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Childhood experiences of care and abuse in a clinical sample of self-harming and suicidal adolescents and their impact on the individual function of nonsuicidal self-injury

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Self-harm & suicidal behaviour in adolescence

- Rising problem in teenagers in many industrial countries
- Prevalences of NSSI from 9 % to 20 % among adolescents (Brunner et al. 2007, Plener & Muehlenkamp 2007)
- Suicidal thoughts in about 30 % of adolescents (Evans et al. 2005)
- Suicide attempts in about 10 % of adolescents (Evans et al. 2005)
- NSSI and suicidal behaviour usually highly correlate, but must be regarded separately (Muehlenkamp 2005)



Borderline Personality Disorder in Adolescence

- Prevalence of Borderline Personality Disorder (BPD) during adolescence between 3 and 14 % (Berner et al. 2001, Chabrol et al. 2001, Miller et al. 2008)
- BPD in the setting of child and adolescent psychiatry
 - 20 % of outpatients (Chanen et al. 2008)
 - 50 % of inpatients (Grilo et al. 1996)
- Self-mutilation is highly associated with development of BPD (Lieb et al. 2004)
- High percentages of patients with BPD in the group of patients presenting repetitive self-mutilation (Brunner et al. 2008)
- Child and adolescent BPD symptoms as the strongest predictor for adult BPD (Cohen et al. 2005)



Childhood experiences & psychiatry

- Adverse childhood experiences as etiological factors in the development of psychiatric disorders (Zanarini 2000)
- Higher risk of adult depression in case of childhood sexual or physical abuse (Bifulco et al. 2002, Heim et al. 2008)
- Experiences of childhood abuse in the development of personality disorders (Battle et al. 2004, Paris 1998)
- ...



Childhood experiences & self-harm

- Difficulties within families in 77.3 % of DSH patients presenting to a hospital (Hawton & Harris, 2008)
- Correlation between high expressed emotions (in parents), parental criticism and NSSI in adolescents (Wedig & Nock, 2007)
- Alienation from the parents due to parental criticism as key component on the pathway to NSSI (Yates et al., 2008)
- Relationship between child abuse and maltreatment with adolescent NSSI (Weierich & Nock, 2008, Yates et al., 2008)



Study design

- Consecutive recruitment of all psychiatric inpatients from November 2008 to September 2009
- Age between 13 and 25, both genders
- Informed consent of patients and parents
- Measurement by self-report booklet including:
 - Sociodemographic variables
 - FASM (Functional Assessment of Self-Mutilation)
 - Paykel Suicide Scale
 - CECA.Q (Childhood Experiences of Care and Abuse Questionnaire)



Study sample

- N = 125 inpatients
- 63 were females, 62 were males
- 92 aged < 18 Years, 33 aged > 18 years
- 104 treated on the wards, 21 treated in the day clinic
- 84 had regular admission, 41 had emergency admission
- Mean IQ of the sample was 98



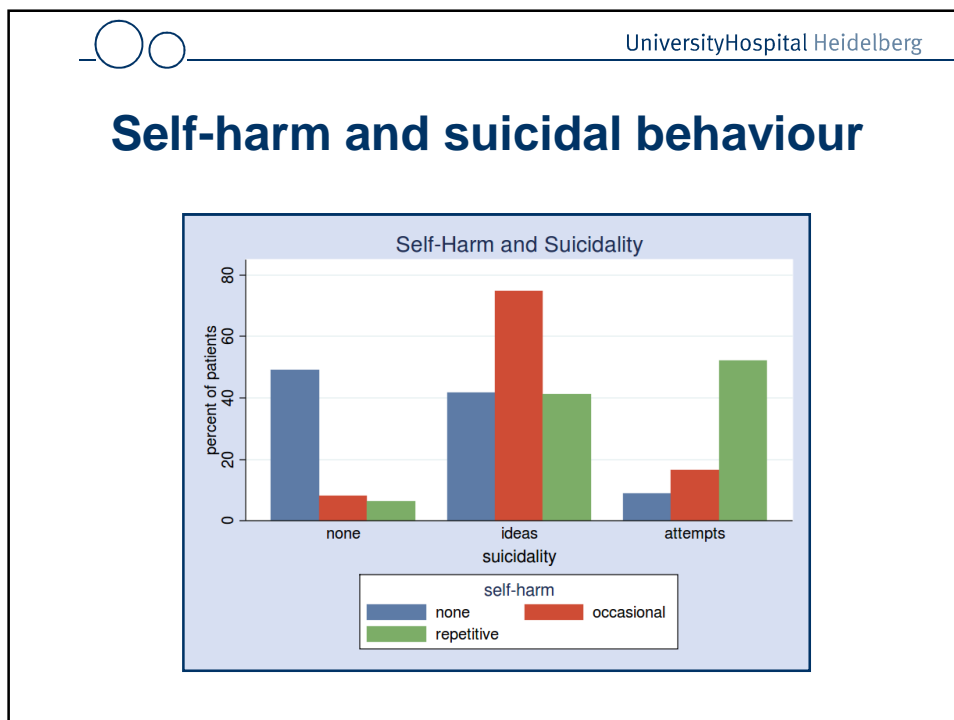
Self-harm

| Self-injury (last 6 months) | Frequency | Percent |
|--------------------------------|-----------|---------|
| None | 66 | 52.8 |
| 1-3 times | 12 | 9.6 |
| >3 times | 47 | 37.6 |
| Total | 125 | 100 |

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Suicidal behaviour

| Suicidal behaviour | Frequency | Percent |
|--------------------|-----------|---------|
| None | 36 | 28.8 |
| Suicidal thoughts | 56 | 44.8 |
| Suicide attempts | 33 | 26.4 |
| Total | 125 | 100.0 |





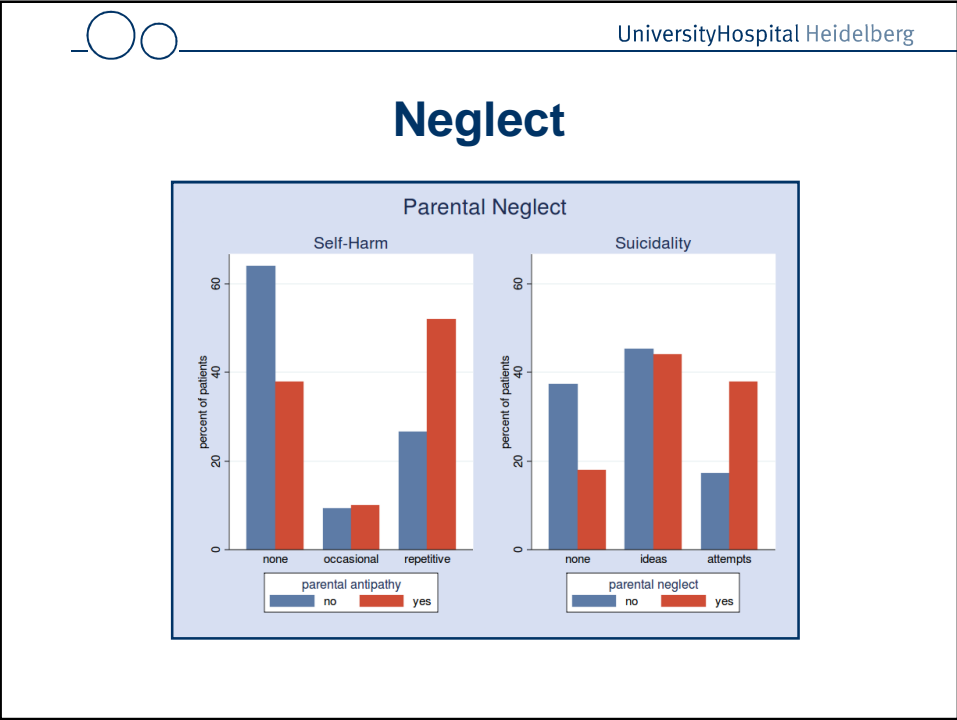
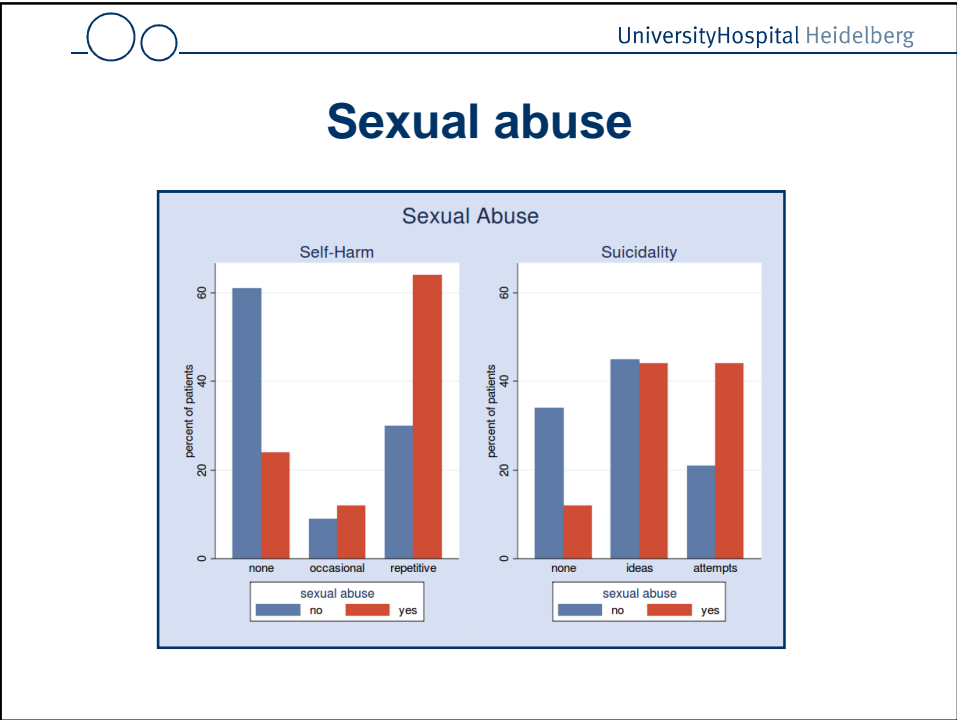
The CECA.Q (Childhood Experiences of Care and Abuse – Questionnaire)

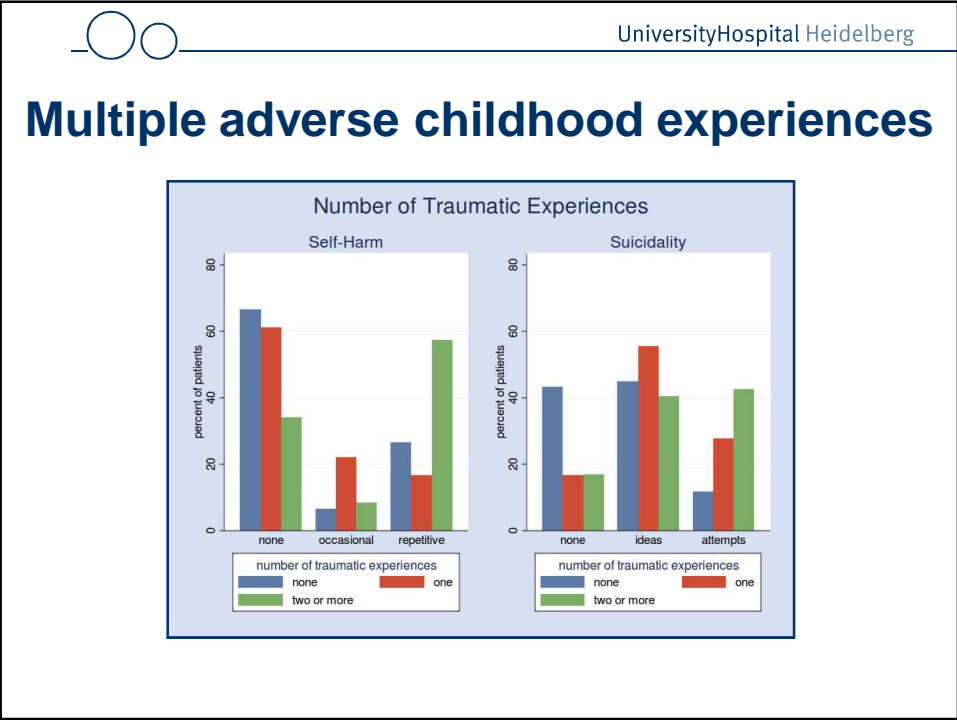
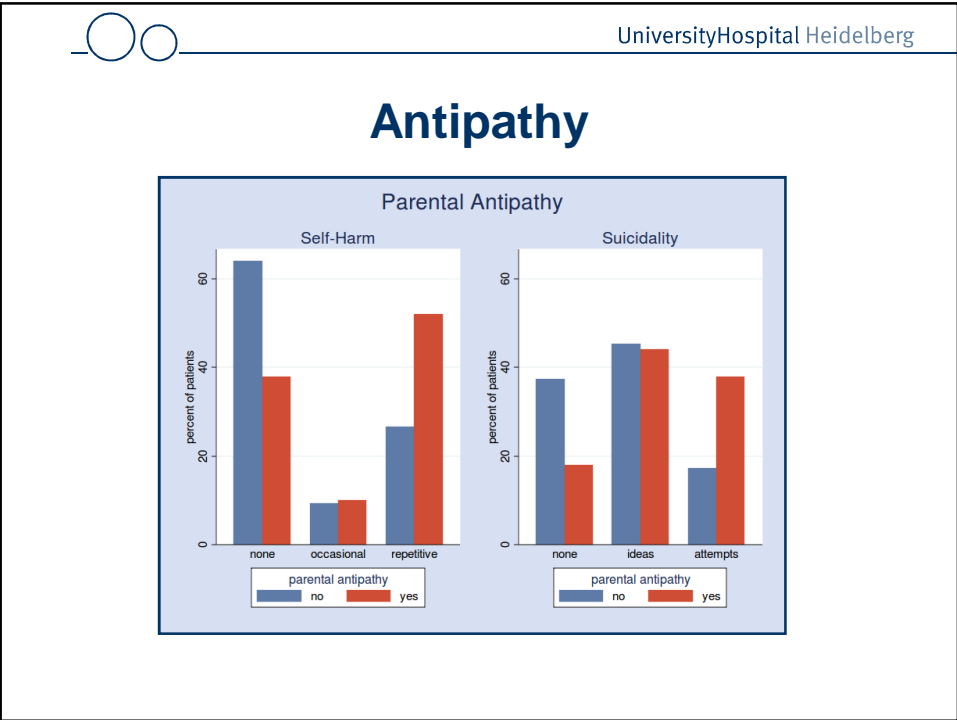
- Self-report questionnaire to assess a various range of adverse childhood experiences including:
 - Sexual abuse
 - Physical abuse
 - Antipathy
 - Neglect
 - Loss of parents




Physical abuse










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Adverse childhood experiences as predictors for self-harm (I)

| Scale | Odds ratio (uncorrected) | Odds ratio (corrected) |
|-----------------------|--------------------------|------------------------|
| Antipathy mother | 5.44* | 2.55 |
| Antipathy father | 3.21* | 2.09 |
| Neglect mother | 5.80* | 2.35 |
| Neglect father | 1.82 | 0.66 |
| Physical abuse mother | 4.78* | 1.20 |
| Physical abuse father | 2.16 | 0.98 |
| Sexual abuse | 4.47* | 2.00 |

* P < 0.05



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Adverse childhood experiences as predictors for self-harm (II)

- Adverse childhood experiences as predictors for NSSI after minimizing Bayes Information Criteria (BIC):
 - Antipathy mother odds ratio 5.03
 - Sexual abuse odds ratio 4.04



Functions of self-harm

| Function | Description |
|--------------------------|---|
| Affect-regulation | To alleviate acute negative affect or aversive affective arousal |
| Anti-dissociation | To end the experience of depersonalization or dissociation |
| Anti-suicide | To replace, compromise with, or avoid the impulse to commit suicide |
| Interpersonal boundaries | To assert one's autonomy or a distinction between self and other |
| Interpersonal-influence | To seek help from or manipulate others |
| Self-punishment | To derogate or express anger towards oneself |
| Sensation-seeking | To generate exhilaration or excitement |

(Klonsky 2007)



Functions of self-harm in our study I

| Function | Sexual abuse | | Physical abuse | |
|--|--------------|------|----------------|------|
| | No | Yes | No | Yes |
| to avoid school, work, or other activities | 20 % | 13 % | 22 % | 7 % |
| to relieve feeling "numb" or empty | 60 % | 88 % | 68 % | 73 % |
| to get attention | 27 % | 25 % | 26 % | 27 % |
| to feel something, even if it was pain | 56 % | 94 % | 61 % | 87 % |
| to punish yourself | 70 % | 88 % | 67 % | 93 % |
| to get other people to act differently or change | 17 % | 19 % | 12 % | 26 % |
| to stop bad feelings | 90 % | 88 % | 90 % | 87 % |
| to feel relaxed | 63 % | 82 % | 68 % | 73 % |
| to feel more a part of a group | 7 % | 0 % | 3 % | 7 % |



Functions of self-harm in our study II

| Function | Antipathy | | Neglect | |
|--|-----------|------|---------|------|
| | No | Yes | No | Yes |
| to avoid school, work, or other activities | 25 % | 12 % | 21 % | 14 % |
| to relieve feeling "numb" or empty | 65 % | 73 % | 71 % | 68 % |
| to get attention | 35 % | 20 % | 33 % | 18 % |
| to feel something, even if it was pain | 50 % | 85 % | 58 % | 82 % |
| to punish yourself | 70 % | 80 % | 67 % | 87 % |
| to get other people to act differently or change | 20 % | 15 % | 17 % | 18 % |
| to stop bad feelings | 90 % | 88 % | 92 % | 86 % |
| to feel relaxed | 55 % | 81 % | 62 % | 77 % |
| to feel more a part of a group | 5 % | 4 % | 4 % | 5 % |



Conclusions

- **Self-harming and suicidal behaviour are very common in child and adolescent psychiatry**
- **Adverse childhood experiences like sexual or physical abuse, but also experiences of parents' antipathy and neglect, are more common in patients with self-harming and suicidal behaviour and could therefore play a role in development of BPD**
- **A history of multiple adverse childhood experiences increases the risk of suffering from self-harming and suicidal behaviour during adolescence**
- **Especially the anti-dissociative function of self-mutilation is significantly associated with patients presenting self-harm and adverse childhood experiences**



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