Examining Wraparound Fidelity for Youth with Mental Health Needs: An Illustrative Example of Two Rural Canadian Schools

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Abstract

Addressing the mental health needs of children and youth is a priority. One way to operationalize the provision of support for children and youth with severe mental health needs is through the wraparound approach. Wraparound is a highly individualized person and family centred planning process which utilizes a clearly articulated practice model, and is led by trained wraparound facilitators. This research examined the fidelity of implementation of the wraparound approach for two youths with severe mental health needs in two rural schools in the province of Manitoba, Canada. Adherence to the guiding principles and primary activities of the wraparound approach were measured using the Wraparound Fidelity Index 4.0 (WFI-EZ), a self-report tool that was administered with caregivers, wraparound facilitators and team members. Facilitation skills and teamwork also were examined through the independent observation of wraparound planning meetings using the Team Observation Measure (TOM-2). These fidelity measures determine model adherence, which has been associated with improved behavioral outcomes for children and youth with severe mental health needs, and quality improvements in service provision. The findings of low average-to-average overall fidelity are encouraging given that these school-based settings are in the emergent stage of wraparound implementation, and demonstrate their ability of schools to adhere to many of the key elements of the wraparound approach. Areas of high fidelity and low fidelity are discussed, and recommendations for quality improvements in wraparound implementation in school-based settings are proposed.

Keywords: wraparound, school-based wraparound, fidelity, children and youth, mental health

Introduction

The increasing incidence of mental health disorders among children and youth is a burgeoning issue (World Health Organization, 2013). As a result, identifying effective means of addressing the mental health of children and youth has become an international priority (Mental Health Commission of Canada, 2012; 2013; World Health Organization, 2013). The wraparound approach has increasingly been identified as a means of care coordination that may improve the provision of support for children and youth with mental health disorders (Washington State Institute for Public Policy, 2016; Bruns et al., 2014). Wraparound involves the development of highly individualized plans of care and the provision of integrated, child and family centred support that is led by a trained wraparound facilitator (Burns & Goldman, 1999). According to Suter and Burns (2009), wraparound differs from other approaches because it is a highly collaborative process in which the needs of children and youth with mental health and behavioral disorders are addressed through the coordination and delivery of services, supports, and resources. There are ten guiding principles of the wraparound approach (see Table 1) (Bruns et al., 2010). While these principles may seem straightforward; the successful implementation of wraparound requires much consideration.

The implementation of the wraparound approach is complex given the diversity of contexts in which it is implemented, the expectation that it will be adapted to meet local needs, and the highly individualized nature of planning (Pullmann, Bruns, & Sather, 2013). The practice model consists of specified activities that take place over four phases of effort: (1) engagement and team preparation, (2) initial planning, (3) implementation, and (4) transition (Bruns et al., 2010; Bruns, Suter, & Leverantz-Brady, 2008; Walker, Bruns, & Penn, 2008).

Need for Fidelity

In a study conducted by Burns and Sutter (2010), nine published outcome studies of wraparound were summarized. According to this summary, Burns and Sutter (2010) found that children and youth in wraparound had better behavioral outcomes and improved overall functioning when compared to youth in other programs. In addition, a meta-analysis conducted by Suter and Bruns (2009) found that wraparound was potentially more effective than other services when it came to supporting youth with mental health and behavior disorders. Despite these positive outcomes, wraparound is not established as an evidence-based practice (Bruns & Walker, 2010; Bruns et al., 2010; Shailer, Gammon, & de Terte, 2017). High fidelity and adherence to the model is likely paramount in terms of wraparound receiving recognition and acceptance as an evidence-based practice (Effland, Walton, & McIntyre, 2011; Henggeler, Melton, Scherer, Brondino, & Hanley, 1997). Adherence to a practice model also helps to understand whether or not an intervention is achieving its intended results.

The fidelity of implementation of wraparound is critical as several studies have found that adherence to the practice model is an integral part of achieving positive outcomes for youths and families (Bruns, Suter, Force, & Burchard, 2005; (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Pagkos, 2011; Cox, Baker & Wong, 2009; Effland, Walton, & McIntrye,

2011). These outcomes include but are not limited to goal attainment, maintenance in community living, improved behavior and community functioning.

Table 1

Ten Guiding Principles of Wraparound

Wraparound Principle	Definition
1. Voice and choice	The perspectives and values of the family and youth are prioritized in the process.
2. Team based	A wraparound team consists of a variety of members chosen by child's family. These people may include informal members, formal members and, community.
3. Natural supports	Participation from the family's informal, formal, and community supports are encouraged. These natural supports are engaged and are directly related to the planning of activities and interventions.
4. Collaboration	Team members' works together to develop, implement, monitor, and evaluate the wraparound plan.
5. Community based	The team seeks to promote safety and strengthen relationships with the home and community by selecting inclusive, responsive and accessible support strategies.
6. Culturally Competent	The team prioritizes the family's cultural values, beliefs, and identity during the wraparound process.
7. Individualized	The strategies, supports, and services that have been identified through the process are customized into an individualized plan.
8. Strength based	The strengths of the youth and his or her team members built upon in the wraparound plan.
9. Unconditional	The wraparound team acknowledges that there may be setbacks and if they occur, rather than blame the family and youth, the team continues to work toward meeting their needs.
10. Outcome based	Success and progress are measured and monitored by linking strategies and goals to observable and measurable indicators of success.

Adapted from Bruns et al. (2010)

Conversely, poorly implemented wraparound, has been found to contribute to poor outcomes for children and youth (Browne, Puente-Duran, Shlonsky, Thabane, & Verticchio, 2016; Bruns, Pullmann, Sather, Brinson, & Ramey, 2014). While model adherence contributes to improved youth outcomes, assessments of wraparound fidelity also support quality improvements in service provision (Kernan, 2014). According to Shailer et al. (2017) measures of wraparound fidelity enable researchers and service providers "to make comparisons across wraparound programmes, assess programme drift and provide quality assurance" (p. 88). Given the individualized nature of wraparound planning, and the extremely vulnerable population it supports, it is essential to ensure adherence to the practice model so that such quality assurances and necessary improvements can be made (Burns & Sutter, 2010).

Training and Fidelity Measurements

In order to support the fidelity of implementation of the wraparound approach, training in wraparound implementation and fidelity assessment measures have increasingly become recognized as essential to the process (Sather & Bruns, 2016). The National Wraparound Implementation Centre (NWIC) has developed rigorous training, coaching and supervision in wraparound for facilitators, coaches and other partners involved in the process (NWIC, 2018). In addition to training in the implementation of wraparound, the Wraparound Evaluation and Research Team (WERT) has developed the Wraparound Fidelity Assessment System (WFAS) which includes tools to measure the implementation and outcomes of the wraparound process. The WFAS consists of the following instruments: (1) the Wraparound Fidelity Index Short Version (WFI-EZ) (Sather, Hensley, & Bruns, 2013); (2) the Team Observation Measure (TOM-2) (Bruns, Sather, Schurer Coldiron, Hook, & Hadfield, 2018), as well as other fidelity tools. Training in the implementation of wraparound and fidelity assessments is critical to the provision of high-quality wraparound, but so too is a supportive organizational context.

Schools Leading Wraparound

Using an implementation science framework, the organizational context for wraparound must be equipped to support and sustain the core implementation components of an evidence-based practice (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Considering the degree of complexity associated with wraparound implementation, schools may serve as an ideal environment for delivering high quality wraparound to children and youth. In a study to determine the readiness of community schools in the province of Manitoba to implement the wraparound approach, Bartlett and Freeze (2018) found that community schools engaged in practices that aligned with the 10 guiding principles of wraparound. Moreover, these school-based settings possessed many of the "necessary conditions" as outlined by Walker, Koroloff and Schutte (2003) to support the implementation of the wraparound approach including: (a) broad-based supports in the local community including skilled staff (e.g., school psychologists, social workers, administrators, resource teachers and school counsellors), (b) agency and community partnerships, (c) strength-based, person-centred planning processes that involved setting goals and measuring outcomes (e.g., Individualized Education Planning (IEP), Behaviour Intervention Planning (BIP), and Planning Alternative Tomorrows with Hope (PATH) (Pearpoint, O'Brien & Forest, 1993). Moreover, these school settings were found to play a pivotal role in the early intervention and prevention of mental health disorders, and in the delivery of mental health supports, and therefore, the implementation of wraparound may be complimentary to the support they already provide. Similar findings were noted by Eber, Hyde, and Suter (2011) who found that wraparound could be embedded into the continuum of School-Wide Positive Behavior Support (SWPBS) provided in schools, and when school staff were trained in wraparound facilitation (e.g., social workers, psychologists, counsellors) they demonstrated the ability to lead this highly individualized approach. Given the many advantages of implementing wraparound support in school-based settings, the fidelity with which Canadian schools are able to implement the approach should be examined.

The Current Study

In 2013, the province of Manitoba released an interdepartmental protocol entitled, *Wraparound Approach for Children and Youth with Severe to Profound Emotional and Behavioural Disorders* (Healthy Child Manitoba, 2013*).* The core components of the provincial wraparound protocol are based on the work of Walker, Bruns and the National Wraparound Initiative Advisory Group (2008) and include a clearly articulated practice model with four distinct phases (plan engagement, plan development, plan implementation, and transition) and 32 activities that are associated with each phase. Some schools in Manitoba are taking a leadership role in the implementation of the wraparound approach for children and youth with severe mental health needs in school-based settings. In order to support this process, school staff (e.g., counsellors, resource teachers, school-psychologists, and school social workers) have received training and certification in wraparound facilitation from Wrap Canada (Debicki & Wrap Canada, 2014). While some schools have taken a leadership role in the implementation of wraparound, schools have not been officially designated as the lead organization in the delivery of wraparound support. In fact, a formal plan for the implementation of wraparound support has not been developed by the provincial government, and therefore there is uncertainty about how wraparound can and should be implemented in Manitoba.

Given that wraparound is in the emergent stage of implementation in Manitoba, fidelity assessment measures may provide valuable insights about how schools are implementing the approach, and identify areas of strength and opportunities for quality improvement. This research seeks to determine the fidelity of implementation of the wraparound approach for two youth with severe mental health needs in two rural schools (School A and School B) in the province of Manitoba. The overall objectives of this study were to: (1) determine the fidelity of implementation of wraproud by administering the WFI-EZ with key stakeholders involved in the provision of the wraparound approach in schools, and (2) to determine the fidelity of implementation of wraparound in schools by observing wraparound meetings using the TOM-2.

Methods

Instruments and Data Collection

In this study, data was collected from participants using two different fidelity measures developed by WERT. Both the WFI-EZ (Sather et al., 2013), and the TOM 2.0 (Bruns et al., 2018) were developed along the above-mentioned research, principles, phases, and activities. In this study, data was collected using both measures to provide an assessment of overall fidelity, key element fidelity, and a detailed description of constituent indicators of fidelity on school-based wraparound teams.

Wraparound Fidelity Index (WFI-EZ). The WFI-EZ was administered to three different categories of respondents, including wraparound facilitators, caregivers, and team members in order to obtain their unique perspectives. The WFI-EZ is used to collect data on: (1) fidelity to the basic principles of wraparound and model as a whole, (2) adherence to the process level activities of wraparound, (3) the presence of supports at various system and organizational levels. In a nutshell, the WFI-EZ measures "adherence to the primary activities of the wraparound process on an individual child, youth, or family basis" in a self-report questionnaire (Sather et al., 2013, p. 9).

The WFI-EZ is a short version of assessment adapted from the full Wraparound Fidelity Index (WFI-4) (Bruns, Suter, Force, Sater, & Leverentz-Brady, 2009). The WFI-EZ contains five sections however, not all categories of respondents are provided with every section. The five sections of the WFI-EZ are: (1) youth information and demographics, (2) basic information, (3) experiences in wraparound, (4) satisfaction, and (5) outcomes. Sections 1, 2 and 3 are completed by all respondents (e.g., caregivers, youth, facilitators and team members), while only caregivers and youths are asked to respond to questions about satisfaction. Only caregivers and facilitators are asked to respond to questions about outcomes. The WFI-EZ has a strong level of overall internal consistency (Cronbach's Alpha = .937) and strong validity (Sather et al., 2013). In this study, the identifying information that was collected about the youth was limited and included the youths' age, the relationship of the caregiver to the youth, who had legal custody of the youth, and the number of months they were involved in wraparound.

Team Observation Measure (TOM 2.0). The TOM 2.0 (Bruns et al., 2018) has been adapted from the TOM (Bruns & Sather, 2013). The TOM 2.0 measured the extent to which the guiding principles of wraparound were followed, evidence of effective team work, and the degree of skilled facilitation demonstrated by wraparound facilitator during a wraparound meeting. The TOM 2.0 consists of thirty-six indicators divided across seven subscales: (1) full meeting attendance, (2) effective teamwork, (3) driven by strengths and families, (4) based on priority needs, (5) use of natural and community supports, (6) outcomes-based process, and (7) skilled facilitation. Each of these subscales consists of five items with the exception of first subscale which has six. Each item has either two or three possible answers (1) yes, (2) no, and (3) N/A. In order to indicate "yes" the rater has to have observed the item phenomena during the wraparound meeting. A "no" response indicates that the rater did not observe the item phenomena during the wraparound meeting. "N/A" is provided as an option for some indicators. This response may be selected if the rater is unable to provide a yes or no score. The TOM-2 is also reliable and valid (Bruns et., 2015).

Materials, Training, and Process

The principal investigator (PI) is a licensed collaborator through WERT. In order to administer WFI-EZ and the TOM-2 the PI successfully completed the WFI-EZ and the TOM-2 training protocols. Additionally, the PI is a certified wraparound facilitator through Wrap Canada, and as such has a strong understanding of the wraparound process. All interviews and team observations were conducted by the principal investigator who had no affiliation with the schools that were studied.

The first phase of this study involved administering the WFI-EZ by telephone to the caregivers, facilitators, and team members on both school-based wraparound teams. The surveys took between 15 to 40 minutes per participant to complete by telephone.

The second phase of this study involved the principal investigator observing one wraparound meeting for each school using the TOM-2. The TOM-2 is a complimentary tool to the WFI-EZ that provides an opportunity for an independent observer to gather data during the observation of a wraparound meeting (Bruns et al., 2015). The wraparound team meeting for School A was 2.5 hours in length, while the wraparound team meeting for School B was 2 hours. The PI also took notes about what was observed during the team meeting. The notes were helpful in contextualizing both the TOM-2 and WFI-EZ results.

WrapTrack. The WFI-EZ and TOM 2.0 data was entered into WrapTrack. This system produces anonymized quantitative summaries of overall fidelity, key element fidelity and satisfaction when compared to national means. Both researchers were trained to use Wraptrack.

Consent and Ethics Approval

This study was approved by the Education and Nursing Research Ethics Board at the University of Manitoba. In this study, informed consent was obtained from the superintendents of school divisions to conduct research. In order for a school division to participate, the school division met the following criteria: (1) the school division had staff trained in wraparound facilitation who were certified by Wrap Canada, and (b) the school division was in the process of implementing the wraparound approach for a child or youth with severe mental health needs and multi-system involvement. Consent was subsequently obtained from the school principal, parent/legal guardian of the child/youth participating in wraparound, the wraparound facilitator, and additional team members.

Participants and Sampling

This study consisted of 14 participants (N=14) across two different wraparound teams (School A and School B). In School A, data was collected from the following members of the youth's wraparound team: caregiver (N=1), facilitator (N=1), therapists/clinicians (N=2), and teacher/school staff (N=2). In School B, data was collected from: caregiver (N=1), facilitator (N=1), mentor (N=1), teacher/school staff (N=2), minister/faith based (N=1), community member (N=1), other (N=1).

School A is a grade 5-8 middle school located in a rural setting with a student population of approximately 350 students. School B is a grade 9-12 school also located in a rural setting with a student population of approximately 400 students. While both School A and School B are located in rural settings, School B is located in a significantly smaller community, with one-third of the population of School A and twice the distance from a major urban center.

Results – School A

Demographic Information. The WFI-EZ was administered to 6 wraparound team members (N=6). School A's wraparound team consisted of 1 caregiver, 1 facilitator, and 4 team members (2 therapist/clinician, 2 teacher/school staff). The male youth in School A was 13 years old and had been enrolled in wraparound for 11 months. The youth's legal guardian is his birth mother.

Basic Information. The questions in Section A of the WFI-EZ address the foundation of the wraparound process. The WFI-EZ manual suggests that a minimum of 90% of respondents should say yes to each of these for items.

Table 2 summarizes the responses of all wraparound team members for School A. For three of the four items (i.e., A1, A2, and A4) the respondents answered yes 100% of the time. For one of the items (i.e., A3) only four of the six respondents answered yes. A yes response from over 90% of respondents on the first two items (i.e., A1 and A2) is especially important in determining the consistent implementation of wraparound (Sather et al., 2013). Therefore, School A met the criteria for three of the four questions but fell short of the national standards for item A3 which asks about the frequency of meeting.

Table 2

School A Basic Elements of Wraparound

Item	Yes	%
A1. My family and I are part of a team (e.g., "wraparound team," "child and family team"), AND this team includes more people than just my family and one professional.	6	100
A2. Together with my team, my family created a written plan ("plan of care" or "wraparound plan") that describes who will do what and how it will happen.	6	100
A3. My team meets regularly (for example, at least every 30-45 days).	4	66.67
A4. Our wraparound team's decisions are based on input from me and my family	6	100

Overall Fidelity across Respondent Types

The questions in Section B of the WFI-EZ inquire about the details of the wraparound process as well as fidelity to the model. Section B includes 25 items that can be divided into: (a) a global fidelity score and (b) five key element scores. The five key elements score refines the total score into five domains: (1) effective teamwork, (2) use of natural and community supports, (3) based on needs, (4) outcomes based, and (5) driven by strengths and families. The key element score is the average of all the relevant items within these five domains. Similar to the overall fidelity score, each item in the key element score is treated equally (Sather et al., 2013).

According to Bruns et al. (2008) overall fidelity percentage scores on the WFI of 85 to 100 indicate high fidelity; 80 to 85 above average fidelity; 75 to 79 average fidelity; 70 to 74 below average fidelity; and scores below 69 indicate a non-wraparound level of fidelity. WERT (2018) also has established national means which include the average of wraparound fidelity across large wraparound sites in the United States. While comparison to national means is not meant to determine if the wraparound process is being implemented with high or low fidelity, it does provide comparison to a national sample of large wraparound providing agencies.

This overall fidelity score in the WFI-EZ describes the degree, ranging from 0% to 100%, to which all respondents agreed their experiences with wraparound matched the model described by WERT and NWIC. The overall fidelity score provides an impression of the wraparound process from multiple stakeholders. In other words, it provides the average item level score as a percent of the total possible score treating every item equally. The overall wraparound fidelity across all respondent types at School A is 69% which indicates a non-wraparound level of fidelity. This overall score is slightly less than the national mean provided by WERT.

Overall Fidelity by Respondent Type

The guidelines for wraparound fidelity established by Bruns et al. (2008) can be used as a benchmark to assess overall fidelity by respondent type. At School A, the overall fidelity included the facilitator at 73%, which is average and slightly below the national mean, team members at 71%, which is below average and slightly below the national mean, and the caregiver at 56%, which is a non-wraparound level of fidelity and below the national mean.

Key Element Scores Across Respondent Types

The key elements of driven by strengths and needs based were 88% and 85% respectively, which are considered high fidelity and above average fidelity, and exceeded the national means. Outcomes-based was below average fidelity at 71%, and below the national mean. Effective teamwork was at a non-wraparound level of fidelity at 54%, and below the national mean. Finally, natural and community supports was the lowest, at a non-wraparound level of fidelity at 48%, and below the national mean.

Key Element Scores by Respondent Type

Facilitator. The strength and family driven score and needs-based key elements were high fidelity at 100% and 90% respectively, and exceeded the national means. The natural/community supports, outcomes-based and effective teamwork key elements were scored at non-wraparound levels of fidelity at 65%, 65%, and 45% respectively, and all fell below the national means.

***Team Members*.** The strength and family driven score and needs-based score were high fidelity at 88.9%, and 86.1% respectively, and exceeded the national means. The outcomes-based score was an average level of fidelity at 75%, and approximated the national mean. The effective teamwork score and natural/community supports were considered non-wraparound levels of fidelity at 61.1% and 66.1% respectively, and fell below the national means.

Caregiver. The caregiver's needs-based score was average fidelity at 75%, which exceeds the national mean. The strength and family driven score was below average fidelity at 70%, and below the national mean. Outcomes-based, natural/community supports and effective teamwork were 55%, 45%, and 35% respectively, which are considered non-wraparound levels of fidelity, and all fell below the national means.

Satisfaction. The questions in Section C of the WFI-EZ seek to assess caregiver and youth satisfaction with respect to the wraparound process. There are four items in this section. The first two questions inquire about satisfaction of the wraparound process. The third and fourth question inquire about outcomes as the result of the wraparound process. In the case of School A, our total satisfaction score only included caregiver ratings, and was at a non-wraparound level of fidelity of 62.5%, and less than the national mean.

TOM 2.0 Overall Fidelity Score

On the TOM-2, School A had an above average overall fidelity score at 82%, which exceeded the national mean. The overall fidelity score includes all seven subscales on the TOM-2. Full-team attendance was low at 40%, while skilled facilitation was high at 100%. In terms of Key Element scores, School A exceeded the national means in three of five subscales.

Driven by strengths and families, based on priority needs, and outcomes based were all 100%, which is considered high fidelity. The relatively lower score for effective teamwork was 75% which is an average level of fidelity but below the national mean. The presence of natural supports was the lowest and considered a non-wraparound level of fidelity at 60%, and below the national mean.

Results – School B

Demographic Information. The WFI-EZ was administered to 8 wraparound team members (N=8). School B's wraparound team consisted of 1 caregiver, 1 facilitator, and 6 team members (1 mentor, 2 teacher/school staff, 1 minister/faith based, 1 community member, and 1 other). The youth in School B was a 14-year-old female who was enrolled in wraparound for 14 months. The youth's legal guardian is her birth mother. The table below summarizes the responses of all wraparound team members for School B about the basic elements of wraparound. Like School A, School B met the criteria for three of the four questions, but fell short of the national standards for item A3 which asks about the frequency of meetings.

Table 3

School B Basic Elements of Wraparound

Item	Yes	%
A1. My family and I are part of a team (e.g., "wraparound team," "child and family team"), AND this team includes more people than just my family and one professional.	8	100
A2. Together with my team, my family created a written plan ("plan of care" or "wraparound plan") that describes who will do what and how it will happen.	8	100
A3. My team meets regularly (for example, at least every 30-45 days).	7	87.5
A4. Our wraparound team's decisions are based on input from me and my family	8	100

Overall Fidelity across Respondent Types

In the case of School B, the total fidelity score was 74.7%. According to Bruns et al. (2008), this score indicates an average rate of fidelity. It is also above the national comparison mean indicating that the overall fidelity of School B exceeds that of many other larger wraparound providing agencies.

Overall Fidelity by Respondent Type

At School B, team members rated the overall fidelity of wraparound the highest of all respondents at 75.9%, which is an average level of fidelity and exceeded the national mean. The

wraparound facilitator also rated the overall fidelity as average at 73%, which slightly exceeded the national mean, while the caregiver scored the overall fidelity the lowest at 69.9%, which is a below average level and also below the national mean.

Key Element Scores across Respondent Types

At School B, natural and community support was rated the highest at an above average level of fidelity of 85%, and above the national mean. Driven by strengths and families also was rated at 84%, which is considered above average fidelity and exceeded the national mean. The provision of needs-based support was 76% or an average level of fidelity, and exceeded the national mean. While the areas that were rated the lowest included outcomes-based and team work, which were 64% and 63% respectively, and are a non-wraparound level of fidelity falling below the national means.

Facilitator. The wraparound facilitator scored the presence of natural/community supports at 90%, which is a high-fidelity level, and above the national mean. The strengths and family driven and needs-based scores were both above average at 85% and 80% respectively, and exceeded the national means. The effective teamwork and outcomes-based key elements received the lowest scores at 55%, which are below the national means.

Team Members. The team members at School B rated driven by strengths and family at 85.5%, which is a high-fidelity level and above the national mean. They also rated the presence of natural/community supports at 80%, which is above average fidelity, and exceeds the national mean. The needs-based score was 77.6% or an average level of fidelity, and exceeds the national mean. The outcomes-based and effective teamwork scores were both at a non-wraparound level of fidelity at 64% and 63.9% respectively, and below the national means.

Caregiver. The natural/community supports score was above average at 80%, and well exceeded the national mean. The strength and family driven score was 75%, which is an average level of fidelity, but less than the national mean). The needs-based, outcome-based and teamwork key elements were all at a non-wraparound level of fidelity at 65%, 65% and 62.5% respectively, and were all below the national means.

Satisfaction. In the case of School B, our total satisfaction score was 75%, which is an average level of fidelity, and approximates the national mean. This score describes the degree, ranging from 0% to 100%, to which the caregiver was satisfied with the wraparound process and outcomes.

TOM 2.0. Overall Fidelity Score

Based on the independent observation of one wraparound planning meeting School B had an average overall fidelity score of 84.7%, which exceeds the national mean. At School B full-team attendance was low at 33%, and like School A, skilled facilitation was high at 100%. School B exceeded the national means on the TOM-2 in all five subscales. Natural and community supports, effective teamwork, and outcome-based planning were all considered high fidelity at 100%. The score for driven by strengths and families and based on priority needs were both at an above average fidelity at 80%.

Discussion

This study explored the fidelity of implementation of the wraparound approach using the WFI-EZ and TOM-2 in two school sites for youth with severe mental health needs. Overall, the WFI-EZ results for School A indicated that the wraparound approach was being implemented at a slightly below average level of fidelity. While the WFI-EZ results for School B indicated that, the wraparound approach was being implemented at an average level of fidelity. Consistent with other research using the WFI, there was some variability in the perceptions of wraparound fidelity across different stakeholder groups (Bruns, 2010). Interestingly, the TOM-2 results for both schools was significantly higher than the WFI-EZ, and found the fidelity of implementation to be at an above average to high level in both sites. This finding is consistent with the research of Bruns et al. (2015) who found that the TOM correlates negligibly with other fidelity assessment tools at the team level, but does provide a different lens by which to evaluate wraparound implementation. What follows is a discussion of the unique perspectives of caregivers, wraparound facilitators, team members, and an independent observer about the adherence to the key elements of wraparound, which are underpinned by its 10 guiding principles. Examining the fidelity of implementation of the wraparound approach by key elements, constituent indicators, and multiple perspectives may help to identify relative strengths and weaknesses and inform quality improvements in these settings.

Basic Elements of Wraparound

The basic elements of wraparound, which are assessed in part A of the WFI-EZ are described as the foundation of wraparound (see Table 2). In School A and School B, all indicators except meeting regularly were rated at 100% or as being present by all respondents. Overall, these results are encouraging and indicate that a majority of the basic elements of wraparound were adhered to from the perspective of the school-based wraparound teams. The basic elements that were identified as present, parallel other planning processes that are used in schools like the Individualized Education Plan (IEP) and Behavior Intervention Plan (BIP). In both schools, constructive partnerships were forged with families, and team members, and holistic planning occurred across multiple life domains. According to Eber et al. (2011), schools are uniquely positioned to operationalize wraparound support given the existence of partnerships with caregivers and community support providers, a continuum of behavior support, and structured planning processes, all of which were present in the schools that were studied and enabled adherence to these basic principles of wraparound.

The basic element that was rated as not consistently present was meeting frequently every 30 to 45 days. It is not uncommon for the frequency of wraparound meetings to decrease when participants believe that a youth and family are beginning to meet their objectives, or when organizational priorities shift (Mendenhall, Kapp, Rand, Robbins, & Stipp, 2013). This finding of program drift is consistent with related research which has found that in the absence of comprehensive training that includes coaching for wraparound facilitators, the quality of wraparound implementation may be compromised (Bickman, Smith, Lambert, Andrade, 2003; Bruns et al., 2008). While there are future plans to provide coaching for wraparound facilitators, at the time of this study, coaching had not been provided to the facilitators in the schools that were studied. According to Conklin (2012) in order to prevent wraparound teams from "fall[ing] back into their comfort zone of planning" a shared understanding of the wraparound process

across all stakeholder groups and direct hands-on coaching are required. These accountability mechanisms must be established at the organizational level in order to support fidelity to all of the foundational elements of wraparound (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005)

WFI-EZ Key Elements with Highest Fidelity for Combined Respondents

In both schools, the key elements with the highest overall levels of fidelity for combined respondents included strength and family driven and needs based indicators. The finding that the strength and family driven and needs based indicators were rated at average to above average fidelity relative to other key elements is consistent with other wraparound fidelity research (Pullman, Bruns & Sather, 2013; Shailer et al., 2017). Pullman et al. (2013) also noted that these key elements are typically at a higher level of fidelity, relative to other key elements, even in sites with low overall fidelity. According to Walter and Petr (2019), supporting family's strengths and needs requires finding ways to enhance investment in the wraparound plan and process. The schools in this study may have average or above average levels of fidelity in relation to the strength and family driven and needs based key elements because educators are already accustomed to eliciting and developing students' and families' strengths. In addition, these key elements are process oriented and largely dependent upon the professional practice of the wraparound facilitators, who both demonstrated strong facilitation skills during wraparound meetings as measured by the TOM-2.

Natural Supports

Much of the research on wraparound indicates that the key element of natural supports is difficult to attain on wraparound teams (Bruns, 2010; Cox et al., 2009; Moore & Walton, 2013). Many caregivers of youth with severe behavioral needs feel shame and become isolated from individuals who may serve as natural helpers on wraparound teams (Bruns, 2010), or may object to the receipt of natural support (Penn & Osher, 2008), as was the case with the caregiver in School A. While the low levels of wraparound fidelity in the area of natural supports at school A aligns with trends in wraparound research, School B contradicts previous research and had above average fidelity in this area. One possible explanation for these findings may be that School B utilized a community mobilization team to support the implementation of wraparound. This meant that key service providers (e.g., education, family services, mental health, health, and justice), as well as natural supports (e.g., local faith-based and volunteer community mentors) met on a regular basis, and when the needs of high-risk youth arose, to: (1) determine risk, (2) identify needs, and (3) provide wraparound support facilitated by the school. In addition, the broad-based partnerships that were established through the community mobilization team in this rural area, contributed to the relative ease with which natural supports could be enlisted to provide support on the wraparound team. Related research has found that community mobilization teams can be effective in engaging community members to serve as a source of natural support on wraparound teams (Debicki, 2008).

WFI-EZ Key Elements with the Lowest Fidelity for Combined Respondents

One of the lowest fidelity key elements on both school-based wraparound teams included outcomes-based indicators. An examination of the constituent indicators on the WFI-EZ, which led to a low fidelity score in this key element, is important in order to facilitate quality improvement. The outcomes-based indicator that was rated with the lowest fidelity for combined respondents included: the wraparound team and family have talked about how they

will know it is time to transition out of formal wraparound (B21). Only 3 out of 14 participants across both settings indicated that transitioning out of wraparound had been discussed at wraparound meetings. This finding of low fidelity in the area of transition is consistent with related wraparound research, which has found that the transition phase of wraparound is often not adequately addressed (Bruns, 2010; Moore & Walton, 2013; Kernan, 2014). This finding may indicate a need for increased focus on the transition phase in wraparound facilitator training, and in more broad-based training with wraparound teams. In a study exploring quality improvements in wraparound implementation Kernan (2014) found low levels of fidelity in the transition phase as reported by parents/caregivers and youth. In order to address this issue, the following quality improvements were identified: (1) providing transition training and education programs for care coordinators/facilitators, families and youth; (2) requiring that transition planning be included on the agenda of every planning meeting; and (3) providing an orientation workshop for families that involved a discussion of the transition phase. Given the low level of fidelity in the area of transition in the school sites that were studied, similar quality improvements also may be beneficial in these settings.

Facilitators' Variability in Perceptions of Team Work

The other key element that was scored at a lower level of fidelity was effective teamwork; however there was some variability among facilitators about the reason this key element had a lower score. For example, the facilitator in School A agreed to the constituent indicator, which asks whether the facilitator is concerned that the wraparound team does not include the correct people to help the youth (B4). Considering that this was the only indicator of teamwork that was rated at low level of fidelity by the facilitator, it may be more of a reflection of the fact that the wraparound team did not have any natural supports, which was reflected in other items on the WFI-EZ. The facilitator also stated that the team had not had any success in fostering such connections for the caregiver and youth. Interestingly, during a team meeting that was observed while completing the TOM 2.0, the caregiver strongly indicated a preference not to have natural supports on the wraparound team. Based on their lived experience, a caregiver may believe their personal, natural connections, and natural supports in the community are unhealthy, and thus may oppose their involvement on a wraparound team. Since wraparound is predicated on family voice and choice, it may be appropriate to honor caregivers' preferences in this area (Penn & Osher, 2008). This finding draws into question whether (B4) on the WFI-EZ accurately captures the teamwork that was occurring on this wraparound team, or instead might be a reflection of the absence of natural support. While natural support may be an important element to sustain youth and families when they transition out of wraparound, there may be some personal and local factors, which may preclude such involvement that must be taken into consideration in the wraparound process and assessments of fidelity.

The only indicator of teamwork that the School B facilitator rated at a low level of fidelity was the item which states, members of the wraparound team sometimes do not do the tasks that they are assigned (B15). The facilitator indicated he or she strongly agreed to this item. The facilitator candidly shared that there were times that members of the wraparound team did not complete expected tasks. This finding is consistent with a study conducted by Bruns, Pullman, Denby Brinson, and Ramey (2014) that compared service experiences and outcomes for youth with severe emotional disorders supported by wraparound and intensive case management. When observing wraparound meetings, the researchers noted that some team members did not follow through on tasks. This observation may reflect the reality that large caseloads and multiple and

competing demands on caregivers may sometimes interfere with following-up on commitments. In addition, the team meetings that were observed at both schools did not have all team members in attendance. Palamaro Munsell, Cook, Kilmer, Vishnevsky, and Strompolis (2011) found that inconsistent team attendance variables also may negatively affect perceptions of team functioning and of wraparound fidelity by facilitators, service providers, and caregivers. Wright et al. (2006) suggest that one way to overcome this challenge may be to have smaller team sizes, as they found that smaller teams contribute to greater role clarity, follow through on tasks, and thus higher levels of fidelity.

Variability in Perceptions of Fidelity by Respondent

The results of this study indicate that there are differences between how caregivers, facilitators and team members perceived the fidelity of implementation of the wraparound approach. This finding is consistent with related research conducted by Kernan (2014) which also found variability in perceptions of wraparound fidelity among groups. However, at both School A and B, the differences in overall fidelity ratings between facilitators and team members were negligible. For example, the facilitator in School A rated overall fidelity only 2% higher than team members, while the facilitator in School B rated overall fidelity only 2.9% lower than team members. Related research has found that facilitators' often rate fidelity higher than all other respondent types because they are engaged in self-evaluation (Bruns, 2010; Kernan, 2014, Painter, 2012, Shailer et al., 2017). However, this study found that facilitators' ratings of fidelity aligned closely with that of other team members. Both of the wraparound facilitators were school-based social workers and wraparound facilitation was only a portion of their overall responsibilities. In their current context, adherence to wraparound fidelity was not a measure of their job performance, which may have prevented the inflation of their responses, which has been reported in other studies. When assessments of wraparound fidelity are not used to evaluate the performance of facilitators, they may be more willing to provide transparent feedback, which may help to identify areas for growth and facilitate quality improvements.

Caregivers' Perceptions of Fidelity

Consistent with related research on wraparound fidelity, the caregivers at both schools rated the overall fidelity lower than other respondent types; however, in School A, the difference was more significant (Bruns, 2010). It is not uncommon for caregivers to express less satisfaction with the wraparound process given that many typically have experienced several failed interventions before they receive wraparound support (Eber et al., 2011). During the team meeting the caregiver at School A shared several negative experiences prior to the receipt of wraparound (e.g., constantly advocating for support, giving up employment, and being unable to secure consistent respite), which created much stress within the family. While the caregiver felt that the current wraparound plan was largely effective in meeting their needs, and that their child had improved outcomes (e.g. in the outcomes measure the caregiver indicated positive outcomes with the exception of a school suspension), the events that transpired pre-wraparound continued to negatively influence the caregivers' perceptions of the process. While the WFI-EZ collects data on wraparound and the current context, it may be difficult for caregivers to bracket out their journeys leading up to wraparound. The facilitator and other team members who may not have a long history with the youth and family may find it easier to focus on current events, which may account for higher fidelity ratings. In order to reduce response bias, it may be important for caregivers to participate in some form of formal wraparound training to address these issues

(Conklin, 2008). This finding also demonstrates that caregiver satisfaction as measured on the WFI-EZ may not necessarily correlate with the outcomes of their child (e.g., improved outcomes do no necessary lead to higher levels of parent satisfaction).

WFI-EZ and TOM-2

Multiple methods of fidelity assessment likely contribute to a more complete picture of the wraparound process. It may further provide concrete information to inform training, quality improvements and policy development. Even though the TOM-2 results were higher than the WFI-EZ, they were consistent in that the WFI-EZ and TOM-2 both found higher levels of fidelity in School B as compared to School A. In fact, several of the TOM-2 observations confirmed and aligned with the findings in the WFI-EZ. For example, both the WFI-EZ and the TOM-2 found higher levels of fidelity in the driven by strengths and families and needs based indicators. These indicators are process oriented and largely based on the skills of the facilitator to lead the wraparound process and adhere to the practice model (e.g, prepared necessary documents, followed a clear agenda, reflected and summarized all participants contributions, and was dynamically engaged etc.). During the observation at School B, it was noted that the facilitator used a form of graphic facilitation used in the PATH process (Pearpoint, O'Brien & Forest, 1993), which enhanced both the meeting structure and team engagement. Therefore, it is not surprising that these key elements had average to above average levels of fidelity. They further highlight the skills of the school-based social workers in these settings to lead the wraparound process. This finding aligns with the work of Eber et al. (2011) who found that school-based social workers were highly effective in engaging team members and facilitating wraparound.

Other consistent findings between the WFI-EZ and the TOM-2 included the degree of natural support in both settings. Moreover, in the area of teamwork, the observation conducted using the TOM-2 affirmed specific responses that were made by participants on the WFI-EZ. For example, at School B one facilitator indicated that some staff do not complete the tasks that they are assigned (B15). During the team meeting, this was affirmed as one of the team members indicated that they had not met with the caregiver as planned. Additional indicators of teamwork also were consistent when comparing the results of both instruments. For example, the relatively lower fidelity scores on the WFI-EZ related to teamwork were supported by the TOM-2 in that lower than desirable levels of attendance were noted at both wraparound meetings.

The most significant difference between the WFI-EZ and the TOM-2 was found in the area of outcome-based indicators. Part of this difference involves the fact that some of the outcome-based indicators on these tools assess different elements of wraparound. For example, some of the outcome based indicators on WFI-EZ asks respondents to state the degree to which they agree with statements such as: I am confident that the wraparound team can find services or strategies that will help this youth succeed in school and stay in the community in the long term (B19), and because of wraparound I am confident that the family will be able to manage future problems (B24). Given the complex needs of the youths in this study, it is reasonable that participants may have difficulty strongly agreeing with these statements. In contrast, the outcomes-based indicators on the TOM-2 were similar to the driven by strengths and families and needs based indictors in that they were process oriented, and linked to the degree to which the facilitator adhered to the wraparound practice model (e.g., reviewed how close the team and family were to achieving the mission, reviewed the status of tasks since the last meeting,

monitored progress toward meeting needs and achieving outcomes, the team discussed ways to evaluate progress). The concrete and highly observable nature of the outcome-based indicators on the TOM-2 facilitated scoring these items during the team meeting, and provided detailed feedback about the meeting process (Kernan, 2014).

Implications for Practice and Research

While this study was small in scale and only consisted of two wraparound teams (i.e., School A and School B), there are several important conclusions that may be drawn from the data. These findings may have significant implications in terms of understanding the possible strengths, limitations and opportunities for quality improvement in the provision of wraparound in the province of Manitoba. In addition, research that examines the assessment of wraparound fidelity from multiple perspectives and using multiple fidelity tools may lead to quality improvements in service provision (Kernan, 2014), and ultimately to improved behavioral outcomes for children and youth (Bruns et al, 2005; Pagkos, 2011). In this section, we present several recommendations for wraparound implementation and future research. The limitations of this study also are discussed in this section.

The first recommendation for wraparound teams is to explore ways to foster the presence of natural supports. According to research, youth who have sustainable and positive natural supports within their family and community are more likely to experience greater socio-emotional health and a successful transition to adulthood (Masinga & Pecora, 2004; Munson, Brown, Spencer, Edguer, & Tracy, 2015). As such, considering ways to include at least one or two natural supports on the wraparound team with the support of models like community mobilization teams, may enhance overall fidelity, as well as contribute to positive youth outcomes.

A second recommendation may be to engage caregivers and team members in a formal wraparound training process (Conklin, 2008). The purpose of this training may be to increase caregiver knowledge about the wraparound principles and process, which may in turn increase buy-in. In addition, it may also help caregivers to separate the wraparound process from their previous experiences. Team members may receive training that focuses on ways to support the family's perspective during the wraparound process. According to Allen & Petr (1998), families and professionals often view emotional and behavioral problems differently. In fact, professionals may lack confidence in a caregiver's ability to make choices that will lead to desired outcomes (Allen & Petr, 1998). In turn, caregivers may be mistrustful of professionals due to previous experiences. Training for caregivers and team members may lead to more positive youth outcomes by clarifying the wraparound process and encouraging strategies that foster effective teamwork. In addition to the above-mentioned recommendations, we have also considered implications for future research. One implication for future research is to investigate how school based wraparound approaches are affected and influenced by other individualized support initiatives implemented by schools. For example, in the case of School B, the wraparound facilitator and one team member were trained in the Planning Alternatives Tomorrows with Hope (PATH) process (Pearpoint, O'Brien & Forest, 1993), which is commonly used to support Individualized Education Planning in schools. Another example may be schools implementing wraparound within or under a larger school-wide framework such as Positive Behavioural Interventions and Supports (PBIS) or Response to Intervention (RTI).

Subsequent research on wraparound also may consider investigating the impact of the number of members on a team. According to Wright et al. (2006), smaller teams contribute to higher levels of fidelity, and may be beneficial in terms of achieving necessary outcomes because tasks are unilaterally assigned. In larger groups, some members may occupy similar roles and functions and as a result, responsibilities and tasks may be seen as shared and lead to confusion or inaction and adversely affect perceptions of teamwork. While Wright et al. (2006) posit that smaller wraparound teams may be beneficial, there is likely that a "sweet spot" that exists. In other words, wraparound teams cannot consist of so few members that the family and youth are not receiving adequate support, but also cannot be so large that it reduces the impact and contributions of its' members.

Future research conducted on the wraparound also may consider investigating the transition stage of the process. According to research, the transition phase of wraparound is often not adequately addressed (Bruns, 2010; Moore & Walton, 2013; Kernan, 2014). In this study, findings also suggest a need for improvement in this area. One possible area of investigation may be to consider the impact of family and community-based natural supports and transition as research indicates that natural supports play an integral role during transition phases. In addition, research also indicates that while professional supports are useful, they often are not sustainable overtime (Cook & Kilmer, 2010).

Limitations

In this study, an illustrative example of wraparound fidelity in two schools was provided. As such, this study was small in scale and comprised fourteen participants divided across two rural schools. One limitation is that due to the small sample size and the fact that both schools were located in a rural Manitoban setting, the results of this study are not generalizable. That being said, this study was successful in replicating several results consistent with other studies on wraparound fidelity. A second limitation is that data was not collected from the two youth in this study. In addition, demographic information was not collected from School A or School B. This was purposeful in order to maintain the anonymity of the youths in wraparound as well as the. While maintaining anonymity for the youth in this study was important, it also means that we did not receive key information regarding how either of the youth perceived their wraparound process. A third limitation is that the WFI-EZ is a self-report tool and therefore is subject to response bias and "ceiling effects" (Pullmann, Bruns, & Sather, 2013; Bruns et al., 2015).). While independent observation of wraparound team meetings using the TOM-2 was used to provide an additional measure of fidelity and reduce bias, the team meetings were observed by one person and therefore lacked measures of inter-rater reliability. A fourth limitation is that much of the comparative research on wraparound fidelity used the Wraparound Fidelity Index (WFI-4). In this study, the WFI-EZ was used. The WFI-EZ is a short version of assessment adapted from the full Wraparound Fidelity Index (WFI-4). Similarly, the comparative research on wraparound fidelity, as observed during team meetings uses the TOM, an earlier version of the TOM-2 which was used in this study. While both instruments assess wraparound fidelity, there are differences between them.

Conclusions and Implications

The scope of this study, while small in scale, provides much needed information about the fidelity of implementation of the wraparound approach in school-based settings in a Canadian context. The findings of low average-to-average overall fidelity are encouraging and demonstrate the ability of the schools, in the emergent phase of implementation, to adhere too many of the key elements of the wraparound approach at a satisfactory level. The overall strengths that were scored at an average to above average level of fidelity included strength, family and needs driven key elements, and in one school, the provision of natural supports. The relative weaknesses included perceptions of teamwork, outcomes-based measures, and natural supports in one of the schools.

While the small scale of the study may be regarded as a limitation, it enabled the disaggregation of indicator data from both the WFI-EZ and the TOM-2 from multiple perspectives (e.g., caregivers, facilitators, team members and an independent observer) at the level of the youth and family. The granular data obtained from multiple fidelity tools and multiple perspectives, provided a more comprehensive picture of wraparound fidelity in these settings (Bruns et al., 2015) and these details may support quality improvements at the direct level of service provision. In addition to supporting quality improvements in the settings that were studied, these findings also may be important to Wrap Canada, as they may provide valuable feedback about the ability of school-based wraparound facilitators, trained by this organization, to adhere to the practice model. The findings also may be of value to policy makers in the province of Manitoba given the absence of a formal plan to support the implementation of wraparound in this province. Evidence that school-based staff can implement wraparound with fidelity for youth with severe mental health needs, may encourage policy development and the investment of resources at the system and organizational levels to support the implementation of wraparound in school-based settings.

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