# Pilot test of the Wraparound Fidelity Index, version 4

Psychometrics and Profiles from seven sites

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## The Wraparound Fidelity Index

- Assesses implementation of the wraparound process through brief interviews with multiple respondents
  - Caregivers
  - Youths
  - Wraparound Facilitators
- Previous versions of the WFI (v. 1, 2, 3)
  - Used in research on wraparound and
  - Even more widely as a quality assurance mechanism by wrap programs



## The Wraparound Fidelity Index

- Found to possess good psychometric characteristics
  - Test-retest reliability
  - Inter-rater agreement
  - Internal consistency
- Validity has been established through studies showing
  - Agreement with external experts' assessment
  - Association with child and family outcomes
  - Relationship with measures of system support for wraparound
  - Discrimination between Wrap and non-wrap groups
  - Improvements in scores for providers over course of receiving quality improvement activities (e.g., training and coaching)



## Limitations of the WFI-3

- Assesses adherence to principles, not fidelity to a model or set of specific activities
- Some items show limited variation
- Some sites have found little sensitivity to quality improvement efforts
- Recent specification of the phases and activities of the wraparound process not accounted for in WFI-3
  - Walker & Bruns, 2006; www.rtc.pdx.edu/nwi
- Also, minor revisions to the principles of wraparound have occurred



## Revision to WFI-4

- Items generated from newly specified model and reviewed by multiple experts
  - Intended to assess both adherence to principles as well as fidelity to specific activities in practice model.
- 49-item version piloted in early 2006
  - Results and feedback led to final 40-item WFI-4



## Wraparound Fidelity Index, version 4

- Aligned with NWI model
- Organized by the 4 phases of wraparound
- Adds a Team Member form in addition to CG, Y, and WF forms
- Each of the 10 wraparound principles assessed via 4 WFI-4 items
  - 40 items total for CG, WF, and TM forms
  - 32 items for youth form

## Wraparound Fidelity Index, v.4

- Items on the principles and core activities, organized by the 4 phases of wraparound
  - **Engagement**: *Did you select the people who would be on your youth and family team?*
    - Principle = Team based
  - **Planning**: *Does the plan include strategies for helping your child get involved with activities in her or his community?*
    - Principle = Community based
  - **Implementation**: *Does the team evaluate progress toward the goals in the wraparound plan at every team meeting?*
    - Principle = Outcome based
  - **Transition**: *Will some members of your team be there to support you when formal wraparound is complete?*
    - Principle = Persistence



## The current study

- Results from 7 sites in 6 states
- Collaborating sites
  - Received WFI-4 User's Manual and training materials
  - Enrolled and consented participating families
  - Collected and forwarded data to WERT research team at UW



## In this set of analyses, we investigated…

- Variability in item scores
- Profile of total scores by respondent
- Internal consistency
  - Total scores
  - Phase and principle scores
- Between site differences
  - Including differences between sites receiving different levels of QA



## Number of participants, by site

| Site | N families | WFI-WF | WFI-CG | WFI-Y | WFI-TM |
|---|---|---|---|---|---|
| Nevada | 59 | 54 | 52 | 30 | 4 |
| Montgomery Co., Maryland | 17 | 16 | 7 | 1 | 8 |
| Baltimore, Maryland | 18 | 18 | 5 | 4 | 9 |
| New York | 37 | 0 | 37 | 0 | 11 |
| Oklahoma | 25 | 10 | 24 | 15 | 0 |
| Oregon | 14 | 14 | 12 | 4 | 10 |
| Fresno, CA | 24 | 24 | 17 | 13 | 0 |
| **TOTAL** | **194** | **136** | **154** | **67** | **42** |



## Child characteristics

| | |
|---|---|
| **Gender** | 64% male |
| **Age** | Mean=12.9 (SD=3.75)<br>Range: 4-18 |
| **Race/Ethnicity** | 54% Caucasian<br>23% African-American<br>20% Hispanic<br>1% American Indian/Alaska Native<br>.6% Asian<br>.6% Pacific Islander |
| **Custody** | |
| at least 1 bio parent | 41% |
| adoptive parent | 5% |
| relative | 8% |
| state | 44% |
| foster parent | 1.5% |
| other | .7% |
| **Ever in state custody** | **64.9%** |
| **Mean Duration of wraparound process** | **8.76 mos (SD = 4.74)** |



## Results: Engagement items (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| 1.1 *CC* | When you first met your wraparound facilitator, were you given time to talk about your family's strengths, beliefs, and traditions? Did this help you appreciate what is special about your family? | **1.64** | **.663** | **0-2** |
| 1.2 *FVC* | Before your first team meeting, did your wraparound facilitator fully explain the wraparound process and the choices you could make? | **1.70** | **.678** | **0-2** |
| 1.3 *SB* | At the beginning of the process, did you have a chance to tell your facilitator what things have worked in the past for your child and family? | **1.82** | **.560** | **0-2** |
| 1.4 *TB* | Did you select the people who would be on your wraparound team? | **.80** | **.948** | **0-2** |
| 1.5 *TB* | Is it difficult to get team members to attend team meetings when they are needed? | **1.54** | **.788** | **0-2** |
| 1.6 *OB* | Before your first wraparound meeting, did you go through a process of identifying what leads to crises or dangerous situations for your child and your family? | **1.52** | **.814** | **0-2** |

## Results: Planning items (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| 2.1 *Col* | Did you and your team plan and create a written plan of care (or wraparound plan, child and family plan) that describes how the team will meet your child's needs? Do you have a written copy of the plan? | 1.60 | .700 | 0-2 |
| 2.2 *TB* | Did you team develop any kind of written statement about what it is working on with your child and family? Can you describe what your team's mission says? | 1.78 | .582 | 0-2 |
| 2.3 *Ind* | Does your wraparound plan include mostly professional services? | .58 | .835 | 0-2 |
| 2.4 *SB* | Are the supports and services in your wraparound plan connected to the strengths and abilities of your child and family? | 1.84 | .468 | 0-2 |
| 2.5 *CB* | Does the wraparound plan include strategies for helping your child get involved with activities in her or his community? | 1.24 | .822 | 0-2 |
| 2.6 *Col* | Are the members of your wraparound team who do not have a role in implementing the plan? | 1.62 | .780 | 0-2 |



## Results: Planning items (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| *2.7 Col* | Does your team brainstorm many strategies to address your family's needs before selecting one? | 1.70 | .647 | 0-2 |
| 2.8 *Ind* | Is there a crisis or safety plan that specifies what everyone must do to respond to a crisis? Does this plan also specify how to prevent crises from occurring? | 1.52 | .814 | 0-2 |
| 2.9 *CB* | Do you feel confident that, in the event of a major crises, your team can keep your child or youth in the community? | 1.72 | .640 | 0-2 |
| 2.10 *FVC* | Do you feel like other people on your team have higher priority than you in designing your wraparound plan? | 1.46 | .838 | 0-2 |
| 2.11 *CC* | During the planning process, did the team take enough time to understand your family's values and beliefs? IS your wraparound plan in tune with your family's values and beliefs? | 1.56 | .733 | 0-2 |



## Results: Implementation (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| 3.1 *FVC* | Are important decisions made about your child or family when you are not there? | 1.72 | .640 | 0-2 |
| 3.2 *Ind* | When your wraparound team has a good idea for a support or services for your child, can it find the resources or figure out some way to make it happen? | 1.72 | .573 | 0-2 |
| 3.3 *SB* | Does your wraparound team get your child involved with activities she or he likes and does well? | 1.18 | .825 | 0-2 |
| 3.4 *NS* | Does the team find ways to increase the support you get form your friends and family? | 1.36 | .898 | 0-2 |
| 3.5 *Col* | Do the members of your team hold one another responsible for doing their part of the wraparound plan? | 1.60 | .756 | 0-2 |
| 3.6 *NS* | Is there a friend or advocate of your child or family who actively participates on the wraparound team? | 1.18 | .983 | 0-2 |
| 3.7 *Per* | Does your team come up with new ideas for you wraparound plan whenever your needs change? Does your team come up with new ideas for your wraparound plan whenever something is not working? | 1.80 | .571 | 0-2 |
| 3.8 *CB* | Are the services and supports in your wraparound plan difficult for your family to access? | 1.54 | .813 | 0-2 |



## Results: Implementation (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| *3.9 CB* | Does the team assign specific tasks to all team members at the end of each meeting? Does the team review each team member's follow-through on their tasks at the next meeting? | 1.62 | .667 | 0-2 |
| 3.10 *CC* | Do members of your team always use language you can understand? | 1.94 | .240 | 0-2 |
| 3.11 *SB* | Does your team create a positive atmosphere around successes and accomplishments at each team meeting? | 1.84 | .468 | 0-2 |
| 3.12 *TB* | Does your team go out of its way to make sure that all team members – including friends, family, and natural supports – present ideas and participate in decision making? | 1.80 | .571 | 0-2 |
| 3.13 *Per* | Do you think your wraparound process could be discontinued before you or your family is ready for it to end? | 1.34 | .872 | 0-2 |
| *3.14 CC* | Do all the members of your team demonstrate respect for you and your family? | 1.88 | .435 | 0-2 |
| 3.15 *FVC* | Does your child have the opportunity to communicate his or her own ideas when the time comes to make decisions? | 1.70 | .580 | 0-2 |

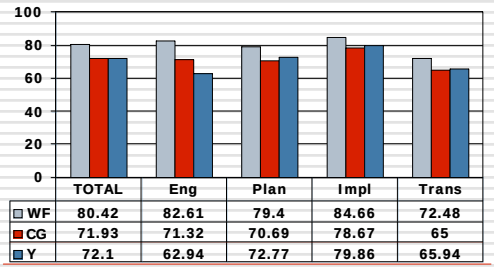


## Results: Transition items (CG form)

| No. | Item | Mean | SD | Min-Max |
|---|---|---|---|---|
| 4.1 *OB* | Has your team discussed a plan for how the wraparound plan will end? Does your team have a plan for when that will occur? | .72 | .858 | 0-2 |
| 4.2 *NS* | Has the wraparound process helped your child develop friendships with other youth who will have a positive influence on her or him? | 1.34 | .872 | 0-2 |
| 4.3 *OB* | Has the wraparound process helped your child to solve her or his own problems? | 1.32 | .794 | 0-2 |
| 4.4 *Ind* | Has your team helped you and your child prepare for major transitions by making plans to deal with these changes? | 1.44 | .861 | 0-2 |
| 4.5 *Per* | After formal wraparound has ended, do you think that the process will be able to be "re-started" if you need it? | 1.40 | .833 | 0-2 |
| 4.6 *NS* | Has the wraparound process helped your family develop or strengthen relationships that will support you when wraparound is finished? | 1.58 | .785 | 0-2 |
| 4.7 *CB* | Do you feel like you and your family will be able to succeed on its own, or with just the help of family and friends? | 1.30 | .909 | 0-2 |
| 4.8 *Per* | Will some members of your team be there to support you when formal wraparound is finished? | 1.76 | .591 | 0-2 |

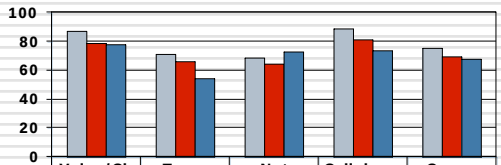


## Results: Total Scores by respondent




| | TOTAL | Eng | Plan | Impl | Trans |
|---|---|---|---|---|---|
| WF | 80.42 | 82.61 | 79.4 | 84.66 | 72.48 |
| CG | 71.93 | 71.32 | 70.69 | 78.67 | 65 |
| Y | 72.1 | 62.94 | 72.77 | 79.86 | 65.94 |

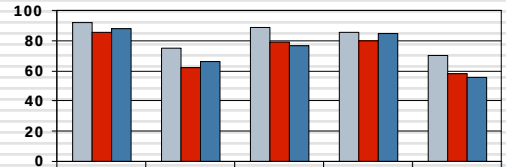
## Results: Principle scores by respondent




| | Voice/Choice | Team Based | Nat Support | Collaborative | Comm Based |
|---|---|---|---|---|---|
| WF | 87.31 | 71.39 | 68.66 | 88.84 | 75.56 |
| CG | 79 | 66.58 | 64.24 | 81.15 | 69.55 |
| Y | 77.86 | 54.48 | 72.65 | 74.14 | 67.86 |



## Results: Principle scores by respondent (cont'd)




| | Cult Comp | Individualized | Strength Based | Persistent | Outcomes Based |
|---|---|---|---|---|---|
| WF | 92.55 | 75.25 | 88.89 | 85.67 | 70.33 |
| CG | 86.06 | 62.42 | 79.73 | 80.38 | 58.42 |
| Y | 88.31 | 66.52 | 77.08 | 84.84 | 56.47 |



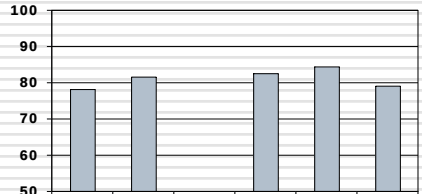
## Results: Internal Consistency

| Scale | N Itms | WF | CG | N Items | Y |
|---|---|---|---|---|---|
| ALL ITEMS | 40 | .73 | .89 | 32 | .88 |
| Engagmt | 6 | .25 | .62 | 6 | .49 |
| Planning | 11 | .56 | .68 | 8 | .75 |
| Implemtn | 15 | .59 | .78 | 13 | .76 |
| Transition | 8 | .57 | .73 | 6 | .62 |

| Scale | N Items | WF | CG |
|---|---|---|---|
| Voice/choice | 4 | .46 | .44 |
| Team Based | 4 | .15 | .34 |
| Nat Supports | 4 | .53 | .58 |
| Collaborative | 4 | .34 | .36 |
| Comm Based | 4 | .52 | .34 |
| Cultural Comp | 4 | .34 | .62 |
| Individualized | 4 | .40 | .50 |
| Strength Based | 4 | .10 | .56 |
| Persistent | 4 | .12 | .57 |
| Outcome Based | 4 | .69 | .34 |



## Results: Between-Site differences: WF form

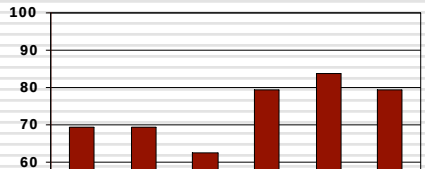



| | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---|---|---|---|---|---|---|
| Total WFI-WF | 78.3 | 81.6 | n/a | 82.6 | 84.6 | 79.1 |

$F(4, 130) = 1.26$; $p = 0.29$



## Results: Between-Site differences: CG form

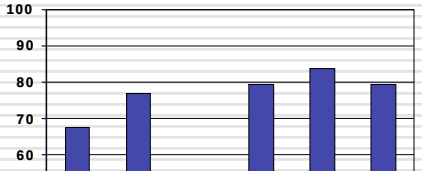



| | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---|---|---|---|---|---|---|
| Total WFI-CG | 69.4 | 69.4 | 62.6 | 79.4 | 83.7 | 79.4 |

$F(5, 145) = 6.14$; $p = 0.000$



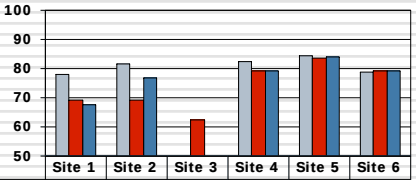
## Results: Between-Site differences: Y form




| | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---|---|---|---|---|---|---|
| Total WFI-Y | 67.8 | 77.1 | n/a | 79.4 | 83.9 | 79.4 |

$F(4, 62) = 2.184$; $p = 0.09$

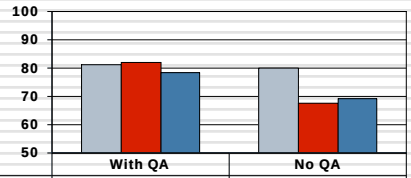
## Summary of Between-Site differences across sites




| | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 | Site 6 |
|---|---|---|---|---|---|---|
| Total WFI-WF | 78.3 | 81.6 | n/a | 82.6 | 84.6 | 79.1 |
| Total WFI-CG | 69.4 | 69.4 | 62.6 | 79.4 | 83.7 | 79.4 |
| Total WFI-Y | 67.8 | 77.1 | n/a | 79.4 | 83.9 | 79.4 |



## Results: Sites with vs. without intensive QA




| | With QA | No QA | |
|---|---|---|---|
| Total WFI-WF | 81.3 | 80.2 | |
| Total WFI-CG | 82.3 | 67.8 | ** |
| Total WFI-Y | 78.6 | 69.5 | * |

** $F(1,133) = 16.954$; $p < .001$
* $F(1,65) = 4.443$; $p < .05$



## Findings from initial WFI-4 pilot

- Mean WFI-4 administration times demonstrate feasibility
  - CG form = 20.6 minutes
    - (SD = 9.1 min; range 7 – 63 min)
  - WF form = 19.6 minutes
    - (SD = 7.2 min; range 4 – 45 min)
  - Y form = 10.1 minutes
    - (SD = 4.9; range 5 – 25 min)
  - TM form = 19.9 minutes
    - (SD = 7.1; range 5 – 36 min)



## Findings from initial WFI-4 pilot

- Compared to WFI-3 national sample:
  - Variability in WFI-4 total scores has increased
  - Total scores slightly lower
    - Fewer items > 1.8
    - Suggests "Ceiling effect" of WFI-3 reduced
    - High scores may be related to quality of sites in initial collaborator sites
- Internal consistency good for Total scores for all respondent forms
- Internal consistency good for most Phase scores
- Internal consistency low for many principle scores
  - Likely a result of small N of items



## Findings from initial WFI-4 pilot

- Comparison across participating sites shows significant between-group differences for CG and Y forms
- Total scores significantly higher for 2 sites employing intensive QA procedures (E.g., training and coaching)
  - Effect found for CG and Y forms but not WF form



## Findings from initial WFI-4 pilot

- Communities and programs find challenges adhering to certain components of the proposed wraparound process model:
  - Affording families choices in assembling wraparound teams
  - Achieving a mix of formal and informal supports
  - Engaging youths in community activities and activities they like and do well
  - Systematically tracking progress on measurable outcomes and toward goals
  - Ensuring that wraparound will be implemented until the family is ready for formal transition
  - Ensuring friends, advocates, and natural supports participate on teams and in the wraparound process
  - Planning purposefully for transition out of wraparound
- These findings replicate results of previous studies

## Implications

- WFI-4 continues to be feasible
- Psychometrics and sensitivity to between-site differences of new version seems to be improved over previous versions



## Next steps

- Continued pilot testing in collaborating communities
  - Including interviews with program evaluators and directors about feasibility and utility
- Interviews with evaluators and administrators about feasibility and utility
- Next step: Test-retest and inter-rater reliability studies
- Refinement of training materials
  - Including audiotaped sample interviews to use in training and to assess trainee competence
- Ultimately: Use in several comparison and control studies across North America



## For more information

- Want to be a collaborating site?
- Wraparound Evaluation and Research Team (WERT)
  - wrapeval@u.washington.edu
  - 206-685-2310
  - http://depts.washington.edu/wrapeval