Associations of mental illness, substance abuse and domestic violence in the household of origin and long-term consequences
- The mediating role of child maltreatment

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Adverse Childhood Experiences (ACEs)

**ACEs**

- **Household Dysfunction**
  - Mental illness of a household member
  - Substance abuse of a household member
  - Intimate partner violence (IPV)
  - Incarceration of a household member
  - Separation of the parents
  - ...

- **Maltreatment**
  - Emotional abuse
  - Physical abuse
  - Sexual abuse
  - Emotional neglect
  - Physical neglect
Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults

The Adverse Childhood Experiences (ACE) Study

Vincent J. Felitti, MD, FACP, Robert F. Anda, MD, MS, Dale Nordenberg, MD, David F. Williamson, MS, PhD, Alison M. Spitz, MS, MPH, Valerie Edwards, BA, Mary P. Koss, PhD, James S. Marks, MD, MPH
Mental health risks

- Children of mentally ill parents have an increased risk to develop mental illness themselves e.g. Goodman & Gotlib 1999, Weissmann 2011

- Children of substance abusive parents have an increased risk to develop mental illness, e.g. Chassin 1999

- Experience of IPV is associated with the occurrence of mental health problems e.g. Fong, 2017
## Interrelatedness of ACEs

Prevalence (%) and adjusted odds ratios for childhood abuse and neglect by presence or absence of an individual ACE

<table>
<thead>
<tr>
<th>Outcome variables (ACE category)</th>
<th>N</th>
<th>Abuse</th>
<th></th>
<th></th>
<th>Neglect</th>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>%</td>
<td>OR&lt;sup&gt;a&lt;/sup&gt;</td>
<td>%</td>
<td>OR&lt;sup&gt;a&lt;/sup&gt;</td>
<td>%</td>
<td>OR&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>21.5</td>
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<td>2.9</td>
<td>38.7</td>
<td>2.1</td>
<td>30.7</td>
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</table>

<sup>a</sup> In a logistic model adjusting for age at time of survey, race, and educational attainment; \( p < .0001 \).

<sup>b</sup> The referent group for all results are persons with “No” response.

Dong et al., 2004
Pathomechanism

ACEs

Endocannabinoids

Oxytocin

Cortisol

Catecholamines

Monoamines

Health Behavior

Somatic Disorders

Mental Disorders

Loss of quality of life and life expectancy
Pathomechanism

Household dysfunction → Oxytocin

Maltreatment → Endocannabinoids

Cortisol → Catecholamines

Monoamines → IFN-γ, IL-6, IL-1β, TNF-α

Health Behavior → Somatic Disorders → Mental Disorders → Loss of quality of life and life expectancy
Pathomechanism

Maltreatment

Household dysfunction

Oxytocin
Endocannabinoids
Cortisol
Catecholamines
Monoamines

Health Behavior

Somatic Disorders

Mental Disorders

Loss of quality of life and life expectancy
Adverse Childhood Experiences (ACEs)

- Household Dysfunction
  - Mental illness of a household member
  - Substance abuse of a household member
  - Intimate partner violence (IPV)
  - Incarceration of a household member
  - Separation of the parents
  - ...

- Maltreatment
  - Emotional abuse
  - Physical abuse
  - Sexual abuse
  - Emotional neglect
  - Physical neglect
N = 2531

Sex
  • 55.4% female
  • 44.6% male

Age: M = 48.6 years (Range: 14-93)

Instruments:
  • ACE-Questionnaire
  • PHQ2/GAD2
  • EQ-5D-5L
Prevalence of ACEs

- Physical Neglect: 4.3%
- Emotional Neglect: 13.4%
- Sexual Abuse: 4.3%
- Physical Abuse: 9.1%
- Emotional Abuse: 12.5%
- Household incarceration: 3.5%
- Parental separation: 19.3%
- Household mental illness: 10.5%
- Household substance abuse: 16.0%
- Violence against the mother: 9.8%
Increased Risk for Maltreatment

Odds Ratio

<table>
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<td>Violence against mother</td>
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<td>4.4</td>
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<td>Substance Abuse</td>
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<td>5.5</td>
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<td>7.0</td>
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<tr>
<td>Mental illness</td>
<td>5.6</td>
<td>5.0</td>
<td>5.4</td>
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</tbody>
</table>
IPV

- **b** = 1.02*** from IPV to Depression
- **b** = -0.92*** from IPV to Life Satisfaction
- **b** = 0.51*** from IPV to Anxiety
- **b** = -4.26*** from IPV to General Health
IPV

- IPV → Child Maltreatment: $b=1.17^{***}$
- Child Maltreatment → Depression: $b=0.76^{***}$
- IPV → Life Satisfaction: $b=1.17^{***}$
- Child Maltreatment → Life Satisfaction: $b=-0.41^{***}$

- IPV → Child Maltreatment: $b=1.17^{***}$
- Child Maltreatment → Anxiety: $b=0.38^{***}$
- IPV → General Health: $b=1.17^{***}$
- Child Maltreatment → General Health: $b=-3.62^{***}$
Substance abuse

- Household substance misuse → Depression: $b = 1.32^{***}$
- Household substance misuse → Anxiety: $b = 0.69^{***}$
- Household substance misuse → Life Satisfaction: $b = -0.90^{***}$
- Household substance misuse → General Health: $b = -5.72^{***}$
Substance abuse

- Household substance misuse → Child Maltreatment (b=0.97***)
- Child Maltreatment → Depression (b=0.69***)
- Child Maltreatment → Anxiety (b=0.34***)
- Household substance misuse → Child Maltreatment (b=0.97***)
- Child Maltreatment → Life Satisfaction (b=-0.39***)
- Child Maltreatment → General Health (b=-3.28***)
- Household substance misuse → Life Satisfaction (b=0.97***)
- Household substance misuse → General Health (b=0.97***)
**Substance abuse**

![Diagram](Image)

- Household substance misuse → Child Maltreatment
  - $b = 0.97^{***}$
  - $b = 0.65^{***}$
- Child Maltreatment → Depression
  - $b = 1.32^{***}$
  - $b = 0.69^{***}$
- Household substance misuse → Depression
  - $b = -0.90^{***}$
  - $b = -0.52^{***}$
- Household substance misuse → Life Satisfaction
  - $b = -0.90^{***}$
  - $b = 0.65^{***}$
- Child Maltreatment → Life Satisfaction
  - $b = 0.69^{***}$
  - $b = 0.97^{***}$
- Household substance misuse → Life Satisfaction
  - $b = -0.52^{***}$
  - $b = 0.97^{***}$
- Household substance misuse → Anxiety
  - $b = -0.39^{***}$
  - $b = 0.37^{***}$
- Child Maltreatment → Anxiety
  - $b = 0.97^{***}$
  - $b = 0.34^{***}$
- Household substance misuse → Anxiety
  - $b = -3.28^{***}$
  - $b = -0.39^{***}$
- Child Maltreatment → General Health
  - $b = -5.72^{***}$
  - $b = 0.97^{***}$
- Household substance misuse → General Health
  - $b = -2.52^{*}$
  - $b = 0.34^{***}$
Mental illness

Household mental illness $\rightarrow$ Depression: $b=1.89^{***}$

Household mental illness $\rightarrow$ Anxiety: $b=0.99^{***}$

Household mental illness $\rightarrow$ Life Satisfaction: $b=-1.08^{***}$

Household mental illness $\rightarrow$ General Health: $b=-6.56^{***}$
Mental illness

- Household mental illness → Child Maltreatment (b=0.99***)
- Child Maltreatment → Depression (b=0.66***)
- Household mental illness → Anxiety (b=0.32***)
- Household mental illness → Life Satisfaction (b=-0.39***)
- Child Maltreatment → General Health (b=-3.32***)

***Significant at the 0.001 level
Mental illness

Household mental illness → Child Maltreatment
\[ b = 0.99^{***} \]

Child Maltreatment → Depression
\[ b = 1.89^{***} \]

Depression → Life Satisfaction
\[ b = 1.23^{***} \]

Life Satisfaction → General Health
\[ b = -0.69^{***} \]

Household mental illness → Child Maltreatment
\[ b = 0.99^{***} \]

Child Maltreatment → Anxiety
\[ b = 0.99^{***} \]

Anxiety → General Health
\[ b = -3.32^{***} \]

Clemens et al. Europ. Psych. 2019
Possible explanations

- coping with stress, frustration and anger can be affected
- lower self-regulatory resources (e.g. withdrawal)
- Own experience of child maltreatment
- low socio-economic status
- lack of social support
- single parent situation

Conclusion

- Mental illness, substance abuse and IPV in the household of origin are associated with a significantly increased risk for all forms of child maltreatment.

- The association between household dysfunction and health and socioeconomic impairments in later life is mediated by the occurrence of child maltreatment.

→ Prevention of child maltreatment in affected families can lead to a significant reduction in the long-term consequences of household dysfunction.

→ A better awareness for the risk for maltreatment in psychiatry and psychotherapy.
Thank you!

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