

Fidelity as a moderator of programme success: *strengthening influencing factors*

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the social research unit



- What is fidelity?
- What factors influence fidelity?
- Birmingham Brighter Futures
- Trial designs
- Fidelity: Triple P and Incredible Years
- Fidelity: PATHS
- Main messages
- Implications for future research



Implementation fidelity: the degree to which a program is delivered faithfully and in accordance with the developers' design

Adherence

Quality

Dose

A bridge between a promising idea and its impact

[Dusenbury, et al., 2003]

What is implementation fidelity?

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- Complexity of interventions
- Training and accreditation
- Technical assistance
- Routine observation and monitoring
- Valuing professional judgement and expertise
- The integration of fidelity monitoring within the service
- Structural factors such as supporting systems and leadership



Factors that influence fidelity





- Birmingham is a unitary authority, largest of all 150 local authorities in England
- Child population of 260,000
- Worked with SRU to develop a strategy for Children's Services
- Epidemiological survey on 5000 children = 6 priority outcomes including behaviour and emotional well-being
- £42 million investment for an economic return of £101 million over 15 year period
- Included an investment in implementation & evaluation of EBPs: Incredible Years, Promoting Alternative Thinking Strategies (PATHS) and Triple-P

Birmingham Brighter Futures

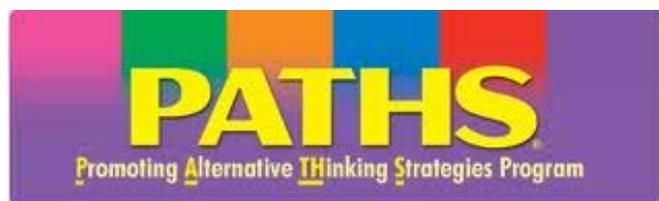




- IY = 168, 3-4 year-olds, 2:1 randomisation, child is unit of randomisation, stratified by age & sex, 9 Children Centres across city, 3 data collection points



- TP = 146, 4-9 year-olds, 1:1 randomisation, child is unit of randomisation, stratified by age & sex, 7 areas across city, 3 data collection points



- PATHS = 5,074 students in 183 classrooms in 56 primary schools, 1:1 randomisation, school is unit of randomisation, stratified by size of school & percentage of children qualifying for free-school meals, 3 data collection points

Trial designs



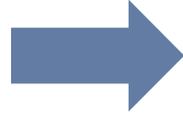
IY

Formal fidelity controls

Training & accreditation

Wrap-around support

Recently trained CC staff



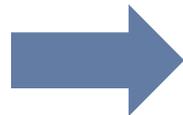
TP

Informal fidelity controls

Top-up training only

Wrap-around support

Clinical psychologists



IY and TP Fidelity: *influencing factors*



IY

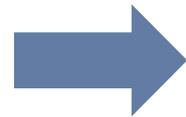
Formal fidelity controls
Training & accreditation
Wrap-around support
Recently trained CC staff



85% adherence
78% quality
51% 7+ sessions
6 sessions average

TP

Informal fidelity controls
Top-up training only
Wrap-around support
Clinical psychologists

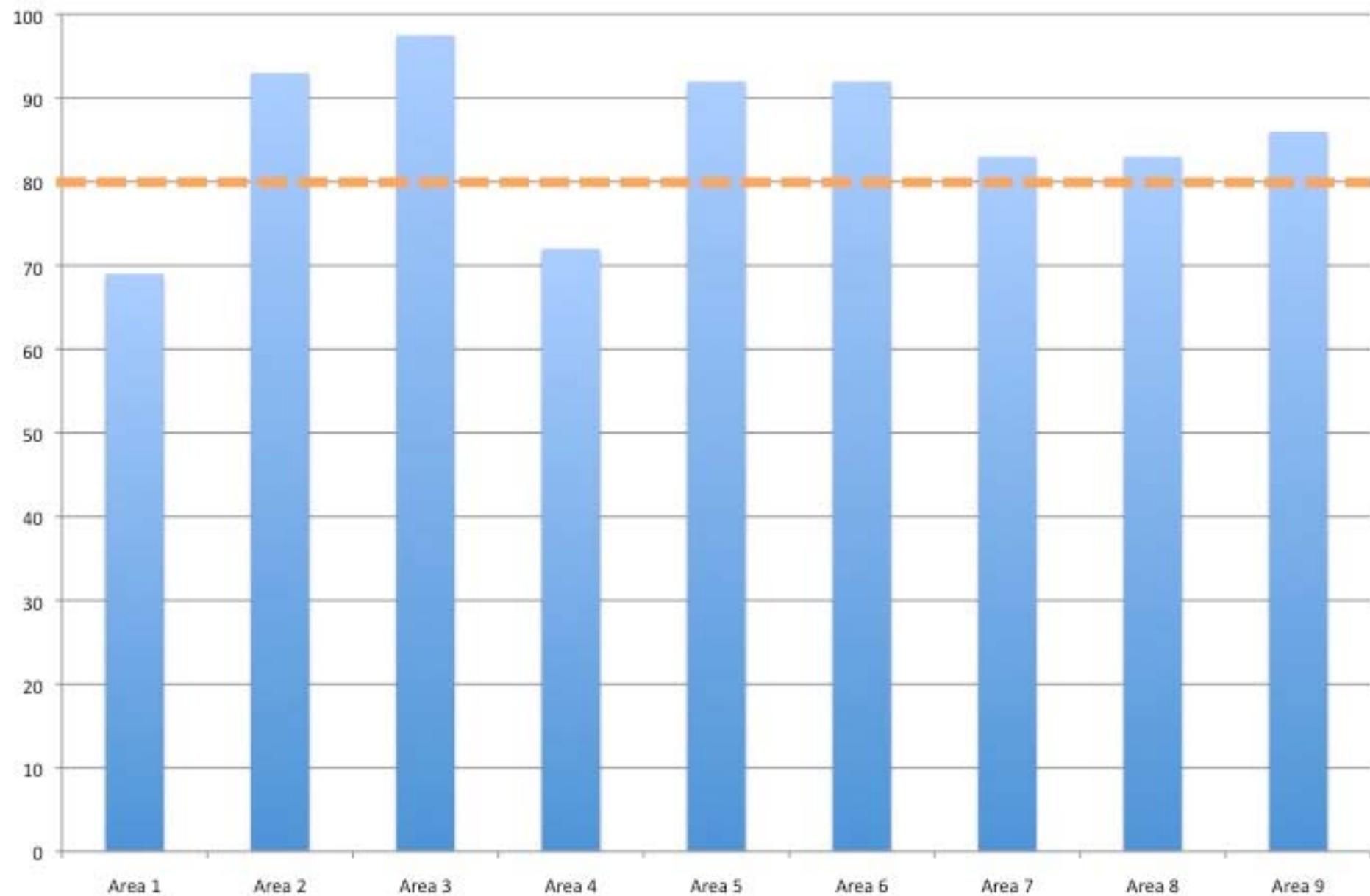


89% adherence
81% quality
44% 4+ sessions
2.7 sessions average

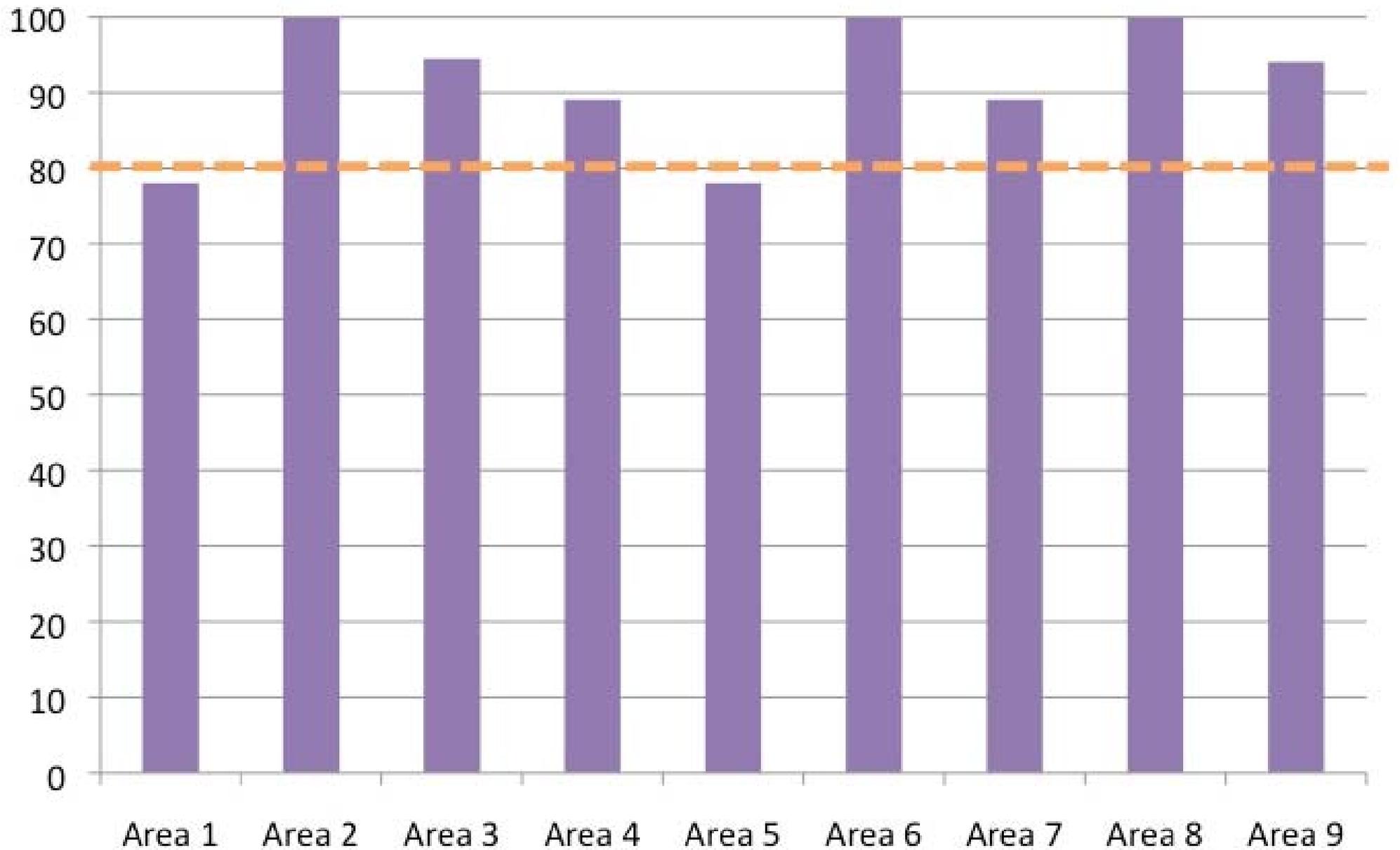
IY and TP Fidelity:
levels obtained



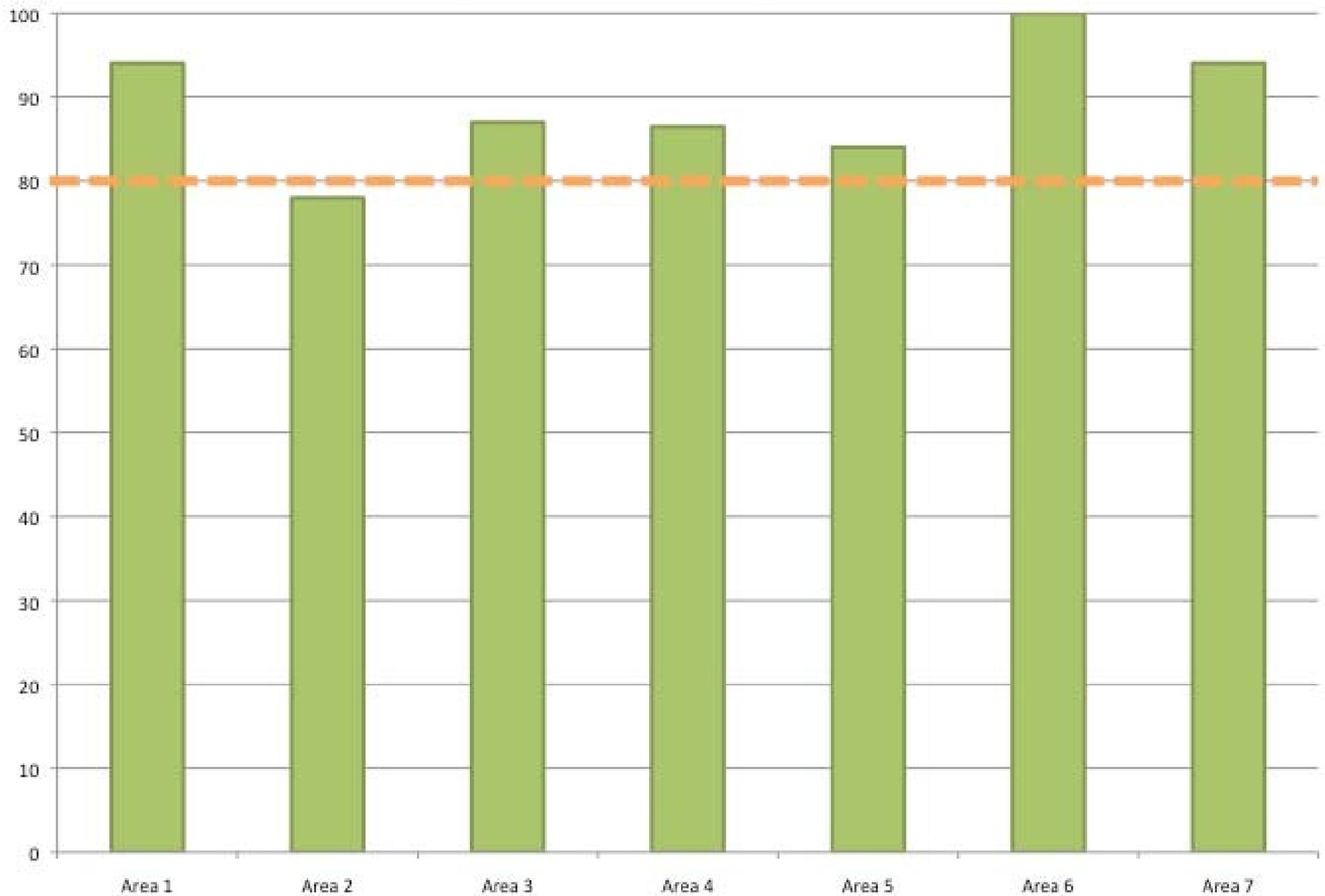
% self-rated adherence – Incredible Years facilitators



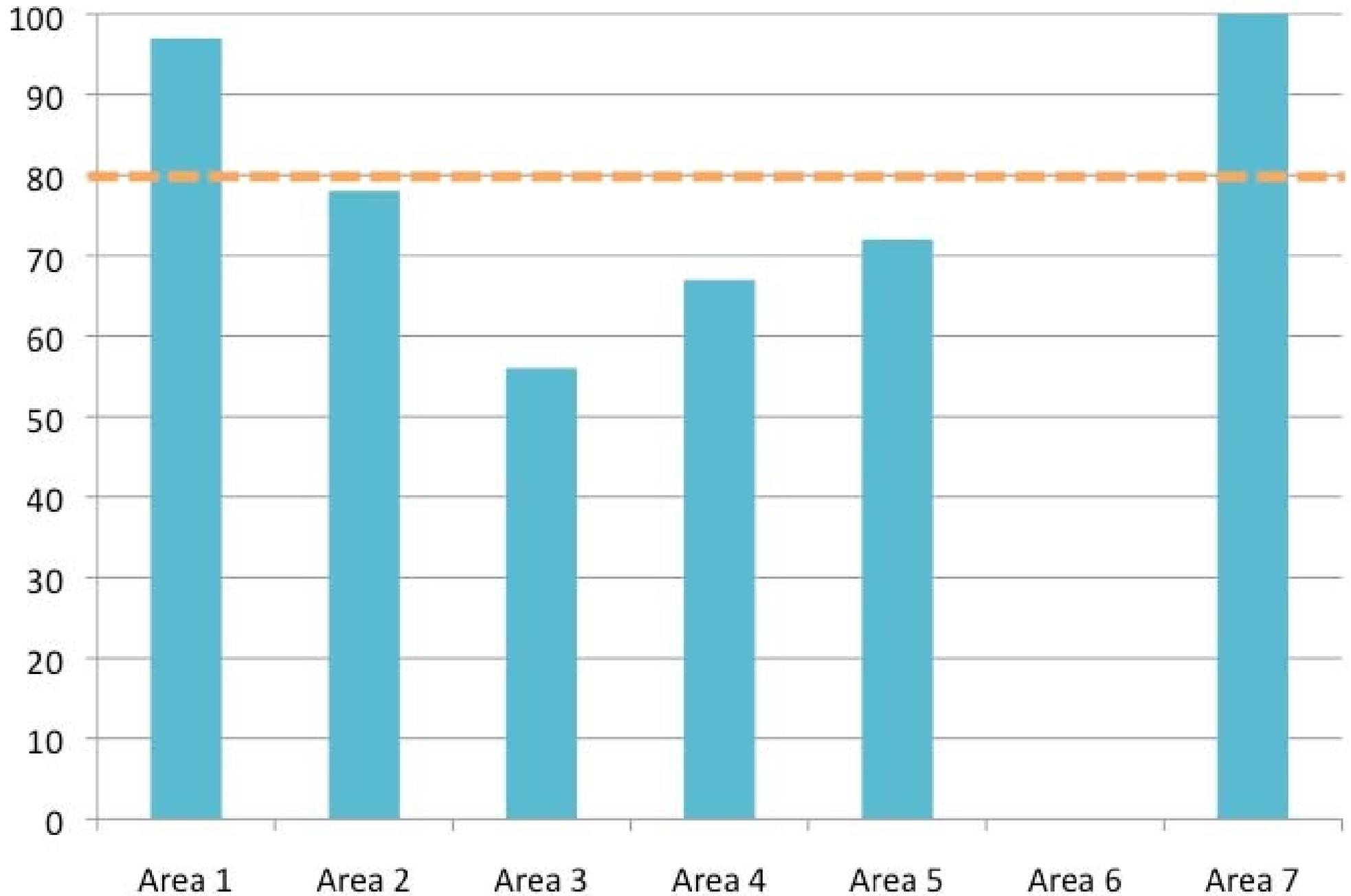
% Independently observed quality– Incredible Years



% self-report adherence – Triple P facilitators

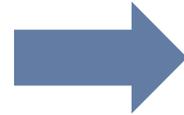


% Independently observed quality – Triple P

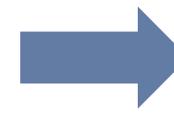


IY

Formal fidelity controls
Training & accreditation
Wrap-around support
Recently trained CC staff



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6 sessions average



dose and quality of
delivery explain **8%** of
the variance in Oc
(F (109) = 5.4, p < .05,
adjusted R2 = .08).

TP

Informal fidelity controls
Top-up training only
Wrap-around support
Clinical psychologists



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dose and adherence
explain **10%** of the
variance in Oc
(F (72) = 5.16, p < .01,
adjusted R2 = .10)

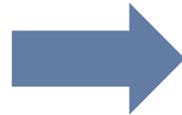
IY and TP Fidelity: *association with outcomes*



Training

PATHS coaches

Flexible approach to
fidelity monitoring



44% children
participated in lessons
that were delivered 'as
intended/written'

an average of 26
lessons

79% quality

'high fidelity' = 50%

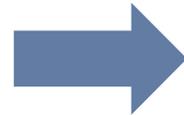
PATHS fidelity:
influencing factors and levels



Training

PATHS coaches

Flexible approach to
fidelity monitoring

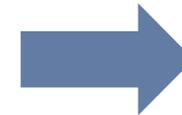


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High fidelity =
better
outcomes than
low fidelity but
not better than
controls

PATHS fidelity:
connection to outcomes

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- These studies were not designed to examine the causal relationship between fidelity and outcomes
- Differences in fidelity may explain some of the success and failures
- Routine observation and monitoring pays dividends
- Flexibility and feedback
- The integration of monitoring into routine processes
- The importance of wider structure and context

Main messages



- Fidelity measurement as standard to avoid Type III error
- Testing fidelity by design
- What is an acceptable level of fidelity and how much is critical for impact on outcomes?
- Good quality tools and methods required
- Fidelity monitoring embedded into routine processes and used to continually improve practice
- Research on 'active ingredients'
- Moving beyond compliance in delivery & recognition of the significance of broader context and structure

What's next?



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