RESILIENCE IN THE FACE OF LOSS: PROMOTING HEALTHY DEVELOPMENT IN PARENTALLY BEREAVED YOUTH

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Services for Teens at Risk
(STAR-Center)
Impact of Sudden Parental Death on Children

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Objectives

- Identify impact of sudden loss of a parent on children’s social, emotional, and physical development
- Identify predictors, pathways, and protectors to healthy development
- Use this information to identify bereaved youth at risk
- How to harness what we know to promote health adaptation to parental loss
4% of children will lose one parent by 18
The death of a parent is rated as one of the most stressful life events
Retrospective studies suggest that there are serious long-term physical and mental health consequences
Social impact and competence
- Difficulty with intimacy and parenting (Birtchnell)
- Lower perceived family support (Maier)

Mental health
- Increased risk for depression (Kendler; Mack; Maier)
- Decreased self-esteem (Marks)
- Decreased “well being” (Marks)

Health
- Increased cortisol response to stress (Lueckken)
- Cortisol response related to quality of family relationships
- Family adversity associated with cardiometabolic risk (Felliti)
Adverse Health Outcomes and Early Childhood Adversity (OR’s) *

Health Outcomes and Early Family Adversity* (OR’s)

Childhood Attachment and Loss Affects Cortisol Response to Stress*

Figure 3. Cortisol during speech by loss group and sampling period.

Figure 6. Cortisol during movie by family relationships and sampling period. (Regression model with covariates “sex,” “age,” and time of day. Data shown represent regression lines using average covariate values of sex = “female,” age = “21,” and time of day = “2:00 PM.”)

From Adversity to Premature Death*

Impact of Parent Loss Due to Suicide vs. Other Causes of Death

- Cerel (1999) – compared 26 children who lost a parent to suicide vs. 322 parentally bereaved children
  - Suicide group: less acceptance, more shame, anger and impairment
  - But *not* more depression, PTSD, suicidal behavior

- Cerel (2000) – suicide group had more impaired family functioning than others *before* the death, but after the death were similar (therefore, family function in suicide survivors *improved*).
Suicide Bereavement Could Be Different Because:

- Family loading for disorder and suicidal behavior
- Stigma
- Pre-death family adversity
- Traumatic exposure
Gaps in the Literature

- Very few prospective, controlled, community-based studies of parentally bereaved youth
- Very few that compared the impact of parental suicide with other types of parental sudden death
- Previous prospective study did not carefully assess deceased parent’s psychopathology
- No studies that examined complicated grief
Impact of Parental Sudden Death

- What are the health sequelae of parental bereavement on children and adolescents?
- What pre-morbid and post-death factors facilitate or impede recovery?
- Within the bereaved group, are there differential effects of suicide?
- Phenomenology of complicated grief
Impact of Sudden Parental Death on Children: Probands

- Probands – suicide, accident, sudden natural death
  - Definite verdict/no ambiguous cases
  - No multiple death/injuries/no suicides in non suicide families
  - Death within 24 hours
  - Children 8-18, biological parent, living at home
Recruitment of Probands

- Obtained for coroners records and advertisement
- 71% acceptance
- Appears representative of suicides and accidents in Allegheny County
Recruitment of Non-bereaved Controls

- Neighborhood controls:
  - Random Digital Dialing or advertisement
  - no bereavement in last 2 years
  - both parents alive
  - demographically matched to deceased families

- 55% response rate
Assessment

- Psychiatric disorder, past and current
- Health status (TSST cortisol, BMI, perceived health)
- Complicated grief
- Social competency
- Role of coping, life events, parental psychiatric disorder and functioning
- Cause and circumstances of death
# Demographic Characteristics of Probands

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>A</th>
<th>N</th>
<th>C</th>
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</thead>
<tbody>
<tr>
<td>N (Probands)</td>
<td>44</td>
<td>36</td>
<td>60</td>
<td>99</td>
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<tr>
<td>Age (yrs.)</td>
<td>$43^{ab}$</td>
<td>$41^a$</td>
<td>47</td>
<td>44</td>
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<tr>
<td>Sex (% male)</td>
<td>77</td>
<td>72</td>
<td>82</td>
<td>76</td>
<td>ns</td>
</tr>
<tr>
<td>Race (% white)</td>
<td>93</td>
<td>78</td>
<td>82</td>
<td>86</td>
<td>ns</td>
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<tr>
<td>Income (x 10,000)</td>
<td>$6^a$</td>
<td>$6^{ab}$</td>
<td>$6^a$</td>
<td>$7^b$</td>
<td>&lt;.01</td>
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</tbody>
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S = Suicide; A = Accident; N = Natural; C = Controls

Superscripts that are different indicate significant pairwise difference.
# Demographic Characteristics of Adult Caregivers

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<tr>
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<td>36</td>
<td>60</td>
<td>101</td>
<td></td>
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<tr>
<td>Age (years)</td>
<td>42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>46&lt;sup&gt;b&lt;/sup&gt;</td>
<td>42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>&lt;.01</td>
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<tr>
<td>Sex (% female)</td>
<td>84</td>
<td>81</td>
<td>92</td>
<td>74</td>
<td>ns</td>
</tr>
<tr>
<td>Race (% white)</td>
<td>93</td>
<td>78</td>
<td>85</td>
<td>87</td>
<td>ns</td>
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<tr>
<td>Relation to proband</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(% married)</td>
<td>56&lt;sup&gt;a&lt;/sup&gt;</td>
<td>50&lt;sup&gt;a&lt;/sup&gt;</td>
<td>68&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>77&lt;sup&gt;b&lt;/sup&gt;</td>
<td>&lt;.01</td>
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S = Suicide; A = Accident; N = Natural; C = Controls

Superscripts that are different indicate significant pairwise difference.
## Demographic Characteristics of Children

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<tr>
<td>N (Children)</td>
<td>66</td>
<td>51</td>
<td>94</td>
<td>183</td>
<td></td>
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<tr>
<td>Age (years)</td>
<td>14</td>
<td>13</td>
<td>13</td>
<td>13</td>
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<tr>
<td>Sex (% male)</td>
<td>52</td>
<td>47</td>
<td>56</td>
<td>50</td>
<td>ns</td>
</tr>
<tr>
<td>Race (% white)</td>
<td>92&lt;sup&gt;a&lt;/sup&gt;</td>
<td>82&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>73&lt;sup&gt;b&lt;/sup&gt;</td>
<td>85&lt;sup&gt;a&lt;/sup&gt;</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Lived with both parents before death</td>
<td>35&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45&lt;sup&gt;a&lt;/sup&gt;</td>
<td>65&lt;sup&gt;b&lt;/sup&gt;</td>
<td>81&lt;sup&gt;c&lt;/sup&gt;</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Caregiver Bio Parent of child (%)</td>
<td>88&lt;sup&gt;a&lt;/sup&gt;</td>
<td>88&lt;sup&gt;a&lt;/sup&gt;</td>
<td>85&lt;sup&gt;a&lt;/sup&gt;</td>
<td>100&lt;sup&gt;b&lt;/sup&gt;</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Time since death (months)</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>-</td>
<td>ns</td>
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Bereaved Youth at Risk Prior to Loss

- Parents don’t die young at random
- Co-parent—assortative mating
- Children have increased rates of adverse experiences and psychiatric disorder prior to loss
Adversity Prior to Parent Death (%)*

New-onset Disorder in Parentally Bereaved Youth and Caregivers (%)

Psychiatric Sequelae 21 Mos. After Parental Loss* (%)
Parental Bereavement and Course of Depression*

Pathways to Depression in Parentally Bereaved Youth*

Bereavement and Substance Abuse

Kaplan-Meier survival estimates

Month

Non-bereaved  Bereaved
Also termed “prolonged grief,” traumatic grief
Distinct from depression, PTSD, although often co-occurs
Basically—difficulty “moving on”:
- Preoccupation with deceased
- Bitterness, feeling life has lost meaning
- Numb
- Avoidant or socially avoidant
- Yearning for the deceased
Trajectories of Grief Reactions in Bereaved Youth (Melhem, 2011)

- N=182 parentally bereaved youth
- Latent Classification Analysis of ICG-RC
- 10% showed sustained high scores up to 33 months post-death
- 40% showed high scores for at least 9 months after the death
Latent Class Growth Curve Modelling on the Inventory of Complicated Grief-Revised for Children Version (ICG-RC)*

Risk of depression higher in those with more prolonged grief

Over course of 3 years, bereaved showed higher rates of health risk behaviors than controls.

Specific behaviors that were more frequent: getting into fights, not wearing seatbelts.

Related to low educational and occupational expectations for the future.

* Hamdan et al., APAM, in press
Cortisol Response to Social Stress

*Dietz et al., Under review.*
Significant differences (p < 0.05) between bereaved and non-bereaved offspring in recovery period 2, 20 minutes after exposure to social stress.

*Dietz et al., Under review.*
Obesity and Overweight in Bereaved and Control Youth (Weinberg, submitted)
Social Competency

- Assessed bereaved youth and controls 5 years after the death
- Status questionnaire
  - Work
  - Friendships
  - Career planning
- Inventory of Parental and Peer Attachment (IPPA)
- Future expectations
* Months after parental death
Numbers are standardized path coefficients.
Solid lines indicate statistically significant paths.
Dotted lines indicate pathways that are not significant
JOB PERFORMANCE*

From Status Questionnaire

- Proband Hx
- Caretaker Hx
- Bereavement
- Functional Impairment 9 months
- Functional Impairment Worst 21/33 months
- Caretaker Functional Impairment Worst 21/33 months

* From Status Questionnaire
Conclusions (1)

- Children whose parents die suddenly were at increased risk for adverse psychosocial outcome even before their parents died.
- In first year after death, bereaved youth at increased risk for new-onset MDD and PTSD, regardless of cause of death.
- By 2nd year, suicide and accidental deaths had higher rates and longer duration of depression and increased risk of substance abuse.
- About 40% have complicated grief, 10% persist at least 3 years.
- Difficulties with attachment, educational and occupational attainment at 5 years post-death.
Conclusions (2)

- Bereaved youth have increased health risk behaviors over first 3 years after death
- Increased cortisol response to TSST
- Higher rates of obesity
- Higher systolic blood pressure
Risk Factors for Poor Outcome

- Parental and personal psychiatric history
- Ongoing psychiatric disorder and impairment in care-giving parent
- Depression, behavioral disorder, substance abuse in youth
Protective Factors Against Poor Outcome

- Better functioning in care-giving parent
- Family support and cohesion
- Adaptive coping in offspring
- Resolution of psychiatric disorder and CG
Although nearly half of bereaved youth receive mental health services, no association with outcome

Need evidence-based treatments that combine focus on risk and on protective factors
Next Steps

- Identify common roots of adverse mental and physical health
- Most likely related to physiological response to stress, impact on emotion regulation and health behaviors
- Therefore prevention should:
  - Promote adaptive coping and family support
  - Treatment of CG, depression, PTSD in parent and child
  - Promotion of health lifestyle
  - Management of stress response (yoga, mindfulness-based stress reduction)


References (2)

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