IMPLEMENTATION INTEGRITY OF PARENTING PROGRAMS. WHAT ASPECT IS MORE IMPORTANT?

Fabrizia Giannotta, Metin Özdemir, Håkan Stattin
Centre for Developmental Research, Örebro University (Sweden)

4th EUSPR Conference, November 13, 2013, Paris

INTRODUCTION

- Implementation has been associated with the success of the prevention efforts.
- Well- implemented programs have been found to be more likely to positively affect adults and children than program poorly implemented.
- Often implementation failure has been considered responsible for the lack of the effects in effectiveness trials, compared to efficacy trials.

- What aspect of the implementation process is more important and for what?

- Implementation integrity refers to “the degree to which treatment is delivery as intended” (Yeaton & Sechrest, 1981).
- It is composed of four components:

1) adherence or fidelity, (i.e. the degree to which program components were delivered as prescribed);
2) dose (i.e. the frequency and the quantity of the program received by the participants);
3) quality of delivery (i.e. the extent to which a facilitator approaches a theoretical ideal in the transfer of the core components of the program);
4) participant responsiveness (i.e. the degree of parents participation and involvement in the program).

- There are very few studies that investigated all the components of implementation integrity together. Berkel et al. (2011) call for an integrative approach that takes into account the components of implementation integrity in order to understand which is more important for the effectiveness of the program.

- Another limitation is that the conditions or the factors that predict high implementation integrity are not clear.

- Moreover, the majority of the studies that investigated the effects of implementation integrity examined the effects either at the group level or at the individual level, without considering both levels at the same time.

- Theoretically, as the unit of analysis of implementation integrity in parenting programs is the group, it would be methodologically appropriate to analyze those processes at a group level.
- It is reasonable to assume that the groups that receive a well implemented program will improve more compared to the groups that will receive poorly implemented programs.

- However, implementation integrity is composed by different aspects and some of them, such as participant responsiveness, are strongly related to individual's perceptions.
- As a consequence some components of implementation quality might be associated to individual factors.

GOALS OF THE STUDY

1. We aimed at understanding whether the different components of implementation integrity, namely adherence, quality of the delivery, dose, and participant responsiveness affected the effectiveness of four different parenting programs that are the most commonly used programs in Sweden.

2. We investigated the factors that are related to good implementation integrity. We hypothesized that adherence and quality of the delivery which are leader-related components and participants-related are likely to be dependent on features of the facilitators, such as gender, age, education, and experience. Also, we expected participants responsiveness, and dose to be primarily dependent on the participants' perceptions of the program´s facilitators.

METHODS:

- The present study is part of a wider project, *The National Comparison of Parenting Programs*, which aims at evaluating the effectiveness of the most commonly used, manualized parenting programs in Sweden on disruptive child behaviors. The current study is based on the measurements obtained at pre- and post-test.

- The parenting programs involved in the evaluation were Cope (Cunningham, 2005), The Incredible Years (Webster-Stratton, Reid, & Hammond, 2004), and Komet (Kling, Sundell, Melin, & Forster, 2006; Kling, Forster, Melin, & Sundell, 2010), a Swedish program similar to Patterson's Parent Management Training-Oregon Model. Moreover, a non-behavioral, attachment-based program Connect (Moretti & Obsuth, 2009) was also included.

METHODS: PARTICIPANTS

- Parents of 535 children participated in the project. The children's ages ranged from 3 to 12 years. They were randomly assigned to one of the four parenting programs or to a control condition. Pre and post test assessment.
- A total of 104 parenting groups were run by 76 pairs of team leaders.
- Team leaders' mean age was 49 years (SD=8.5) and 80% (N=94) were women. The majority of them had university degree (95%, N=106) and the rest had high school diploma.

METHODS: MEASURES – PARENTS´OUTCOMES

- Parental competence : Parenting Sense of Competence Scale (PSCO, Johnston and Mash, 1989).
- Parents 'reaction to children behaviors: *Attempted to understand (5 item)*, *angry outbursts (5 item)(*Tilton-Weaver, Kerr, Pakalniskiene, Tokic, Salihovic, & Stattin, 2010*)*, *harsh parenting* (7 item), *rewarding* (2 item) *and praising* (2 item).

METHODS: MEASURES - CHILDREN´OUTCOMES

- Children externalizing problems: ECBI intensity and problem (ECBI; Eyberg, & Ross, 1978).
- Children attention problems: SNAP- IV, Swanson, 1992) was used to assess *inattention*, *hyperactivity/impulsivity* and *oppositional defiant disorder.*

METHODS: MEASURES - ADHERENCE AND QUALITY OF THE DELIVERY

- Adherence and quality of the delivery were assessed through observations of the sessions made by independent raters.
- Items were highly correlated and a CFA confirmed that both adherence and quality of delivery were part of the same construct ($x^2(4) = 3.62$, $p > .05$; CFI = 1.00; RMSEA = .00; SRMR = .01). Thus, we combined these two dimensions into a *quality of the implementation* aggregate score.

METHODS: MEASURES OF PARTICIPANTS RESPONSIVENESS AND PARTICIPATION

- Parents homework and satisfaction= parents 'responsiveness
- Attendance = Dose

METHODS: FACTORS ASSOCIATED TO IMPLEMENTATION INTEGRITY

- ***Parents´ perception of group leaders:*** *leaders´ group management skills, supportive leaders, leaders´ understanding of parents problems*. The answers scored from 1 (not at all) to 5 (a lot).

METHODS: FACTORS ASSOCIATED TO IMPLEMENTATION INTEGRITY

- ***Team leaders characteristics***. Gender, age, level of education, and specialization (e.g. psychotherapy). We created a gender composition (i.e., both females, both males, or mixed gender), average age, and average education, and aggregate specialization (i.e., none is specialized, only one is specialized, and both are specialized) to represent the characteristics of the team-leader pairs.

METHODS: FACTORS ASSOCIATED TO IMPLEMENTATION INTEGRITY

- ***Team leaders' competence***. Team leaders competence in running the groups was assessed through observations made by independent experts. Experts of the program reported on a scale from 1 (at all) to 10 (a lot) the extent to which: 1) they had clear and complementary roles; 2) they worked as a team.

ANALYSES

- To assess whether implementation quality predicts changes in parent and children outcomes from pre- to post-test, we performed a set of hierarchical regression models.
- Considering the reduction of the sample due to the aggregation of individual level observations into group level scores and the moderate correlations among the concepts, we did not have enough power to be confident in the results of regressions analyses. Therefore, we presented semi-partial correlations among the variables, controlling for the type of program and the outcome variables measured at baseline, to provide a picture of possible associations .

ANALYSES

- In all analysis, we did take into account the clustering in the data using TYPE=COMPLEX option in MPlus. For the analyses at group level, we aggregated the individual observations to compute group-level measures of parent and child outcomes, and parent-reported dimensions of implementation integrity, attendance, homework completion, and satisfaction.

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Group level:

- Better *quality of the implementation* was associated with higher praising behaviors (r = .24, p < .05), and lower child inattention behaviors (r = –27, p < .05) at post-test.

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Group level:

- Higher *program attendance* was linked with lower levels of harsh parenting ($r = -.25$, $p < .05$),

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Group level:

- *Completion of homework* was associated with lower display of parents angry outbursts (r = –.25, p < .05) and child externalizing problems (r = –.35, p<.05).

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Group level:

- *Satisfaction with the program* was related to lower perception of externalizing problems in the child ($r = -.25$, $p < .05$) and oppositional defiance ($r = -.26$, $p < .05$).

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Individual level:

- A better *implementation quality* was associated with an increase of rewarding from parents (B = .10, p < .05).

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Individual level:

- *Satisfaction with the program* predicted higher levels of parents´ attempts to understand (β =.10, p < .05), and parenting efficacy (β = .14, p < .05). Satisfaction also predicted lower child externalizing problem intensity (β = –.13, p < .05), and problems(β = -.12, p < .05), inattention problems (β =-.12, p<.05), and hyperactivity problems (β =-.10, p < .05).

RESULTS

- **Is implementation integrity associated with the changes in parents and children?**

Individual level:

- *Completion of homework* predicted lower levels of parents´ angry outbursts (β = –.15, p < .001). Completion of homework also predicted higher levels of praising (β =.10, p < .05) and rewarding behaviors (β = .11, p < .05).

RESULTS

- **What are the factors associated with the components of implementation integrity?**
- *Implementation quality* was positively associated with leadership competence (β = .81, p < .05), the completion of a specialized training from the group leaders (β = .12, p < .05), and his/her capacity of understanding problems of parents (β = .08, p < .05), and negatively associated with age of the leaders (β = -.10, p < .001).

RESULTS

- **What are the factors associated with the components of implementation integrity?**
- *Attendance* was related to the parents´ perception of the leaders. Specifically, parents who perceived leaders as supportive (β = .25, p < .05) were more likely to attend the program. Finally, parents´ satisfaction with the program was predicted by having supportive (β = .29, p < .001) and with good group management skills (β = .37, p < .001) leaders.

CONCLUSION

- Our purpose was to test the importance of different components of implementation integrity in the effects of different parenting programs.
- We found that implementation integrity matters.
- However, the different components have different effects.

CONCLUSION

- Implementation quality is related to improvements in children and parents, but only at group level.
- At the individual level, participants responsiveness and dose are the most important component of implementation integrity.
- → Importance of looking at different levels to grasp the impact of implementation integrity.

CONCLUSION

- We also wanted to understand the determinants of implementation integrity.
- We basically confirmed the results obtained in clinical contexts. Parents are more likely to be involved and participate when they perceive the leaders as supportive and competent.
- Also, it is important to provide good training for the leaders.