Uwe Matterne
Dr. sc. hum.

Geboren am: 13.04.1969 in Pirna
Diplom der Fachrichtung Psychologie (Dipl-Psych.) am 04.05.2005 an der Freien Universität Berlin

Promotionsfach: Klinische Sozialmedizin
Doktormutter: Frau Prof. Dr. med. Elke Weisshaar

Occupational skin disease (OSD) is a significant public health concern. Despite their common occurrence optimal prevention methods with a strong focus on personalised skin protection measures make it possible for more individuals to remain active in their profession. For severe and refractory cases of OSD comprehensive tertiary individual prevention programmes (TIP) have been developed in Germany. Human behaviour is known to play a central role in the maintenance and recovery of health and in the prevention of diseases. Health behaviour theory and models of behavioural change are popular theoretical frameworks widely used to explain and predict behaviours that are assumed to have positive effects on people's health. While there is a large body of research on primary and secondary prevention few studies have been conducted in tertiary prevention contexts. No study has yet attempted to explain and predict skin protection behaviour in individuals with suspected OSD from a health-psychological perspective or ascertained whether socio-cognitive variables as embodied by contemporary health behaviour models are subject to significant change during a TIP. A further aim was to compare the utility of three health behaviour theories.

This observational study used a prospective longitudinal design. A patient-cohort (n = 150) with suspected OSD completed questionnaires at admission (T0) and discharge (T1) of a three week inpatient TIP. 117 individuals were again assessed once they had been back to work for a consecutive period of 4 weeks (T2). Between T0 and T1 an intervention including a variety of health-educational and psychological seminars took place. The questionnaire was

developed by elicitation interviews, expert discussions, a literature review and a pre-test with independent samples and measured socio-cognitive constructs embodied by the theory of planned behaviour (TPB), the prototype-willingness model (PWM) and the health action process approach (HAPA). Data was analysed by reliability analyses, paired t-tests, correlational analyses, multiple regression analyses and path analyses.

Item and scale analyses attested to the questionnaires' adequate psychometric properties. Patients arrived at the TIP displaying generally favourable socio-cognitive determinants of skin protection behaviour. However, most of these determinants, apart from subjective norm and negative outcome expectancies were subject to significant improvement during the TIP. A series of multiple regression analyses revealed that the three tested models TPB, PWM and HAPA can be used to explain and predict the intention to perform skin protection behaviour; although not all model assumptions were confirmed. Path analyses tested whether the models are useful in explaining and predicting actual skin protection behaviour in the workplace. Examination of model fit indices showed that only the TPB was able to fit the data satisfactorily. By use of modification indices the PWM and HAPA were modified to arrive at better fitting models. These modifications increased the variance explained in intention and behaviour substantially. In terms of goodness of fit, the TPB fared best, followed by the PWM and HAPA while in terms of explained variance the modified HAPA was superior compared to the TPB and PWM. Evaluation of parameter estimates revealed all three models to lack some precision.

This is the first study investigating socio-cognitive determinants of skin protection behaviour in individuals with suspected OSD and it provides convincing evidence for the applicability of the TPB, the PWM and HAPA to the explanation and prediction of adherence to personalised skin protection behaviour in individuals with suspected OSD. The amounts of explained variance compared to previous research. Further, the study also attested to the TIPs success at improving established determinants of skin protection behaviour, thus highlighting the importance of health-educational and psychological interventions for individuals with OSD. The results from this study can inform future interventions aimed at helping individuals with OSD to remain active in their profession. For professionals working in the field, helping

patients form strong perceptions of personal control over skin protection behaviour appears the most promising avenue in this respect. The promotion of more favourable attitudes, a sense of being similar to others successfully performing skin protection behaviour and powerful action plans may also lead to better skin protection behaviour which in turn may help decrease the personal, social and societal impact of OSD.