The Positive Parenting Program: Exploration of the Impact of PPP on Intermediate and Long-term Outcomes

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Purpose

- To present results of the retrospective evaluation of the Positive Parenting Program

- Are families benefiting from PPP?
  - Intermediate outcomes: increased protective factors (parenting knowledge and attitudes) and decreased risk factors (improve low self esteem) – *QUICK REVIEW*
  - Long term outcomes: child safety, stability and permanency – *FOCUS ON THESE*

Logic Model for PPP

Purpose: to help parents and caregivers **acquire life skills** and **parenting skills** that promote positive family functioning and strengthen families in order **to prevent abuse and neglect and preserve families**.

Target population: Parents who recently abused or neglected their children or are at risk for abuse or neglect (primarily mandated clients).
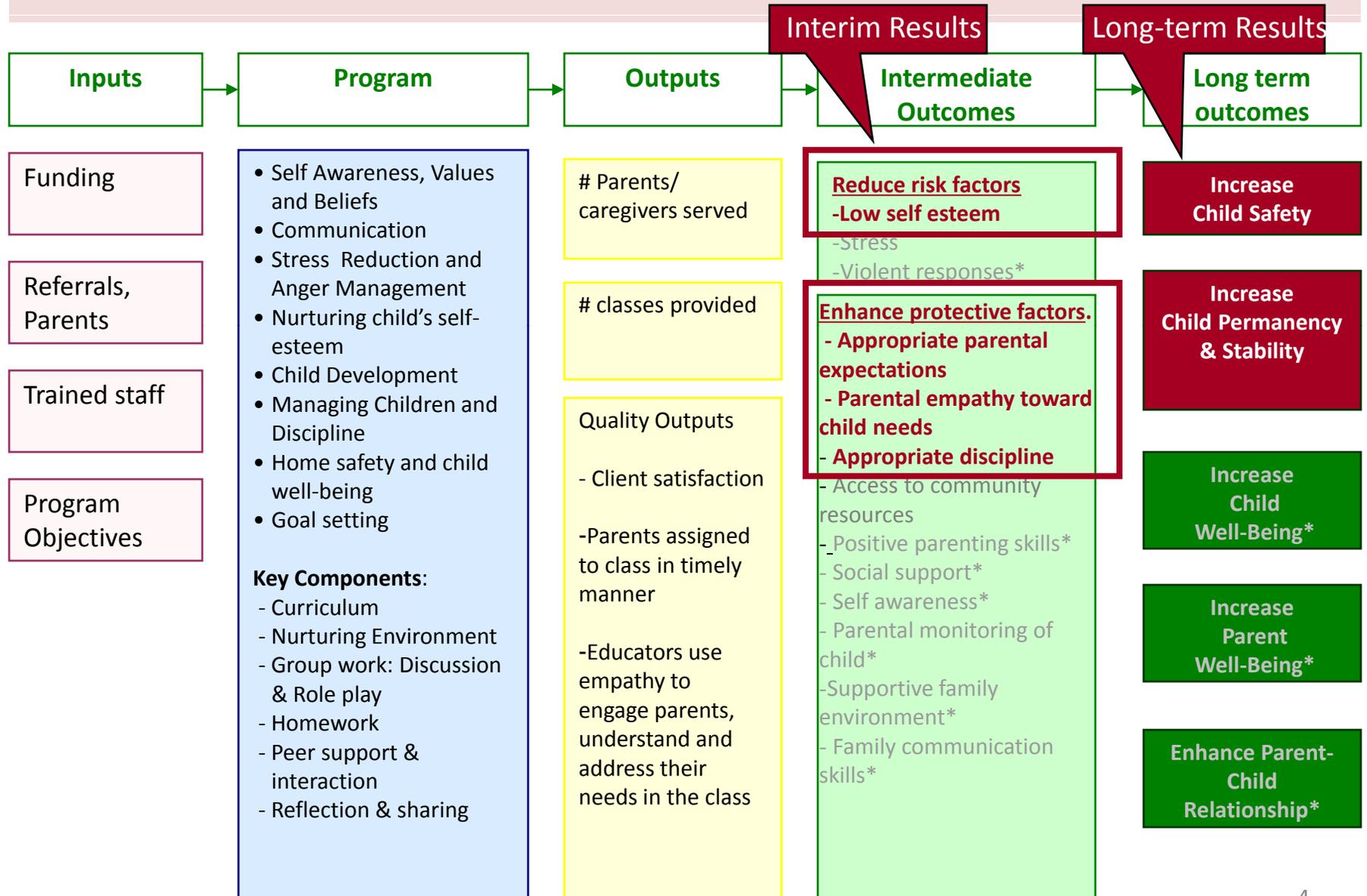
Assumptions:

Child maltreatment is associated with multiple risk factors. By **targeting risk factors and enhancing protective factors** through **group-based skills training** parents will be **more likely** to provide appropriate care for their children and **less likely to maltreat the children, preserving families**.

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Logic Model for PPP

Inputs	Program	Outputs	Intermediate Outcomes	Long term outcomes

Interim Results

Long-term Results

Inputs

Funding

Referrals, Parents

Trained staff

Program Objectives

Program

- Self Awareness, Values and Beliefs
- Communication
- Stress Reduction and Anger Management
- Nurturing child's self-esteem
- Child Development
- Managing Children and Discipline
- Home safety and child well-being
- Goal setting

Key Components:
- Curriculum
- Nurturing Environment
- Group work: Discussion & Role play
- Homework
- Peer support & interaction
- Reflection & sharing

Outputs

Parents/ caregivers served

classes provided

Quality Outputs

- Client satisfaction

-Parents assigned to class in timely manner

-Educators use empathy to engage parents, understand and address their needs in the class

Intermediate Outcomes

<u>Reduce risk factors</u>
-Low self esteem
-Stress
-Violent responses*

<u>Enhance protective factors</u>.
- **Appropriate parental expectations**
- **Parental empathy toward child needs**
- **Appropriate discipline**
- Access to community resources
- Positive parenting skills*
- Social support*
- Self awareness*
- Parental monitoring of child*
-Supportive family environment*
- Family communication skills*

Long term outcomes

Increase Child Safety

Increase Child Permanency & Stability

Increase Child Well-Being*

Increase Parent Well-Being*

Enhance Parent-Child Relationship*

Key Study Questions

Intermediate Outcomes

For parents completing the program (no comparison group):

- Do protective factors (parenting knowledge and attitudes) improve after parents complete PPP?
- Are risk factors (low self esteem) reduced after parents complete PPP?
- Are there differences by placement status or referral source?

Long-term Outcomes

For parents participating in the program (comparing completers to non-completers, during 2 years after beginning PPP):

- Safety: Are children safer when parents/caregivers complete PPP? (Lower risk of CPS referral)
- Stability: Are children more likely to experience stability, remaining home when their parents/caregivers complete PPP? (Lower risk of removal from home)
- Permanency: Are children who were in out-of-home care at baseline more likely to be returned after the parents/caregivers completed PPP? (Higher "risk" of unification)

Sample

Intermediate Outcomes

- N=1,191 Completers*
- Inclusion criteria:
  - Participants in core PPP program in Baltimore City 2002 – 2007
  - Self-report measures completed for both pre and post-test (in TFT administrative data file)

  * N=834 (42%) non-completers, total n=2,025)

Long-term Outcomes

- N=1,776
- Inclusion criteria:
  - Participants in core PPP program in Baltimore City 2002 – 2007
  - Identifying information available – to conduct CPS match
    - Name, DOB, 4 digits of SS#, demographics
    - Able to match cases in TFT admin file with PPP attendance log (issue with duplicate SSNs)

Sample Characteristics

- 96% biological parents
- Mean age: 33 years (15-76 yrs)
- 72% African American (Part 1); 75% African American (Part II)*
- 68% women
- 63% single
- 34% reported did not complete high school
- 66% were referred**by the Department of Social Services (inc. CPS and foster care)

*Characteristics were similar for the two samples (in Interim and Final Report), rounding to the same percentage in almost all areas. However, a slightly larger proportion of participants in the long-term outcomes (final) analysis were African American

**Referral source missing in more than one-third cases

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Outcome Measures

Intermediate Outcomes

Protective factors

- **Parenting knowledge and attitudes:** Adult-Adolescent Parenting Inventory (5 subscales)

Risk factor

- **Low Self Esteem:** Rosenberg self-esteem scale

TFT collected self-report data from participants when began and completed the program

Long-term Outcomes

- **Child Safety:** one or more referrals to CPS during the two years after beginning PPP
- **Child Stability:** one or more removals from home during two years after beginning PPP
- **Child Permanency:** child (in OHC) returned home during two years after beginning PPP

CPS data from MD DHR (dates of all events through July 2009)
- Did the event occur? (and when)
- How many days to the event?

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Data Analysis

Intermediate Outcomes

- **Analysis of variance with repeated measures**
- Two time points, pre and post PPP
- Tested for effect of:
  - Time (change b/n pre and post)
  - Group (IH vs. OHC; and referrals source in separate analysis)
  - Time x group interaction

Long-term Outcomes

- **Survival analyses**
  - **Life tables**
  - **Kaplan-Meier survival curves**
  - **Cox Proportional regression models**
- Event: referral/removal/reunification
- Time: # days to event within 24 month follow up period

RESULTS:
Intermediate Outcomes

Program Completers

(Brief Review)

Protective Factors: Parenting

AAPI Subscales: Main Effect of Time
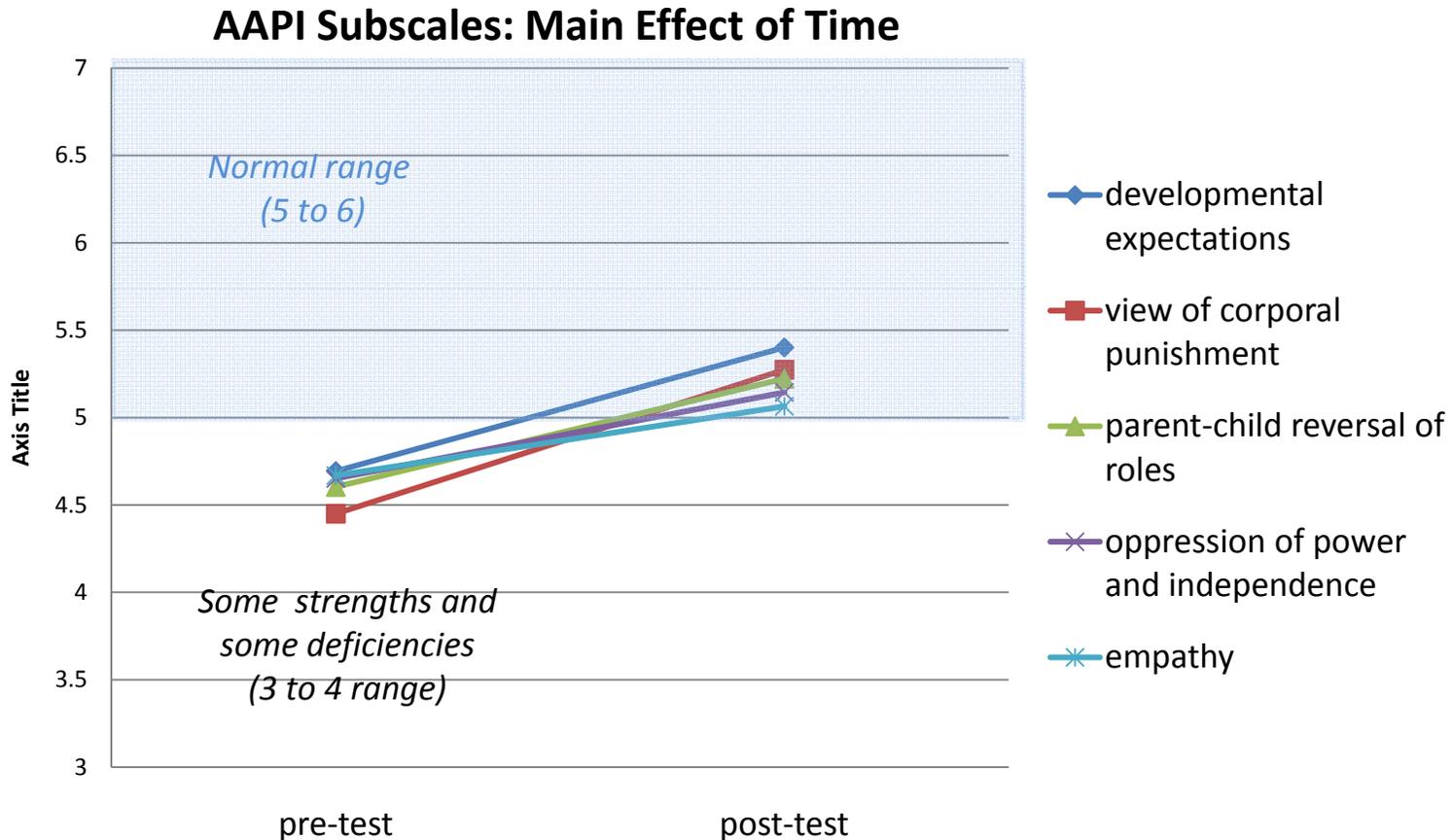
Statistically significant effect of time on all subscales (p<.0005). Scores moved into the normal range by post-test. No Time X Group interactions on any subscales, suggesting similar improvement over time for OHC & IH. No group differences on most scales.

Risk Factor: Low Self-Esteem

Rosenberg Self-Esteem Scale: Main Effect of Time
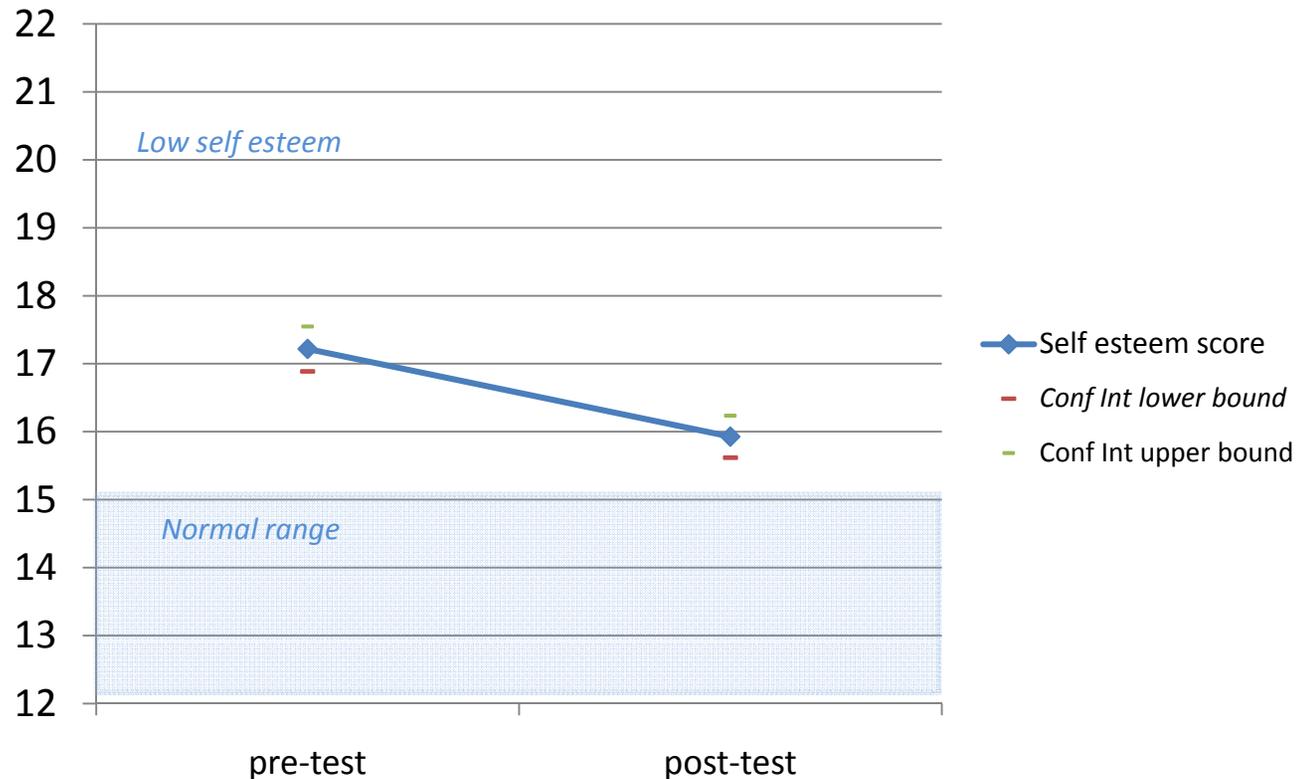
Statistically significant effect of time (p<.0005). Decrease in scores suggests *higher* self-esteem. Scores moved closer to normal range by post-test. Trend toward a Time X Group interaction and trend toward a main effect of group (p=.064).

Summary

- Protective factors: Parenting knowledge and attitudes
  - **Parenting knowledge and attitudes scores increase**: Main effect of time on all AAPI subscales (p<.0005)
  - Placement Status: OHC group scored higher than IH group on views toward corporal punishment, on average (p=.007).
  - Referral source: Scores for all three referral source groups increase for appropriate expectations of child development, but self-referred participants increase more (1.14) than DSS referred families (.73) and families referred by parole (.52)
  - No other statistically differences between OHC and IH groups (OHC vs. IH) or between referral source groups on AAPI

- Risk factor: Low self esteem
  - Self-esteem scores improve somewhat, on average: Statistically significant decrease in scores on Rosenberg Self-esteem scale.

- *The improvements seen in self-reported parenting knowledge and attitudes among PPP participants are promising, although they cannot be attributed to PPP without a control group.*
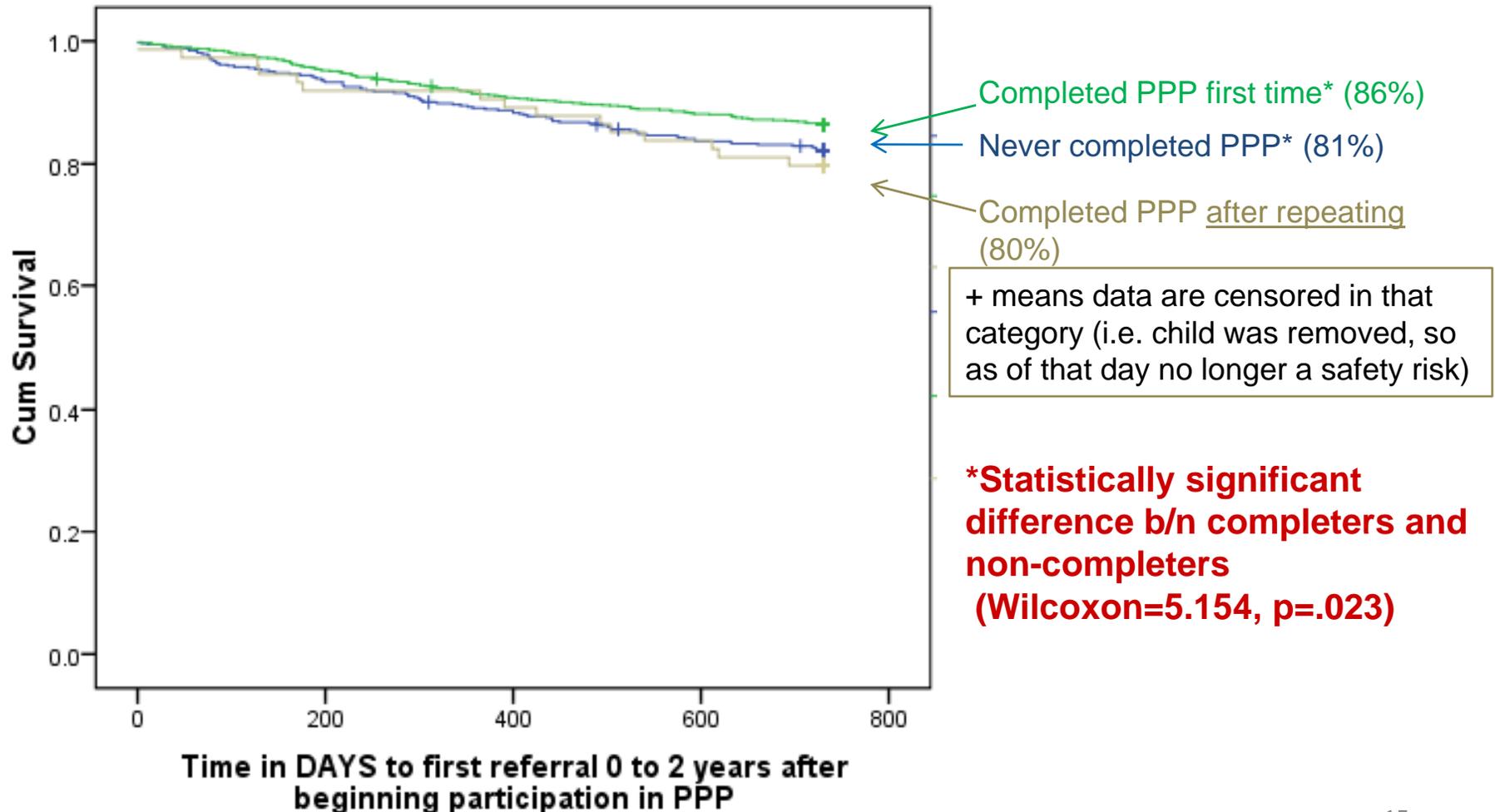
RESULTS:
Long-term Outcomes
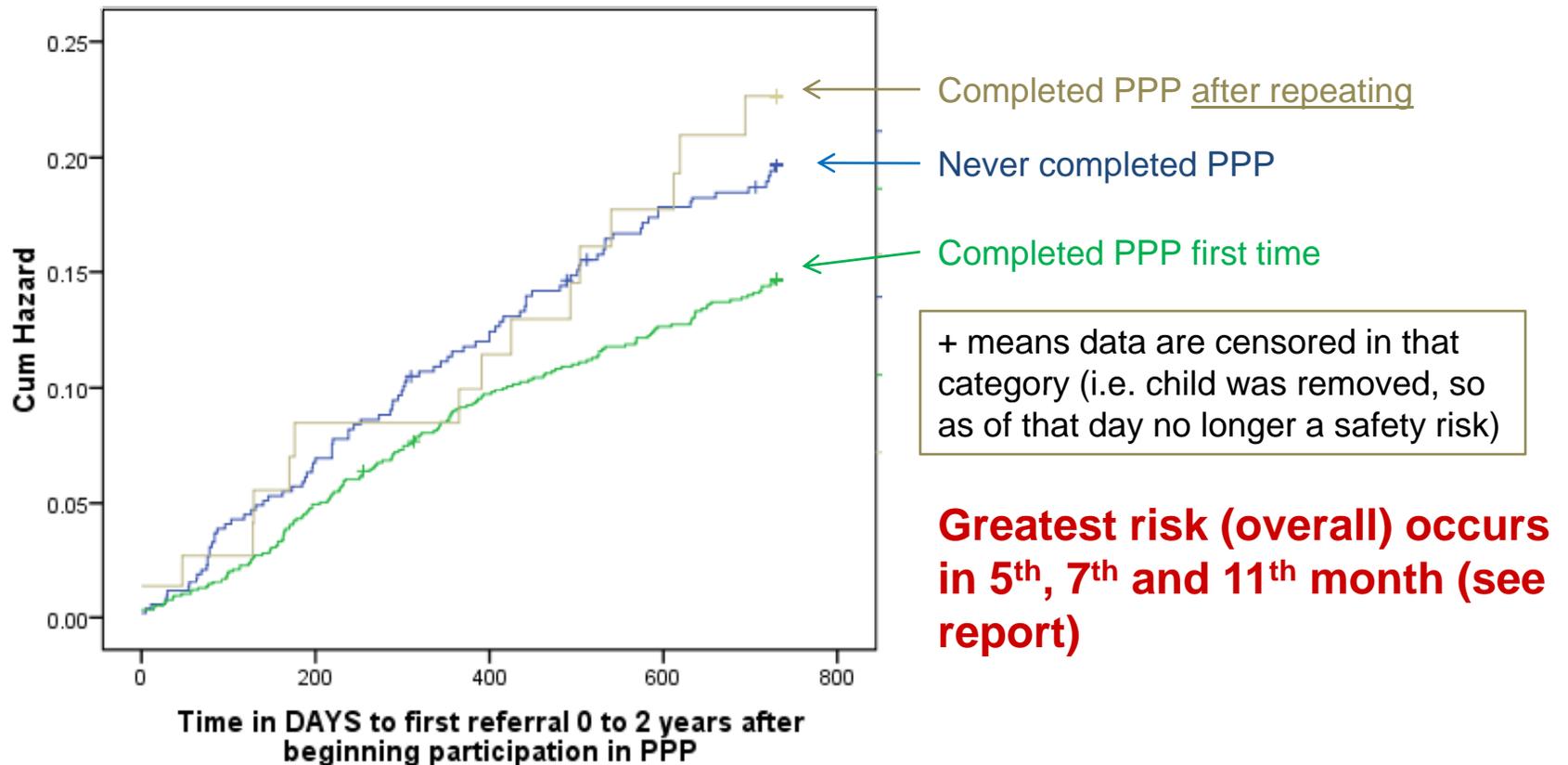
Program Completers AND Non-completers

Child Safety:
Kaplan Meier Survival Curve

Percent of families "surviving" without referrals to Child Protective Services (n=1776)

Completed PPP first time* (86%)

Never completed PPP* (81%)

Completed PPP <u>after repeating</u> (80%)

+ means data are censored in that category (i.e. child was removed, so as of that day no longer a safety risk)

*Statistically significant difference b/n completers and non-completers (Wilcoxon=5.154, p=.023)

Child Safety: Hazard Function

Hazard Rate (Risk) of Referral to Child Protective Services During 2-Year Follow Up

Completed PPP <u>after repeating</u>

Never completed PPP

Completed PPP first time

+ means data are censored in that category (i.e. child was removed, so as of that day no longer a safety risk)

Greatest risk (overall) occurs in 5th, 7th and 11th month (see report)

Child Safety: Cox Regression

- Predictors (IVs) tested:
  - Gender
  - **Race** (p=.003)
  - Age
  - Income
  - **Prior Referrals** (p<.0005)
  - AAPI parenting baseline scores
  - Rosenberg self esteem score
  - PPP Completion status – **NS!**
- Initial model significant: χ^2=168.245, df= 13, p<.0005 (n=1,286)
- Final model significant: χ^2=179.620, df=2, p<.0005 (n=1,483)
  - Prior referrals: Wald=103.243, p<.0005, **Odds=12.1**
  - Race: Wald=9.454, p=.002, **Odds=1.7**

- Interpretation:

In the two years after beginning PPP:

  - Odds were 12x greater that a child would be referred to CPS, when caregiver had history of prior referrals, compared to no prior history.

  - Hazard of referral for caregivers who are African American or black is 1.7 times greater than White and Other ethnicity caregivers.

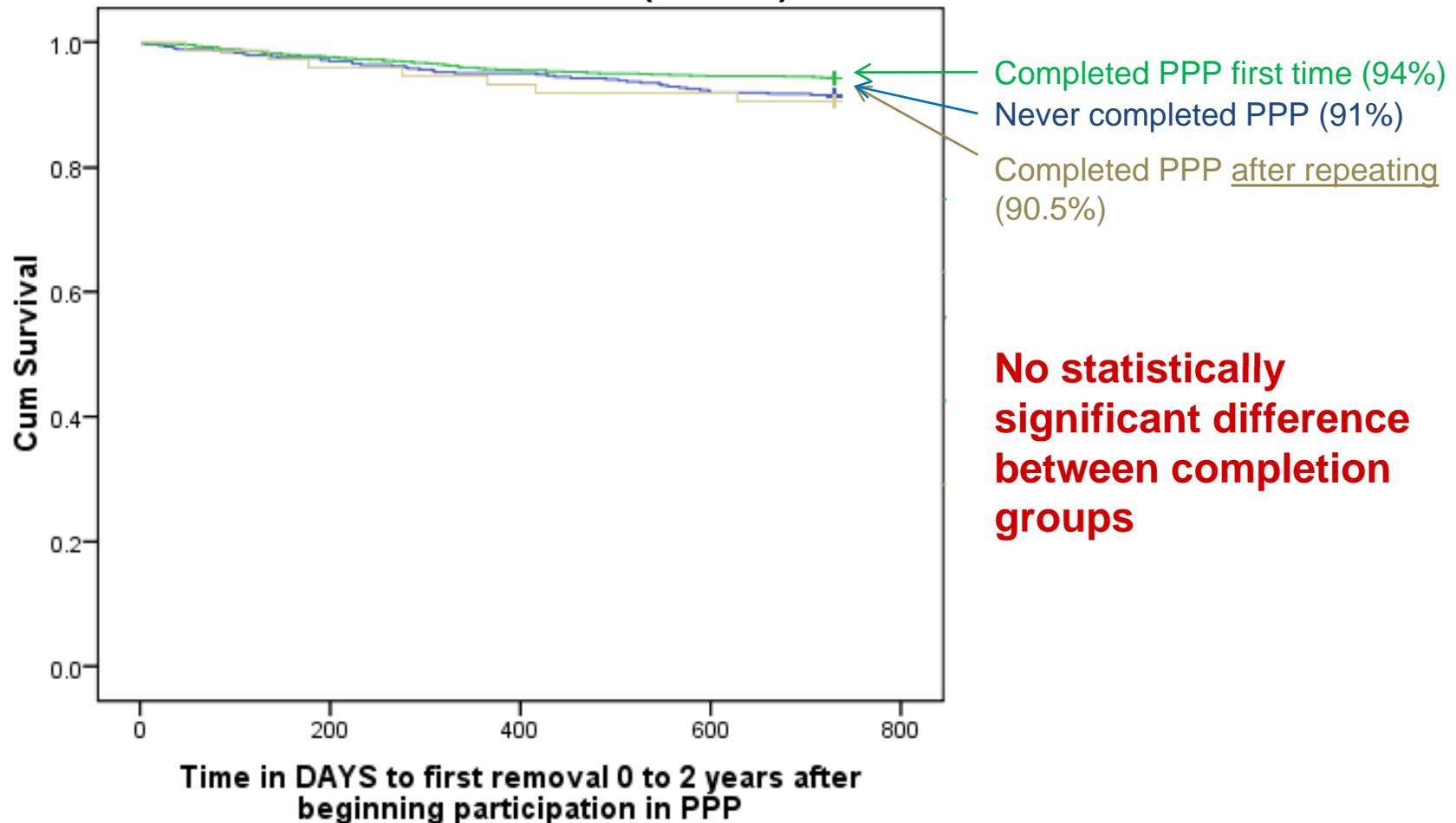 - PPP completion status is NOT a significant predictor of risk of referral to CPS

Child Safety Summary

- Most caregivers (84%) did not experience referrals to CPS during 2 years
- The mean "survival time" without referral to CPS for the three groups is approximately 21 ½ to 22 months. Greatest risk: 5th, 7th, 11th month.
- Survival time without referral to CPS is significantly longer during the two years following PPP for first time completers compared to non-completers (Wilcoxon=5.154, p=.023).
- Completion status not significant predictor of the risk of referral in a multivariate model
- Prior history of referrals and race predict risk of referral:
  - Odds were 12 times greater that child would be referred to CPS if had prior referrals, compared to families without prior referrals (p<.0005)
  - Hazard of referral for African American or black caregivers is 1.7 times greater than White and other ethnicity caregivers (p=.002)

- **Greater safety among children in PPP completion group, however cannot be attributed to the PPP program; prior history of referrals is key predictor of referral to CPS.**

Child Stability:
Kaplan Meier Survival Curve

Percent of families "surviving" without removals from home, by completion status (n=1776)

Completed PPP first time (94%)

Never completed PPP (91%)

Completed PPP after repeating (90.5%)

No statistically significant difference between completion groups

Cum Survival

Time in DAYS to first removal 0 to 2 years after beginning participation in PPP

Child Stability: Cox Regression

- Predictors (IVs) tested:
  - Gender
  - Race
  - Age
  - Income
  - **Prior Referrals** (p<.0005)
  - AAPI parenting baseline scores
  - Rosenberg self esteem score
  - PPP Completion status **– NS!**
- Initial model significant:
  $\chi 2=73.401$, df= 13, p<.0005 (n=1,286)
- Final model significant: $\chi 2=94.131$, df=1, p<.0005 (n=1,776)
  - Prior referrals: Wald=55.543, p=<.0005, **Odds=13.2**

- Interpretation:

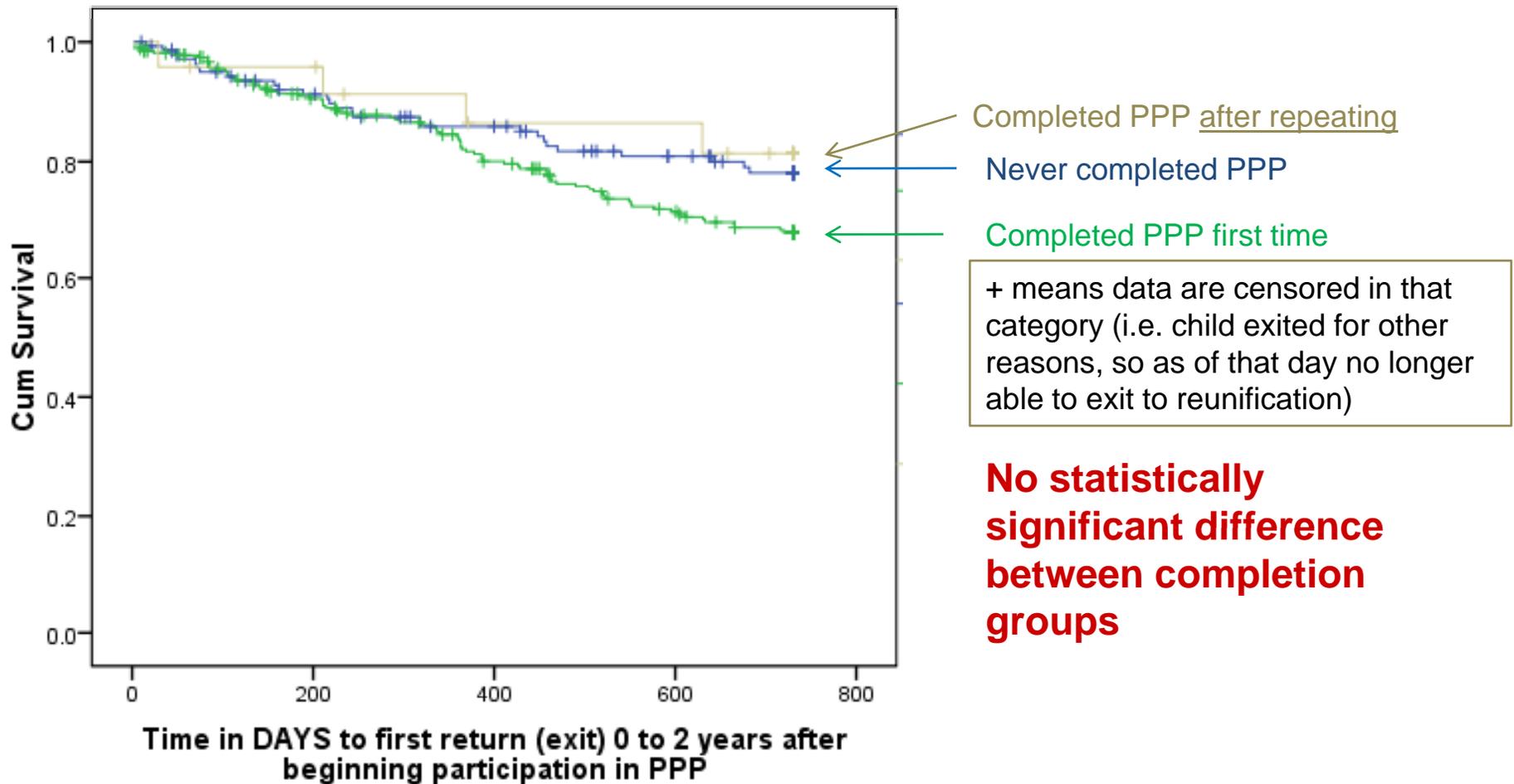 In the two years after beginning PPP:

  - Odds were 13x greater that a child would be removed from home when caregiver had history of prior referrals, compared to no prior history.

  - PPP completion status is NOT a significant predictor of risk of referral to CPS

Child Stability Summary

- Most caregivers (93%) did not experience subsequent removals from home during two year follow up period.
- The mean "survival time" without removal for all three groups is approximately 23 months.
- Completion status <u>not</u> significant predictor of the risk of removal in bivariate OR multivariate models
- Prior history of referrals predicts risk of removal: odds were 13 times greater that child would be removed from home compared to families without prior referrals (p<.0005)

- **Results do not support a relationship between PPP completion and child stability in the home.**

Child Permanency: Survival Curve

Percent of families "surviving" without reunification, by completion status (n=442)

Completed PPP after repeating

Never completed PPP

Completed PPP first time

+ means data are censored in that category (i.e. child exited for other reasons, so as of that day no longer able to exit to reunification)

No statistically significant difference between completion groups

Cum Survival

Time in DAYS to first return (exit) 0 to 2 years after beginning participation in PPP

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Child Permanency Summary

- Most caregivers (71%) with a child in OHC did not experience *reunification* during two year follow up period.
- The mean "survival time" without reunification for the three groups ranges from approximately 20 ½ to almost 22 months.
- No statistically significant differences in the likelihood ("hazard") of reunification by PPP completion status during two year follow up period.
- None of covariates tested were significant predictors of likelihood of reunification.

- **Results do not support a relationship between PPP completion and child permanency.**

NOTE: Child permanency data are based on a limited subsample of cases (n=442)

Discussion & Implications

Discussion & Implications

INTERMEDIATE OUTCOMES

- PPP's intermediate goals (tested) appear to be met for people that complete the program, based on self-report
  - Protective factors (parenting knowledge and attitudes) increase
  - Risk factor (low self esteem) decreases
  - Results are similar for families with children in home and in out-of-home care
  - Results similar for completers in second phase of study (slightly diff't sample).

- PPP is increasing awareness of socially acceptable parenting attitudes.
  - Are parenting behaviors improving?

Discussion & Implications

LONG TERM OUTCOMES

- **Child safety and stability appear to be relatively high during the two years after beginning PPP**, and program completers have somewhat better survival times (less risk of referral to CPS).

  But...

- PPP's long-term goals may not be met, based on matched DHR and TFT data
  - Completers' children appear to be safer than non-completers, but <u>prior CPS referrals</u> predicts safety <u>not PPP completion status</u>
  - No significant differences in stability (removals) and permanence (reunification) for completers and non-completers
  - How are PPP participants (whether or not they complete) faring compared to parents who never show up for class? How does this program compare to another with same goals? Would results be better if we could intervene earlier with more families?

Discussion & Implications

- Strengths
  - Ability to compare completers and non-completers in second phase of study (prior evaluation only able to examine completers)
  - Incorporates child safety, stability, and permanency outcomes from official child welfare agency records – testing long-term expected outcomes of PPP
  - Statistical technique, survival analysis, advanced, able to adjust for the unknown future history of cases for whom the ultimate outcome is not known (censored data), no need to exclude these cases as "missing" data
  - Large sample size!

Discussion & Implications

- Limitations
  - Study design. Promising results cannot be attributed to PPP. Cannot rule out alternative explanations (for promising results or for non-significant results) due to non-randomized study design
    - No comparison group for intermediate outcomes – PPP completers only
    - No ability to compare outcomes to parents who did not participate in PPP at all. Did PPP participants fare any better?
    - No ability to control for other services. For example, did "non-completers" leave PPP then attend a similar parent training program?
  - Data quality issues
  - Attrition in CPS data (i.e. cases who move out of state)
  - Measurement issues (e.g. CPS referrals as measure of maltreatment; only self-report for intermediate outcomes)
  - Cannot generalize results beyond sample, not even to all TFT PPP Baltimore cases

Discussion & Implications

- Future practice
  - Re-visit logic model – Does program align well with expected outcomes?
  - Effort to serve families being referred to CPS for the first time (no prior history of referrals) – Would outcomes be better?
  - Consider follow up after 10 week PPP to reinforce lessons, help families apply skills (Greatest risk in 5th, 7th, 11th month after beginning PPP)
  - Incorporate more evidence-based components into program, like role plays to build skills, observation of parent-child interaction and parent coaching, home visits
  - Strategies to retain the non-completers should be pursued.

Discussion & Implications

- Future evaluation
  - Research questions:
    - Are other intermediate and long-term outcomes being met?
    - If make enhancements, compare PPP to enhanced PPP to see if it really helps; or compare PPP to an evidence-based program like Triple P
    - Evaluate program fidelity – To what extent is PPP implemented as intended?
  - Study design: Must improve study design to be able to attribute positive results to PPP (e.g. random assignment if feasible; prospective study)
  - Measurement: Selecting best measures for key outcomes; improved data collection, including unique ID's

Discussion & Implications

- RECOMMENDATIONS
  - Review PPP logic model, re-assess alignment of key program components and expected outcomes, amend as needed
  - Consider making enhancements to PPP based on EBP (shown to impact child safety/prevent ca/n) and results from this study; test any changes with rigorous design comparing existing program to new program
  - Plan and conduct a prospective study to allow more rigorous evaluation fo PPP's impact on intermediate and long-term outcomes, and assess fidelity of implementation of the program

- TFT's commitment to evaluating and improving the PPP program

For more details see Reports:

1. **Evaluating Outcomes for At-risk Families Participating in The Family Tree's Positive Parenting Program: A Retrospective Study;**
   Interim Report (February 2009)

2. **Evaluating Outcomes for At-risk Families Participating in The Family Tree's Positive Parenting Program: A Retrospective Study; Part II: Long Term Outcomes, Summary and Conclusions (August 2009)**