Skin cancer prevention starts early in life – the ‘SonnenschutzClown’ preschool program


Universitätsklinikum Carl Gustav Carus
DIE DRESDNER.

Background

Skin cancer is one of the most common cancers, and the incidence of melanoma has increased rapidly. Overexposure to ultraviolet radiation is a major risk factor for the development of melanoma.

To offer a comprehensive program that can reduce the risk for skin cancer, the University Cancer Center Dresden developed the ‘SonnenschutzClown’ (SC) within the ‘Clever in Sonne und Schatten’-program of German Cancer Aid. The program realizes setting-intervention recommendations by the World Health Organization and is based on behavior change as well as organizational development theories. It is designed to be easily implemented and disseminated and to face the challenges of limited resources.

Methods

Study design. A cluster-randomized controlled trial with a pre-post-follow up-control group design investigated the program effect on predetermined and sun protection behavior in preschool-staff.

Sample. In 2015, a needs assessment of demand for sun-protection-measures in all preschools in Saxony (N=2145, n= 526 responses) was conducted. Preschools with the highest need for sun protection-measures (N=24) were selected and, balanced by region, randomly assigned to an intervention group (IG) or a standard care control group (CG), resulting in a total of n=373 staff members (female: 97%, age: M=43,1 years).

Intervention. The SC consists of an educational workshop, designed to promote attitudes, expectations, knowledge and behavior regarding sun-protection in the preschool by using various Behavior Change Techniques (e.g. modeling, goal setting, participatory problem solving). In addition, materials free of charge are provided to support a project week within the preschool groups.

Measurement. Baseline (t0), 1-month (t1, medium-term) and 1-year (t2, long-term) assessments were conducted in 2016/2017 with a questionnaire based on previous research. Generalized linear mixed-effects models were conducted with SPSS 23.

Results

Results show a significant increase in sun avoidance behavior (p<.05, fig. 1) in the long-term as well as a medium-term on self-efficacy ratings to use sunscreen (p<.05, fig. 2) and to avoid the sun (p<.01). SC had no additional benefit compared to the sole use of an information brochure regarding knowledge and outcome expectancies (medium-term) and sunscreen-use behavior (long-term).

Conclusions

Evaluation results show that SC is a very promising program to sustainably promote sun-protection behavior in preschools. It is superior to the distribution of an information brochure concerning crucial outcomes such as the actual behavior and important predetermined behavior change.

A further program development, the ‘media-based workshop’, i.e. a workshop guided by a DVD, increases flexibility and self-determination of the implementation and is already available.

With its media-based materials, SC offers high-quality information at low cost (5 € for materials incl. postal charges) as well as an easy dissemination.