A Knowledge Translation Intervention with Supervisors

FINAL

Report to Workers Compensation Board of Manitoba

January 29, 2019

Dr. Beverley Temple, Dr. Toby Martin, Dr. Charmayne Dubé, Jennifer Kilimnik, Lisa Demczuk

Research Manager: Lesley Anne Fuga

RESEARCH AND WORKPLACE INNOVATION PROGRAM

Funding occupational health research and innovative workplace solutions

UNIVERSITY OF MANITOBA

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EXECUTIVE SUMMARY

Overview

This study was undertaken at St.Amant, an organization with a workforce of over 1700 serving approximately 1600 clients with intellectual/ developmental disabilities. Funded by the Workers Compensation Board of Manitoba's Research and Workplace Innovation Program, this research focused on the question, ***Can we reduce injury by improving knowledge translation strategies for supervisors of DSPs who support people with intellectual disability who display challenging behaviour?*** This report presents the three-phase research method and findings.

Phase 1) Conduct a Scoping Review

The objective of the scoping review was to map the literature on educational interventions for supervisors that are intended to enhance their abilities to support DSPs when managing challenging behaviours. Following a written search strategy developed to meet this objective, we searched peer-reviewed research and unpublished literature.

No intervention focused on improving supervisors' knowledge translation strategies was found. An academic paper reporting the method, analysis and results of the scoping review is under revision.

Phase 2) Develop a Knowledge Translation Intervention

As no existing intervention suitable for this purpose was found, the team developed what appears to be a unique educational course for supervisors. This knowledge translation intervention involves supervisors' self-study of four content modules followed by their participation in a single day-long workshop to assist them to apply their learning. Each module includes text and a video and is focused on a topic relevant to the service delivery culture at St.Amant and found to be integral to successfully managing challenging behaviour: 1) Leadership Foundations; 2) Creating a Culture of Safety; 3) Mindfulness, and; 4) Behaviour Support.

Phase 3) Execute an Experimental Trial

The trial was to determine the effect of enhancing supervisors' skills to reduce the gap between DSP training and practice and ultimately to reduce injury. Supervisors within the Community Residential Program volunteered to participate. They reported on their satisfaction with the course and were surveyed at three points in time about their perceptions of self-efficacy and engagement at work (immediately pre- and post-implementation, and five months later). Final post-implementation survey data were compared between units where the supervisor completed the course (intervention group) and units where the supervisor did not (controls).

An original proposal was to examine changes in injury rates between intervention and control groups; this proved to be unfeasible. Alternatively, injury data were generated for work units where there were supervisor volunteers, comparing rates within those units before and after the intervention. As only one injury occurred, this test was not informative.

Timeline

The intervention, including the follow-up workshop and gathering data on participants' perceptions of the intervention, was implemented in March-April 2017. The final round of surveys began in October, after intervention group supervisors had an opportunity to apply the course materials in their work with DSPs. At this time, control group supervisors as well as intervention and control DSPs were also surveyed.

In the final round, technical issues prevented some intended recipients from receiving their original invitations to participate; addressing these issues resulted in an extension to the data generation period to February, 2018. Although circumstances beyond the team's control led to several timeline extensions over the course of this study, none of the delays compromised the integrity of the research findings.

Results

Analysis included tests for change in the intervention group and comparison of intervention with non-intervention groups' (supervisors' and DSPs') engagement and self-efficacy scores. Due to the small size of the intervention group (7), few comparisons in their pre- and post-intervention scores were statistically significant. However, even using only a short engagement scale, we saw positive relationships between engagement scores and scores in other variables for control groups and for intervention group DSPs.

Using audit and feedback, the first WCB study identified the gap between training and practice contexts and led to this study to find ways to assist supervisors to use knowledge translation to improve expectations and outcomes for DSP training. The most positive changes are made when training is relevant and supported by the organization. St.Amant continues to use the findings from both studies to support changes to reduce injuries resulting to workers as they support people with IDD and challenging behaviours.

Finance

The project was completed ~$ 42,000 under its original $ 180,000 budget. A final transfer of funds from WCB to St.Amant is not required; St.Amant will return unspent project funds in the amount ~$ 4,150.

INTRODUCTION TO THIS RESEARCH

This was a collaborative project involving researchers and staff from the University of Manitoba (UM) College of Nursing, the St.Amant Research Centre, and St.Amant. The research was undertaken within St.Amant, an organization providing support and services to over 1600 people with intellectual and developmental disabilities (IDD), acquired brain injury and autism. The study was funded by the Workers Compensation Board (WCB) of Manitoba's Research and Workplace Innovation Program.

A key focus of St.Amant is to enhance the quality of life and capacity for self-determination of each person it supports. St.Amant recognizes its staff as its most valuable resource to accomplish this goal; positive workplace morale and low turnover rates enable constancy and positive outcomes in clients' lives.

Over 1700 employees deliver comprehensive programming and services at 111 locations and across multiple service areas:

* Autism Program - early learning and school-age learning programs; parent support model; consultative support
* Community Residential Program – community adult residential; community living stabilization
* Clinical Services
* St.Amant School
* River Road Place
* River Road Place Respite
* Nursing (Community)
* 24 hr. Children Residential
* Adult Day Program
* Supported Independent Living
* Foster Care
* Emergency Foster Care

Many workers who provide direct support to people with IDD (direct support professionals, or DSPs) receive training to prevent injuries resulting from challenging behaviours they may encounter. Reducing incidents and injuries that involve challenging behaviours should improve worker-client relationships, improve worker morale, keep workers and clients safe and thus improve clients' quality of life. However, a two-year study completed in 2014 identified there may be a gap between current training and on the ground practice.[1]

Study findings indicated it can be difficult for DSPs to translate the general safety training they receive to the unique situations they may face on the job; their supervisors may not have the knowledge transference skills needed to coach DSPs in how to apply their training in their everyday context. Overall, results showed *there is no well-developed organization-wide approach to ensure that the training DSPs receive to minimize injuries involving challenging behaviour is implemented most effectively*.

A key opportunity for supervisors to facilitate knowledge translation is during incident debriefing. Injury reports analysed in the 2014 study showed nearly a third of DSPs "don't know" what they could have done differently to prevent their injury and that most often stress debriefing is not offered after an injury. During debriefing, a supervisor can assist a DSP to cope and to review the circumstances of the incident and the DSP's approach in the context of best practice and the DSP's classroom training. Not debriefing effectively can represent the loss of a learning opportunity and contribute to repeat incidents, injuries, impaired worker-client relationships, low morale and difficulty in post-injury return to work.

The main aim of this study was to determine whether equipping the supervisors of DSPs at St.Amant with knowledge translation skills will reduce the gap between training and practice to result in greater staff engagement and lower injury rates. (April 2014 data from a Winnipeg Regional Health Authority (WRHA) engagement survey showed WCB claims decrease with greater staff engagement.) St.Amant's Senior Manager of Organizational Development is a member of the research team and assisted with developing a knowledge translation intervention that is consistent with current evidence-based practice and appropriate to the organizational context of St.Amant.

The purpose of the intervention with supervisors was to

a) facilitate DSPs knowledge transfer *from* the training room *to* on-the-job incidents involving challenging behaviours, including organization/supervisor communication of expectations of training, and

[1] Temple et al, 2014, Keeping Support Providers Safe at Work, http://media.cc.umanitoba.ca:8080/faculties/nursing/BevTemple/WCB.mp4, accessed Oct.12, 2018

b) facilitate improved post-injury outcomes through debriefing -- to support DSPs and assist them to improve their practice based on experience and the successful transfer of knowledge from the classroom to the practice setting.

To determine the success of the intervention, we asked the following **Research Questions**:

Can we reduce injury by improving knowledge translation strategies for supervisors of DSPs who support people with intellectual disability who display challenging behaviour?

1. Are there currently any organizational intervention programs that target supervisors in organizations serving people with IDD, that support evidence-based practice in managing challenging behaviours?

2. Can injury rates be reduced by using a knowledge translation intervention with supervisors tailored to the St.Amant context?
    a. Are supervisors' knowledge and confidence increased by the intervention?
    b. Are supervisors satisfied with the intervention and delivery methods?
    c. Are DSPs satisfied with the support they receive after the intervention?

3. Is there a difference in staff engagement scores between units where supervisors completed the intervention and units where supervisors did not participate?

4. Is there a decrease in injuries related to challenging behaviour where supervisors have completed the intervention?

The research was designed to include comparison of results between intervention and non-intervention (control) groups. Proposed outcome measures included: supervisor evaluation of the intervention; measures of the self-efficacy & engagement levels of supervisors and the DSPs they supervise; and incident/injury rates.

The research team worked with an advisory committee led by the principal investigator with assistance from student trainees. The committee included professionals from WCB, New Directions for Children Youth Adults and Families, UM Centre for the Advancement of Teaching and Learning, and St.Amant. The committee provided input on research issues and knowledge translation strategies and supported trial of the intervention.

This study addresses prevention of workplace injuries (helping workers stay on the job) and provision of support to injured workers (increasing the likelihood of a quicker return to work). Findings could be relevant to any organization where DSPs serve people who present challenging behaviours.

REVIEW OF WORK COMPLETED & SUMMARY OF RESULTS

In this three-phase study we performed a scoping review, developed a knowledge translation intervention, and conducted an experimental trial to test the intervention. The Promoting Action on Research Implementation in Health Services (PARiHS) Framework was used throughout. The Framework indicates that bringing evidence into practice depends on the interplay of evidence, context and facilitation. It provides criteria to guide the assessment of strong evidence, effective delivery (facilitation) and a supportive environment (context). Each research phase is summarized below.

> **Phase 1** Perform a scoping review to map the literature related to supervisors' capacity to assist DSPs to translate knowledge gained in training to their on-the-job practice involving challenging behaviors.

Undertaken to provide best-practice information for the "evidence" component of the PARiHS Framework, the review was specific to organizations serving people with IDD. It established the breadth of current research related to the research questions with an intent to either adapt an existing program found through the review or develop a new program. Specifically, the **Scoping Review Question** was:

> ***Are there currently any organizational intervention programs that target managers and leaders in the area of IDD that support evidence-based practice in managing challenging behaviours?***

A written search strategy outlined sources of relevant literature and specified search terms related to four main concepts: intellectual disability, challenging behaviour, management, and training. Two discrete searches following the strategy were undertaken, one of 12 academic databases housing peer-reviewed material and the other of 48 potential repositories of grey material including service guidelines, conference proceedings and dissertations/theses. We also searched web sites of reputable organizations whose populations include people with IDD and further hand-searched reference lists of the most relevant documents found.

While the peer-reviewed search produced 1817 unique results, only **16 articles were found to meet the inclusion criteria established for the study.** Interestingly, an additional 14 of the articles screened met five of the six inclusion criteria established in the search strategy. The main area of discussion missing was in relation to the role of the manager/supervisor.

With the addition of Google search results there were over 530,000 "hits" from online searches for grey literature, yielding 82 unique results retained for further screening. (Peer-reviewed

documents located through these searches were not included in this count.) **Fourteen (14) of these met the inclusion criteria**. While web-based sales and promotional information were found to describe a number of supervisory training courses/modules, these documents were not available for review as they were commercialized or proprietary offerings.

Analysis and Results

The scoping review indicated there were no studies that provided evidence to answer the research questions. This heightens the importance of the scoping review process and builds upon the significance of this study.

Injury reduction did not surface in the literature as a result of managerial training. Some educational interventions, such as mindfulness training for direct support workers, were well documented to reduce staff injuries as well as injuries among persons being supported (Singh 2003; Singh 2008). Additionally, findings in the literature outlined a variety of training programs being conducted in contexts comparable to those at St.Amant. This supports the idea that there truly is no "one size fits all" training program for managers, supervisors, or direct support staff. Interventions varied in program duration, training participant populations, number of participants, training curriculum and evaluation of the training.

The review produced an **insufficient number of quantitative studies to support meta-analysis**. An academic review paper is being revised for resubmission and is focused on themes arising within the data extracted from the literature.

Additional literature review and search

Two additional literature reviews were completed to provide further background for the study.

The first was a review of articles that discussed **blended learning formats** for training. Blended learning incorporates a mixture of face-to-face and web-based teaching and learning to encourage and promote a greater sense of learner control (Iley et al. 2011, p. 323). Blended learning formats have been found to be potentially more effective and efficient than traditional classroom based methods (Iley et al., p. 324) and thus enhance program sustainability. Results of this review supported the team's decision to use a blended learning outline for the study knowledge translation intervention.

For the second review, we used the advanced search engine on the University of Manitoba libraries database to perform a general search for **staff engagement surveys** being used in recent publications. Funding for this study did not include using a WRHA engagement survey

as proposed. Alternatively, we developed a survey instrument incorporating questions from the Utrecht Work Engagement Scale.[2]

Phase 2 - Develop a Knowledge Translation Intervention **to enhance the knowledge translation capacities of supervisors of DSPs.**

The prime consideration in the developmental phase was that the intervention be well-formed to and sustainable within St.Amant's organizational context. In addition to national content experts, we drew upon the expertise of persons in key positions at St.Amant to select and formulate learning modules **especially suited to St.Amant's needs.**

The intervention involved supervisors' self-study of **four learning modules** followed by their participation in a **workshop designed to help them apply their learning** and foster a community of support. Wherever possible, we incorporated material developed by St.Amant within the modules so that study participants could find the information, messages and skills both familiar and relevant to their practice.

1. "***Leadership Foundations***" introduces knowledge translation as a supervisory skill in the context of St.Amant's values and approach to client services and leadership. How to debrief incidents/injuries is presented in this first module as an example exercise. The video demonstrates a coaching session between a supervisor and a DSP.

2. "***Creating a Culture of Safety***" was created from the SAFE Work Manitoba curricula. It discusses safety planning, the supervisor's role in creating and supporting a culture of safety (including definitions, guidelines and competencies), and the value to workers of supporting a safe workplace culture.

3. "***Mindfulness***" introduces the component concepts relevant to mindful and emotionally mature leadership and direct support provision in the context of St.Amant's values and the education on mindfulness the organization currently offers. This module includes definitions of mindful practice, how the body reacts to stress, the St. Amant mindfulness infographic, and the positive effects of mindfulness. The video shows the difference between a mindful and a not-mindful approach to someone you're supporting.

[2] Schaufel, W., & Bakker, A. (2003). Utrecht work engagement scale. Preliminary manual. Occupational Health Unit, Utrecht University.

4. "***Behaviour Support***" reinforces the use of positive behavioural support and the "do's and don'ts" of responding to challenging behaviour that are promoted by St.Amant's behaviour specialist. It presents the Functional Behaviour Assessment and how to respond to Stage 1, 2, & 3 behaviours. The video presents a meeting between a supervisor and a DSP when the DSP is about to return to work with an individual who engaged in a severe challenging behaviour in the presence of that DSP.

The modules and videos were examined for face validity by experts in IDD and in organizational training and development and were next pre-tested by a volunteer group of 10 supervisors from New Directions who are in roles similar to those of this study's target population. Their feedback was used to amend the modules before distribution at St.Amant.

Phase 3 - Execute an Experimental Trial to **assess whether the intervention produced change**.

After completing the modules, measurement tools were finalized and the trial began at St.Amant (see APPENDIX A, Study Timeline Actual). Intervention and non-intervention (control) groups were used to test for change.

Sample and Recruitment

The intervention was targeted to supervisors of DSPs specifically within St.Amant's community-based residential programs. These include homes which are staffed around-the-clock as well those in which less intensive support is provided. To support statistical analyses, the sample pool was limited to supervisors who have about 20 DSPs reporting to them.

As with all study protocols, invitations were developed in accordance with the ethics and access standards prescribed by the collaborating organizations. The invitations described the nature of the study, participant roles, and the length of time involved to participate. They indicated participation was voluntary and that a decision to participate or not had no effect on employment at St.Amant.

With the invitation, the baseline engagement and self-efficacy survey was immediately available online to all potential research participants. Also in keeping with the conditions of study approvals, the surveys were preceded by a consent form which provided greater detail on the research and discussed the researchers' responsibility to preserve participant anonymity.

Seven (7) supervisors agreed to participate in the knowledge translation intervention and formed the **intervention group.** Supervisors who elected not to participate in the intervention

but later answered the engagement survey were the **control group** (13). A voluntary sample of DSPs (48) from the same St.Amant program area also participated in the testing and were identified as intervention (7) or control (41) based on whether their supervisor participated in the intervention.

Implementation and testing

The study was designed to determine whether participating in an educational intervention would affect injury rates, intervention group supervisors' feelings of engagement, and their confidence in supporting DSPs in the management of challenging behaviours. An online survey was used to measure the intervention group's perceptions of their workplace engagement and self-efficacy immediately prior to and after participating in the self-study program.

A period of time was allowed to pass for the intervention group supervisors to have an opportunity to integrate their learning into their practice and produce results. Approximately five months after the intervention workshop, the survey was administered for the final time to intervention group supervisors as well as to control group supervisors and DSPs.

Data/Outcome Measures

The same validated short version of the Utrecht Work Engagement Scale was used with all groups throughout this study (Appendix B). Its purpose was to measure change in supervisors' self-efficacy and engagement related to the knowledge and skills taught, and to allow comparison of intervention and control group scores, as well as achievement of organizational/research goals.

- The intervention group of supervisors completed the survey 3 times – prior to receiving the learning modules, immediately following the intervention (the self-study period and workshop), and again five months after. Results were analysed for change over time.

- The control group of supervisors took part only in the final online survey. Their results were compared with the intervention group's final post-intervention scores.

- DSPs also filled in the survey once, when it was finally administered post-intervention. (The instrument was non-substantively modified for this population.) Results of DSPs working within sites where intervention group supervisors worked were compared with those of DSPs who work in locations where supervisors did not take the course to determine whether there was a difference in the levels of support experienced.

Additionally, the intervention group of supervisors responded to questionnaires to provide their perceptions of the module text, videos and workshop (Appendix C).

Analysis and Results

Supervisors

There were no significant differences in the demographic characteristics of the intervention and control groups of supervisors. Across the groups, mean age was 36-38, number of years of experience in supervising role was 5.4 -6.9, and mean number of years working in the field of IDD was 10.

Because of the low number of intervention supervisors (7), few comparisons in their before and after scores were statistically significant. Overall, they showed high 'engagement' scores (M 51.3, score range 9-56); scored near the mid-range for 'confidence' (M 10.8, score range 5-20); and scored mid-range for 'organization' (M 6.5 , score range 3-12). 'Confidence' and 'organization' scores were positively correlated; the higher the 'organization' score, the greater the 'confidence' score.

DSPs

There was no significant difference in the demographics of intervention and control DSP groups, indicating that our intervention group was a representative sample. The mean age of the intervention DSPs was 47 and the controls 39.8. Number of years working with people with IDD was 10.8 for the intervention group and 7.4 for the control group.

There were no significant differences in the groups' scale scores either (see Table 1). We surveyed DSPs to examine whether they might report differently based on whether their supervisor participated in the intervention. However the intervention group sample size of DSPs was low (7 compared to a control group of 41), so this must be considered when understanding that any differences may not have been created by the intervention or the actions of their supervisor.

Table 1
Intervention and Control DSP scale scores
No significant differences

Scales	Intervention (n=7)	Control (n=41)
Engagement	M 49 (SD 4.5)	M 47 (SD 8.7)
Confidence	M 6.4 (SD 1.1)	M 6.3 (SD 1.6)
Supervisor Role	M 10.1 (SD 4.6)	M 10.3 (SD 4.3)
Organization	M 8.6 (SD 2.1)	M 8.8 (SD 1.9)

Significant positive correlations were noted between the DSP scale scores. 'Age' was related to 'engagement;' the older the DSP the more likely they were to have a higher engagement score. Also, a higher engagement score was related to higher scores on all other scales. If DSPs valued the organization and thought the supervisor was doing a better job, the DSPs were more likely to be confident in their own abilities.

Limitations

- The intervention group in this study was small.
- A larger sample of injury data was needed to indicate if there were significant differences related to the intervention. For the months prior to and immediately after the intervention, there was only one injury within the intervention homes.
- Workers in this field transition quickly.

Summary of Supervisor Feedback on Modules

- All supervisors indicated that ***new people in leadership positions should take the educational course developed for this study (the intervention)***.
- The case studies and videos were the most favoured educational formats.
- Supervisors reported ***the follow-up workshop was a necessary opportunity*** to work through case studies with other supervisors in similar roles and '*bring the material together*' in a way that fit with their workplace context.
- ***Supervisors*** recognize they are working in complex systems and ***need to consider a multitude of factors that influence support for DSPs***.

Using audit and feedback, the initial (2014) study identified a gap between training and practice contexts. This research undertook to find ways to assist supervisors or managers to use knowledge translation to improve expectations when DSPs receive training and to apply the training effectively in their everyday work situations. The intervention we developed was received positively by supervisors. However, our analysis was unable to confirm the effects of the intervention on engagement/self-efficacy scores or supervisor performance.

Discussion

The most positive changes are likely to be sustained when made relevant to the local context. Engagement with the organizational leadership team facilitated implementation and testing of the study educational intervention through a particularly busy time of initiatives involving organizational change. St.Amant has continued to respond using the findings from both studies to support reduction in worker injuries as they support people with IDD and challenging behaviours.

While all intervention group supervisors reviewed the modules and videos for this study, at the workshop they stated it is difficult to find time among competing priorities for workplace study and engagement with DSPs around training for response to challenging behaviours. They particularly appreciated having the dedicated time at the workshop to focus on how to apply the module material and to exchange ideas for implementation with others working in the same organizational context. The supervisors appeared to feel more valued as employees in their role for having received the training.

Supervisors need to be familiar with the training that their DSPs have to be able to assist the DSPs with knowledge transfer. Educating supervisors in knowledge translation benefits them with a generalizable skill useful in their leadership role and fulfillment of organizational priorities.

EVALUATION OF BENEFITS AND PROJECT IMPACTS

This study took place among several organizational initiatives at St.Amant to improve staff performance and safety and it is unfeasible to isolate its impacts. St.Amant continues to support staff education in mindfulness, behavioural support and a coaching model for managers/supervisors. In June 2018, in a skype presentation to the St.Amant leadership team, the principal investigator facilitated discussion about the team's potential response to the research findings. St.Amant continues to examine ways to improve employees' use of training, rather than provide more training.

A unique component of the study intervention was the promotion of the role of supervisor as a key link in developing a "Culture of Safety." The intervention group found the "Culture of Safety" module the most useful, and more than half reported they learned something new from the module content. With respect to the intervention overall, almost all (6/7) reported "… ***being fully familiar with the materials in these modules would improve … confidence*** in supporting direct support professionals around incidents in the workplace involving challenging behaviors."

The project was also well-received in broader local, national and international forums.

- *Video poster presented to the 2016 Canadian Conference on Developmental Disabilities and Autism (Winnipeg)* explains the methodological steps of a scoping review with concrete illustrations of how these steps were applied to this project. The intention of the poster was to assist non-research staff in understanding the rigor of a scoping review.

- *Poster articulating the study research protocol presented at Knowledge Translation Canada's 2016 Annual Scientific Meeting (Toronto)* provided an overview of the scoping review, module topics and outcome measures and discussed the importance of the organization's engagement in the research to the success of the study, highlighting sustainability as a priority.

- The study was presented in several forums sponsored by the International Association for the Scientific Study of Intellectual and Developmental Disabilities (IASSIDD)

    - *In August 2016, oral presentation and discussion at IASSIDD Conference in Melbourne, Australia,* featuring an overview of the research protocol as a response to the findings of the original WCB-funded study. Approximately 1500 participants from 50 countries participated in the conference and about 50 attended this session.

    - *In 2017, poster presentation of study method and findings at the Health Research Interest Group meeting in Belfast, Northern Ireland* articulating the potential to use the learning modules to provide a safer workplace for staff who support people with IDD displaying challenging behaviour. The poster highlights the value of the collaboration with St.Amant in the way that the modules were developed, leading to greater potential for sustainability of the intervention.

- *Also, to an audience of about 300 at the Belfast conference (2017), a keynote presentation based on models of Knowledge Translation* using these WCB-funded studies to exemplify how Knowledge Translation models can improve uptake of research in organizations supporting people with IDD.

- *In July, 2018, a presentation to approximately 60 attendees at the European Congress in Athens, Greece presenting this study from design through results* (Appendix D).

In Manitoba, we reported on the study to four different groups of personnel working in community organizations focused on serving people with IDD. We held sessions in Winnipeg (3) and Steinbach (1) and extended our reach electronically to Swan River through the use of UM Telehealth facilities. In total, close to 100 participants attended the sessions indicating this topic remains relevant to those responsible for employees in the IDD field.

- May 3, 2018 at CanadInns, Pembina Hwy, we presented to 40 representatives of 25 organizations providing service to people with IDD. Individuals' workplace roles ranged from executive, human resource, and support services directors through specialists in NVCI and safety, health and regulation.

- On June 27 we presented exclusively to staff from Steinbach organization EnVision Community Living. Members of the research team went to Steinbach to engage with 21 participants including directors, managers and coordinators.

- On September 19 we presented a shorter (2 hour) primarily lecture-style session in a University of Manitoba classroom using Telehealth (Appendix E). Group discussion was limited. We hosted a total of 19 participants with 13 representing 8 organizations in person and 6 from a single organization in Swan River. Most participants were in management/coordinator or policy analyst roles.

- We held our final session on November 26 and involved 17 staff, mainly supervisors, from Marymound, Knowles Center and New Directions for Children, Family and Youth. This session included presentation of video clips from the Leadership and Culture of Safety modules.

The research learning modules and videos were available to all workshop participants to review in print at the sessions and subsequently online (via Dropbox). Participants were welcomed to use/amend any of the material to meet their organizations' needs.

In all sessions, the presenters facilitated discussion with the use of the WCB-developed Safety Climate Questionnaire and a Worksheet (Appendix F) to promote reflection on

- how the information (evidence) presented fit with participants' workplace experience
- how it might be applicable in the participant's specific work-setting (context), and
- action planning (facilitation).

Where available, we brought together participants' response from all the workshops and summarized their feedback (Appendix G).

We also asked participants to fill in an Evaluation Form after each session. The following sentiment expressed by an attendee was echoed across the groups: "*So pleased to see research that confirms our lived experience. (This) Gives credibility to the challenges in our work and to the importance of taking care of our staff*."

Participants also indicated they would appreciate "*…more time to discuss the information/ issues…*" "*Possibly a full day … to brainstorm feedback to some questions.*" "*… More strategies on safe work in regard to behavioural situations. Maybe some presentations by agencies that were able to improve their WCB rate of occurrence.*"

FINANCIAL REPORT

The attached financial report to January 29, 2019 (Appendix H) shows the study was completed nearly $ 42,000 under its original $ 180,000 budget and with no other funding obtained. We reduced our budget twice in 2017 (in total $ - 18,760) to $ 161, 240 and completed with total expenditures under $ 140,000.

A final transfer from WCB to St.Amant is not required; St.Amant will return unspent funds of approximately $ 4,150.

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APPENDIX G: Summary of Community Response
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APPENDIX A

STUDY TIMELINE (ACTUAL)
(January 29, 2019)

Task	April 2015	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan 2016	Feb	Mar
Scoping Review Develop & Begin Search Strategy	X	X	X									
Data Extraction			X	X	X	X	X	X	X	X	X	X
Data Analysis			X	X	X	X	X	X	X	X	X	X
Decision to use pre-existing or develop new modules						X	X	X				
Intervention Planning							X	X	X	X	X	X
Advisory Group Meetings			X					X				X
Ethics and Access Submissions												
Intervention – Sample Recruitment												
Intervention Delivery												
Dissemination Scoping												
WCB Reporting	April 30 (1)					Sept 30 (2)					Feb 28 (3)	
WCB Payments	$30,000					$38,345					$38,345	

Deliverables

1) Workplan- Execution of Agreement
2) Project Progress & Financial Report
3) Project Progress & Financial Report

APPENDIX A

Study Timeline (Actual)

Task	April 2016	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan 2017	Feb	Mar
Data Extraction												
Data Analysis												
Intervention Planning	X	X	X	X	X	X	X	X	X	X	X	
Ethics and Access Submissions					X	X		X				
Sample Recruitment											X	X
Dissemination Scoping		X			X							
Intervention Delivery												X
Advisory Group Meetings												
Pre-intervention Data Collection												X
Post-intervention Data Collection												
Follow-up Data Collection												
Injury Rates												
Data Analysis												
Dissemination					X							
WCB Reporting	Apr30 (4)					Sept 30 (5)						
WCB Payments	$35,790											

Deliverables

4) Project Progress & Financial Report

5) Project Progress & Financial Report

APPENDIX A

Study Timeline (Actual)

Task	April 2017	May	June	July	August	Sept	Oct	Nov	Dec	Jan 2018	Feb	Mar
Data Extraction			X	X	X							
Data Analysis				X	X	X						
Intervention Planning												
Ethics and Access Submissions							X					
Sample Recruitment												
Dissemination Scoping			X									
Intervention Delivery	X											
Advisory Group Meetings												
Pre-intervention Data Collection												
Post-intervention Data Collection	X											
Follow-up Data Collection							X	X	X	X	X	
Injury Rates	X	X										
Data Analysis												X
Dissemination Academic	X							X	X			
Dissemination Community		X										
WCB Reporting		May31 (6)										
WCB Payments												

(6) Project Progress & Financial Report

APPENDIX A

Study Timeline (Actual)

Task	April 2018	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan 2019
Scoping Review										
Data Extraction										
Data Analysis	X	X	X		X	X	X			
Advisory Group Meetings										
Ethics and Access Submissions										
Intervention										
Dissemination Academic				X						
Dissemination Community		X	X			X		X		
WCB Reporting										Jan 29 (7)
WCB Payments										

7) Final Project & Financial Report

A Knowledge Translation Intervention with Supervisors

APPENDIX B

Engagement & Self-efficacy Survey

THANKS FOR PARTICIPATING. PLEASE REVIEW YOUR SURVEY FOR COMPLETENESS AND ACCURACY BEFORE YOU SUBMIT IT. YOU ARE FREE TO NOT ANSWER ANY QUESTION(S) AT YOUR DISCRETION.

Please note throughout the questionnaire we use the acronym DSP for direct support professional. This refers to the people you supervise who provide daily living support to people with intellectual/developmental disabilities (IDD).

To create your unique identifier, please use the first 2 letters of the name of the elementary school you attended followed by 2 numbers for your numeric day of birth. E.g. I attended Faraday School and my birthday is Dec. 02 so my code would be FA02.Enter your code here:

Please tell us a bit about yourself:

1. What year were you born?

2. How many years of experience do you have supervising direct support professionals of people with IDD? (Total at St. Amant and elsewhere)

3. How many years (total) have you worked with people with IDD or other vulnerable populations?

4. How many DSPs do you supervise in your current position? (including all full- and part-time)?

5. For each of the following statements, please select the answer that best represents your level of agreement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
a) I feel confident in my ability to assist DSPs to use their best judgment when the people they support display challenging behavior.	❍	❍	❍	❍
b) I feel confident using defusing techniques to support DSPs who have been injured in an incident involving Challenging Behaviour (CB) at work.	❍	❍	❍	❍
c) I feel confident reviewing incidents that involved CB with DSPs so that we can learn from the experience.	❍	❍	❍	❍
d) I feel confident in my ability to assist DSPs to make use of information they learned in training when dealing with CB at work.	❍	❍	❍	❍
e) I feel confident in my knowledge of behaviour management strategies to support people with IDD who display CB.	❍	❍	❍	❍
f) I feel confident in my use of the individualized behaviour plans in place to support people with IDD who display CB.	❍	❍	❍	❍
g) I believe in the values and mission of St. Amant.	❍	❍	❍	❍
h) I feel confident I can build a culture in my unit where DSPs consistently report injuries.	❍	❍	❍	❍
i) I feel supported by senior management in my supervisory role.	❍	❍	❍	❍

6. Pick one best answer for how frequently you experience each of the following:

	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
a) At my work, I feel bursting with energy	❍	❍	❍	❍	❍	❍	❍
b) At my job, I feel strong and vigorous	❍	❍	❍	❍	❍	❍	❍
c) I am enthusiastic about my job	❍	❍	❍	❍	❍	❍	❍
d) My job inspires me	❍	❍	❍	❍	❍	❍	❍
e) When I get up in the morning, I feel like going to work	❍	❍	❍	❍	❍	❍	❍
f) I feel happy when I am working intensely	❍	❍	❍	❍	❍	❍	❍
g) I am proud of the work that I do	❍	❍	❍	❍	❍	❍	❍
h) I am immersed in my work	❍	❍	❍	❍	❍	❍	❍
i) I get carried away when I'm working	❍	❍	❍	❍	❍	❍	❍

 This concludes the survey. Please look over your survey before clicking “submit” to send your responses.

UNIVERSITY OF MANITOBA
Rady Faculty of Health Sciences

College of Nursing
Helen Glass Centre for Nursing
Winnipeg, Manitoba
Canada R3T 2N2
Telephone 204-474-7452
Fax 204-474-7682

APPENDIX C
Supervisor Feedback on Modules Questionnaire

Thank you for your valuable time reviewing the modules and answering these questions. Your answers to the questions below could guide changes to the modules you have reviewed. You are welcome to elaborate on any/all responses.

1. How long did it take to complete each module?
    a. Leadership (# of hours) _____
    b. Mindful Practice (# of hours) _____
    c. Behaviour Support (# of hours) _____
    d. Culture of Safety (# of hours)_____
2. What did you find to be most challenging about completing the modules? (FEEL FREE TO ELABORATE.)
    a. Overall _____
    b. Leadership _____
    c. Mindful Practice _____
    d. Behaviour Support _____
    e. Culture of Safety _____

3. What did you find to be most valuable about each module to a supervisor of direct support professionals? (FEEL FREE TO ELABORATE.)

    a. Overall _____

    b. Leadership _____

    c. Mindful Practice _____

    d. Behaviour Support _____

    e. Culture of Safety _____

4. What change(s) would you make to improve the modules? (PLEASE FEEL FREE TO SHARE YOUR THOUGHTS AND IDEAS.)

    a. Overall _____

    b. Leadership _____

    c. Mindful Practice _____

    d. Behaviour Support _____

    e. Culture of Safety _____

5. How useful is the content of these modules to a supervisor of direct support professionals? (MARK ONE BOX PER ROW WITH AN 'X.')

	Not At All Useful	**Not Very Useful**	**Somewhat Useful**	**Very Useful**	**Not Sure/ Don't Know**
Overall					
Leadership					
Mindful Practice					
Behaviour Support					
Culture of Safety					

6. Would you prefer to complete these modules on paper or as an online version?

   Paper_____

   Online _____

7. Did you learn new information completing these modules? (MARK ONE BOX PER ROW WITH AN 'X.')

	YES	**NO**
Leadership		
Mindful Practice		
Behaviour Support		
Culture of Safety		

8. Do you believe that being fully familiar with the materials in these modules would improve your confidence in supporting direct support professionals around incidents in the workplace involving challenging behaviours?

   Yes ____

   No ____

9. Is there anything else we should consider about these modules? (PLEASE FEEL FREE TO SHARE YOUR THOUGHTS AND IDEAS.)

A knowledge Translation Intervention with Supervisors

APPENDIX D

Can we reduce injuries by using an educational intervention with managers/supervisors?

IASSIDD

European Congress, Athens, Greece

July, 2018

Working with Individuals with Intellectual Disabilities: Injuries and Challenging Behaviour

Researchers: Dr. Beverley Temple, Dr. Toby Martin, Dr. Charmayne Dubé, Lisa Demczuk, Jennifer Kilimnik

Project Manager: Lesley Anne Fuga

RAs: Hannah Curtis, Jenna North

St. Amant

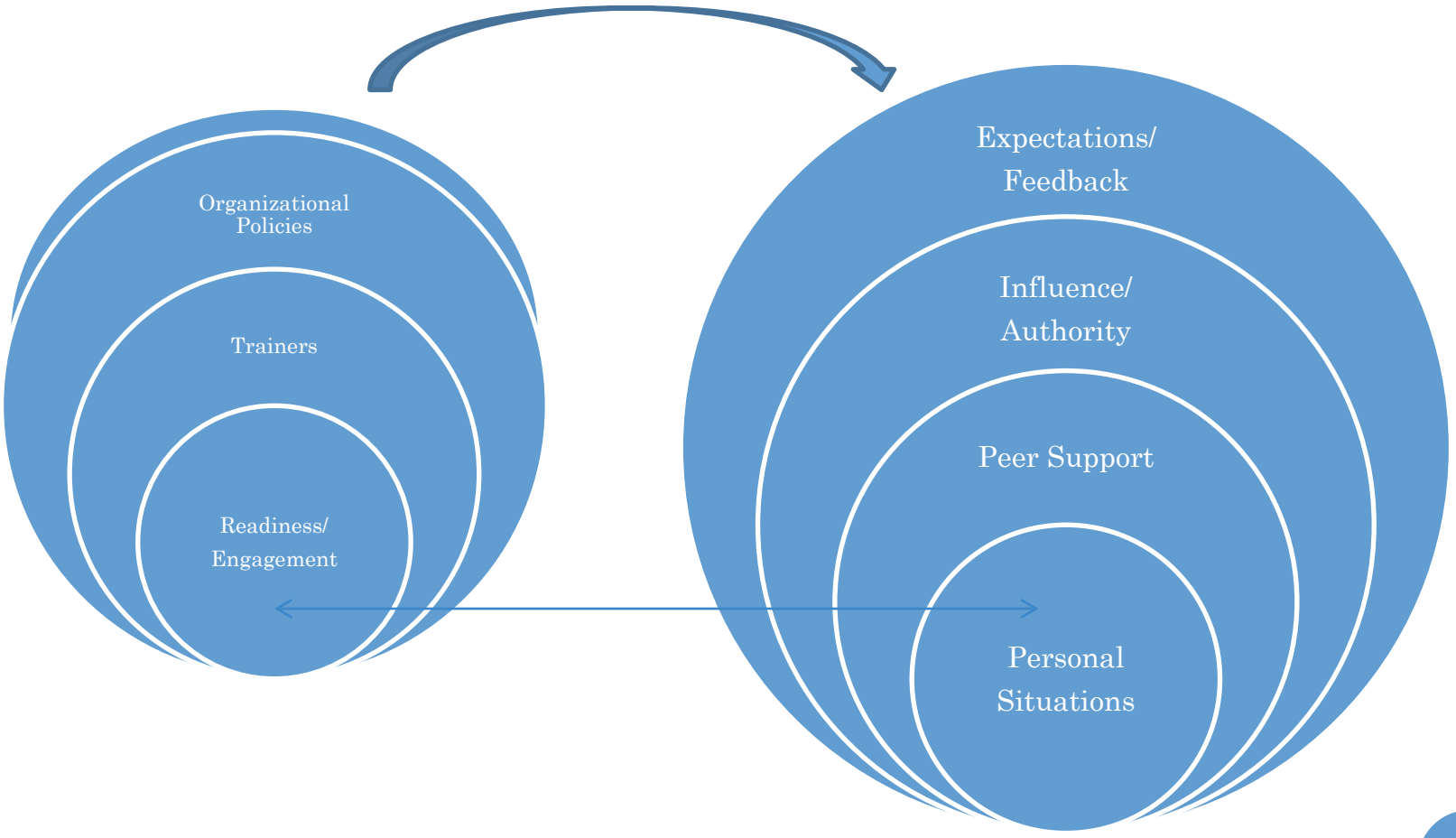
University of Manitoba

SAFE WORK
SAFE
SPOT THE HAZARD
ASSESS THE RISK
FIND A SAFER WAY
EVERYDAY

WCB
Workers Compensation
Board of Manitoba

Background

Practice and Training contexts Influence each Other



Study Objectives

1. Are there currently any organizational intervention programs that target managers and leading in the area of ID, that support Evidence Based Practice (EBP) in managing CB?

2. Can injury rates be reduced by using an organizational intervention with managers tailored to the St.Amant context and is supported by facilitation?

- Is managers' knowledge and confidence increased by the intervention?
- Are managers satisfied with the process of the intervention and delivery methods?
- Are staff more satisfied with the support they receive after the intervention?

3. Are there increases in staff engagement scores in areas where supervisors have completed the intervention?

4.Is there a decrease in injuries related to CB where managers have participated in the organizational intervention?

Obj 1: Scoping Review

- Did a scoping review for an existing educational tool we could use – none found
- Developed the modules in careful consultation with organization – very focused on maintaining the work of the organization related to existing training that occurs.

Obj 2: Intervention with Managers

- Recruited managers who ***supervised at least 20 (n=7)***
- Managers completed ***pre survey of their confidence in their role and engagement in the organization***
- ***Completed the modules*** over 4 weeks– provided as hard copy (had been pretested with another org)
- Attended a ***half day workshop*** to reinforce the information in the modules and interact about scenarios.
- ***Non intervention managers (n=34) compared with intervention managers in a post survey***

Modules 1 **Leadership**

- Supervisors/managers need **special skills to be able to help staff 'translate'** what they learn in training sessions to on-the-job practice. This module introduces the idea of knowledge translation.
- The leadership module includes **reminders of the systems** that are already in place at St.Amant to support them in helping staff apply general information and training they have received to the specific situations and settings of the workplace.
- In the **workshop** they attended after completing the modules, we challenged them to think more about their **own workplace, role, and how they influence practice within their own setting.**

Module 2 - Mindfulness

- This module relates information you or the staff you work with may have received in Mindful Practice training at St.Amant. It is provided to **refresh** you of the details so that you have access to reminders when you are developing strategies to support mindfulness in your workplace.
- The workshop exercises will **challenge your assumptions** about your own mindful practice and let you work with other supervisors to consider how you can assist DSPs to provide support in ways that are comfortable, consistent and according to best practice.
- With its emphasis on paying attention and focusing on the present moment, Mindful Practice can help prevent injuries in the workplace. In addition to strengthening our connection with the people we support, it can benefit our relations with co-workers. For example, mindfulness can provide an effective strategy in supporting those who have experienced a challenging or critical incident.

Module 3 - Behavioural Support

- This module is a reminder about the **principles of behaviour support**. We need staff to cooperate fully in the behavior support plans in place for people who display challenging behaviour. Without consistent implementation we are unlikely to be successful. This module reviews the foundation for creating a culture within your homes where we support each other to be successful in managing challenging behaviour and preventing injury, thereby offering a better environment and better quality of life for the people we support.
- In the **workshop we used case studies** to develop strategies to assist in creating this environment and will provide take home messages useful to you in the future.

Module 4 – Culture of Safety

- This module was created with material provided by **Workers Compensation Board of Manitoba**. It offers background about culture of safety and the legislation governing workplace safety and health in Manitoba. A main message is to **consciously prioritize and reinforce practices** that support everyone to be safe at work.
- In the workshop we discussed how to apply this material in our specific contexts at St.Amant so that it is useful for them to '**audit' their worksites** and understand where there may be risks for the staff as well as the people support.

Supervisor Feedback

Response to Modules:

- All supervisors felt that all new people in leadership positions should take this training.
- Felt the workshop was necessary to allow work through the case studies together and 'bring the material together'
- Recognize that they are working in complex systems and need to consider a multitude of factors that influence support for DSPs and prevent injuries

Survey Methods - Supervisors

- Surveys of Intervention supervisors and the rest of the supervisors who fit the inclusion criteria – (supervision of 20 DSPs.)
- Distributed to 34 Control and 7 Intervention
- Response rate – 13/34 = 38%
- Demographics, confidence scale and engagement scale, organization scale

Obj. 3 Support Workers

- All DSPs were surveyed related to their perceptions of support, their managers and their engagement in the workplace – intervention and non intervention groups compared.

Survey Methods - DSPs

- Distributed to all DSPs in Community Residential and Supported Independent Living Programs
- Distributed to about 620 – 48 responses for a response rate of 7%
- Survey divided into intervention and control based on what homes they identified working in most.
- Resulted in only 7 DSPs from intervention homes

Data analysis

- Data from the supervisor intervention group and control group were compared.
- DSPs data was compared between intervention and control groups
- Injury rates for the intervention homes was compared for the months before and after the intervention. (Obj. 4)
- Numbers of injuries were too small in the intervention homes to gain statistical significance in any differences.

Findings – Supervisor Demographics

	Intervention (n=7)	Control (n=13)
Age	M 36.4 (R28-55)	M 38 (R31-59)
Number of years of experience supervising at St.A	M 5.4 (R2-13)	M 6.88 (R
Years total working with people with ID	M 10.7 (R4-36)	

Intervention Supervisors Before and After (N = 7)

Scales	Pre	Post
Engagement	M 51.3	M 48.3
Confidence	M 18.8	M 17.9
Organization	M 10.7	M 9.7
Using Nonparametric testing there was no significant difference.		

Supervisor Scale Scores

	Intervention (n= 6)	Control (n=13)
Engagement Scale (Score range 9-56)	M 46.0 (SD 8.3)	M48.5 (SD 5.4)
Confidence Scale (Score range 5-20)	M 10.8 (SD 4.6)	M15.4 (SD 4.0)
Organization Scale (Score range 3-12)	M 6.5 (SD 2.7)	M10.4 (SD 2.3)
Using nonparametric tests there was no significant differences		

Correlations

- Were there any significant relationships for scale scores?
- The only significance found was between
- Confidence and organization scores in the control group
- The higher the organization score – the greater the confidence score

There were no significant relationships identified for the intervention supervisor scores.

DSPs - Demographics

	Intervention (n=7)	Control (n=40)
Age	M 47.1 (SD 12.4)	M 39.8 (7.4)
Years working with people with IDD	M 10.8 (SD 8.5)	M 7.4 (SD 7.4)

DSP Scales

Scales	Intervention (n=7)	Control (n=41)
Engagement	M 49 (SD 4.5)	M 47 (SD 8.7)
Confidence	M 6.4 (SD 1.1)	M 6.3 (SD 1.6)
Supervisor Role	M 10.1 (SD 4.6)	M 10.3 (SD 4.3)
Organization	M 8.6 (SD 2.1)	M 8.8 (SD 1.9)

DSP Correlations

- Several significant relationships were found in the control group data.

	Age	Engage	Sup Role	Conf	Org
Age	1				
Engagement	.612	1			
Supervisor Role	NS	.359	1		
Confidence	NS	.516	.425	1	
Organization	NS	.451	.434	NS	1
* Significant at the p = .05					

Discussion DSP scale relationships

- Age was only related to Engagement – so the older the DSP was the more likely to have a higher engagement score
- Higher engagement score was also related to higher scores on all other scales.
- If they valued the organization and thought the supervisor doing a better job, they were more confident in their own abilities.

Limitations

- The intervention group in this study was small.
- The injury data needed a larger sample to indicate if there were significant differences. For the months prior to the intervention – there was only one injury and the same after the study (within the intervention homes).
- Workers in this field transition quickly
- This study had several delays
- But, I think that there are some conclusions that can drawn from the study.

Discussion

- Supervisors need to have knowledge of the training that their DSPs have to be able to assist them with knowledge transfer
- Supervisors will benefit from training related to knowledge translation and leadership and other organizational priorities.
- Supervisors feel more valued as employees in their roles when they receive more training (workshop feedback).
- Engagement with the organizational leadership team contributes to success of the study… and the potential to make positive changes.

Discussion

- I believe organizations would be able to draw some conclusions about their workers with an engagement survey.
- The engagement scores were related to more positive scores in other variables for the DSPs.
- Audit and feedback can have a positive effect – tracking your injury rates etc as done in the 1st study – was able to identify trends and resulted in organizational changes
- The most positive changes are more likely to be sustained when you make them relevant to your own context.

Funding occupational health research and innovative workplace solutions

Thank You

Questions?

Confidence Scale - supervisors

- a) I feel confident in my ability to assist DSPs to use their best judgment when the people they support display challenging behavior.
- b) I feel confident using defusing techniques to support DSPs who have been injured in an incident involving Challenging Behaviour (CB) at work.
- c) I feel confident reviewing incidents that involved CB with DSPs so that we can learn from the experience.
- d) I feel confident in my ability to assist DSPs to make use of information they learned in training when dealing with CB at work.
- e) I feel confident in my knowledge of behaviour management strategies to support people with IDD who display CB.
- f) I feel confident in my use of the individualized behaviour plans in place to support people with IDD who display CB.

Organization Scale = supervisors

- g) I believe in the values and mission of St. Amant.
- h) I feel confident I can build a culture in my unit where DSPs consistently report injuries.
- i) I feel supported by senior management in my supervisory role.

- Response categories
- Strongly agree - strongly disagree

Engagement Scale – Supervisors & DSPs

Pick one best answer for how frequently you experience each of the following:

- a) At my work, I feel bursting with energy
- b) At my job, I feel strong and vigorous
- c) I am enthusiastic about my job
- d) My job inspires me
- e) When I get up in the morning, I feel like going to work
- f) I feel happy when I am working intensely
- g) I am proud of the work that I do
- h) I am immersed in my work
- i) I get carried away when I'm working

Engagement Scale

Response Categories

- 1 Never
- 2 Almost Never
- 3 Rarely
- 4 Sometimes
- 5 Often
- 6 Very Often
- 7 Always

Confidence - DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

- e) I feel confident in my knowledge of behaviour management strategies to support people with IDD who display CB.
- f) I feel confident in my use of the individualized behaviour plans in place to support people with IDD who display CB.

Supervisor Role- DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

- a) My supervisor helps DSPs feel confident in their ability to use their best judgment when the people they support display challenging behavior (CB).
- b) My supervisor uses defusing techniques to support DSPs who have been injured in an incident involving CB at work.
- c) My supervisor reviews incidents that involved CB with DSPs so that we can learn from the experience.
- d) My supervisor assists DSPs to make use of information they have learned in training when dealing with CB at work.

Organization - DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

- g) I believe in the values and mission of St. Amant.
- h) There is a culture in my workplace where DSPs consistently report injuries.
- i) I feel supported by senior management in my role as a DSP.

A Knowledge Translation Intervention with Supervisors

Appendix E

Culture of Safety:

Knowledge Translation workshop

University of Manitoba
September 19th, 2018

Agenda:

- Introductions – Objectives
- Background Study
- Safety Climate Questionnaire
- Second Study: Modules & Results
- Knowledge Translation: Discussions

Working with Individuals with Intellectual Disabilities: Injuries and Challenging Behaviour

Researchers: **Dr. Beverley Temple, Dr. Toby Martin, Dr. Charmayne Dubé, Lisa Demczuk, Jennifer Kilimnik**

***Project Manager*: Lesley Anne Fuga**

***Research Assistants*: Hannah Curtis, Jenna North**

St. Amant

University of Manitoba

SAFE WORK
SAFE
SPOT THE HAZARD
ASSESS THE RISK
FIND A SAFER WAY
EVERYDAY

WCB
Workers Compensation
Board of Manitoba

STUDY 1: OBJECTIVES

- To develop a greater understanding of the ***direct support professionals' experiences*** of managing challenging behaviour;
- To gain a greater understanding of the ***factors influencing*** the most common injuries reported;
- To gain a greater understanding of **the *context of reported injuries*** and
- To improve understanding of the ***effectiveness of safety training*** in meeting the practical needs of direct support providers and identify potential changes that could be implemented for improvement.

Study Methods

- Phase 1: Retrospective (Year 1) audit of accident/injury reports (June 1, 2011-May 31, 2012) and interviews with managers
- Phase 2: Prospective (Year 2) audit of accident/injury reports (June 1, 2012 – May 31, 2013) and interviews with injured direct support professionals
- Phase 3: Interviews with trainers and synthesis of findings from all phases

Injury Reports

- We examined 212 reports in 2011-2012 and 214 in 2012-2013
- Similar numbers of injuries related to Challenging Behaviour each year
- 288 employees filed 426 reports
- 61 employees reported being injured more than once
- Some employees reported over 10 times in the 2 year period

How do you feel this accident could have been prevented?

	2011-2012	2012-2013	Total/%
Different Physical Interaction	41	43	84/20%
Other things could have done	28	23	51/12%
Organizational change	37	21	58/14%
Don't know	59	70	129/30%
No response	46	50	96/23%

Manager Interviews

- We interviewed five higher level managers of programs
- We understood that there were different reporting structures within programs, different training offered and required
- Responses to injuries are handled differently so we wanted to gain managers' perspectives

Injured support Workers & Trainers

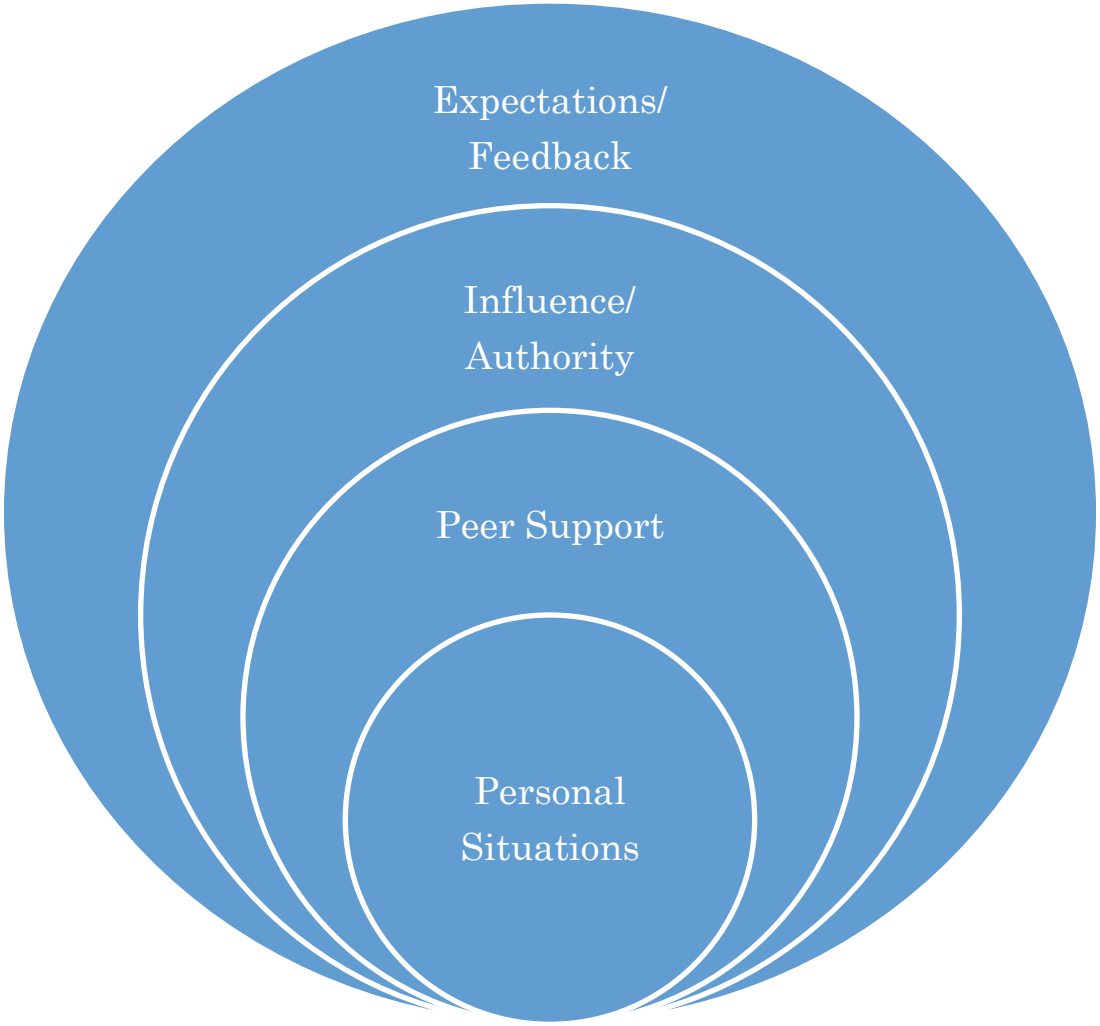
- The second year of the study involved review of injury reports as indicated earlier.
- As workers reported injuries they were sent a letter asking them to participate in an interview.
- We interviewed 19 workers to gain their perspectives of what happened when they were injured, if they felt supported and if their training was effective in helping them in their day to day work.
- We interviewed trainers to gain their perspective of that part of their position

Context

- Using a socioecological theoretical perspective we identified two distinct spheres of influence on worker safety after trainer interviews

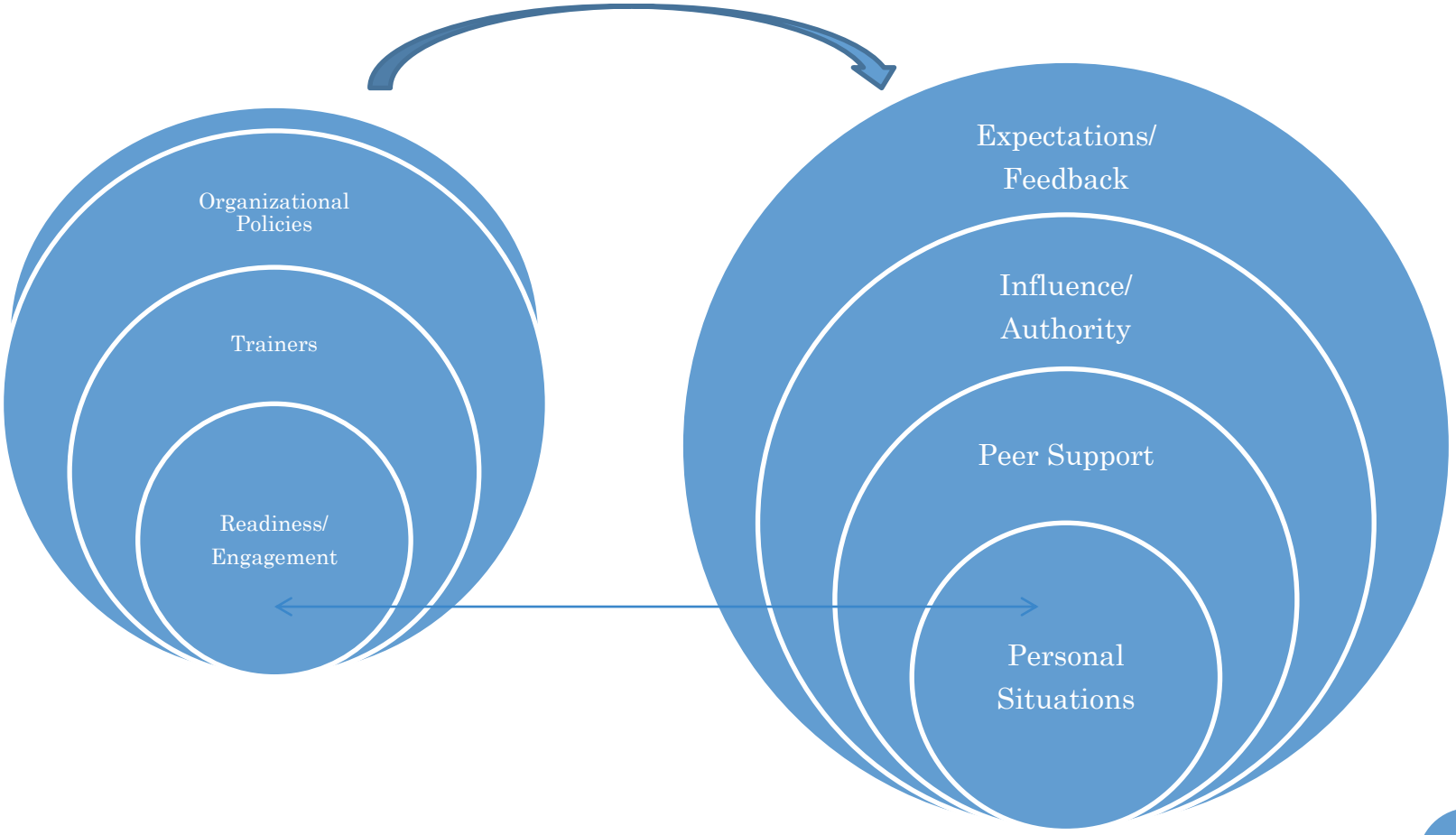
- Socioecological model – describes spheres of influence on a person's behaviour
  - Micro – the person themselves and immediate influences (beliefs, values, personal interactions)
  - Meso – influences within a close working relationship (co-workers, managers)
  - Macro – larger organizational influencing factors & larger societal factors

Practice context



Training context

Practice and Training contexts Influence each Other



Key Messages

- Contexts – Training and practice contexts must overlap through established processes.
- Managers/supervisors require specific skills to provide expectations and feedback to workers in order to maximize the benefits of training.
- Training outcomes are dependent on trainers' skills and experiences and follow-up by trainees with supervisors to place within their own particular context.
- New online reporting could contribute to this audit and feedback loop.
- Need to continue to match worker and responsibility.

Key Messages

- Debriefing could be improved – by training immediate supervisors how to respond differently and how to influence the practice context.
- Longer term debriefing – needs to be monitored by others (return to work).
- Investment in training – not more but better follow-up.

Organizational Outcomes/changes

- Audit and Feedback:
  - Organization implemented online reporting of injuries with an automatic follow-up for supervisors
  - Implemented a new committee for support and follow-up of those injured
  - Reductions in WCB rates has occurred (recognizing many changes occurring at the same time)

Safety Climate Questionnaire

- Example of an applicable tool
- Review and reflect on your context & potential use

Second Study

Can we reduce injuries by using an educational intervention with managers/supervisors?

- Scanned the literature for an existing educational tool we could use – none found
- Developed the modules in careful consultation with organization – very focused on maintaining the work of the organization related to existing training that occurs.
- Recruited managers who supervise at least 20 employees who may be responsible for supporting people who display challenging behaviour.

Second Study cont'd

- Managers completed pretest of their confidence in their role and engagement in the organization
- Completed the modules over 4 weeks: provided as hard copy
- Attended a half day workshop to reinforce the information in the modules and interact about scenarios.
- All DSPs surveyed related to their perceptions of support, their managers and their engagement in the workplace: intervention & non intervention groups compared.
- Non intervention managers compared with intervention managers in a post survey of similar questions as DSP as well as confidence in their role

Procedures

- Modules were pretested with supervisors from a similarly sized organization.
- Revised based on the feedback from the trial group.
- Distributed based on best timing for the organization.

Modules 1 **Leadership**

- Supervisors/managers need special skills to be able to help staff 'translate' what they learn in training sessions to on-the-job practice. This module introduces the idea of knowledge translation.

- Reminders of the systems that are already in place at St.Amant to support them in helping staff apply general information and training they have received to the specific situations and settings of the workplace.

- In the workshop they attended after completing the modules, we challenged them to think more about their own workplace, role, and how they influence practice within their own setting.

Module 2 - Mindfulness

- Relates information you and/or the staff you work with may have received in Mindful Practice training at St.Amant. It is provided to **refresh** you of the details so that you have access to reminders when you are developing strategies to support mindfulness in your workplace.

- Exercises **challenge your assumptions** about your own mindful practice and let you work with other supervisors to consider how you can assist DSPs to provide support in ways that are comfortable, consistent and according to best practice.

- With its emphasis on paying attention and focusing on the present moment, Mindful Practice can help prevent injuries in the workplace. In addition to strengthening our connection with the people we support, it can benefit our relations with co-workers. For example, mindfulness can provide an effective strategy in supporting those who have experienced a challenging or critical incident.

Module 3 - Behavioural Support

- Reminder about the **principles of behaviour support**. We need staff to cooperate fully in the behaviour support plans in place for people who display challenging behaviour. Without consistent implementation we are unlikely to be successful.

- Reviews the foundation for creating a culture within your homes where we support each other to be successful in managing challenging behaviour and preventing injury, thereby offering a better environment and better quality of life for the people we support.

- In the workshop we used case studies to develop strategies to assist in creating this environment and will provide take home messages useful to you in the future.

Module 4 – Culture of Safety

- Created with material provided by Workers Compensation Board of Manitoba. It offers background about culture of safety and the legislation governing workplace safety and health in Manitoba.

- Main message is to consciously prioritize and reinforce practices that support everyone to be safe at work.

- In the workshop we discussed how to apply this material in our specific contexts at St.Amant so that it is useful for them and to '**audit' their worksites** and understand where there may be risks for the staff as well as the people support.

Supervisor Feedback

Response to Modules:

- All supervisors felt that all new people in leadership positions should take this training.
- Felt the workshop was necessary to allow working through the case studies together and to 'bring the material together'.
- Recognize that they are working in complex systems and need to consider a multitude of factors that influence support for DSPs.

Survey Methods - Supervisors

- Surveys of Intervention Supervisors and Control Supervisors (the balance of supervisors who fit the inclusion criteria i.e. supervision of at least 20 DSPs.
- Distributed to 34 Control and 7 Intervention
- Control group response rate – 13/34 = 38%
- Demographics, confidence scale and engagement scale, organization scale

Confidence Scale - supervisors

a) I feel confident in my ability to assist DSPs to use their best judgment when the people they support display challenging behavior (CB).

b) I feel confident using defusing techniques to support DSPs who have been injured in an incident involving CB at work.

c) I feel confident reviewing incidents that involved CB with DSPs so that we can learn from the experience.

d) I feel confident in my ability to assist DSPs to make use of information they learned in training when dealing with CB at work.

e) I feel confident in my knowledge of behaviour management strategies to support people with IDD who display CB.

f) I feel confident in my use of the individualized behaviour plans in place to support people with IDD who display CB.

Organization Scale = supervisors

g) I believe in the values and mission of St. Amant.

h) I feel confident I can build a culture in my unit where DSPs consistently report injuries.

i) I feel supported by senior management in my supervisory role.

Response categories

- Strongly agree - strongly disagree

Engagement Scale: Supervisors & DSPs

Pick one best answer for how frequently you experience each of the following:

a) At my work, I feel bursting with energy
b) At my job, I feel strong and vigorous
c) I am enthusiastic about my job
d) My job inspires me
e) When I get up in the morning, I feel like going to work
f) I feel happy when I am working intensely
g) I am proud of the work that I do
h) I am immersed in my work
i) I get carried away when I'm working

Engagement Scale

Response Categories

- 1 Never
- 2 Almost Never
- 3 Rarely
- 4 Sometimes
- 5 Often
- 6 Very Often
- 7 Always

Survey Methods - DSPs

- Distributed to all DSPs in Community Residential and Supported Independent Living Programs
- Distributed to about 620 – 48 responses for a response rate of 7%
- Survey divided into intervention and control based on what homes they identified working in most.
- Resulted in only 7 DSPs from intervention homes

Confidence - DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

e) I feel confident in my knowledge of behaviour management strategies to support people with IDD who display CB.

f) I feel confident in my use of the individualized behaviour plans in place to support people with IDD who display CB.

Supervisor Role- DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

a) My supervisor helps DSPs feel confident in their ability to use their best judgment when the people they support display CB.

b) My supervisor uses defusing techniques to support DSPs who have been injured in an incident involving CB at work.

c) My supervisor reviews incidents that involved CB with DSPs so that we can learn from the experience.

d) My supervisor assists DSPs to make use of information they have learned in training when dealing with CB at work.

Organization - DSPs

For each of the following statements, please select the answer that best represents your level of agreement when thinking about your current workplace (the home or location where you most often provide services).

g) I believe in the values and mission of St. Amant.

h) There is a culture in my workplace where DSPs consistently report injuries.

i) I feel supported by senior management in my role as a DSP.

Data analysis

- Data from the supervisor intervention and control groups were compared.
- DSP data were also compared between intervention and control groups
- Injury rates for the intervention homes was compared for the months before and after the intervention.

Findings – Supervisor Demographics

	Intervention (n=7)	Control (n=13)
Age	M 36.4 (R28-55)	M 38 (R31-59)
Number of years of experience supervising at St.A	M 5.4 (R2-13)	M 6.88 (R
Years total working with people with ID	M 10.7 (R4-36)	

Intervention Supervisors Before and After (N = 7)

Scales	Pre	Post
Engagement	M 51.3	M 48.3
Confidence	M 18.8	M 17.9
Organization	M 10.7	M 9.7
Using Nonparametric testing there was no significant difference.		

Supervisor Scale Scores

	Intervention (n= 6)	Control (n=13)
Engagement Scale (Score range 9-56)	M 46.0 (SD 8.3)	M48.5 (SD 5.4)
Confidence Scale (Score range 5-20)	M 10.8 (SD 4.6)	M15.4 (SD 4.0)
Organization Scale (Score range 3-12)	M 6.5 (SD 2.7)	M10.4 (SD 2.3)
Using nonparametric tests there was no significant differences		

Correlations

- Was there any significant relationships for scale scores?
- The only significance found was between:
  - Confidence and organization scores in the control group
  - The higher the organization score – the greater the confidence score

There was no significant relationships identified for the intervention supervisor scores.

DSPs - Demographics

	Intervention (n=7)	Control (n=40)
Age	M 47.1 (SD 12.4)	M 39.8 (7.4)
Years working with people with IDD	M 10.8 (SD 8.5)	M 7.4 (SD 7.4)

DSP Scales

Scales	Intervention (n=7)	Control (n=41)
Engagement	M 49 (SD 4.5)	M 47 (SD 8.7)
Confidence	M 6.4 (SD 1.1)	M 6.3 (SD 1.6)
Supervisor Role	M 10.1 (SD 4.6)	M 10.3 (SD 4.3)
Organization	M 8.6 (SD 2.1)	M 8.8 (SD 1.9)

DSP Correlations

Several significant relationships were found in the control group data.

	Age	Engage	Sup Role	Conf	Org
Age	1				
Engagement	.612	1			
Supervisor Role	NS	.359	1		
Confidence	NS	.516	.425	1	
Organization	NS	.451	.434	NS	1
* Significant at the p = .05					

Discussion DSP scale relationships

- Age only related to Engagement – so the older the DSP was the more likely to have a higher engagement score.
- Higher engagement scores were also related to higher scores on all other scales.
- If they valued the organization and thought the supervisor doing a better job, they were more confident in their own abilities.

Limitations

- Intervention group in this study was small.
- Injury data needed a larger sample to indicate if there were significant differences. For the months prior to the intervention – there was only one injury and the same after the study.
- Workers in this field transition quickly
- Study had several delays
- There are some conclusions that can be drawn from the study.

Discussion

- Supervisors need to have knowledge of the training that their DSPs have received so they are able to assist them with knowledge transfer.
- Supervisors may benefit from training related to knowledge translation and leadership and other organizational priorities.
- Propose that supervisors feel more valued as employees in their roles when they receive more training.
- Engagement with the organizational leadership team contributes to success of the study… and the potential to make positive changes.

Discussion

- Organizations would be able to draw some conclusions about their workers with an engagement survey.
- Engagement scores were related to more positive scores in other variables for the DSPs.
- Audit and feedback can have a positive effect: tracking your injury rates etc as in the 1st study – leads to identifying trends & resulted in organizational changes.
- The most positive changes are more likely to be sustained when you make them relevant to your own context.

KNOWLEDGE TRANSLATION WITHIN YOUR WORK ENVIRONMENTS

Potential Discussion Topics

1. **Use KT Handout & Modules to guide discussion.**
2. **Consider your current work environment(s).**
3. **Apply lens of Direct Supervisor to DSP for transfer of learning.**

Funding occupational health research and innovative workplace solutions

Thank You

Questions?

Themes from Manager Interviews (5)

- Risks and Challenges
  - Working alone, clients who display challenging behaviour
- Subjectivity (personal affects professional)
  - Personal values, priorities, perception of risk, attribution of CB
- Dignity of Risk
  - Person-centered, quality of life, overprotectiveness vs responsibility for safety

Themes from Manager Interviews (5)

- Quality of Leadership
  - Quality involves inclusion, recognition, respect, reciprocity in joint problem-solving. Supportive or judgemental? Need to maximize team function
- Communication Processes
  - Informal but purposeful exchanges, follow-up on reports and opportunity to dialogue are important. Corporate culture must model this, high quality relationships
- Training
  - Valued, is different across programs r/t the individual supported
- Context – Corporate and Systemic
  - Low wages, government requirements, different service delivery models, transference of training

Themes from Injured Workers (19)

- Worker-client relationship
  - Workers frequently talked about the importance of this relationship, of knowing the individual they support
  - Aggression Reduction

    Worker perceptions of whether or not various approaches work may directly affect their compliance with recommended behavioural approaches. Belief in the "plan."
  - Attribution

    What does the worker think is causing the challenging behaviour – affects how a person responds
  - Right Fit of Person for the Job
    - Can be related to physical size or gender
    - Emotional Resilience

Themes from Injured Workers cont'd

- Program Culture
  - Different Programs = very different context
    - Injuries treated differently r/t debriefing, support, supervision, client communication, following protocol and consequences
  - Following Protocol/Behavioural Plans – beliefs
  - The Physical Environment – use of for safety
- Prepared or NOT, Incidents Happen
  - Amount and type of training
  - Lack of training protocols, posting, reminders, follow-up
  - Training necessary but not sufficient alone for safety

APPENDIX F

Transferring the Information into your Organization

WORKSHEET

EVIDENCE: RESEARCH INFORMATION

How does the evidence presented fit with your experiences?

CONTEXT: SPECIFIC WORK SETTING

Facilitators to applying the evidence. We already do this well and will continue to:

Barriers to applying the evidence. We can't do this or have difficulty because:

APPENDIX F

Transferring the Information into your Organization

WORKSHEET

FACILITATION: ACTION PLAN

Actions you can take to apply the evidence into your context. As you build your personal strategy, consider some of these questions in your discussion:

1) What is our top priority & why?

2) What are our first steps to begin the process?

3) Who else needs to know/help with the plan?

APPENDIX F

Transferring the Information into your Organization

WORKSHEET

4) How will we get the help?

5) What support will we need?

6) How will we know we have been successful? What measures would be most helpful?

APPENDIX G
Summary of Community Response
(Community KT Session Discussions)

- Specific employees need to be dedicated to training/knowledge translation, and someone specific to training (such as a safety officer)
    - Expectations need to be set pre-training, even where a comprehensive training path exists, to ensure learning objectives are clear. With respect to NCI – who is trained, how often is it used?
    - Measures need to be monitored (e.g. response to surveys, guidelines, number of incidents, injury rates, return to work, achievement of personal goals) to determine whether training is understood and applied.
    - Supervisors must be equipped to help DSPs prepare for training and to follow-up (must understand, believe, and articulate it and be able to relate it to situations).
- Each organization needs to establish its own data, so they can see where they stand/ establish a starting point, and see where the organization can improve using the resources provided. There is a disconnect regarding "where management gets their data/figures."
- Discussions between employers and employees should be based on evidence… Did the employee receive proper training? Were interventions put in place to prevent wrongdoings/mistakes? Was the employee aware of their wrongdoing in the first place?
    - How do you balance giving people direction/paper with developing staff to think for themselves (related to staff turnover – are people staying long enough to develop good judgment?)
- Realizing that how they treat/train DSPs affects the type of support clients receive, employers need to receive the same training as their employees so that
    - they know what type of training employees received
    - proper debriefing/follow-up can occur, including frequent revamping of support plans with DSPs' input. KT needed for behaviour plans, too.
    - employers are reminded what it is like to be at the frontline -- "disconnection" from direct service can occur in supervisory role
    - management can coach staff how to figure out appropriate situational response
    - the feedback loop closes.
- Supervisors need support to apply in-the-moment training and follow-up.
    - Isolation and other variable working conditions (eg. overnight shifts) make it especially difficult to follow through with all staff and in a timely manner.
    - Initial training needs to be maintained over time; people forget what they have learned if it's not reinforced.

APPENDIX G

- Training needs to been seen as investment in the organizational team and the people we serve.
    - Strong DSPs who get promoted to leadership roles need to be supported with leadership training.
    - Need a training model that is consistent/reliable and that other organizations use (quality assurance) but is still specific to the individual organization in which it is applied.
- Employee turnover at both DSP and supervisory/management levels is a key barrier to progress.
- Best practice cannot happen if safety is not part of an organization's key values.
    - There are always multiple, competing priorities.
    - It takes time to stay current with training, to do KT with trainees, and to follow up incidents for prevention.
- Deterrents to reporting must be recognized and minimized.
- In a positive safety culture staff need to feel welcome to ask for help/resources/provide feedback; need to lose the hierarchy that may be intimidating for DSPs who want to provide recommendations.
    - DSPs can trust the process by being involved in the process.
    - Open-door policies allow staff to feel that their opinions are valued.
    - Culture needs to be organization-wide to counter the micro-cultures that can develop as a result of differing interpretations which are reinforced by relatively isolated work locations. "*Individual supervisors' personal attitudes and practices have a significant effect on how comfortable DSPs feel bringing forward concerns/solutions and a culture of safety must be encouraged*."
    - Need more info/skills to assist with staff mental wellness, prevent burnout.
- Community of learners…networking and sharing the different resources each might offer would be helpful to see how others deal with similar problems, get to know one another to refer clients there if applicable.
    - Can this happen without commitment/formal support for collaboration?
    - Crisis training institute is a good resource on how organizations collaborate with on another.
- Case studies and videos that show "how to apply knowledge to practice" are valuable.
    - However not everyone has skills to apply case studies
- Language is important.
    - Important not to turn people off by using powerful words (e.g. "trauma").
    - However don't want to underestimate the experiences of others, either.

These points are in addition to matching staff to person's needs, "know your client" (and all that entails), and the importance of always treating the people who are supported with respect and dignity and helping them to have a meaningful life in community.

APPENDIX H

ACCOUNTING FOR THE PERIOD ended 19Jan29

St.Amant Inc.

	Notes	Actual	Total Budget	Variance
FUNDING RECOGNIZED:				
WCB Grant	1	142,480.00	161,240.00	**(18,760.00)**
EXPENDITURES:				
Salaries & Benefits				
Research Coordinator		84,791.34	90,000.00	**5,208.66**
Graduate Student Trainee		30,000.00	30,000.00	**0**
Summer Research Assistant		14,598.48	24,340.00	**9,741.52**
Statistical Consultation		-	3,000.00	**3,000.00**
Materials and Supplies				
Materials		812.63	2,000.00	**1,187.37**
Training Workshops		1,213.75	1,000.00	**(213.75)**
Knowledge Transfer	2	2,632.91	6,200.00	**3,567.09**
Travel, Accommodation And Meals		4,281.5	4,700.00	**418.50**
TOTAL EXPENDITURES FUNDED BY WCB		138,330.61	161,240.00	**22,909.39**
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES		**4,149.39**	**-**	**4,149.39**

Notes:

1. Total budget reflects reduction of $18,760 overall from the original per our December 31, 2017 financial report and revised projections.
2. This budget line was increased in Dec. 2017 to allow for open access publishing which was not pursued.