



National Education Alliance for Borderline Personality Disorder

NEA-BPD
P. O. Box 974, Rye, New York 10580

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ONE PROFESSIONAL RESPONSE TO THE NEA-BPD FAMILY PERSPECTIVES 2004 CONFERENCE

By

Susan T. Lindau, LCSW

“Heritability”, “innate sensitivity” plus “the power of family and partner support” some of the key terms used during the October 16 and 17 NEABPD conference. Each of these phrases has not only resonated with me since the symposium but, more importantly they are daily having an enormous impact on the services I am able to provide to my clients.

What a relief it is for both clients and families to hear that the terrible pain their loved one experiences is not their fault. And this response is only one piece of the mind change I experienced during those two days in October. The vital and challenging information to which I was exposed during that weekend was so rich and stimulating that I am only now beginning to assimilate all that information.

During my Skills group session last night, I talked about what it means to be a sensitive person. Because these clients have spent a lifetime suffering from “over reactions” or their inability to “control [their] emotions”, talking about the positive aspects of being sensitive was an entirely new experience. The sureness with which I talked about sensitivity within the BPD individual grows from the presentations at this conference.

Hearing clients who identify themselves as living with BPD has continued to influence the support I provide for my own patients. Equally as powerful is the experience shared by clinicians who have the experience of more years and more individuals than I have had. The results of research by Dr. Gunderson developing a construct for borderline personality disorder validated assumptions I have been making based simply on empiric experience. Having this information from substantial research has strengthened the support I provide to individuals and their support system. Additionally, because each of the presenters made their reports so accessible, it has been simple for me to translate that information into understandable language for my clients.

While the education provided during those two days in October continues to have a vital impact on my clinical skills, it was the discussions offered by family members and “recovering” clients that touches my heart. When I share anecdotes from the family members, consumers, and advocates who served on the panels (Barbara Kavanagh, Marta Zipin or Leah Sullivan), I am reaching my clients in a way diagnostic and statistical materials can not. The experiences of people who have lived with this disorder are crucial in easing clients into DBT. Additionally, sharing these personal histories plays an important role in getting families and significant others “on board” during the initial assessment process.

Two days with people who not only know DBT but also are using it in their practice or have actually benefited from treatment was exciting, stimulating and satisfying. Those two days in October even now resonates and influences the work I am able to do for my patients. Additionally, the conference continues to inform the work I do with other clinicians and makes the discussions in which I participate richer for the ideas I bring from the NEA BPD Conference.

YOUNG INVESTIGATOR AWARD 2004: Christian Schmahl

**Introduction – “Lay” explanation – Formal abstract –
More biography – Selected peer publications**

Introduction

Alan Fruzzetti, PhD, Young Investigator Award Committee Chairperson and NEA-BPD Research Advisor had the pleasure of presenting Christian Schmahl, MD the YIA Award and introducing him to the audience at the 3rd Family Perspectives conference in Los Angeles on Sunday October 17, 2004.



Alan Fruzzetti and Christian Schmahl enjoy a couple of winning smiles and jokes after the YIA presentation at the Family Perspectives Conference in Los Angeles, October 17, 2004.

Since 1996, Dr. Schmahl has served as Director of Neurobiology Research Program at the Borderline Research Unit, Department of Psychiatry and Psychotherapy, University of Freiberg, and since 2003 as Assistant Medical Director Research Coordinator, and also as group leader of “Functional Imaging,” at the Department of Psychosomatic Medicine and Psychotherapy, Central Institute of Mental Health, Mannheim, Germany.

A “lay” explanation of Dr. Schmahl’s work

Of his work, Dr. Schmahl writes: “My interest is a double one. First, I had been working with BPD patients for several

years and one of the things that first caught my interest was the near complete absence of pain that most of these patients reported when they hurt themselves. This was different from other patients I had seen so far. Also, I saw how these patients suffered from their states of inner tension and that often self-injuries were the only way to resolve these states. The more research we did on disturbed pain perceptions and processing, the more it became clear that there is some fundamental alteration that makes pain and pain processing such an important part of the BPD symptomatology. This is my second interest, from a basic research point of view, to search for the basis of this alteration, which may lie in brain physiology.

Basically, we found:

That patients with BPD feel less pain than do other people that the higher the tension and dissociation, the less pain the BPD patients feel that there is some fundamental alteration in brain physiology when BPD patients process painful stimuli that (probably) the better the patients get through therapy, the more normal their pain processing becomes.”

The formal abstract of Dr. Schmahl’s paper Neural correlates of antinociception in borderline personality disorder

Borderline personality disorder (BPD) is characterized by reduced pain sensitivity in conjunction with self-injurious behaviour. Our findings from a study using laser-evoked pain potentials suggest that sensory-discriminative pain components seem to be unaffected in this patient population and affective or cognitive pain components may be altered in BPD. To assess dysfunction of these components we used painful heat stimuli in combination with psychophysical evaluation and functional magnetic resonance imaging to examine neural processes underlying pathologically reduced pain sensitivity in BPD. Patients with BPD and healthy, age-matched controls were investigated under two stimulus conditions: A fixed temperature (43°C) and a temperature matched to yield the same perceived pain intensity. Compared to normal controls, patients had higher pain thresholds and showed less brain activation when stimulated with the fixed temperature. With the same perceived pain intensity, the overall volume of activation was similar, but regional patterns differed significantly: BPD patients exhibited stronger activation signals in the dorsolateral prefrontal cortex and weaker signals in the posterior parietal cortex. In patients but not in controls, we found that pain induced a signal decrease in the perigenual anterior cingulate gyrus and in the amygdala. Our data suggest that reduced pain sensitivity in BPD may be related to recruitment of antinociceptive circuits in the anterior cingulate and dorsolateral prefrontal cortex accompanied by reduced activity in cognitive evaluative networks.

Further biographical information

Dr. Schmahl earned his MD in 1996 at the Universities of Mainz and Giessen in basic brain research; from 1996-2003 he did his residency and training in psychiatry and behavioral therapy at Freiberg, followed by work in Intensive DBT training at the University of Washington 1997-1998, and in 2000 a Research Fellowship at Yale in neuroimaging. Honors include 1996 Magna cum laude, University of Mainz; 2003 Young Investigator Award, Borderline Personality Research Foundation.

Research support from 2000 to present include Research Grant of the German Research Foundation: Funding of Research Fellowship at Yale University, Dr. J.D. Bremner, to learn methods of neuroimaging and script-driven imagery; Research Grant of the University of Freiburg: Funding for the instalment of neuroimaging research methods; Travel Grant of the German Research Foundation for participation at the XIIth World Congress of Psychiatry, Yokohama, Japan.

Current research support is the 2003-2005 Young Investigator Award of the Borderline Personality Disorder Research Foundation, Title: “Investigation of pain processing in patients with BPD,” funding for research of pain processing in patients with BPD using

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Psychophysiological as well as neuroimaging (fMRI) methods; and 2004- 2007 Collaborative Research Grant 636, German Research Foundation, Title: "Learning, Memory and Brain Plasticity: Implications for Psychopathology", co-investigator. This project involves multiple programs investigating cognitive, affective, and psychophysiological aspects of behavioral learning in psychiatric disorders.

Selected peer-reviewed publications

1. Schmahl, C.G., Böhmer, G.: Effects of excitatory amino acids and neuropeptide Y on the discharge activity of suprachiasmatic neurons in rat brain slices. *Brain Research* 746 (1997) 151-163
2. Bohus, M.J., Landwehrmeyer, G.B., Stiglmayr, C.E., Limberger, M.F., Böhme, E.R., Schmahl, C.G.: Naltrexone in the treatment of dissociative symptoms in patients with Borderline Personality Disorder: An open-label trial. *Journal of Clinical Psychiatry* 60 (1999) 598-603
3. Schmahl, C., Bohus, M.: Symptomorientierte Pharmakotherapie bei Borderline-Persönlichkeitsstörung (Symptom-focussed pharmacotherapy in borderline Personality disorder). *Fortschritte der Neurologie und Psychiatrie* 69 (2001) 310-321
4. Schmahl, C.G., McGlashan, T.H., Bremner, J.D.: Neurobiological correlates of borderline personality disorder. *Psychopharmacology Bulletin* 36 (2002) 69-87
5. Schmahl, C.I., Juengling, F.D.I., Heßlinger, B., Ebert, D., Bremner, J.D., Gostomzyk, J., Bohus, M., Lieb, K.: Positron emission tomography in female patients with Borderline Personality Disorder. *Journal of Psychiatric Research* 37 (2003) 109-115 (1 Both authors contributed equally to this work)
6. Schmahl, C.G., Vermetten, E., Elzinga, B.M., Bremner, J.D.: Magnetic Resonance Imaging of Hippocampal and Amygdala Volume in Women with Childhood Abuse and Borderline Personality Disorder. *Psychiatry Research: Neuroimaging* 122 (2003) 109-115
7. Schmahl, C.G., Elzinga, B.M., Vermetten, E., Sanislow, C., McGlashan, T.H., Bremner, J.D.: Neural Correlates of memories of abandonment in Women with and without Borderline Personality Disorder. *Biological Psychiatry* 54 (2003) 142-151
8. Rüscher, N., Tebartz van Elst, L., Wilke, M., Thiel, T., Ludaescher, P., Huppertz, H.-J., Schmahl, C., Bohus, M., Lieb, K., Heßlinger, B., Hennig, J., Ebert, D.: A Voxel-based Morphometric MRI Study in Female Patients with Borderline Personality Disorder. *NeuroImage* 20 (2003) 385-392
9. Elzinga, B.M., Schmahl, C.G., Vermetten, E., Van Dyck, R., Bremner, J.D.: Higher cortisol levels following exposure to traumatic reminders in abuse-related PTSD. *Neuropsychopharmacology* 28 (2003) 1656-1665.
10. Schmahl, C.G., Vermetten, E., Elzinga, B.M., Bremner, J.D.: A PET study of memories of childhood abuse in Borderline Personality Disorder. *Biological Psychiatry* 55 (2004) 759-765
11. Schmahl, C.G., Greffrath, W., Baumgärtner, U., Schlereth, T., Magerl, W., Philipsen, A., Lieb, K., Bohus, M., Treede, R.-D.: Differential nociceptive deficit in patients with borderline personality disorder and self-injurious behavior: Laser-evoked potentials, spatial discrimination of noxious stimuli, and pain ratings. In press
12. Schmahl, C.G., Elzinga, B.M., Ebner, U., Simms, T., Sanislow, C., Vermetten, E., McGlashan, T.H., Bremner, J.D.: Psychophysiological reactivity to traumatic and abandonment scripts in Borderline Personality Disorder and PTSD. *Psychiatry Research* 126 (2004) 33-42
13. Bremner, J.D., Vermetten, E., Vythilingam, M., Afzal, N., Schmahl, C., Elzinga, B., Charney, C.S.: Neural correlates of the classical neutral and emotional stroop in women with abuse-related posttraumatic stress disorder. *Biological Psychiatry* 55 (2004) 612-620
14. Bohus, M., Haaf, B., Simms, T., Schmahl, C., Unckel, C., Linehan, M.: Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder – a randomized controlled trial. *Behavior Research and Therapy* 42 (2004) 487-499
15. Philipsen, A., Schmahl, C., Lieb, K.: Naloxone in the Treatment of Acute Dissociative States in Female Patients with Borderline Personality Disorder. *Pharmacopsychiatry* 37 (2004) 196-199
16. Lieb, K., Zanarini, M., Schmahl, C., Linehan, M., Bohus M.: Borderline Personality Disorder. *Lancet* 364 (2004) 453-461
17. Berlis, A., Scheufler, K.-M., Schmahl, C., Rauer, S., Götz, F., Schumacher, M.: Solitary spinal artery aneurysms as a rare source of spinal SAH: Discussion of potential etiology and treatment strategy. *American Journal of Neuroradiology* in press
18. Philipsen, A., Richter, H., Schmahl, C., Peters, J., Rüscher, N., Bohus, M., Lieb, K.: Clonidine in acute aversive inner tension and self-injurious behavior in female patients with borderline personality disorder. *Journal of Clinical Psychiatry* 65 (2004) 1414-1419

YOUNG INVESTIGATOR AWARD 2004, Second Award: Dr. Catherine DeSoto

Introduction – Personal interest – Formal abstract – Biographical information – Published works / articles

Introduction

Dr. DeSoto received her PhD in 2001 at the University of Missouri under the supervision of Dr. David C. Geary. She believes that BPD is a poorly understood disorder that disrupts the lives of not only those so diagnosed, but their family and friends and hopes that her basic science research will eventually lead to a more comprehensive understanding of the causes and influencing factors, and ultimately, better treatment options and outcomes for sufferers. Her research, which has been featured in journals ranging from *Science* to *First for Women*, suggests that changing levels of estrogen might make the symptoms of borderline personality worsen, at least among women who have at least some pre-existing symptoms associated with BPD. Although the findings would be characterized as preliminary, women who have noted their symptoms may seem to worsen with hormonal changes (such as with commencing oral contraceptive use) might consider discussing these findings with their doctors.



Catherine DeSoto is Assistant Professor, Department of Psychology, University of Northern Iowa.

Personal interest

Dr. DeSoto is interested in exploring the links between hormone levels, neural mechanisms and traits that have been shown to differ across males and females. Although borderline personality disorder is a much-researched disorder, it is still one whose etiology is not well understood. Having spent a year running a homeless shelter for women before going to graduate school, she worked first-hand with women whose lives and those of their families had been turned upside down. She was struck by the rather sharp changes in functioning across time, and realized that the factors that cause the waxing and waning of problem behaviors were not well understood. In graduate school, she became again interested in understanding all the factors, especially those that have to do with brain function, that come together to bring about worsening of symptoms in individuals with various types of mental health problems. Her recent research findings suggest that estrogen may play a significant role in the expression of borderline personality traits. In addition to the basic research finding that hormonal fluctuations may be a biological mechanism that contributes to the expression of this disorder, her research has important practical implications as well. If borderline personality is exacerbated by estrogen, then there may be pharmacological interventions that could be more effective than those currently available. Furthermore, the use

of synthetic estrogen, such as those found in birth control pills, may be contra-indicated among certain populations. Secondary areas of research interest include mathematical development, eating behavior, and language development. Broadly interested in how brain function affects behavior, Dr. DeSoto has done research involving various brain imaging techniques, including ERP's, optical imaging and MRI.

Comment on responses to her research article:

"I have been honored to receive a surprisingly large number of emails from women diagnosed with BPD-- and also from their family members -- who have anecdotally reported that a worsening of symptoms either after starting birth control pills or during other times of hormonal changes. I very much hope that research on BPD continues to broaden the knowledge base of the disorder, and that findings reach the larger community of those affected by it."

Abstract of Dr. DeSoto's paper:

The results from three studies with three different samples are reported and suggest the importance of a previously unknown factor in the expression of borderline personality disorder (BPD). Estrogen, which has been shown to relate to a wide variety of behavioral traits and pathologies, may play a significant role in the expression of BPD. The first study included a non-clinical sample of 226 women. Symptoms of BPD were assessed by means of the personality assessment inventory, borderline scales (PAI-BOR; L.C. Morey, 1991). The results showed that women exhibit more BPD symptoms during times in their menstrual cycle when estrogen is rising and women who were using oral contraceptives showed more symptoms of BPD, as well. Study two employed a within-subjects design in which 52 women were measured four times across their menstrual cycle and provided salivary samples at each test session. The samples were assayed and estrogen levels were obtained. The principle finding was that variation in estrogen levels predicted the presence of BPD symptoms ($r = .4, p < .01$). Further support for the hypothesis that estrogen mediates the expression of BPD was provided by the finding that this relationship remained significant when a general increase in negative symptoms was statistically controlled. Study three employed a pre-post Oral Contraceptive (OC) design with a control group.

It was found that among women who have high levels of BPD symptoms prior to beginning OC, symptoms became significantly worse after starting the pill ($F(3,42) = 4.7; p < .01$). Research findings that link the serotonin system and estrogen are reviewed and theoretical and practical implications of the findings are discussed.

Biographical information

Catherine was born in Birmingham, Alabama and grew up in Carterville, Illinois. She is married to Dr. Robert Hitlan. She will be speaking on her research regarding hormonal influences on BPD as an invited speaker at the Midwest Psychological Association's Annual Meeting in Chicago, in May 2005.

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Education:

- 1989 BA Summa Cum Laude Southern Illinois University-Carbondale
Major: Psychology
- 1998 MA University of Missouri-Columbia
Major: Experimental Psychology
Thesis: The event-related optical signal and motor cortex activation
- 2001 PhD University of Missouri under the supervision of Dr. David C. Geary.
Dissertation: The influence of estrogen on borderline personality disorder.

Publications

- Geary, D. C., Hoard, M. K., Craven, J.B & DeSoto, M.C. (2004). Strategy choices in simple and complex addition: Contributions of working memory and counting knowledge for children with mathematical disability. *Journal of Experimental Child Psychology*.
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- DeSoto, M.C., Fabiani, M., Geary, D., & Gratton, G. (2001) When in doubt do it both ways: Brain evidence of simultaneous activation of conflicting motor responses in a spatial Stroop task. *Journal of Cognitive Neuroscience*.
- Gratton, G., Fabiani, M., Goodman-Wood, M. R., & DeSoto, M. C. (1998). Memory-driven processing in human medial occipital cortex: An event-related optical signal (EROS) study. *Psychophysiology*., 35, 348-51.

For details on Dr. DeSoto's peer reviewed published abstracts, conference presentations, and works in progress, and further biographical information, see her web site: <http://fp.uni.edu/desoto/>