What is Fidelity?
Fidelity describes adherence to intended procedures (Pence, Justice, & Wiggins, 2008). It is a critical component of intervention research to ensure that specific methods or practices are implemented according to a standard and delivered in a comparable manner across participants and settings.

Smith, Daunic, & Taylor (2007) describe 5 critical areas of fidelity adapted from recommendations made by the National Institutes of Health Behavior Change Consortium:

1) Fidelity of Design: Methodology is based on research in terms of processes and content.

2) Training Fidelity: Individuals who implement the intervention are trained in a precise manner. Training may be competency-based.

3) Treatment Delivery Fidelity: Comparable protocols are followed and intervention is delivered as intended. Includes both researcher-controlled (efficacy) and “scale up” (Kaderavek & Justice, 2010) interventions or effectiveness studies.

4) Treatment Receipt Fidelity: Treatment recipients’ acquire intended knowledge and skills.

5) Treatment Enactment: Knowledge and skills transfer to “real life” settings.

Fidelity and the Research to Practice Gap
Fidelity is a critical factor in efficacy, effectiveness, and dissemination of evidence based practice (EBP) as it allows for replication and/or comparisons. It is increasingly being used in the field to increase the consistency of EBP by practitioners (Kaderavek & Justice, 2010).

Fidelity measures may be useful to decrease the gap between research and practice by serving as a tool to define and measure the current status of implementation and to monitor progress as change occurs. To accomplish this, the identification of, and adherence to essential components of a practice in terms of positive outcomes for treatment recipients must be established.

Two projects will be used to illustrate how fidelity measures serve the dual purpose of measuring current status of implementation and monitoring progress toward EBP.

Closing the Gap: KTTP & DMM
KidTalk TaCTICS Project (KTTP)
KTTP is a model demonstration project using enhanced milieu teaching and family-guided routines-based intervention to support children birth through age five with communication delays or impairments and their caregivers.

Fidelity of Design:
KTTP combines a well-researched intervention strategy (EMT) into natural environments with children and caregivers
KTTP utilizes “active ingredients” from adult learning, professional development and distance education literature

Training Fidelity:
KTTP Communication Coaches participate in manuallized training workshops and coach/train caregivers to embed KTTP strategies into daily routines and activities with their child
DMM participants attend training workshops and individualized mentoring sessions. Mentors complete fidelity checklist for each session

Treatment Enactment:
Community based program adapts KTTP to different family routines and activities (KTTP & DMM)
Regularly scheduled staff meetings and focus groups to determine relevance and generalization of intervention (KTTP & DMM)

Treatment Receipt Fidelity:
Ongoing video coding of KTTP parent and communication coach interactions
Home visit session video coding (DMM) to determine if participants are using caregiver coaching strategies and routines-based intervention

Treatment Delivery Fidelity:
Communication coaches use interventionists’ video coding data to choose key components of intervention (KTTP & DMM) following each session
Session video coding to rate implementation of intervention based on a set criteria definitions (KTTP & DMM)

Distance Mentoring Model (DMM)
DMM provides professional development activities for early interventionists in rural settings using technology. Mentoring, peer modeling, and performance-based video feedback provide continued support to participants in addition to training workshops.

Example
In KTTP communication coaches support parent implemented intervention in everyday routines and activities.

Parent fidelity of treatment delivery (treatment receipt) was scored based on a set of individual criteria for 5 components of intervention (establishing routines, environmental arrangement, responsive interactions, modeling, and practice opportunities/milieu teaching).

Parent Fidelity Percentages per Session:
• Session 7: 50% - 100%
• Session 15: 75% - 100%
• Session 23: 75%- 100%

Lessons Learned
• Fidelity checklists support implementation of “active ingredients” and can be used at all levels of intervention research and practice.

• Fidelity checklists support common language for peer mentoring and progress monitoring, especially when combined with video examples.

• The checklist serves as a reminder of what to do, but is another sheet of paper to fill out in a busy practitioner’s life.

• Criteria for implementation is a challenge. Is one time enough? Ten times? How do you treat situational variations such as home vs. center? Individual vs. group?

References

