

# Frequency, etiological models and consequences of child and adolescent sexual abuse: Aims and goals of the German multi-site MiKADO project

Michael Osterheider<sup>1</sup>, Rainer Banse<sup>2</sup>, Peer Briken<sup>3</sup>, Lutz Goldbeck<sup>4</sup>, Jürgen Hoyer<sup>5</sup>, Pekka Santtila<sup>6</sup>, Daniel Turner<sup>3</sup>, Hedwig Eisenbarth<sup>1</sup>

<sup>1</sup> Universität Regensburg, Abteilung für Forensische Psychiatrie und Psychotherapie

<sup>2</sup> Universität Bonn, Abteilung für Sozial- und Rechtspsychologie

<sup>3</sup> Universitätsklinikum Hamburg-Eppendorf, Institut für Sexualforschung und Forensische Psychiatrie

<sup>4</sup> Universitätsklinikum Ulm, Klinik für Kinder- und Jugendpsychiatrie/Psychotherapie

<sup>5</sup> Technische Universität Dresden, Institut für Klinische Psychologie und Psychotherapie

<sup>6</sup> Åbo Akademi-Universität Turku, Abteilung Psychologie & Exzellenzzentrum für Verhaltensgenetik

[Sexual Offender Treatment, Volume 6 (2011), Issue 2]

## Abstract

*Currently, data on sexual abuse and its consequences for the victims are scarce in Germany, especially for non-reported sexual abuse, the so-called "Dunkelfeld". This article presents a comprehensive research project, which started in 2011 and is funded by the German Federal Ministry of Family, Elderly, Women and Youth. This Project covers the frequency of sexual abuse, in comparison to other forms of abuse, of offences via the internet, consequences of sexual abuse for the victims, the prevalence of pedophilic interest, etiological hypotheses for pedophilic interest, and the relation between hands-on delinquency and use of child pornography. The described research project will be implemented by a collaboration of five national and international research groups during the following three years. The main goals are to generate more specific and detailed data on child sexual abuse in Germany and to develop suggestions for primary as well as secondary prevention.*

*Key Words: sexual abuse, pedophilia, Dunkelfeld, etiology, victimization*

Sexual abuse of children and adolescents can lead to substantial mental injuries within the victims and can be accompanied by severe social consequences. On this account, the evaluation of the origins of sexual abuse is of great interest. Therefore, it is intended to evaluate the frequency of sexual abuse, its consequences for the victims, the prevalence and etiology of pedophilic interests, as well as the influence of the so-called "new media" (e.g., internet) concerning sexual abuse in the course of a joint research project sponsored by the Federal Ministry of Family, Elderly, Women and Youth. This will be followed by developing appropriate prevention strategies. The acronym "MiKADO" represents the first letters of the project topics: MiKADO = "Missbrauch von Kindern: Ätiologie, Dunkelfeld und Opfer" ("Sexual abuse of children: etiology, Dunkelfeld and victims").

## Victimization through sexual abuse

According to police criminal statistics, 11.867 cases of sexual abuse of children and 985 cases of sexual abuse of adolescents were reported to the police in 2010. Moreover, it is stated that there is an increase in the use of information and communication technology to facilitate sexual abuse

(Bundeskriminalamt 2011). The prevalence of child and adolescent sexual abuse within the *Dunkelfeld* is estimated to be much higher. In 1997 Wetzels examined a representative sample of 3.289 men and women in Germany and found that 18,1% of all women and 7,3% of all men reported to have experienced sexual abuse by an adult. A study by Häuser (2011) evaluated abusive actions during childhood and adolescence in a sample of 2.504 people. Of the responding participants, 15,0% reported emotional abuse, 12,0% reported physical abuse and 12,6% reported sexual abuse (Häuser et al., 2011). Yet, present studies assessing the *Dunkelfeld* were influenced by different distortions. Clinical studies conducted in counseling and treatment facilities only represent a subgroup of the total population of abuse victims and abusing offenders (Engfer, 2005). Moreover, the variability in the prevalence of sexual abuse depends on how sexual abuse is defined, which sexual actions are included, and which age groups within the offender and victim population are examined (Joraschky und Petrowski, 2005). The planned examinations within the MiKADO cooperation concerning the occurrence of sexual abuse within the *Dunkelfeld* try to circumvent these methodological problems by consulting representative samples of ninth grade students as well as young adults (18-25 years). Furthermore, different forms of abusive experiences are evaluated in the MiKADO project, as well as the circumstances during which the offence took place.

## Consequences of sexual abuse

Experiences of sexual abuse can be followed by mental disorders like posttraumatic stress disorder, affective disorders, personality disorders (especially Borderline personality disorder), eating disorders (especially Bulimia nervosa), suicidal behavior and addictive disorders (Renschmidt, 2011). Still, most studies about the consequences of sexual abuse are concerned with the so-called *Hellfeld*, i.e. investigations of children, adolescents and adults already reported to the medical system. Besides, little scientific knowledge exists about the consequences of sexual violations or harassments using the new media. Therefore, the consequences of sexual abuse for children and adolescents from the bright and *Dunkelfeld* are thoroughly assessed with the help of psychiatric-psychological diagnostic tools.

## Pedophilic interests within the general population

Pedophilic interests constitute a possible risk factor for committing sexual offences (Seto, 2004) that has, until now, mainly been studied in the bright field offender populations from the penal system. Concerning the prevalence of pedophilic disorders within the general population, only a few and diverse prevalence estimations exist ranging from 0,23% to 3,8% for sexual actions with children (Beier et al., 2006) as well as from 3,5% to 9,4% for pedophilic fantasies (Briere and Runtz, 1989; Santilla et al., 2010). Concerning sexual arousal through childlike stimuli, the prevalence ranges from 18% to 25% (Fedora et al., 1992; Hall et al., 1995). The MiKADO project aims at examining the epidemiological values just stated based on a representative sample of a considerably greater size compared to previous studies ( $N = 10.000$ ). In addition, the association with different possible risk factors facilitating the realization of sexual offences is evaluated, including, e.g., child associated jobs and spare time activities (Turner et al., *in preparation*) and signs of hypersexuality (Briken and Basdekis-Josza, 2010).

## Etiological Models concerning pedophilia

Concerning the development of primary prevention strategies against child sex offences committed by men with pedophilic interests, the origins of a related sexual preference are of special importance. The current state of research discusses the development of pedophilic interests based

on genetic predispositions, morphological and functional brain abnormalities, as well as learning experiences among other possible factors (Seto, 2008). Looking at risk factors for sexual offences, situational factors must also be considered.

Until now, no studies exist regarding the genetic disposition of pedophilic interests. Only one study showed a familial accumulation of paraphilias (Gaffney et al., 1984). Furthermore, it is rather difficult to conduct studies examining twins since the occurrence of pedophilic interests is too low to carry out appropriate assessments. One possibility that comes close to answering this question is using sexual age preferences as a dependent variable. This issue will be addressed within the MiKADO project by assessing a large twin population.

The brain can be seen as the central organ controlling the processing of sexual stimuli (McKenna, 1999). Functional imaging techniques of brain activity offer an appropriate approach to evaluate sexual arousal (Arnow et al., 2008; Schiffer et al., 2007). Pursuing studies using functional-brain imaging techniques will be conducted on the basis of different preliminary studies (Mokros et al., 2009; Poepl et al., 2011) within the MiKADO project.

The idea that learning processes are relevant for the development of pedophilia is based on earlier studies regarding conditioning of sexual arousal to previously neutral stimuli, for instance, in terms of a fetish (O'Donohue and Plaud, 1994; Plaud and Martini, 1999), as well as on integrative theories regarding the development of sexual violence or aggression (Ward and Beech, 2006). Within the MiKADO project, it is planned to examine whether conditioning processes are an important factor within the development of pedophilic interests.

Results from social psychological studies concerning the impact of sexual arousal on decision-making processes suggest being another path to describe the genesis of pedophilic interests. A study conducted by Ariely and Loewenstein (2006) with a student population showed that both the personal assessment of scenarios and possible sexual partners, as well as the preparedness to engage in sexual risky behavior is influenced by sexual arousal. These results are also relevant concerning the evaluation of online pornography, in light of a questionable transfer in terms of generalizing sexual interests to deviant content like child pornography. It is planned to explore these effects on an experimental basis within the MiKADO project.

Besides, special pedophilic interests and certain disturbances regarding the implications of the incest taboo can play an important role especially for intra-familial child sexual abuse. The development of the incest taboo could be influenced by the sexual aversion resulting from the close cohabitation within a family and is definitely reasonable from an evolutionary point of view (Bittles, 2001). The corresponding mechanisms and their specific disturbances have not been studied until now. The MiKADO project intends to closely analyze the processes involved in the development of incest aversion especially in parent-child relationships using pair-wise comparisons.

## **Sexual Harassments using the Internet**

Investigations conducted by the criminal police department suggest that child pornography is predominantly viewed by men with pedophilic interests. Paulus (1999) did not believe that child pornography served as a substitution for actual child abuse. However, other researchers assume that consuming child pornography bears the risk that personal sexual preferences are confirmed or justified by real life experiences (Quayle and Taylor, 2002). McGrath and Casey (2002) imply that viewing child pornography could lower the boundaries between reality and fantasy. Beyond the theoretical assumptions just stated, current research results show that by rationalizing and trivializing pedophilic interests, milieu-specific group norms can emerge in well-established

pedophilic newsgroups (Jenkins, 2001). In addition, consuming child pornography leads to highly distorted self and external perceptions with a narcissistic emphasis and promotes excessive abusive fantasies (Foley, 2002). Usually, an increasing need to collect child pornographic material is accompanied by increasing pedophilic fantasies and activities (Quayle und Taylor, 2002). A study conducted by Schuhmann and Osterheider (in press) showed that the downloaded material pointed toward the onset of pedophilic fantasies, a possible sexual deviancy, a growing ritualization concerning the handling of the material and a possible emergence of pedophilic characteristics. The MiKADO project aims at assessing whether the use of child pornographic material can enhance a pedophilic disorder or support a prediction of an offenders' current and future risk and hazardousness.

Another risk factor associated with Internet use is sexual harassment in chat rooms or other online forums. 13% of adolescents in the US ( $N = 1.500$  Age 10 - 17 years) reported being sexually harassed online (Mitchell et al., 2007). The Kids Online Study (Livingstone, 2011) showed that 15% of children between the ages of 9 and 14 and 22% between the ages of 15 and 16 had previously received online messages with sexual content. An experimental study on chat behaviors ( $N = 257$ ) illustrated that the proportion of people who expressed sexual interests for children and adolescents between the ages of 10 and 18 online was even higher compared to the statistics of the survey studies (Bergen 2010). Thus, a study conducted within the MiKADO project intends to identify and categorize so-called offender-grooming behaviors (meaning: sexually harassing) and to evaluate the frequency of grooming behaviors using a survey with adult and adolescent Internet users as well as to describe possible risk and protective factors.

The MiKADO project seeks to comprehensively evaluate frequency, background and origin, as well as prevention possibilities of sexual abuse. The project focuses on a possible victimization within the new media, on the consequences of sexual abuse (also in comparison and in combination with neglect and physical and emotional abuse), and on sexual preference disorders. The current state and future progresses are reported by the coordinating institution using the website: [www.mikado-studie.de](http://www.mikado-studie.de)

## Note

This article has been published in a German version in the *Zeitschrift für Sexualforschung*: Osterheider, M., Banse, R., Briken, P., Goldbeck, L., Hoyer, J., Santtila, P. & Eisenbarth, H. (2012). Häufigkeit, Erklärungsmodelle und Folgen sexueller Gewalt an Kindern und Jugendlichen: Zielsetzungen des deutschlandweiten MiKADO Projects. *Zeitschrift für Sexualforschung*, 25 (3), 285-291.

## References

1. Ariely, D. & Loewenstein, G. (2006). The heat of the moment: The effect of sexual arousal on sexual decision making. *Journal of Behavioral Decision Making*, 87-98.
2. Arnow, B. A., Desmond, J. E., Banner, L. L., Glover, G. H., Solomon, A., Polan, M. L., Lue, T. F. & Atlas, S. W. (2002). Brain activation and sexual arousal in healthy, heterosexual males. *Brain*, 5, 1014-1023.
3. Beier, K. M., Schaefer, G. A., Goecker, D., Neutze, J., Feelgood, S. & Ahlers, C. J. (2006). Das Präventionsprojekt Dunkelfeld (PPD): Der Berliner Therapieansatz zur Primärprävention von sexuellem Kindesmissbrauch. In N. Saimeh (Hrsg.), *Gesellschaft mit beschränkter Haftung: Maßregelvollzug als soziale Verpflichtung. Materialien der 21. Eickelborner Fachtagung zu Fragen der Forensischen Psychiatrie 2006* (S. 34-53). Bonn:

Psychiatrie-Verlag.

4. Bergen, E. (2010). Sexual solicitation of children and adolescents in chat rooms. Turku (FIN).
5. Bittles, A. H. (2001). Incest, inbreeding and their consequences. In N. J. Smelser & P. Baltes (Hrsg.), *International encyclopedia of the social and behavioral sciences*. Oxford: Pergamon.
6. Briere, J. & Runtz, M. (1989). University males' sexual interest in children: predicting potential indices of "pedophilia" in a nonforensic sample. *Child Abuse Negl*, 1, 65-75.
7. Briken, P. & Basdekis-Josza, R. (2010). Sexuelle Sucht? Wenn sexuelles Verhalten außer Kontrolle gerät. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 313-318.
8. Bundeskriminalamt (2011). *Die Kriminalität in der Bundesrepublik Deutschland: Polizeiliche Kriminalstatistik 2010*. Berlin.
9. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K. & Blanchard, R. (2008). Cerebral white matter deficiencies in pedophilic men. *Journal of Psychiatric Research*, 3, 167-183.
10. Engfer, A. (2005). Formen der Misshandlung von Kindern. Definition, Häufigkeiten, Erklärungsansätze. In U. Egle, S. Hoffmann & P. Joraschky (Hrsg.), *Sexueller Missbrauch, Misshandlung, Vernachlässigung*. Stuttgart: Schattauer.
11. Fedora, O., Reddon, J. R., Morrison, J. W., Fedora, S. K., Pascoe, H. & Yeudall, L. T. (1992). Sadism and other paraphilias in normal controls and aggressive and nonaggressive sex offenders. *Arch Sex Behav*, 1, 1-15.
12. Foley, T. (2002). Forensic assessment of Internet child pornography offenders. In B. Schwartz (Ed.), *The sex offender: Current treatment modalities and system issues* (pp. 1-18). Ingston, NJ: Civic Research Institute.
13. Gaffney, G. R., Lurie, S. F. & Berlin, F. S. (1984). Is there familial transmission of pedophilia? *The Journal of Nervous and Mental Disease*, 9, 546-548.
14. Hall, G. C. N., Hirschman, R. & Oliver, L. L. (1995). Sexual arousal and arousability to pedophilic stimuli in a community sample of normal men. *Behavior Therapy*, 4, 681-694.
15. Häuser, W., Schmutzer, G., Brähler, E. & Glaesmer, H. (2011). Maltreatment in childhood and adolescence: results from a survey of a representative sample of the German population. *Dtsch Arztebl Int*, 17, 287-294.
16. Jenkins, P. (2001). *Beyond tolerance: child pornography on the internet*. New York: University Press.
17. Joraschky, P. & Petrowski, K. (2005). Sexueller Missbrauch und Vernachlässigung in Familien. Formen der Misshandlung von Kindern - Definition, Häufigkeiten, Erklärungsansätze. In U. Egle, S. Hoffmann & P. Joraschky (Hrsg.), *Sexueller Missbrauch, Misshandlung, Vernachlässigung*. Stuttgart: Schattauer.
18. Livingstone SHLGAÓK (2011). Risks and safety on the internet: The perspective of European children 2011. <http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/Home.aspx> (01.04.2011)
19. McGrath, M. G. & Casey, E. (2002). Forensic psychiatry and the internet: practical perspectives on sexual predators and obsessional harassers in cyberspace. *J Am Acad Psychiatry Law*, 1, 81-94.
20. McKenna, K. (1999). SSI Grand Master Lecture 3 'The brain is the master organ in sexual function: Central nervous system control of male and female sexual function'. *Int J Impot Res*, s1, S48.
21. Mitchell, K., Finkelhor, D. & Wolak, J. (2007). Youth Internet Users at Risk for the Most Serious Online Sexual Solicitations. *American Journal of Preventive Medicine*, 6, 532-537.
22. Mokros, A., Poepl, T. B., Osterheider, M. & Nitschke J. (2009). Neurokognitive Befunde zur Pädophilie: Anwendung eines störungsspezifischen Aufmerksamkeitstests unter

- fMRI-Bedingungen. In F. Schneider & M. Grözinger (Hrsg.), *Psychische Erkrankungen in der Lebensspanne*. Berlin: DGPPN 2009, 398.
23. O'Donohue, W. T. & Plaud, J. J. (1994). The conditioning of human sexual arousal. *Arch Sex Behav*, 3, 321-344.
  24. Paul, T., Schiffer, B., Zwarg, T., Krüger, T. H. C., Karama, S., Schedlowski, M., Forsting, M. & Gizewski, E. R. (2008). Brain response to visual sexual stimuli in heterosexual and homosexual males. *Human Brain Mapping*, 726-735.
  25. Paulus, M. (1999). Sexuelle Gewalt gegen Kinder und Kinderpornografie. In A.-H.B. Gallwitz (Hrsg.), *Kinderpornografie. Entwicklung von Gegenstrategien zur Verbesserung der Situation betroffener Kinder* (S. 72-80). Villingen-Schwenningen: Fachhochschule Villingen-Schwenningen- Hochschule für Polizei.
  26. Plaud, J. J. & Martini, J. R. (1999). The Respondent Conditioning of Male Sexual Arousal. *Behavior Modification*, 2, 254-268.
  27. Poepl, T. B., Nitschke, J., Dombert, B., Santtila, P., Greenlee, M. W., Osterheider, M. & Mokros, A. (2011). Functional Cortical and Subcortical Abnormalities in Pedophilia: A Combined Study Using a Choice Reaction Time Task and fMRI. *The Journal of Sexual Medicine*, 6, 1660-1674.
  28. Quayle, E. & Taylor, M. (2002). Paedophiles, Pornography and the Internet: Assessment issues. *British Journal of Social Work*, 863-875.
  29. Remschmidt, H. (2011). The emotional and neurological consequences of abuse. *Dtsch Arztebl Int*, 17, 285-286.
  30. Santtila, P., Mokros, A., Hartwig, M., Varjonen, M., Jern, P., Witting, K., Pahlen, B. von der & Sandnabba, N. K. (2010). Childhood sexual interactions with other children are associated with lower preferred age of sexual partners including sexual interest in children in adulthood. *Psychiatry Res*, 1-2, 154-159.
  31. Schiffer, B., Paul, T., Gizewski, E., Forsting, M., Leygraf, N., Schedlowski, M. & Kruger, T. H. C. (2008). Functional brain correlates of heterosexual paedophilia. *Neuroimage*, 1, 80-91.
  32. Schiffer, B., Peschel, T., Paul, T., Gizewski, E. R., Forsting, M., Leygraf, N., Schedlowski, M. & Krueger, T. (2007). Structural brain abnormalities in the frontostriatal system and cerebellum in pedophilia. *Journal of Psychiatric Research*, 9, 753-762.
  33. Schuhmann, P. & Osterheider, M. (2010). Qualitative Bildanalyse von kinderpornografischen Darstellungen aus dem Internet. *Monatsschrift für Kriminologie und Strafrechtsreform*, 5, 392-403.
  34. Seto, M. C. (2004). Pedophilia and sexual offenses against children. *Annual Review of Sex Research*, 321-361.
  35. Seto, M. C. (2008). *Pedophilia and sexual offending against children: Theory, assessment, and intervention*. Washington D.C.: American Psychological Association.
  36. Stoléru, S., Grégoire, M., Gérard, D., Decety, J., Lafarge, E., Cinotti, L., Lavenne, F., Le Bars, D., Vernet-Maury, E., Rada, H., Collet, C., Mazoyer, B., Forest, M. G., Magnin, F., Spira, A. & Comar, D. (1999). Neuroanatomical correlates of visually evoked sexual arousal in human males. *Archives of Sexual Behavior*, 1, 1-21.
  37. Turner, D., Rettenberger, M., Eher, R. & Briken, P. (in press). Kindesmissbraucher mit professionell bedingtem Kontakt zu Kindern: Zeigen sie häufiger Hinweise auf pädophile Neigungen als andere Kindesmissbraucher?
  38. Ward, T. & Beech, A. R. (2006). An integrated theory of sexual offending. *Aggression and Violent Behavior*, 1, 44-63.
  39. Wetzels, P. (1997). *Zur Epidemiologie physischer und sexueller Gewalterfahrungen in der Kindheit*. Hannover: Kriminologisches Forschungsinstitut Niedersachsen e.V.

## Author address

***Prof. Dr. med. Michael Osterheider***

*Department of Forensic Psychiatry und Psychotherapy*

*University of Regensburg*

*Universitätsstr. 84*

*D-93053 Regensburg*

*[Michael.Osterheider@medbo.de](mailto:Michael.Osterheider@medbo.de)*