Making evidence-based practice actionable in the social service context: experiences and implications of workplace education

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Abstract

Purpose – Research and experience show that evidence-based practice (EBP), i.e. using the best available knowledge in daily professional work, is difficult to achieve in social services. The purpose of this study is to understand the development of organizational EBP learning processes in daily work through workplace education for staff and managers of supported homes for people with cognitive disabilities. The authors examine how the EBP model and new knowledge are understood and made actionable in the workplace, applying theories of organizational learning.

Design/methodology/approach – The authors used empirical material collected from an EBP workplace education pilot in Sweden, as well as documents on national EBP implementation in Swedish social services. Before the pilot, a focus group interview was conducted with regional senior managers. Participating managers and staff were individually interviewed two to three years after the pilot.

Findings – The study illustrates how knowledge-based action emerged from education where EBP was interpreted, understood, reflected on, and tested, supported by codified EBP tools in the work context. The participants, when supervised, and when observing and questioning their own behaviors in practice, contributed to double-loop learning (DLL) processes. Codification of EBP knowledge into useful tools and

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socialization processes during education and workplace meetings was crucial in developing individual and group DLL and knowledge-based actions.

Originality/value – The bottom-up approach to EBP development and the adaptive contextual learning at the workplace gave new insights into organizational learning in social service workplaces.

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Introduction

The importance of implementing evidence-based practice (EBP) in social services [1] has been stressed by the Swedish Government in 2008, concluding that existing practice was inadequate and not knowledge-based (Swedish Government Inquiries, 2008, p. 9). EBP is based on the idea of evidence-based medicine (EBM), whose aim is to reduce the gap between research and practice (Champagne *et al.*, 2014; Haynes *et al.*, 2002; Sackett *et al.*, 1996; Walshe and Rundall, 2001). The practice "requires a bottom–up approach that integrates the best external evidence with individual clinical expertise and patients' choice" (Sackett *et al.*, 1996, p. 72). The large-scale, national EBP initiative implemented in Sweden in 2010–2016, aimed to develop an effective, transparent and knowledge-based social service that would benefit the individual service user (Swedish Government, 2010, 2011), was based on EBP knowledge (Eliasson, 2014). Expected outcomes were increased knowledge transfer from research and systematic monitoring (Swedish Government, 2011).

The EBP model (Figure 1) illustrates how professional expertise (staff) should consider three sources of knowledge (two focusing on the individual service user and one focusing on the best available knowledge from research and/or best practice) in social service work, including the systematic evaluation of effects (National Board of Health and Welfare, 2022). The EBP model presupposes that the professional makes continuous inquiries into the individual service user's needs and desires, matching them with knowledge-based interventions in dialogue with the service user. In the region studied, the overall challenge identified by the social service head managers was to translate the abstract EBP model (Figure 1) into daily workplace practice (Focus group interview, 2014-08-20). The need to
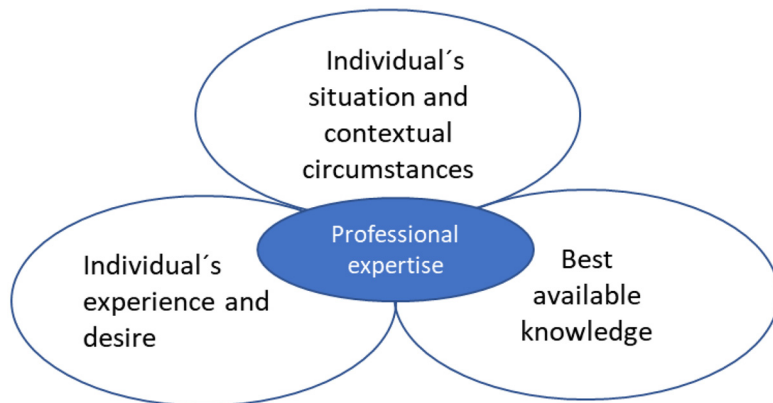
Figure 1.
Evidence-based practice (EBP) model (own translation)

Source: National Board of Health and Welfare (2022)

train staff to adopt an EBP approach was described as crucial by the managers, although the model was putting off rather than creating interest in staff (ibid.).

This paper examines the experience of a workplace education pilot in Sweden run in two supported homes for adults with cognitive disabilities. The main research question is:

RQ1. How do organizational learning (OL) processes develop among managers and social service workers in EBP workplace education and in their daily work?

In this study, we apply organizational learning (OL) theories and terms such as single-loop learning (SLL), double-loop learning (DLL) and actionable knowledge (Argyris, 1977, 1991, 1999; Argyris and Schön, 1978; Avby, 2018) to understand how EBP is understood, developed and used in workplace practice.

Next, we present previous research on EBP implementation in social service work. We then present the theoretical OL framework and the method applied, followed by empirical examples of learning processes and outcomes. Finally, we discuss our findings and conclusions, presenting implications for workplace learning and EBP development.

Implementing evidence-based practice in workplace practice

Putting available knowledge into practice according to the EBP concept is problematic (Gambrill, 2003), making EBP difficult to implement in social service organizations, as reported from the UK (Booth *et al.*, 2003; Stevens *et al.*, 2005), the USA (Bellamy *et al.*, 2008; Mullen *et al.*, 2008), Australia (Plath, 2014) and Sweden (Avby *et al.*, 2014; Bergmark and Lundström, 2011; Eliasson, 2014; Johansson, 2019). Several evaluations by Swedish authorities (National Board of Health and Welfare, 2013, 2020; The Swedish Agency for Public Management, 2011, 2012, 2013, 2014; Swedish Association of Local Authorities and Regions, 2016) have identified implementation challenges, including professional learning. Among obstacles are: using a top–down approach; ignoring professional and practical research development (Börjeson and Johansson, 2014); focusing on making research knowledge available to practitioners; having an instrumental and decontextualized view of EBP (Avby, 2018). It has been suggested that acknowledging different ways of understanding EBP among politicians, managers and executive staff can create a conducive EBP atmosphere for realizing social work practices that use both research- and practice-based knowledge (Avby *et al.*, 2014; Gambrill, 2006; Marsh and Fisher, 2008). Social work experience and the influence of colleagues and supervisors are important sources of knowledge (Bergmark and Lundström, 2002; Burton and Chapman, 2004; Horder, 2007; Pistone *et al.*, 2022), suggesting the importance of integrated professional knowledge. Professional learning and knowledge use are important for EBP development (Avby, 2015), including making EBP practical, visible and put into words (Avby, 2018).

There are also implementation obstacles to translating EBM into the social work context. These are due to medical doctors' and social workers' different academic backgrounds, scientific cultures and work practices (Eliasson, 2014). EBP is much more likely in contexts where research-based practice is part of the organizational culture and where adequate networked support, resources, training and supervision are available for practitioners (Gray *et al.*, 2012). In organizations where front-line staff have basic or no professional qualifications, the need for standardized practice tools is greater than where staff are professionally qualified and can engage in more autonomous decision-making and practice (Plath, 2014). Social service workers must shape their daily work in a new way through internalizing new habits and routines based on the EBP model (Eliasson, 2014). Multifaceted

approaches that respond to particular practice contexts and practitioner requirements are therefore needed (Burton and Chapman, 2004; Gray *et al.*, 2012; Andrews *et al.*, 2020).

Earlier studies on EBP implementation in the field of disability social services report that there is little relevant evidence-based research available in the disability field (Burton and Chapman, 2004; Chea *et al.*, 2022). Social service workers' difficulties in locating, obtaining and using published research studies have been reported (Burton and Chapman, 2004). Because of lacking research evidence regarding how to match a service user's individual needs and desires, staff must systematically build knowledge-based practice to match the individual. Crites *et al.* (2009) stress the need to provide health-care leaders, managers and employees with a practical OL framework for understanding how their organizations learn and build contextually based knowledge through evidence-based decision-making.

One approach is to integrate types of evidence through developing practical theories that can be tested as the service is provided, i.e. seeing social workers as theorists (Burton and Chapman, 2004). However, it is also important to consider both the social workers' and the service users' experiences and knowledge and their mutual interaction in social care practices (Pistone *et al.*, 2022). Also, social workers can contribute to OL by developing collaborative networks sharing ideas about different ways to use EBP in social work (Mosley *et al.*, 2019; Chea *et al.*, 2022).

Although there are some EBP studies related to OL in disabled social services, there are few studies focusing on how learning takes place in such organizations from a bottom-up perspective and, especially on an individual and group level. In this paper, we focus on social service workers without an academic education and on first-line managers, and explore how they understand and develop EBP learning in their own practice. We explore how learning evolves in the moment, both during the education sessions and from a long-term workplace learning perspective.

Theoretical framework

OL can be defined as "the process through which organizations change or modify their mental models, rules, processes or knowledge, maintaining or improving their performance" (Chiva *et al.*, 2014, p. 689). Individual learning, too, is important for understanding the learning process of organizations (Wang and Ahmed, 2003). A learning organization could be defined as "an organization that purposefully designs structures and strategies [so] as to maximize organizational learning" (Crites *et al.*, 2009, p. 11). Learning occurs not when problems are identified, new ideas are born or solutions are invented, but when "the invented solution is actually produced, [i.e.] is turned into action" (Argyris, 1999, p. 9). Adult learning can be described as a:

> Human process of change that occurs as a result of the interaction of the individual with his or her environment. The change results from the acquiring of knowledge through study, instruction, and experience (Schwandt, 2005, p. 178).

In our context, thinking about both professional roles and EBP content challenges existing socialized work practice logic (Argyris, 1999; Basten and Haamann, 2018). It entails moving from a caring to a supportive professional to a new, knowledge-based logic of performing work. The need for critical reflection to make both existing and alternative (i.e. knowledge-based) work logics visible and open to redefinition can be described using the theory of SLL and DLL (Figure 2).

SLL is about reflecting and focusing on doing things/actions the right way and correcting existing practices if the results do not match expected outcomes/consequences. The process can be compared to a:

Thermostat that learns when it is too hot or too cold and then turns the heat on or off. The thermostat is able to perform this task because it can receive information (the temperature of the room) and therefore take corrective action (Argyris, 1977, p. 116; see also Argyris and Schön, 1978).

DLL, on the other hand, occurs:

If the thermostat could question itself about whether it should be set at 68 degrees, it would be capable not only of detecting error but of questioning the underlying policies and goals as well as its own program [governing variables] (Argyris, 1977, p. 116).

Hence, DLL involves learning by distancing the self from the current context and viewing the situation from other perspectives to challenge an existing line of thought. This entails reflecting on and asking whether the right things are in focus, questioning underlying policies and goals by means of comprehensive inquiry (Argyris, 1977). To create DLL, we must look beyond personal motivations and feelings and consider cognitive rules and reasoning: the governing variables that individuals use to design and implement their actions. However, "the very way they go about defining and solving problems can be a source of problems in its own right" (Argyris, 1991, p. 4). The governing variables can be seen as socialized "master programs" stored in the brain and governing actual behavior (Argyris, 1977, 1999). Exploring and investigating own governing variables stands in contrast to SLL, in which change of action completes the learning loop, ending up in either a new failure (mismatch) or success (match) (Argyris, 1999).

Creating double-loop learning related to organizational evidence-based practice development
To achieve DLL in the workplace, the underlying governing variables (i.e. norms and values) driving actions must be exposed, visualized and reflected on by the individual actors involved. That is because "governing variables are the preferred states that individuals strive to 'satisfice' when they are acting" (Argyris, 1999, p. 9). So, to challenge the underlying governing variables in the studied context, the staff's and managers' assumptions regarding work content and their professional roles merit study in relation to EBP outcomes.

Creating effective double loops entails "teaching people how to reason about their behaviour in new and more effective ways [which] breaks down the defences that block learning" (Argyris, 1991, p. 5). Reasoning enhances processes of reflexivity, including examining personal assumptions, decisions, actions and interactions, and the assumptions underpinning organizational policies and practices (Cunliffe, 2016). This involves analyzing the consequences of own actions and criticizing unquestioned routines (Hallensleben *et al.*, 2015).
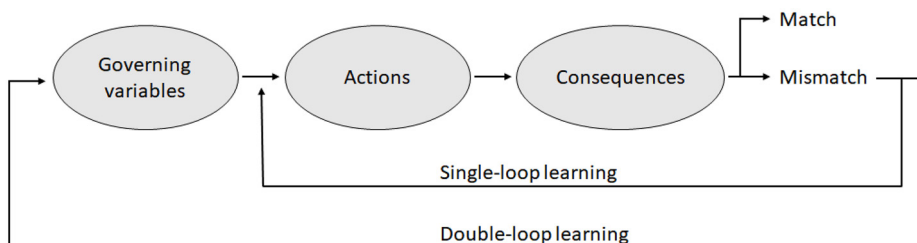
Source: Figure based on Argyris (1999)

To facilitate OL and change of action in workplace practice, explicit knowledge can be codified and recorded in manuals, procedures and documents (Prencipe and Tell, 2001; Basten and Haamann, 2018), like instructions for carrying out a task (Zander and Kogut, 1995). In our context, making knowledge actionable includes codification of the aims and knowledge of the EBP model (Figure 1) in the social service housing context. The generalization of knowledge in the EBP model is actionable only "if it informs the user how to create it in settings beyond those in which it was first created" (Argyris, 1999, p. 299). We will discuss how guided reflection, reasoning, new knowledge and codification of the EBP model during and after EBP workplace education helped create ongoing transformative reflexive processes and socialization, creating DLL and new knowledge-based EBP actions.

Method

The EBP education program was run twice in the same municipal social service organization for persons with disabilities in Västmanland County, Sweden, in 2015 and 2016. The education pilots were jointly arranged by the regional development of social services unit and the municipality and performed on-site at one group home and one service home for persons with intellectual disabilities. Each program consisted of six linked 2-h sessions, including follow-up and evaluation, and tasks to perform at work between sessions. The participants were all staff and the first-line manager at both workplaces. The sessions were led and supervised by one of the authors (Karina Tilling) together with a local support pedagogue who regularly worked at both sites.

A qualitative method was used to collect empirical data on our participants' experiences and interpretations (Gioia and Chittipeddi, 1991) during and after the program. Notes and observations from all sessions were used to collect examples of situations experienced at the two workplaces related to EBP implementation in daily practice. These observations can be seen as microethnography, as they revealed how participants made sense from moment to moment, exploring hidden qualities of the unfolding process and how these qualities relate to teamwork, coordination and strategizing processes (Maitlis and Christianson, 2014).

We also used the participants' oral/written evaluations of the program, where they reflected on their experiences and use of the education. In 2018, both authors performed four semistructured interviews with the head of municipal care and support for cognitively disabled persons, the two first-line managers and a staff member from each workplace. These interviews followed three interview guides adapted to the roles of the interviewees. The main focus was on personal experience of EBP work in practice after participation in the education. The interviewees were encouraged to describe how EBP develops in practice and give some illustrative examples.

Previously, a focus group interview (2014-08-20) had been performed by Karina Tilling, then acting as a regional development strategist for EBP development. The participants were municipal representatives of three regional social service managers' network asked to identify obstacles to, and experiences of, EBP implementation in practice. This material guided the workplace education design and was used as reference material in this study. All empirical data collected is presented in Table 1.

Analysis of empirical data

As one of the authors (Karina Tilling) has been professionally involved as manager of regional EBP development projects and in the design of interventions used as empirical material for this study, some reflection on the method and our roles as authors is required. In analyzing the material, the author Birgitta Schwartz acted as an outside interviewer not involved in collecting the empirical material in 2014–2016 and was not previously familiar with EBP

Date	Method	Participants	Duration (min)	Participants (n)	Facilitator/ researcher	Empirical focus
2014-08-20	Focus group interview at a regional network meeting Notes on flipchart taken during the session and sent out for comments to participants afterwards	Head of department (HOD) managers for municipal care/dis-ability support	60	7	KT	What are the main challenges and opportunities for EBP implementation in social service practice?
2015-04-15, 2015-04-29, 2015-05-13, 2015-05-27, 2015-06-10, 2015-09-16 (evaluation of education session)	Education sessions, Pilot 1 Notes from supervised group discussions and participants' oral evaluations	First-line manager and regular staff	120	5–7	KT Support pedagogue	How do participants experience EBP in relation to their daily practice? – Challenges? – Opportunities? What are the obstacles to EBP implementation?
2016-03-16, 2016-03-30, 2016-04-11, 2016-04-28, 2016-05-11, 2016-06-08 (evaluation of education session)	Education sessions, Pilot 2 Notes from supervised group discussions and participants' oral evaluations	First-line manager and regular staff	120	5–7	KT Support pedagogue	How do participants experience EBP in relation to their daily practice? – Challenges? – Opportunities? What are the obstacles to EBP implementation, and how can they be addressed?
2018-06-11	Semistructured interview	HOD for municipal care/dis-ability support	100	1	KT BS	How does EBP develop in practice?
2018-06-11	Semistructured interview	First-line manager (A)	60	1	KT BS	How does EBP develop in practice?
2018-06-11	Semistructured interview	First-line manager (B)	60	1	KT BS	How does EBP develop in practice?
2018-06-11	Semistructured interview	Staff (A and B)	75	2	KT BS	How does EBP develop in practice?

Notes: KT = Karina Tilling; BS = Birgitta Schwartz
Source: Created by authors

Table 1.
Data collection methods

development or the social service context. Karina Tilling informed Birgitta Schwartz about the EBP model and the social service sector, whereafter the authors jointly explored the empirical material from 2014 to 2016. This entailed constantly and collaboratively posing new questions about the material to extract key elements of the experience of learning about EBP model implementation in social services. As the insider responsible for collecting the empirical data, Karina Tilling conducted a first-order review of the data, while Birgitta Schwartz and Karina Tilling jointly conducted a second-order review based on a theoretical perspective on the raw data and first-order findings (Gioia and Chittipeddi, 1991). Karina Tilling engaged in participant observations and was able to provide first-hand accounts of her own sensemaking and that observed in others (Maitlis and Christianson, 2014). As a result of this joint sensemaking and analytical process, we conducted additional interviews in 2018 to understand how social service workers' EBP learning process and workplace practice had evolved posteducation.

Empirical findings

A key function of the two education programs was to establish DLL, including raising awareness of existing theories and exposing underlying conflicting views on work performance (Argyris, 1999). During the educational sessions, mental maps underlying daily practice (i.e. governing variables) were revealed by guided reflection. The participants were encouraged to provide examples of specific dilemmas and some tricky issues from their daily work. The challenges in every given example were identified together in the session, which raised awareness of core issues to be matched with available knowledge. In this way, many customized and relatable interpretations of the EBP model were presented and tested, helping participants form alternative frames of reference or mental models (ibid) of work performance.

The following three examples from education practice and posteducation experiences illustrate how DLL and change at the organizational and group level motivated individual reflection on action, including both diagnostic and action frameworks (Argyris, 1999; Crossan *et al.*, 1999). An important step in developing DLL was uncovering and exploring existing SLL actions in work practice, as illustrated in Example 1.

Example 1: Guided reflection reveals single-loop learning

A participant described a situation that arose each Tuesday morning at the group home. One care recipient woke up very early and immediately wanted help with breakfast. This created a dilemma as this person had very little time awareness, and serving breakfast right away would leave a long stretch of time until the next activity (leaving for work). However, the alternative of waiting for another hour to eat proved equally frustrating and anxiety-inducing. Both alternatives had been tried repeatedly, always resulting in stressful mornings.

In guided reflection, the strong governing variables of actions in practice (Argyris, 1999) – i.e. aiming to best meet needs – were exposed in dialogue as being obviously in conflict with the actions taken. New insights arose when staff were asked to take the service users' perspective, and realized the consequences of differing and, therefore, unpredictable actions each morning, which in itself probably caused anxiety. Existing SLL actions (see Figure 3) were framed as part of the problem (Argyris, 1991). The new insights, gained through individual reflexivity, as in Example 1, furthered constructive group discussions focusing on how to better support independence and meet the service user's needs. Core EBP model content and aims were directly related to the staff's own empirical examples, jointly reflected on during the educational sessions and over time and at the group level developed into DLL

processes. Also, new knowledge-based actions were suggested and discussed based on the outcomes of the dialogues on governing variables, relevant knowledge sources and the professional roles at the workplace. Related to Example 1, actions taken by the participants included trying out time awareness support for the service user and developing common work routines.
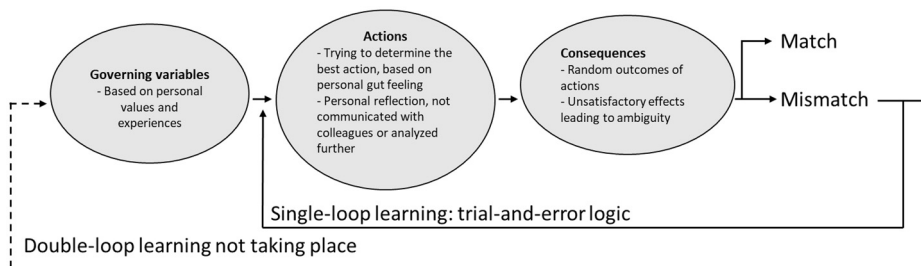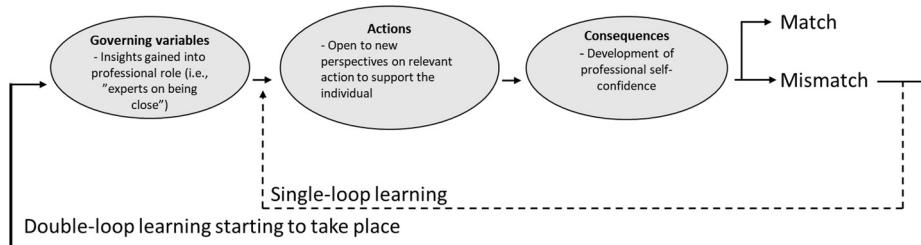

Figure 3.
Single-loop learning based on trial-and-error logic

Source: Created by authors

Example 2: "Experts at being close" – recognizing own professional value
Defining work content and professional roles among staff turned out to be key in developing an EBP approach at the workplace. In an early discussion, the participants were asked to reflect on and describe their own roles in the support and service given to service users. The staff viewed their roles as performing different tasks in assisting the residents. Getting through the day's tasks, and not doing anything wrong was highlighted as important.

Staff described themselves as having inferior professional status; for instance, they related that they did not want to approach the service user's doctor to discuss observations related to new medications/dosages. This professional interaction was "not an option" because they had inferior academic education and lower work status. They devalued the relevance of their own observations. In guided reflection during the education sessions, they realized that different professions contribute different knowledge, experiences and perspectives, and jointly support the service user. Also, the important features of their own profession in relation to the EBP model were explored and gained prominence over time. The DLL processes on coding EBP content started evolving during education (Figure 4), leading to a redefinition of work content and the development of professional self-confidence. One staff member said, "We're the experts at being close!" (Education session,

Figure 4.
Double-loop learning processes based on new insights into staff professional roles

Source: Created by authors

2015-04-29). Hence, redefining the governing variables (Argyris, 1999) of the professional role was key in opening up for new EBP-based actions in workplace practice.

*Example 3: "Connecting the dots" – codifying the evidence-based practice model*
Example 3 relates to the codification of the EBP model. An EBP form designed by the local management for disability care, codifying the EBP model and guiding knowledge-based actions related to a service user's needs and desires, had already been available for some time before the education started. The form included: guiding questions on/instructions for defining specific needs/desires, collecting and analyzing relevant information and describing a suggested intervention; a strategy for implementing the suggested intervention; and an evaluation of intervention experiences to improve the outcome. Despite its practical aspects, the form was not extensively used by staff in their daily work. Moreover, regularly updating the mandatory individual implementation plan on care and support (National Board of Health and Welfare, 2014; SOSFS, 2014, p. 5) for each service user was described by participants as a time-consuming, solitary and tricky work task that had to be performed every year. When discovering the usefulness of the EBP form in mapping and identifying specific individual challenges to explore and try out relevant knowledge-based interventions, one participant said:

> Oh, now I see how this could make my work on the individual plan update a routine matter – and not add to my workload every year! (Education session, 2015-06-10).

The participant connected the "dot" of the mandatory individual plan to the "dot" of the EBP form, which is based on the EBP model, creating a meaningful whole of new professional, knowledge-based planning and evaluation action. Thus, the DLL process evolved as the defences blocking learning were broken (Argyris, 1991). The connections between the two documents on meeting service users' needs/desires suddenly became obvious, contributing to DLL. The governing variables (Figure 5) of work content and aims became objects of reflection and reconstruction, contributing to a game-changing shift in professional self-definition, going from correctly performing given tasks to creating knowledge-based individual support, using EBP-based content to initiate and guide new actions.

Results of education in practice: evidence-based practice as a guide for actionable knowledge
The joint efforts of staff and managers, in approaching service user challenges during the education, contributed to a common and socialized view of EBP content and the professional role at the workplace. A changed mindset and a more exploratory way of thinking and working as a team in supporting the service user were frequently mentioned as gains (Oral/written evaluations, 2015-09-16, 2016-06-08). The guided discussions contributed new insights, as
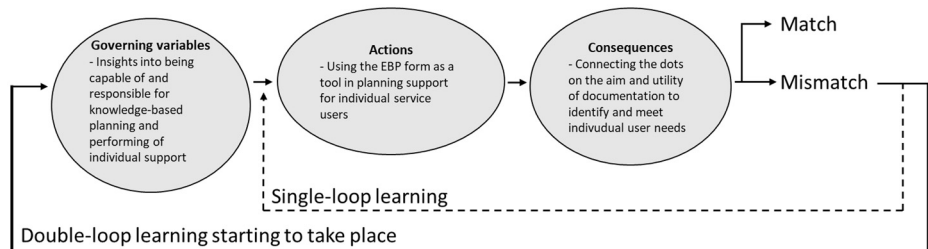
Figure 5.
Double-loop learning processes evolving from the codification of the EBP model

Source: Created by authors

participants acknowledged their own professional roles, focused on the service users' perspectives and explored relevant knowledge sources. Also, new practical skills in evaluating individual interventions using a simple table (including date/time, result of intervention and service user's reaction) were created together with participants during the education. The table functioned as a codification of EBP knowledge and was tested in workplace practice. It was well-accepted as a tool, and in course evaluations, the participants related that they frequently used it in their daily work. Knowing how and why to work in a certain way and keeping up with new knowledge and insights was likewise seen as a crucial gain from education:

> Very large gains: you can now get results that can be measured, follow-ups are performed as decided, the service users can more easily achieve their goals, staff see positive results, which is very encouraging, and you are able to switch focus if something doesn't work – this generates results. (Written evaluation, 2016-06-08)

The following global positioning system (GPS) metaphor illustrates how one first-line manager's new cognitive map was communicated to staff (Crossan *et al.*, 1999; Maitlis and Christianson, 2014) after the education:

> EBP is our GPS, our way of working that takes us from point A [. . .], which is the service user's needs and desires, to point B, which is goal completion and the wellbeing of the service user. On this journey, we should use knowledge and, together with the service user, find the most effective ways to reach goals. EBP is an approach that creates our professionalism. (Written evaluation, 2016-06-08)

The manager's codification and shared understanding of EBP as a GPS stimulated further organizational DLL (Argyris, 1977, 1991; Avby, 2018) by illustrating a new outline of work based on the governing variables (Argyris, 1999) of the EBP model. The process contributed to the socialization of new professional staff and manager roles, enabling the institutionalization (Crossan *et al.*, 1999) of EBP at the workplace. Three years after the first education, one first-line manager described an integrated approach to EBP implementation using quality meeting time to discuss and complete the EBP form jointly as a team, with the form functioning as a common structuring device for meetings:

> The EBP form is important – without a tool you tend to rely on your personal values, which is devastating. (Interview, 2018-06-11)

Staff from both workplaces described being able to identify and understand individual service users' desires. They saw this as a new skill they had gained from participating in the education. Both the EBP form and the simple evaluation table were described as useful in developing and socializing knowledge-based practice. Overall, the education was described as an eye-opener, helping participants observe and be alert to individual service users' needs. "Maybe we should do an EBP on this" became a common expression at the workplace when experiencing uncertainty about how to meet a service user's needs (Interview, 2018-06-11). The EBP form provided guidelines for repetitive actions (Prencipe and Tell, 2001).

Important features of the DLL learning transfer processes, making EBP actionable in workplace practice, are illustrated in Figure 6. New governing variables of EBP work and professional roles were developed in DLL processes at both individual (staff, manager) and group levels (staff-manager teams). This process was facilitated by supervision during education sessions, connecting individual experiences with group reflection. Both coding of EBP knowledge (e.g. EBP form, structured dialogue at meetings) and socialization (use of EBP form/table during meetings; collegial support/exchange of experiences) were crucially important in developing individual and group DLL and knowledge-based actions. In turn, this had positive effects on workplace practice (design and content of support, increased transparency and consistency with law), benefiting the service user.
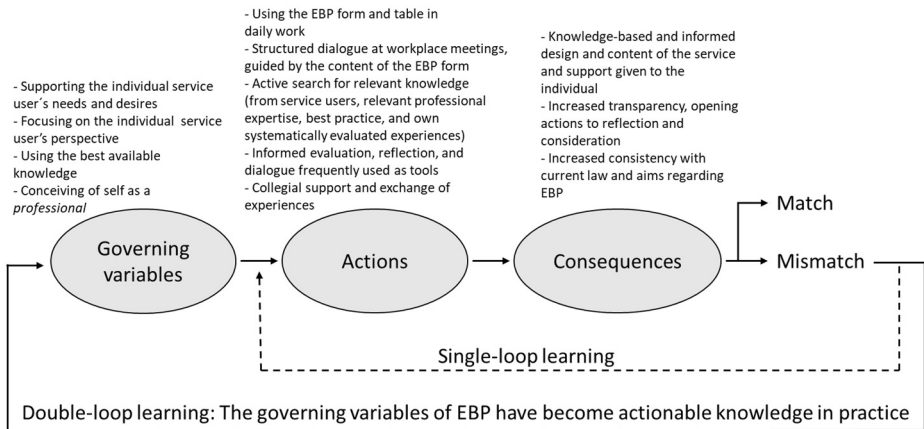
Figure 6.
Learning transfer
model of bottom-up
development and
socialization of EBP

Source: Created by authors

In sum, the long-term effects of education are the establishment of a socialized EBP platform, including a common understanding and language (Crossan *et al.*, 1999) and ongoing joint learning processes at work.

Discussion

Based on our research question, how do OL processes develop among managers and social service workers in EBP workplace education and in their daily work? We discuss how DLL processes evolved, making the EBP model actionable in social service workplace practice.

Professionalization processes making way for novel approaches

Knowledge-based inquiries, based on service users' needs/desires, were developed in the educational sessions with the reflective support of the educators and staff themselves. During these learning processes, new cognitive "master programs" (Argyris, 1991) for the own profession and work emerged, governing new and knowledge-based behavior at the individual level. From an organizational perspective, these results indicate a paradigm shift from *caregiving* to a *professional supportive* paradigm. The new paradigm, based on new individual cognitive master programs, focused on the needs/desires of the service user and was guided by the knowledge-based inquiry approach taught and practiced. By contrast, the *caregiving* paradigm had come with a limiting SLL approach focused on performing given tasks and correcting performance errors. With the reframing of the work content to a professional supportive paradigm, reflecting on, trying out and analyzing the results of knowledge-based interventions (jointly with the service user and as a team) developed into DLL and gradually became the new work logic.

Becoming a professional

In this study, the underlying idea of the EBP model (Figure 1) has proven difficult to relate to in social service practice. However, a crucial finding is the importance of learning to recognize the own professionalism, including the professional expertise of being close to the service user. This finding has implications for the content and design of future EBP education initiatives. Also, basic research skills taught in higher education, including

methodological awareness, critical thinking and formal writing, are often lacking in social services, yet are both assumed and useful in EBP practice. Based on our findings, we advocate embracing the professional role and expertise of social workers, in parallel with practical training in knowledge-based ways of working when implementing EBP in practice.

Building a new frame of reference for work content

Staff and managers participating in the educational sessions and working jointly on a case between sessions created a common base for questioning existing socialized actions (Argyris, 1991), enabling a new shared EBP frame of reference for their own practice. An important outcome of these DLL processes (Argyris, 1991; Argyris and Schön, 1978) was a new framing of the work content, including recognition of the need to collect and use knowledge about the individual service user's situation. This developed as a result of actively exposing the underlying governing variables (Argyris, 1991) guiding existing actions, and then reflecting on, questioning and redefining them collectively in a secure training environment, where participants' own examples of difficult situations were shared and explored in guided discussions, promoting evidence-enriched practice (Andrews *et al.*, 2020).

These guided reflections on current ways of working and discussions of alternative approaches became game changers. Generating personal experience of knowledge-based inquiries, starting by defining the needs/desires of individual service users and systematically using dialogue, reflection and evaluation as tools, made the EBP model actionable. In tandem with the participants redefining their own professional roles, the experience enabled new DLL in the team on how to meet service users' needs/desires.

After the education, some DLL processes were continued during regular meetings at work. These meetings constituted important arenas for further facilitating team thinking, reflection and action, in turn building a new frame of reference for knowledge-based work over time. Some supportive organizational features ("infrastructural devices") proved crucial. The EBP form and the customizable table for both systematically mapping individual service user information and evaluating results are two tools frequently described as useful in translating the EBP model into practice. Using these tools after the education also helped staff engaging in more autonomous decision-making and practice to step back from their own personal values (Plath, 2014; Prencipe and Tell, 2001; Zander and Kogut, 1995). As a result, new, bottom-up, ideas for designing and providing individual support have been put into practice. Besides resulting in knowledge-based interventions for individual support, ongoing DLL processes are also stimulated in work practice, creating a new institution (Lawrence and Suddaby, 2006) where EBP becomes more habituated (Reay *et al.*, 2013) at the workplace.

Organizational support in establishing evidence-based practice

In the studied organizations, implementation of the EBP model and the workplace education were mandatory top-down initiatives; and higher-management support signaled their importance. Research has demonstrated that such top-down implementation can be detrimental to practical results deriving from EBP education (Mullen *et al.*, 2008); however, once initiated, the new way of conducting work, along with the achieved DLL, required continuous management support and guidance to be sustainable and develop further over time. The first-line managers' use of the EBP form at meetings and in daily work outlined the managers' new supervisory role in EBP processes and highlighted daily obstacles that required guidance. Introducing a new idea (the EBP model) entailed replacing old meanings

(Pratt, 2000) to change practice, connecting organizational-level ideas and microlevel practices (Reay *et al.*, 2013).

Managers influencing the creation of new meaning by staff and supporting them in understanding the benefits of new working approaches (Gioia and Chittipeddi, 1991; Maitlis and Christianson, 2014) applied managerial strategies to break down EBP content into a workable EBP form and provide active guidance for use at the workplace. Such on-the-job coaching massively accelerates individual knowledge acquisition and the ability to use new skills (Fixsen *et al.*, 2005). The effects for managers include a change in the language used and a new awareness of the use of evidence in decision-making (Champagne *et al.*, 2014). The new first-line manager role includes facilitating EBP solutions and acting as a chief knowledge officer in the EBP codification process (Jones *et al.*, 2003). Our study shows that supervision skills, enabling critical reflection and actively stimulating DLL processes jointly with staff, are other useful managerial competencies.

The importance of double-loop learning processes in evidence-based practice implementation
National evaluations have shown that the EBP model is difficult to implement in social service practice. Organizations can be viewed as arenas for ongoing organization, interaction and relations involved in *understanding* documents and plans (Larsson *et al.*, 2001; Löwstedt, 2018), such as the EBP model. As illustrated by our results, implementation of the EBP model can be dependent on how its content is understood and (perhaps more importantly in relation to education) *made to be* understood, codified and socialized among the managers and staff in both of the studied workplaces. The ongoing, bottom-up, DLL processes, in turn, formed the basis for developing actionable knowledge in daily practice.

As working with people is dependent on experiencing and learning both in and from lived situations (Bornemark, 2020), the experiences of thinking and practicing knowledge, the new ways of approaching work content and the establishment of teamwork in defining knowledge-based ways to support the individual have proven necessary in establishing new, EBP-based, professional action. Overcoming staff members' initial fear of doing wrong was another crucial barrier, addressed here by joint exploration while amassing experience. Our study illustrates how knowledge develops from doing, by exposing underlying governing variables (Argyris, 1999) and putting them into words and by integrating knowledge of *what* should be done with knowledge of *how* it should be done (Avby, 2018), based on praxis knowledge (Bergmark and Lundström, 2002; Horder, 2007).

This study identifies obstacles to translating the abstract EBP model into social service practice. Yet, building a new professional frame of reference, both during education and continuously afterwards, has proven to be important in making the content of the EBP model actionable in practice. Altogether, the bottom-up development of the contextually relevant and actionable knowledge of EBP has proven to be a productive way of establishing new sustainable, knowledge-based practice in the social service context.

Conclusions
Our results contribute key findings to the existing research of EBP implementation in social services practice. The proposed bottom-up learning transfer model for evidence-based professional practice makes a visual contribution to developing attitudes and behaviors on EBP to improve work performance in social services. The model enhances ongoing DLL processes at the workplace, where EBP is highlighted in relation to the governing variables and the contextual, situational work content. In turn, the professional identity of social service staff evolves as they are actively involved in bottom-up DLL processes. For them, a new professional role emerges where core EBP features are socialized and further explored in collegial exchange.

A supportive organizational "infrastructure" (e.g. EBP form, evaluation tables and workplace meeting structure) has contributed to the socialization of EBP development and further DLL processes in daily work–life activities: the suggested EBP workplace learning model enables bottom-up learning, making EBP actionable in social service practice.

Although the EBP workplace learning transfer model was designed for professionals without higher education in a social service workplace context, the positive outcomes suggest broader application possibilities. The advantages of the education model can be seen in the development of a team identity based on a common standard of conduct, starting with identifying service users' concrete desires and needs. With higher-level professionals, the formation of team identity could be inhibited, but the learning model can be used to overcome differences in professional status and professional knowledge and to overcome barriers linked to hierarchy. The adaptive approach and design of the model meet the need to develop the capacity to analyze a challenge or problem in the workplace as it is manifested while also searching the personal repository – in sum, contributing to both individual learning and OL.

We suggest future testing of the model at the end of higher levels of education, as well as further professional education in social work, enabling learning on EBP related to the skills and work of social workers today and in the future. This would further contribute to the underlying values and benefits of a knowledge-based social work practice becoming actionable, benefiting social work outcomes for both individuals and society.

Note

1. Social services in Sweden include elderly care, support of disabled people, child, family and individual social support.

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