications (Meyers et al., 2012).

The implementation components found in these reviews are in SIS condensed into 24 items, sorted under the categories *organizational level*, *team level*, and *continuous strategies for support*. Each item has been operationalized and the criteria to achieve a certain score have been clearly described. Three response categories are used in the assessments: *not in place* = 1 point, *partly in place* = 2 points, or *fully in place* = 3 points. The total of 24 items gives each of the programs a possible maximum score of 72 points, broken down as follows: *Organizational level*, 12 items (max score 36 p.), *Team level*, 7 items (max score 21 p.), and *Continuous strategies for support*, 5 items (max score 15 p.). When scoring the items, the research team discussed all of the assessments until consensus was reached. The Mann-Whitney U test was used to examine the differences between the groups of IPS programs, and Spearman's Rho test was used for correlational statistics between SIS and SEFS. A *post-hoc* power analysis for non-parametric tests using the program G-power was performed ( $p < 0.05$  as the significance level), and showed a satisfactory power in the analysis (0.89–0.99).

### **Assessments of survival and sustainability of the program**

*Sustainability* assessments were performed for each site after three years. Wiltsey Stirman et al. (2012, p. 10) suggest that “a program ... may be considered to be sustained at a given point in time if, after initial implementation support has been withdrawn, core elements are maintained ... and adequate capacity for continuation of these elements is maintained.” Based on the results from the interviews, we placed each program in one of the following three categories:

- (a) Established program. A locally funded program, made an established part of the local CMHS via a formal decision of the officials responsible, and with at least fair program fidelity.
- (b) Partly integrated program. Some parts of the IPS model still running; i.e., having an employment specialist dedicated to the IPS “place and train” approach, but not with the aim of providing high fidelity IPS.
- (c) Terminated program. The organization has returned to the strategies used before, or is trying to find strategies other than IPS to support the target group.

The data collected for this study did not contain any personal information, and the analysis was conducted at an organizational level. Therefore, the study does not fall within the scope of the Swedish Act (2003:460) on the Ethical Review of Research involving Humans. The authors declare that they have no conflict of interest.

## Results

At the three-year follow-up, six of the 14 programs were established and implemented as integrated parts of the local regular CMHS systems. Three of the programs were assessed as partly integrated, and five of the programs had been terminated. The following section presents the results from SEFS and SIS. Since one of our goals was to study the programs' establishment in the local CMHS systems, many of our results presentations compare the two groups *Surviving Programs* (SPs) and *Non-Surviving Programs* (NSPs). The SPs includes those six programs that were established in the organizations at the three-year follow-up, and the group of NSPs includes the programs that were partly integrated or terminated. In order to provide a depth of understanding of why and how facilitators and barriers appeared and affected the implementation outcomes, the presentation of the quantified data will be complemented with quotes from some of the interviews conducted at the three-year follow-up. The quotes presented illustrate statements typical of the informants' views on the implementation process.

### Fidelity

At the fidelity assessment after one year (Fidelity 1), all of the programs (excluding the non-assessed site 13) had fair or good IPS fidelity (Table 1). In general, the items in the section *organization*, such as *Integration of Rehabilitation with Mental Health Treatment* and *Role of Employment Supervisor*, scored lower than did the items in the other sections. Consequently, these relatively low scores pulled down many of the programs' total scores in SEFS. At the fidelity assessment after two years (Fidelity 2), four

**Table 1.** IPS program fidelity results after one and two years, and the programs' status after three years.

Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Fidelity 1</i>	97	86	102	101	88	93	92	83	82	80	77	81	-	89
<i>Fidelity 2</i>	104	92	108	110	96	100	100	80	89	-	-	67	-	-
<i>Established</i>	Yes	Yes	Yes	Yes	Yes	Yes	Partly	Partly	Partly	No	No	No	No	No

115–125 = Exemplary Fidelity

100–114 = Good Fidelity

74–99 = Fair Fidelity

73 and below = Not Supported Employment

programs had already been shut down and did not assess their program fidelity results. Site 12 underwent a second fidelity assessment, even though the program had been shut down. At that time, the score had dropped from 81 to 67. Eight out of the nine programs still running had increased their score at the time of Fidelity 2: four of them had fair fidelity and five had good fidelity. Sites 1–6 later became established programs integrated in the local service systems. Sites 7–9 had fair fidelity after two years, and at the three-year follow-up they were assessed as partly integrated programs. We found significant correlations between the programs' fidelity results after one year and their implementation according to the SIS scale (SIS total score:  $r^2 = 0.75$ ,  $p = 0.003$ ).

### **Implementation components**

Table 2 presents the programs' assessments of each component at the organizational and team levels and continuous support after one year. Some of the components seemed to be easier than others to put in place, and were present in most of the programs. For example, the components *information strategies*, *training*, and *administrative support* were fully in place in more than half of the programs overall, and were partly in place in the rest of the programs. Previous research (e.g., Damschroder et al., 2009; Fixsen et al., 2009) has shown that implementation components interact and that all of these are important for successful implementation. Our analysis of SIS showed statistically significant differences between the SPs' and NSPs' total scores, meaning that in most cases the established programs had a radically larger number of components in place at all categories compared to that of the terminated programs (SP:  $n = 6$ , mean 65.6; NSP:  $n = 8$ , mean 44.4; difference  $p = 0.001$ ). The major differences between the SPs and the NSPs were seen at the organizational level (SP:  $n = 6$ , mean 30.2; NSP:  $n = 8$ , mean 18.2; difference  $p = 0.001$ ). Site 7 had the *assessments of needs* component fully in place, but besides that single component, none of the NSPs had any of the components at the organizational level fully in place. Significant differences were also detected between SP and NSP sites according to the team level ( $p = 0.001$ ) and continuous support ( $p = 0.003$ ).

**Table 2.** Assessments conducted according to SIS for 14 pilot programs after one year (Markström et al., 2017).

Items assessed in the analytical model ( $n = 14$ for each item)	Number of programs assessed as “not in place”	Number of programs assessed as “partly in place”	Number of programs assessed as “fully in place”
<i>Organizational Level</i>			
1. Assessment of needs for the model	4	5	5
2. Experiences of the model	6	6	2
3. The model’s legitimacy	4	6	4
4. Organizational fit	4	6	4
5. Implementation climate	7	2	5
6. Collaboration culture	1	10	3
7. Leaders’ engagement	3	6	5
8. Local champions	6	6	2
9. External experts	6	4	4
10. Financial strategy	7	3	4
11. Steering group	3	7	4
12. Collaboration partners	0	13	1
<i>Team Level</i>			
1. Selection of staff	1	4	9
2. Continuity among staff	5	2	7
3. Available leader	3	4	7
4. Collaboration partners	0	9	5
5. Information strategies	0	7	7
6. Feedback to financiers	1	7	6
7. Training	0	5	9
<i>Continuous Support</i>			
1. Continuing training	5	7	2
2. Supervision	1	7	6
3. Recurrent fidelity assessments	2	5	7
4. Time for reflection	1	4	9
5. Administrative support	0	2	12

### **Components at the organizational level**

At the organizational level, the SPs had significantly higher scores compared to the NSPs. The components with the largest differences between the SPs and the NSPs were *legitimacy*, *organizational fit*, *implementation climate*, *external experts*, *steering group*, *collaboration partners*, and *financial strategy*. The differences between the SPs and the NSPs concerning these components were highlighted by many of the informants during the interviews. Some of the informants had felt that the difficulties concerning legitimacy and collaboration were primarily related to their own staff or organization, since some agencies considered that the IPS team had become a competitor for available resources and areas of responsibility. Another frequently reported difficulty concerned the individual organization’s ability to change. The project leader from one of the NSPs reported as follows:

One of the main implementation barriers has been the difficulty in creating an understanding of the new process involved in working in accordance with IPS. Most people in our organization are used to working in a practice that is not evidence-based. Of course we have experience of achieving successful results from

our traditional ways of working as well, so this might make it difficult for some of our staff to feel incentivized to change their behavior. You know, a lot of patience and perseverance are required to change one's own behavior in an organization.

The opportunity to receive knowledge from external experts was described by several of the employment specialists as being important for achieving good program fidelity, and for ensuring that the people involved in the implementation were striving towards the same goals and shared the same vision. The *steering group* component was fully in place in five of the SPs and in none of the NSPs. Having a steering group that takes responsibility for a program and makes decisions in support of its implementation seems to be important, since the work conducted by the steering group affects several other circumstances such as the program's legitimacy, the strategies used to collaborate, and the decisions concerning financing. Those programs that had no dedicated steering group had difficulties ensuring long-term financing and taking other facilitative decisions about implementation. The existing steering groups were in most cases composed of managers from the organizations involved and were not formed exclusively for the IPS programs, so they had other commitments too. Several project leaders reported that the steering groups were not sufficiently involved in the programs and that they would have preferred closer contact with them. One municipal manager stated as follows:

Had we been given the chance to start the program with the experience we have now, I think we would have put in a lot more effort and made sure the steering group were more on our wavelength from the start when informing them. At the start of the IPS program, we were so happy that they said "yes", but now when I look back I realize that they probably did not know what they had said "yes" to. I believe that they saw only the positive parts of the IPS program but did not realize that starting a new program like this also involves cost in the form of human resources and money. If we had managed to build the feedback loops for them right from program start we might have got into the position of being able to place demands on them, on such matters as decisions about collaboration and funding.

The ability to engage collaboration partners was challenged by the fact that many of the organizations supposed to be collaborating had conflicting goals and structures of working, and therefore, they did not see collaboration with the IPS team as an area of high priority. This made it difficult to achieve close collaboration between important organizations, as one of the project leaders explained:

The issue concerning collaboration between the municipality, psychiatric care, the Public Employment Service and the Social Insurance Agency is interesting; we have had some good years together with each of them separately, but it is really difficult to get 'the four big ones' involved at the same time.

Four of the six SPs and none of the eight NSPs had the *financial strategy* component assessed as being fully in place. Of the seven programs that lacked a financial strategy, only one survived. Several of the informants reported that the uncertainty they had experienced about long-term financing had put pressure on them to produce their results too soon, and they were also unsure whether they should stay on as employees in the program or start looking for

other employment before the period of the project was over. According to the informants, these circumstances hampered the goal-oriented work needed for strategic planning and development of the programs. Many informants reported that it was a difficult task implementing financial strategies when the programs were already running. One reason was that most municipalities are pressured into reducing their budgets over time, which means cutbacks in some other activity within the organization when the long-term implementation of a new program takes place. Accordingly, some of the IPS programs became seen as a threat to other activities, prompting the staff to fight their corner so they could stick to their normal work practices, and making them unwilling to support the competing IPS team.

### **Components at the team level**

This category included seven components, and, as at the organizational level, there were statistically significant differences between the SPs and NSPs. The components with the greatest differences between the SPs and NSPs were *available leader*, *feedback to financiers*, and *continuity among staff* (low rates of staff turnover and sick leave).

An available leader who supports the model performs several important functions for the development and survival of a program. In the case of most of the programs studied, the project leaders were responsible for the task of monitoring the programs' development and for acting as foreman for the staff. Besides that, the project leaders had the role of coordinator with the goal of building a collaboration between the municipality, psychiatric care, the Public Employment Service, and the Social Insurance Agency in order to form complete IPS teams. In addition, the project leaders had the task of providing feedback about the programs to financiers and decision makers. In some cases, the managers handpicked the project leaders before the programs were started, and in these same cases the project leaders played a significant role in the actual start-up of the programs.

The informants on the programs that had seen a high level of continuity among staff did not pay a lot of attention to this issue during the interviews. On those programs where this component was absent, the lack of continuity was perceived to be a substantial barrier to effective implementation. One project leader reported that the high levels of turnover, sick leave, and parental leave had forced them to "start over and over and over again."

### **Continuous support**

As with the other levels, there were statistically significant differences between the SPs and the NSPs. *Continuous support* contains relatively tangible components designed to support the teams. A team having these

components in place can put most of its energy and effort into developing a program in accordance with the selected model instead of struggling with issues of a practical nature. Most of the programs reported that the *administrative support* component was fully in place except in two of the programs where it was partly in place. The amount of *continuous training* and *supervision* offered to the staff varied, and was lowest in those programs that had funding deficits. The largest difference between the SPs and the NSPs could be seen in the *recurrent fidelity assessments* component. After one year, all of the six SPs and only one of the NSPs had a plan for how to conduct fidelity assessments on a regular basis. The informants reported that the fidelity assessment results provided information that was useful in adjusting the teams' ways of working so as to be more in line with IPS. Another benefit reported was that the results of the fidelity assessment could be used as an argument when providing feedback to the steering group, since a positive result could increase the chances of the steering group making positive decisions about financing.

## Discussion

### *Prioritizations and strategies*

To sum up the assessments of implementation performed in this study, it seems that the components at the team level were easier to put in place than those at the organizational level. At the team level, implementation is primarily in the staff's own hands and therefore possible to adapt. Circumstances at the organizational level on the other hand, are dependent on decisions made by the management and on the actions of other participating organizations, which makes it difficult for the teams to influence these. Of course, the ideal implementation strategy might be to work carefully on all levels simultaneously, but the lack of resources and limited opportunities for influencing the actions of other stakeholders force implementing organizations to compromise and to prioritize. This prioritization is difficult, since the complex interactions between the implementation components are hard to explain in detail (Damschroder et al., 2009). Our results suggest several core components that would seem more feasible than others for attempting to put in place in the implementing organizations, but another difficulty is that different components need different strategies in order to be implemented. Implementation at the organizational level requires different strategies to those at the team level, and it is also important to consider whether the prioritized components are dependent on vertical or horizontal inter-organizational relationships (Jensen et al., 2006). Components that are dependent on vertical inter-organizational relationships are relatively tangible by nature, and, as long as the decisions needed to be taken are indeed taken and that enough resources are released for that purpose, they seem to be quite easy to put in place. Examples of these kinds of

components are *external champions, steering group, political decisions for financing, feedback to financiers and decision makers, and regular program fidelity assessments*. Components that are dependent on horizontal inter-organizational relationships are more “soft” by nature, since they are dependent on the norms and values of individuals and organizations. Norms and values are not the same within different organizations (Kramer & Messick, 1995) or among different individuals, and they also tend to change over time. In addition, these types of components are neither absolutely present nor absolutely absent; they are better described as being definable on different levels of floating scales. These characteristics make it difficult for implementing organizations to deal with these components, both in terms of putting them in place and assessing their prevalence. Examples of these types of components are *the model’s legitimacy in the organization, implementation climate, and engagement from collaboration partners*.

### ***The complexities of integrated EBP programs***

The question of sustainability is even more complex than we have shown by analyzing the implementation components. IPS, with its evidence-based principles and straightforward approach, is seen by many of the informants in this study as an attractive and effective model. At the same time, the model challenges established structures in the welfare system (Bejerholm et al., 2015). Several informants in our study said that IPS stands for a divergent view on employment and working life, collaboration between authorities, and opinions about mental illness compared to the view taken by traditional occupational rehabilitation models. In order to successfully implement such an integrated, evidence-based program, these challenges have to be dealt with. Implementation means behavior change on the part of the actors involved. According to Fixsen et al. (2005), behavior change is difficult for most individuals and professionals, and is not always rewarded by service users or stakeholders. The informants in this study described supervision and training as an opportunity to learn more about IPS, but maybe more importantly, these were seen as activities that encouraged the staff to stick to their beliefs and stand up for the IPS model and the local program. Because the implementation of complex, integrated programs (such as IPS) involves behavior change for a large number of professionals, organizations, and leaders involved, implementation is a far more arduous task compared to less complex single-component interventions (Aarons et al. 2011; Aarons et al., 2014).

### ***The essentials: Money, time, and collaboration***

To fully understand what might affect the potential of programs to survive until the three-year follow-up, factors other than program fidelity need to be studied. Many publicly funded CMHS initiatives start as project organizations

that have necessary resources guaranteed for a limited period of time. Several recently published articles have highlighted the elementary components *financing* and *time* as determinants for sustainable implementation (Aarons et al., 2016; Beidas et al., 2016; Stewart et al., 2016), something that could also be seen in the present study. Despite showing fair fidelity results after one year, the majority of the programs studied were terminated before they had the chance to develop further. The government stimulus grants seemed to have been a strong incentive for the municipalities to start up the IPS programs, and initially the grants also provided the resources needed to create the conditions for fair program fidelity results. In terms of the programs' sustainability, however, the absence of strategies for long-term local financing was seen as a barrier by the informants, and made them unsure about "going all-in" with their work. The staff's lack of motivation is another potential barrier to program sustainability, since time-limited, publicly financed projects are often mandated to show results early on so as to increase their chances of local, long-term financing. Good results early on are dependent on a quick program start. To achieve a quick start, careful planning and preparations done *before* the start of a new program are crucial. This is in line with Meyers et al.'s (2012) research, which found that most of the critical steps needed for implementation should be taken *before* the actual start of a new program. In order to create supportive organizational structures, preparations also need to be made concerning inter-organizational collaboration. According to a study by Aarons et al. (2014), the importance and complexities of collaboration when implementing EBP have been underestimated, and it shows that the issues were most apparent during the preparation phase, and peaked during the early implementation phase. Palinkas et al. (2011) have highlighted the importance of social networks being developed and maintained by system leaders in order to implement EBP effectively, and according to Beidas et al. (2016) coordinated collaboration is needed from the very beginning of the implementation process in order to implement EBP programs successfully if several stakeholders are involved. On this basis, some of the difficulties described in our study are readily understood in light of the organizational structures which made the implementing municipalities responsible for initiating collaboration with other agencies in order to form the IPS teams and start up the programs. In Sweden, collaboration difficulties between the municipalities' social services and the county councils' mental health care services have been seen as an obstacle for both CMHS generally (Bergmark et al., 2015), and high fidelity implementation of IPS specifically (Hasson et al., 2011).

### **Limitations**

There are several limitations to our study that deserve mention. First, the 14 cases studied represent almost all of the programs that received government

stimulus grants but do not necessarily represent all municipalities in the start up of IPS programs. Second, although we sought to take a naturalistic study approach, the focus of our attention and the questions we asked about the programs' implementation activities might have prompted the representatives for the programs to rethink the way they planned and executed parts of the implementation process. In addition, the fact that all the programs studied had received stimulus grants and our results showed the importance of financing raised issues of how programs in a completely natural setting had developed. On the other hand, government-financed projects are, at least in Sweden, a commonly used approach whenever the government seeks to stimulate new initiatives in the field of CMHS. Third, our choice to use selected key persons as informants could be a matter of discussion. Interviewing more people involved in the programs would have enriched our data, but our use of carefully selected informants in combination with document study minimized the bias. Fourth, the SIS, SEFS, and sustainability assessments were conducted by the same researchers, an arrangement that includes the risk of cognitive bias. However, we believe that our strategy to triangulate data and use multiple informants and data sources has reduced such bias. In addition, member checking was used to determine the accuracy of the qualitative findings in the three programs that participated in the previously published in-depth study (Bergmark et al., 2018), and all assessments in the study were discussed within the research team until consensus was reached.

## **Conclusions**

Despite these limitations, the results of this study provide an increased understanding of and shed light on complexities in integrated CMHS programs and existing organizational structures, which are potential barriers to sustainable implementation of EBP. Policy makers and financiers could probably minimize these barriers by placing greater focus on sustainable implementation and strategies for local financing and collaboration. However, the way in which the Swedish CMHS system is currently set up means that implementing organizations need to identify these strategies. Recurrent assessment of program fidelity and implementation components is a possible approach for identifying areas of improvement. The pilot test of the SIS scale used in this study has shown good reliability with acceptable internal consistency and the ability to predict organizational survival (Markström et al., 2017). SEFS is a well-known scale for IPS fidelity assessments (Kim, Bond, Becker, Swanson, & Langfitt-Reese, 2015), and the research literature offers several implementation scales and frameworks (Rycroft-Malone & Bucknall, 2011). These kinds of scales are feasible tools that have the potential to be used for studying the implementation process and outcome in other contexts, and for larger numbers of cases than the 14 in this study. To ensure that new integrated initiatives will

be sustainable, implementers could benefit from putting in place the necessary preparations before program start. Efforts should be made to form committed joint steering groups, negotiate goals with the actors involved, and reach agreements on financing and collaboration. Another argument for ensuring careful preparation is that it seems to be difficult for teams to wield influence at the organizational level once a program has started.

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No potential conflict of interest was reported by the authors.

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## Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

## Informed consent

Informed consent was obtained from all individual participants included in the study.

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