

Supervision of Large-Scale Community-Based Early Intensive Behavioural Intervention Programs in Quebec: Description of Practices

Abstract

To date, available studies have identified some components of early intensive behavioural intervention (EIBI) programs that may influence children's outcomes, including supervision. Supervisors need to be competent in several areas and must carry out various professional activities. However, it may be difficult for community-based EIBI programs to access skilled supervisors and to offer intensive supervision of staff. The purpose of this article is to present data concerning the supervision models used by readaptation centres in Quebec offering these programs. Quantitative and qualitative analyses were conducted on data collected through a survey developed as part of a larger project (2011-2012). The results from the 18 completed survey questionnaires indicated that the caseworkers most frequently asked to perform supervision were psychoeducators (38.8%, $n = 7$), followed by clinical activity specialists (27.7%, $n = 5$). At most of the centres, supervisors had a university education. Supervision frequency varied greatly, from once every six weeks to two or three times per week. When asked, "Why is there a supervision system?" respondents indicated that its purpose was to (1) ensure quality services, (2) provide training and professional support, (3) support parents and partners, (4) provide intervention support, and (5) support individuals experiencing problematic situations. Despite some differences between the data collected and the supervision modalities proposed in the scientific literature, notably in terms of supervision intensity, results emphasize the importance of supervision and the variety of possible modalities that exist (e.g., format, content). Respondents stress that supervision is a way to ensure quality services, reliable and rigorous application of the program, as well as support for professional development.

Early intensive behavioural intervention (EIBI) programs have been the subject of many scientific papers. Several studies have examined the factors that might influence its effectiveness. Thus, it is possible to identify characteristics associated with a better response to intervention, such as its duration and intensity. These results highlight the role of implementation conditions in obtaining beneficial outcomes for children (Odom, 2009).

In recent years, interest in implementation science has grown significantly (Halle, Metz, & Martinez-Beck, 2013). Among the core components for successful implementation, researchers have identified what they call "competency drivers" and "organization drivers." As explained by Metz, Halle, Bartley

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and Blasberg (2013), these terms have been described by Fixsen, Naoom, Blase, Friedman and Wallace (2005) as follows:

Competency drivers are mechanisms to develop, improve, and sustain early childhood educators' and supervisors' ability to implement an ECE [early childhood education] program model or innovation to benefit children and families. *Organization drivers* intentionally develop the organizational supports and systems interventions needed to create a hospitable environment for a new ECE program model by ensuring that the competency drivers are accessible and effective and data are used for continuous improvement. (Metz et al., 2013, p. 28)

Among the competency drivers are personnel selection, training and coaching (or supervision). Generally, supervision may be considered a tool provided by an organization to ensure training, support and feedback related to caseworkers' performance during the implementation of a program (Chen, 2015). Supervisors play various roles within EIBI programs, notably training caseworkers, leading meetings with the caseworker team, developing intervention plans, communicating with families, and ensuring collaboration with partners (Davis, Smith, & Donahoe, 2002). Given the importance of supervisor roles, the issue of their training has caught the attention of several researchers (Davis et al., 2002; Eikeseth, 2010; Eikeseth, Hayward, Gale, Gitlesen, & Eldevik, 2009; Love, Carr, Almason, & Petursdottir, 2009).

Love et al. (2009) documented various aspects of EIBI as currently implemented, including supervision practices. Their study, conducted in the United States, shows that most supervisors have a master's degree with or without additional certification, while others have a bachelor's degree. Davis et al. (2002) also noted diversity in training among EIBI program supervisors, ranging from a doctorate combined with clinical experience, to no formal training.

Eikeseth (2010) reported that there was no clearly established training program to prepare professionals to apply, plan and supervise EIBI. However, he suggested the following minimum requirements: a postgraduate education

in applied behaviour analysis (ABA), one year of supervised practical experience and having passed the Behavior Analysis Certification Board (BACB) exam. Eikeseth et al. (2009) considered that supervisors should also know the principles of learning, functional assessment and reinforcement procedures, in addition to having clinical experience.

Besides training and expertise required of supervisors, a few authors describe or propose supervision modalities in the context of EIBI programming. Eikeseth et al. (2009) specify that supervision must be performed frequently (usually once or twice per week). According to Eikeseth (2010), supervision meetings should be comprised of several activities: analyzing observation data, working with the child to adjust programming as needed, reviewing procedures for problematic behaviours, and providing feedback to caseworkers and parents. In their survey, Love et al. (2009) note that slightly more than half of supervisors report having to supervise the program of at least seven children. They almost all discuss the intervention for these children with direct caseworkers at least once a month, observe the children monthly or more frequently, and review the observation data monthly or more frequently.

Several authors feel that it is now time to focus on program structure and implementation within the community (Odom, Cox, & Brock, 2013), especially since studies pertaining to community-based EIBI programs show variability in their implementation (Gamache, Joly, & Dionne, 2011; Love et al., 2009). Despite some authors' efforts to evaluate supervision in an EIBI context (see notably the research by Eikeseth et al., 2009), the information to date is too limited and remains, in large part, theoretical. This article presents results from a larger study aimed at documenting implementation of EIBI services in Quebec, Canada (Dionne, Joly, Paquet, Rivard, & Rousseau, 2013). In Quebec, the government has opted to provide EIBI services for young children with an autism spectrum disorder (ASD) through publicly funded, community-based centres that manage and supervise personnel. These centres cover the entire population across Quebec's 17 administrative regions. Therefore, several hundred children yearly receive services from specialized public intervention

centres. These services are provided by caseworkers hired by readaptation centres, which apply the program in various contexts, particularly in family home or daycare settings, but also in school and clinical environments. Most of these caseworkers have a college-level education in special education (three years post secondary school). Some also receive specialized training. A national training plan has been created in collaboration with the Quebec federation of readaptation centres for intellectual disabilities and pervasive developmental disorders, the readaptation centres, Quebec's ministry of health and social services, and three Quebec universities. This plan consists of two programs: an undergraduate certificate in intervention for persons with ASD, and a specialized graduate diploma in supervision of interventions for persons with ASD.

This article aims to document how supervision is offered to support EIBI services within large-scale community settings to provide stakeholders with information on how to improve implementation of these services. More specifically, the objectives are to: (1) document who the supervisors are in this service context; (2) determine which supervision modalities are favoured; (3) compare results to the supervision characteristics identified in the scientific literature; and (4) help, although modestly, to develop a supervision model that contributes to an implementation science framework for EIBI programs by connecting best practices and clinical field practices.

Method

This project received ethics approval from the ethical research committee of Université du Québec à Trois-Rivières, and from the *Comité éthique de la recherche conjoint destiné aux Centres de réadaptation en déficience intellectuelle et troubles envahissants du développement* (CERC-CRDITED).

Participants

At this stage of the study, the analysis unit is an organization, more specifically a readaptation centre. All of the 22 readaptation centres in Quebec that offer services to young children with ASD were approached. Centres were recruited as part of the first stage of a larger

study on the implementation and effects of EIBI programs (Dionne et al., 2013). Each centre was asked to identify the respondents most apt to provide a portrait of their program. At least two persons (three for some centres) provided data from their centres. No specific inclusion criteria were specified. Although job titles varied from one centre to another, most were research programming and planning officers, supervisors, counsellors or clinical activity specialists. All but a few had more than five years experience.

Fifteen centres agreed to participate and returned the questionnaire to the research team (68.2% response rate). The data were collected from December 2011 to July 2012. However, one centre returned two questionnaires and another one returned three because these centres covered vast territories and their practices differed by area. Therefore, 18 questionnaires, representing 18 supervision practice models, were analyzed covering most of the Quebec territory, and also the Quebec population.

Materials

A survey questionnaire, translated and adapted from Love et al. (2009) and adapted from Gamache et al. (2011) with the authors' authorization, was used in a paper-pencil or electronic format depending on respondents' preference. The questionnaire included multiple-choice, Likert-type and fill-in-the-blank questions about the participants' characteristics, the target population, intervention and service delivery protocols, implementers, organizations and community partners. The questionnaire is available upon request from the corresponding author. Once questionnaires were received, the researchers contacted the centres if any responses seemed inconsistent or incomplete. Most of the responses were clarified.

Analysis

A mixed-method (qualitative and quantitative) design was used. Descriptive analyses were performed for multiple-choice and Likert-type items. Open-ended questions were grouped and coded according to the themes that had emerged from the answers.

Results and Discussion

Who are the Supervisors in This Service Context?

When asked “*Who does the supervision?*” in their program, respondents identified a variety of caseworkers, most frequently psychoeducators (38.8%, $n = 7$), followed by clinical activity specialists (27.7%, $n = 5$). Some institutions had established precise criteria for supervisors’ training or qualifications (e.g., university education, training in ABA, and at least three years’ experience in supervising EIBI programs).

Program supervisors’ *average education or certification level* varied. At most centres, supervisors had a university education. In fact, at three centres, 16.7% of supervisors had a bachelor’s degree, at three others 16.7% had a bachelor’s degree combined with a specialized graduate diploma in behavioural intervention for persons with pervasive developmental disorders (PDDs), and at two others 11.1% had a bachelor’s degree with participation in the national plan for training in PDDs. Supervisors had a master’s degree at six centres, including two where the diploma was combined with a Board Certified Assistant Behaviour Analyst (BCABA) or Board Certified Behaviour Analyst (BCBA) certification (11.1%), three with a specialized graduate diploma in behavioural intervention (16.7%), and one with a permit from a professional order (5.6%). At only one centre, the supervisor had a college diploma (5.6%). It should be noted, however, that three centres did not answer the question.

Which Supervision Modalities are Favoured?

As shown in Table 1, supervision *frequency* varied greatly, from once every six weeks to two or three times per week. One centre offered supervision upon request and two did not specify the frequency.

According to answers obtained in the questionnaire, supervisors *examined the observation data* on children’s target behaviours weekly (5.6%), monthly (33.3%), quarterly (5.6%) or at another frequency, including twice a week (5.6%), once every two weeks (16.7%), once every three

weeks (5.6%), and every three months (5.6%). At two centres (11.1%), supervisors reported that they never examined the data.

The frequency at which supervisors *observed the children* differed from one centre to another. At one centre, supervisors conducted observations daily (5.6%) and at another one, weekly (5.6%). At five centres, supervisors observed the children monthly (27.8%), at two centres quarterly (11.1%) and at another centre, yearly (5.6%). Two centres did not provide this information.

In addition to the multiple-choice questions, open-ended questions provided more in-depth descriptions of the supervision modalities. When asked “*Which content is addressed during the supervision meetings?*” respondents said that the supervisor and the supervisee discussed, notably: (1) the clinical process; (2) the intervention modalities; (3) the parents and partners; (4) the child’s development, functioning and characteristics; (5) problematic situations; and (6) service organization and support offered to practitioners. The responses concerning supervision content are reported in Table 2 on page 59.

When asked, “*Why is there a supervision system?*” respondents indicated that it is a way to ensure: (1) quality services; (2) training and professional support; (3) support to parents and partners; (4) intervention support; and (5) support with problematic situations. Table 3 on page 60 shows the responses regarding supervision goals.

How do Results Fit Within the Supervision Characteristics Found in the Scientific Literature?

The first two objectives of this study were to document who the supervisors are and how supervision is offered within large-scale community service settings. Supervisors’ job titles appear to reflect the Quebec reality. Psychoeducators have a master’s degree and belong to a professional order. They generally intervene with individuals or groups, and act as advisors to caseworkers. “Clinical activity specialist” is a job title within Quebec’s health and social services network requiring a university degree in an appropriate discipline

Table 1. Supervision Modalities

<i>Frequency</i>	(<i>n</i> = 18)
Monthly	(<i>n</i> = 5)
Weekly	(<i>n</i> = 5)
Variable	(<i>n</i> = 6)
- 3× per week	(<i>n</i> = 1)
- 1× every 2 weeks	(<i>n</i> = 1)
- 1× every 3 weeks	(<i>n</i> = 1)
- 1× every 6 weeks	(<i>n</i> = 2)
- Upon request	(<i>n</i> = 1)
No information	(<i>n</i> = 2)
<i>Duration</i>	(<i>n</i> = 18)
From 1–2 hours	(<i>n</i> = 12)
Variable	(<i>n</i> = 2)
No details	(<i>n</i> = 2)
3 hours	(<i>n</i> = 1)
From 1½–2½ hours	(<i>n</i> = 1)
<i>Number of children</i>	(<i>n</i> = 18)
3–4 children	(<i>n</i> = 3)
5–6 children	(<i>n</i> = 3)
>6 children	(<i>n</i> = 10)
No information	(<i>n</i> = 2)
<i>Observation</i>	
<i>Data Analysis</i>	(<i>n</i> = 18)
Weekly	(<i>n</i> = 1)
Monthly	(<i>n</i> = 6)
Quarterly	(<i>n</i> = 1)
Another frequency	(<i>n</i> = 10)
- 2× per week	(<i>n</i> = 1)
- 1× every 2 weeks	(<i>n</i> = 3)
- 1× every 3 weeks	(<i>n</i> = 1)
- Every 3 months	(<i>n</i> = 1)
<i>Observation of Children</i>	(<i>n</i> = 18)
Daily	(<i>n</i> = 1)
Weekly	(<i>n</i> = 1)
Monthly	(<i>n</i> = 5)
Quarterly	(<i>n</i> = 2)
Yearly	(<i>n</i> = 1)
Variable	
- Daily or weekly	(<i>n</i> = 1)
- Every 2 weeks	(<i>n</i> = 2)
- Every 3 weeks	(<i>n</i> = 1)
- Upon request or as needed	(<i>n</i> = 1)
- 0–3× per year, depending on the supervisor	(<i>n</i> = 1)
No information	(<i>n</i> = 2)

(Ministère de la Santé et des Services sociaux, 2015). Clinical activity specialists act mainly as resource persons for caseworkers in the field. The data concerning their training are, in part, comparable to those described by Love et al. (2009). In fact, almost all the centres' supervisors had either a bachelor's or a master's degree, with or without a specialized certification. A small percentage of supervisors had a certification in behavioural intervention.

For some respondents, there were differences between the data on which supervision modalities were favoured and those proposed in the scientific literature. In fact, the frequency of supervision was below that recommended by Eikeseth et al. (2009) at several centres, where, in some cases, it was as low as once every six weeks. Similar to the study conducted by Love et al. (2009), most supervisors followed up with six children or more. The frequency at which they examined the observation data varied considerably. As for the frequency at which supervisors observed the children, the data collected in the present study highlight major differences between the centres. The proportion of supervisors who observed children monthly or more frequently was lower than that in the study by Love et al. (2009), and one of the supervisors observed them only once a year.

The results concerning the content from this study comprise most of the themes proposed by Eikeseth (2010), including developments or changes in the child's program, intervention procedures, development/progress, observation data, problematic behaviours, and training and knowledge transfer. Other elements addressed by many respondents include relationships with partners, as proposed by Davis et al. (2002), as well as generalization and inclusion in the daycare group. Results therefore highlight the diversity and richness of the content addressed during supervision, and possibly reflects caseworkers' needs in terms of support in their practice.

For most of the centres surveyed, supervision is conducted during group meetings, possibly including the caseworkers and parents, as described in several studies (Eikeseth, Smith, Jahr, & Eldevik, 2002; Hayward, Eikeseth, Gale, & Morgan, 2009; Peters-Scheffer, Didden, Mulders, & Korzilius, 2013; Remington et

Table 2. Supervision Content

<i>Clinical Process</i>	(n = 18)
Development follow-up and review of the objectives	(n = 18)
Observation data	(n = 3)
Evaluation and results	(n = 2)
Entire clinical process in general	(n = 1)
<i>Intervention</i>	(n = 18)
Intervention techniques or strategies	(n = 12)
Generalization	(n = 2)
Approach	(n = 1)
Fidelity of the implementation	(n = 1)
Inclusion in the group	(n = 2)
Behaviour analysis	(n = 1)
<i>Parents and Partners</i>	(n = 18)
Relationships with the partners and parents	(n = 9)
Experiences in all of the child's living environments	(n = 1)
Child's functioning at home	(n = 1)
<i>Child</i>	(n = 18)
Child's development or general functioning	(n = 6)
Particularities of the child with ASD	(n = 2)
Child's health	(n = 1)
Child's characteristics	(n = 1)
Learning barriers	(n = 1)
<i>Problematic Situations</i>	(n = 18)
Problematic situations	(n = 4)
Problematic behaviours	(n = 2)
Problem solving	(n = 1)
<i>Service Organization and Practitioners' Support</i>	(n = 18)
Continuing education or knowledge transfer	(n = 2)
Record keeping and institution's standards	(n = 1)
Roles and responsibilities	(n = 1)
Caseworkers' and supervisors' mandates	(n = 1)
Number of hours of services	(n = 1)
Educator's strengths and weaknesses	(n = 1)

al., 2007). Several see it as an opportunity to observe the intervention and provide feedback. Even if some responses come close to the concept of quality, none of the centres measured implementation fidelity using a validated tool.

Despite some differences between the data collected and the supervision modalities proposed in the scientific literature, notably in terms of supervision intensity, the results show the importance of supervision and the variety

of possible modalities, notably the format and content addressed. Supervision is believed to support EIBI caseworkers in their practice. Respondents stress that it is a way to ensure quality services, reliable and rigorous application of the program, as well as support for professional development. Variability in supervision practices seems to suggest a lack of uniformity across the institutions providing this type of service. That said, the purpose of this variety might be to offer several types of sup-

Table 3. *Supervision Goals*

<i>Quality of Services</i>	(n = 16)
Ensure the quality of the services provided	(n = 6)
Ensure reliable and rigorous application of the program	(n = 6)
Ensure standardization of the service delivery	(n = 3)
Accountability	(n = 1)
<i>Training and Professional Support</i>	(n = 9)
Training of the caseworkers and support for professional development	(n = 3)
Teaching techniques	(n = 2)
Identification of the training needs	(n = 1)
Direction with respect to the intervention approaches and strategies	(n = 1)
Help for the caseworkers in how to apply the interventions	(n = 2)
Ensuring consistency between caseworkers	(n = 2)
<i>Parents' and Partners' Support</i>	(n = 4)
Check on the parents' satisfaction	(n = 1)
Parents' level of involvement	(n = 1)
Check on the daycare centres' satisfaction with the program	(n = 1)
Respond to the questions of the people concerned	(n = 1)
<i>Intervention Support</i>	(n = 14)
Determining or revising the objectives and means	(n = 3)
Analyzing the scores and the acquisition criteria	(n = 1)
Ensuring the child's progress	(n = 3)
Having an outsider's perspective on the direct intervention	(n = 2)
Ensuring that:	
- the children's needs are met	(n = 2)
- and that the objectives established for the child are coherent	(n = 1)
Obtaining accurate observations concerning:	
- the intervention	(n = 1)
- and the generalization of the skills learned	(n = 1)
<i>Support with Problematic Situations</i>	(n = 1)
Support for the caseworkers when problematic situations arise	(n = 1)

port to caseworkers who must apply the program, enabling them to obtain different kinds of information, feedback, training or support. Therefore, more research is needed to determine which supervision modalities should be favoured for supporting the quality of EIBI practices. Moreover, the content addressed reflects the wide variety of situations and challenges that practitioners face daily (e.g., applying intervention procedures, supporting inclusion, collaborating with partners).

Need for a Supervision Model

Finally, the discussion regarding the results above is part of a reflection on the supervision model required for quality implementation of EIBI programs. Developing this kind of supervision model is one of the many challenges implementation science must attempt to address. Just like the intensity of EIBI and the nature of the interventions, clinical supervision of programs is a determining component in the attainment of objectives for children with ASD. Better knowledge of supervision characteristics

will help to better define clinical practices and reduce the gap between those practices and evidence-based practice (Odom, 2009). Supervision may thus become a powerful driver behind the professional development of the caseworkers involved (Kucharczyk et al., 2012). Furthermore, it contributes to the adaptation process of evidence-based practices, making them more flexible and integrative, which is central to facilitating their social acceptability (Wood, McLeod, Klebanoff, & Brookman-Frazee, 2015).

Future Research

This study constitutes a first step towards a better understanding of the EIBI models favoured by the institutions in Quebec by focusing on the supervision modalities currently offered to caseworkers. Of course, it would be interesting to reproduce this type of study and recruit supervisors directly, to increase the number of respondents and thus produce a more detailed portrait of the situation. Despite all the excellent qualities of EIBI programs, the fact remains that specific efforts are necessary to sensitize and equip local decision makers to continue improving supervision practices, but also the entire implementation of those programs in natural settings. To do so, research teams can start by reporting the current situation, meeting with decision makers, proposing transfer strategies, and working on developing training materials in collaboration with partner centres.

Study Limitations

The results of this study, which have some limitations, must be interpreted with caution. These limitations include the limited number of centres (15 out of 22 centres); relatively mixed results; data collected from questionnaires with no direct observation of supervision; and a picture taken at a specific point in time, for only some of the institutions offering EIBI programs in Quebec. Moreover, the services offered by the centres may have changed since the time data were collected.

Despite these limitations, this study helps provide a first description of the way readaptation centres provide support through supervision in Quebec. The study also offers a few avenues of reflection for practice settings. In fact, it helps

encourage institutions to pursue their efforts to support this practice within EIBI programs. Notably, it endorses the importance of focusing on supervision and its characteristics. In addition to its frequency, other aspects of supervision (meeting format, content addressed, duration) must be adjusted to help meet caseworkers' needs and promote quality interventions for children that reflect the reality of the intervention context (i.e., EIBI services in more inclusive environments). In this regard, the role and the purpose of supervision are worth establishing clearly.

Key Messages From This Article

Parents. Supervision happens in a number of different ways for EIBI interventions. There are also many ways for parents to be involved in the supervision process. It is important to be informed about how supervision occurs by service providers and to discuss the potential for involvement with the intervention team.

Professionals. Supervision has various functions and responds to various needs. It is important to be aware of supervision modalities that can promote caseworker motivation and quality of implementation.

Policymakers. Supervision is one way to ensure program quality and fidelity. Supervision modalities required for quality implementation of EIBI programs, including frequency, content, and partner involvement, must be addressed.

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References

- Chen, H. T. (2015). *Practical program evaluation: Theory-driven evaluation and the integrated evaluation perspective* (2nd ed.). Thousand Oaks, CA: SAGE.
- Davis, B. J., Smith, T., & Donahoe, P. (2002). Evaluating supervisors in the UCLA treatment model for children with autism: Validation of an assessment procedure. *Behavior Therapy, 33*, 601–614.
- Dionne, C., Joly, J., Paquet, A., Rivard, M., & Rousseau, M. (2013). *L'intervention comportementale intensive (ICI) au Québec : Portrait de son implantation et mesure de ses effets chez l'enfant ayant un trouble envahissant du développement, sa famille et ses milieux* (Report No. 2012-II-145060). Retrieved from Fonds de recherche du Québec – Société et culture website: http://www.frqsc.gouv.qc.ca/documents/11326/448958/PC_DionneC_rapport+2013_ICI+portrait+implantation/275e6161-0c12-46ae-a246-aac58a7c9e65
- Eikeseth, S. (2010). Examination of qualifications required of an EIBI professional. *European Journal of Behavior Analysis, 11*, 239–246.
- Eikeseth, S., Hayward, D., Gale, C., Gitlesen, J.-P., & Eldevik, S. (2009). Intensity of supervision and outcome for preschool aged children receiving early and intensive behavioral interventions: A preliminary study. *Research in Autism Spectrum Disorders, 3*, 67–73.
- Eikeseth, S., Smith, T., Jahr, E., & Eldevik, S. (2002). Intensive behavioral treatment at school for 4 to 7 year old children with autism: A 1-year comparison controlled study. *Behavior Modification, 26*, 49–68.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (Publication No. 231). Tampa, FL: National Implementation Research Network. Retrieved from <http://fpg.unc.edu/sites/fpg.unc.edu/files/resources/reports-and-policy-briefs/NIRN-MonographFull-01-2005.pdf>
- Gamache, V., Joly, J., & Dionne, C. (2011). La fidélité d'implantation du programme québécois d'intervention comportementale intensive destiné aux enfants ayant un trouble envahissant du développement en CRDITED. *Revue de psychoéducation, 40*, 1–23.
- Halle, T., Metz, A., & Martinez-Beck, I. (2013). *Applying implementation science in early childhood programs and systems*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Hayward, D., Eikeseth, S., Gale, C., & Morgan, S. (2009). Assessing progress during treatment for young children with autism receiving intensive behavioural interventions. *Autism, 13*, 613–633.
- Kucharczyk, S., Shaw, E., Smith Myles, B., Sullivan, L., Szidon, K., & Tuchman-Ginsberg, L. (2012). *Guidance & coaching on evidence-based practices for learners with autism spectrum disorders*. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders. Retrieved from http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/NPDC_CoachingManual.pdf
- Love, J. R., Carr, J. E., Almason, S. M., & Petursdottir, A. I. (2009). Early and intensive behavioral intervention for autism: A survey of clinical practices. *Research in Autism Spectrum Disorders, 3*, 421–428.
- Metz, A., Halle, T., Bartley, L., & Blasberg, A. (2013). The key components of successful implementation. In T. Halle, A. Metz, & I. Martinez-Beck (Eds.), *Applying implementation science in early childhood programs and systems* (pp. 21–42). Baltimore, MD: Paul H. Brookes Publishing Co. Retrieved from https://www.researchgate.net/profile/Tamara_Halle/publication/291971925_The_Key_Components_of_Successful_Implementation/links/56abb2e608aeaa696f29e547.pdf?origin=publication_list
- Ministère de la Santé et des Services sociaux. (2015). *Libellés des titres d'emploi : spécialiste en activités cliniques*. Québec, QC: Author. Retrieved from <http://wpp01.msss.gouv.qc.ca/appl/N02/Pdf/TitresActifs/1407.pdf> <http://www.sttcssnl.org/doc/Nomenclature.pdf>
- Odom, S. (2009). The tie that binds: Evidence-based practice, implementation science, and outcomes for children. *Topics in Early Childhood Special Education, 29*, 53–61.
- Odom, S. L., Cox, A. W., & Brock, M. E. (2013). Implementation science, professional development, and autism spectrum disorders. *Exceptional Children, 79*, 233–251.

- Peters-Scheffer, N., Didden, R., Mulders, M., & Korzilius, H. (2013). Effectiveness of low intensity behavioral treatment for children with autism spectrum disorder and intellectual disability. *Research in Autism Spectrum Disorders, 7*, 1012-1025.
- Remington, B., Hastings, R. P., Kovshoff, H., Espinosa, F., Jahr, E., Brown, T., ... Ward, N. (2007). Early intensive behavioral intervention: Outcomes for children with autism and their parents after two years. *American Journal on Mental Retardation, 112*, 418-438.
- Wood, J. J., McLeod, B. D., Klebanoff, S., & Brookman-Frazee, L. (2015). Toward the implementation of evidence-based interventions for youth with autism spectrum disorders in schools and community agencies. *Behavior Therapy, 46*, 83-95.