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Post traumatic stress disorder and substance use disorder

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Summary

Previous studies have documented a strong link between PTSD and SUD. Patients with this comorbidity bear the burden of two severe, mutually influencing, and often chronic disorders. Both SUD and PTSD might push a person into social isolation and secrecy. When such a person finally does seek help, treatment possibilities are limited.

When examining clinical guidelines and clinical research, there is a growing consensus that in case of SUD/PTSD comorbidity treatment should be offered, immediately, and in an integrated manner. Why is it then that SUD treatment centers have not implemented this integrated treatment for comorbid SUD/PTSD? And what is missing that might facilitate bridging the gap between SUD/PTSD research and clinical practice? In addition, the precise interaction between the two disorders is not clear yet. It is often suggested that substances are used to reduce the mental pain caused by PTSD, but it is also possible that the motives of SUD/PTSD patients to use substances are related to their inadequacy to cope with stress in general.

This dissertation focuses on the interaction between SUD and PTSD. Three main aims are addressed in this thesis: (1) to study the prevalence and the vulnerability of patients with SUD/PTSD comorbidity, (2) to study how the craving response of SUD/PTSD patients interacts with personalized trauma and stress cues, and (3) to examine why the implementation of integrated SUD/PTSD treatment has been unsuccessful. To address these three aims I conducted five studies (Chapters 2 -7). Main findings that are reported in the chapters of this dissertation will be summarized.

Chapter 2 reports on a study with three objectives. Firstly, the prevalence of post-traumatic stress disorder (PTSD) and trauma exposure was compared between individuals with and without substance use disorder (SUD). Secondly, we compared self-rating of PTSD and clinical judgment. Thirdly, an analysis of the characteristics of SUD/PTSD patients was performed. The sample consisted of 423 patients with SUD and 206 healthy controls. All individuals were screened on PTSD using the self-rating inventory for PTSD. Significantly higher numbers of PTSD and trauma exposure were found in the SUD group (resp. 36.6 and 97.4%). Furthermore, PTSD went frequently unnoticed when relying on clinical judgment alone. With regard to the characteristics, it was found that patients with SUD/ PTSD were significantly more often unemployed and had a lower educational level. Axis I comorbidity and especially depressive disorders were more common in the SUD/PTSD group. From these findings it is concluded that patients with SUD/PTSD are a substantial and vulnerable subgroup in addiction treatment facilities and that a systematic screening for PTSD is required.

Previous research shows that patients with substance use disorder (SUD) and post-traumatic stress disorder (PTSD) experience more craving for a substance after exposure to their personal trauma

cues compared to neutral cues. However, it is not clear if their substance cravings are triggered by specifically trauma cues or by stress cues in general and whether the level of PTSD matters To examine the impact of trauma and stress cues on substance craving and tension in SUD/PTSD patients, we conducted an experimental study which is described in **Chapter 3**. Seventy-four patients attended three exposure sessions in which the patient was exposed to one tape-recorded script a neutral script, a stress script and a trauma script. Craving and tension were measured before and after each cue exposure. The findings show that patients high in PTSD severity craved more after stress and trauma script exposure, compared to exposure to the neutral script and to patients low in PTSD severity. These findings suggest that SUD/PTSD patients are not only more vulnerable to trauma cues, but also to more general stress cues.

Despite empirical support, integrated treatment of Substance Use Disorder (SUD) and Posttraumatic Stress Disorder (PTSD) is not sufficiently implemented in SUD facilities. To understand the reasons for this gap between theory and practice, we conducted a qualitative study on the views of clinicians with regard to the diagnosis and treatment of PTSD in SUD patients (presented in **Chapter 4**). An independent interviewer interviewed fourteen staff members of different wards of an addiction care facility. Despite acknowledging adverse consequences of trauma exposure on SUD, severe underdiagnosis of PTSD was mentioned and treatment of PTSD during SUD treatment was not supported. Obstacles related to the underestimation of PTSD among SUD patients and to the perceptions of SUD clinicians concerning the treatment of comorbid SUD/PTSD are reported. It is concluded that SUD treatment centres should train their clinicians to enable them to provide for integrated treatment of SUD/PTSD.

In **Chapter 5** the perceptions of SUD/PTSD patients about the co-occurrence and the symptom interplay of the two disorders are addressed. Seventy-two SUD patients with differing levels of PTSD severity filled out a survey and three self-report questionnaires pertaining to their perceptions. Regression analysis was used to test whether PTSD severity accounts for possible differences between perceptions about the link between SUD and consequences of trauma exposure. Patients perceive that substance use is effective in diminishing PTSD symptoms, they feel that abstinence does not improve PTSD symptomatology, and they hold positive expectancies regarding the effect of the substance on their PTSD symptoms. These results suggest that it is hardly surprising that SUD/PTSD patients are reluctant to start an integrated SUD/PTSD treatment. Treatment implications are discussed.

Finally, in the qualitative study presented in **Chapter 6**, patients with comorbid substance use disorder (SUD) and post-traumatic stress disorder (PTSD) were interviewed on their ideas about the link

between SUD and PTSD. Although they clearly reported self-medication, they also gave a more complex description of how they believe their PTSD influences their SUD. The results suggest that SUD/PTSD patients believe they did not start using substances because of their experienced traumas or PTSD, but that PTSD symptoms are nonetheless important in the maintenance of their addictions. A clear link exists between craving, relapse, and PTSD symptoms. SUD/PTSD patients would prefer a “whole-person approach” when being treated for their PTSD. It is suggested that the integration of skills training and attention for patients who are fearful of PTSD treatment might improve SUD/PTSD treatment results.

The thesis is concluded with **Chapter 7** where the above reported findings are discussed in light of the three main goals that are described in chapter 1. A working model is proposed explaining the SUD/PTSD symptom interplay and recommendations for clinical practice and for future research are suggested. To recapitulate, the studies demonstrate that nearly all SUD patients have been exposed to previous trauma and that one in three SUD patients still suffers from the consequences of this past experience. The findings further stress the vulnerability of SUD/PTSD patients; SUD/PTSD patients show, for instance, increased cravings both after stress and after trauma cues. The results of the research conducted for this thesis underline the importance to address coping skills in the integrated treatment of SUD/PTSD and emphasize that factors that impede the implementation of integrated SUD/PTSD treatment should be taken into account by SUD facilities.