PARALLEL SESSION 3 – FRIDAY JUNE 21ST 2019, 10h30 – 12h00
Pathological Skin Picking: Foundations and treatment of a neglected phenomenon in psychosomatic medicine

- Ch. Gallinat, et al.: SaveMySkin: A pilot study about an Internet-based self-help intervention for skin picking
- A. Wabnegger, et al.: Neural activations to the scratching and caressing of one’s own skin in individuals with pathological skin picking
- J. Vöhringer, et al.: Contributions of impulsivity, obsessive-compulsive and body dysmorphic symptoms to different aspects of skin picking
- J. Schmidt, et al.: Subjective and neurophysiological cue reactivity to skin irregularities in pathological skin picking

Theme
Pathological Skin Picking (PSP) describes repetitive picking of an individual’s skin that causes lesions, inflammation and worse dermatological complications. Up to 5 % of the general population report PSP, with higher rates in dermatological settings. However, research on PSP and associated education in psychosomatic care are still scarce. The symposium provides a comprehensive overview on PSP, introducing multi-faceted research and discussing developments in primary care.

The symposium starts with a study of Vöhringer et al., who investigated the contribution of symptom-dimensions relevant for PSP within a cross-sectional intercultural study. Research by Schmidt et al. then presents findings on subjective and electroencephalographic cue reactivity in PSP. Wabnegger et al. present findings of a functional magnetic resonance imaging study, analysing neural activations to scratching and caressing of one’s own skin in individuals with PSP. Gallinat et al. conclude the symposium by presenting a randomized pilot trial on the internet-based self-help intervention “SaveMySkin”.

Takeaways
- The audience will be introduced to PSP as a neglected albeit common pathological behaviour in dermatology and psychosomatic medicine and as a distinct mental disorder.
- The audience will be sensitised for the phenomenology of PSP (e.g., automatisms, emotion regulation, loss of control) and the associated debate around its classification and overlaps with other disorders.
- The audience will get insights into recent findings on potential psychological and neuronal mechanisms related to the initiation and perpetuation of PSP (e.g., cue reactivity, somatic sensitivity and neural activations).
- The audience will receive a detailed introduction to an innovative e-health approach in the treatment of PSP, which we will discuss in the light of the current healthcare situation and its shortcomings.

Chair: Christina Gallinat, Research fellow Center for Psychotherapy Research, University Hospital Heidelberg, Heidelberg, Germany, DE

Co-chair: Jennifer Schmidt, Professor for Applied Psychology Clinical Psychology & Psychotherapy, University of Wuppertal / Department of Psychology, HS Döpfer University of Applied Sciences, Cologne, DE
SaveMySkin: A pilot study about an Internet-based self-help intervention for skin picking.

Aim
Pathological Skin Picking (PSP) is known to be associated with psychosocial impairment and severe medical complications. There is a lack of evidence-based interventions and well-informed treatment providers, which makes it very difficult for affected individuals to utilize adequate care. We will introduce an Internet-based self-help intervention for individuals with PSP ("SaveMySkin"), which is currently investigated within a randomized controlled trial (RCT). The program consists of different modules of varying intensity including comprehensive information materials, exercises based on cognitive-behavioral therapy, a supportive monitoring and feedback system, and counseling with psychologists and dermatologists via Internet-chat. We will explore characteristics of the target population that are associated with registration to the intervention.

Methods
Participants were recruited online to participate in a 2-arm RCT. Interested individuals could answer a short online screening questionnaire and register for the study, if they met the inclusion criteria (age ≥ 17, at least mild skin picking severity). Participants were randomly assigned to SaveMySkin or a waiting list control condition.

Results
Between October and December 2018, N=316 individuals (91.1% female) completed the screening, N=294 met the inclusion criteria, N=152 (51.5%) registered, and N=133 (45.1%) participants answered the baseline assessment and were randomized. The randomized sample displayed a higher symptom severity compared to the group, which did not pursue study participation (N=161).

Conclusion
The high number of screenings, and the results that symptom severity is associated with registration to the intervention and clearly underline the need for easy accessible support offers and specialized interventions for individuals affected by PSP.

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Neural activations to the scratching and caressing of one's own skin in individuals with pathological skin picking

Aim
Pathological Skin-picking (PSP) is a complex behavior characterized by symptoms involving the repeated scratching and picking of one’s own skin. This behavior leads to severe tissue damage (sores, scars, and infections), and sometimes even to disfigurement. Moreover, PSP is associated with clinically significant distress and impairment in important areas of functioning. However, up until now neurobiological mechanisms of PSP are still poorly understood.

Methods
In this study, 30 PSP patients and 31 control participants (35 women, 26 men) with a mean age of 34 years were instructed to either scratch or gently stroke a small skin area on their arms during functional magnetic resonance imaging.

Results
Gender-specific effects were revealed. In the female sample, PSP patients showed less activation in the middle frontal gyrus (MFG) and primary/secondary somatosensory cortices during caressing relative to scratching than controls. In addition, caressing relative to a rest condition revealed reduced activation in the somatosensory cortex (concerned with the decoding and integration of tactile information) and the MFG (attention/cognitive monitoring) in female patients. No differential brain activation was found in the male sample.

Conclusion
This symptom provocation study provide first hints about a reduced sensitivity of pleasant touch in women with PSP.

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Contributions of impulsivity, obsessive-compulsive and body dysmorphic symptoms to different aspects of skin picking

Aim
Pathological Skin Picking (PSP) has a strong impact on individuals’ physical and mental health. It was therefore included as a distinct disorder in the obsessive-compulsive disorder (OCD)-spectrum of the DSM-5. However, its classification is still debated because of overlaps with other disorders, like body dysmorphic disorder (BDD) or impulse control disorders. The present study aims at elucidating the contribution of disorder-relevant symptom-dimensions of these other disorders to different aspects of PSP.

Methods
In two cross-sectional online-surveys (German sample: n=1212, international Englishspeaking sample: n=315), we investigated the contribution of impulsivity, OCD-symptoms, and BDD-symptoms in explaining five different facets of PSP, assessed with the Wuppertal Skin-Picking-Inventory (W-SKIN: automatism, emotion regulation, relief, thought preoccupation, loss of control). Validated questionnaires assessed symptoms of BDD, OCD, and impulsivity. Stepwise regression-models served to analyse the influence of these symptoms on PSP, including a cross-cultural comparison.

Results
In both samples, BDD-symptoms explained substantial variance in all five facets of PSP (international sample: $R^2=11.2\%-24.4\%$; German sample: $R^2=13.2\%-20.5\%$), whereas impulsivity and OCD-symptoms only contributed to single facets. However, taking into account more specific subtypes of OCD-symptoms and impulsivity further improved the regression models.

Conclusion
The findings support assumptions regarding overlaps of PSP and other disorders in the OCD-spectrum, while there are less overlaps with impulsivity. Especially BDD-symptoms seem to contribute to all facets of PSP, independent of cultural background. This highlights the importance to be open for considering both disorders in the diagnostic and therapeutic process. Future studies should back up these findings with clinical assessments (e.g., diagnostic interviews).

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Subjective and neurophysiological cue reactivity to skin irregularities in pathological skin picking

Aim
People with pathological skin picking (PSP) repeatedly pick their skin, causing lesions, inflammations, and dermatological complications. While most PSP-patients report that perceptions of skin irregularities trigger urges to pick their skin, this cue reactivity (CR) has been neglected in experimental research. This study therefore examines subjective and electroencephalographic (EEG) CR in PSP. We hypothesized that PSP-patients show stronger subjective and neurophysiological (EEG-beta-activity) CR than controls.

Methods
Fifty-three (PSP: n=21, control: n=33) adults participated in the EEG-experiment. Participants were confronted with different cues, including visual and tactile, smooth or irregular cues, representing skin or neutral surfaces. Participants rated their urges to pick the object and their own skin (subjective CR). For neurophysiological CR, we recorded spectral EEG-activity during cue-confrontations. Data were analysed with MANOVAs.

Results
We observed significant cueXgroup (F=5.51, p=.001) and cueXsurfaceXgroup (F=5.06, p=.002) interactions for subjective CR: Compared to controls, PSP-patients showed elevated urges to pick the object and their own skin in response to irregularities (p<.002). These effects were especially pronounced for skin-related surfaces (visual and tactile). Evidence for neurophysiological CR was weak: There were no effects in EEG-betaactivity, while slightly stronger alpha-reductions and blunted theta-reactivity were present in PSP compared to controls.

Conclusion
The study shows that skin irregularities are important triggers for skin picking urges and probably play an important role in perpetuating PSP. These findings implicate that interventions derived from CR-research (e.g., cue exposure) might be promising approaches to treat PSP. However, associated EEG-activity needs more exploration to determine neural underpinnings of PSP.

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