Promoting the autonomous implementation of the European framework agreement on occupational health and safety in the hairdressing sector (VS/2019/0440)

Executive Summary

Background: Hairdressers constitute a major subgroup in the service sector. In everyday work, they are in contact with many hazardous and toxic agents, which entails different occupational health risks such as skin damage, respiratory problems, reproductive disorders, and various forms of cancer. 70% of hairdressers suffer from work-related skin damage, mostly hand dermatitis, at some point during their career; often with an early onset, mostly even during apprenticeship. Daily inhalation exposure to hazardous chemicals released from hairdressing products poses in addition a greater risk of adverse health effects for hairdressers. They are qualitatively and quantitatively much more exposed to such substances than a consumer or client. However, current risk assessment of hair cosmetic products does not take the daily exposure of hairdressers into account. Hence, there was an urgent need to study comprehensively and systematically the exposure of hairdressers and the occupational health risks associated with the use of cosmetic products to provide the scientific basis for improved protection of hairdressers´ health.

Methods: A total of 10 systematic and scoping reviews of available literature evidence from 2000-2021 were carried out by an experts´ consortium from Croatia, Denmark, Germany and the Netherlands between 2021 and 2022. The reviews focused on substances identified as most hazardous cosmetic ingredients having (potential) harmful outcomes on hairdressers' skin, systemic toxicity, respiratory, carcinogenic and reproductive effects. All reviews have been published in high-ranking international scientific journals.

Findings: This research project revealed that more than one in three hairdressers in Europe has hand eczema, which can affect their ability to work. Most develop hand eczema during apprenticeship and thus may be underage. Not only are hairdressers exposed to a wide range of hair cosmetic products up to 78 times more than consumers, ranging from shampoos, conditioners, oxidative and non-oxidative hair colours, to bleaching agents, but they are also often exposed to several hazardous hairdressing chemicals at the same time, leading to a so-called cocktail exposure. The cumulative daily exposure of hairdressers' hands to hair cosmetic ingredients – if not adequately covered with gloves and supported by the application of emollients – is a clear cause of skin irritation damage.

The studies also found that inhaling hairdressing chemicals can lead to respiratory problems. Bleaches containing persulphate salts are the main cause of occupational respiratory diseases in hairdressers. Carcinogenicity (bladder cancer) and adverse effects in pregnancy as well as poor neonatal health are currently under investigation and thus cannot be ruled out.

Hairdressers are, as indicated by some studies, also occasionally exposed to airborne chemicals that are released during hairdressing work in quantities that exceed the applicable occupational exposure limits (OELs) or guideline values with irritant and/or sensitising effects on the respiratory tract. Both dermal and inhalation exposure can result in the absorption of chemicals into the body with the potential for development of systemic adverse effects, like carcinogenicity and reproductive toxicity.

Conclusions: Health risk assessment based on consumer exposure underestimates occupational risks for hairdressers. The figures delivered by the screened studies clearly show that the consumer usage frequency is not appropriate for representing hairdressers' exposure. Improved risk assessment concerning skin irritants and especially sensitizers in products would be a major step forward, taking into account the increased exposure of hairdressers compared to consumers. Only then will it be possible to acknowledge the actual exposure hairdressers have in daily working life. This will also be the adequate starting point for specifically tailoring preventive measures (risk management).

Recommendations: Regular health risk assessment should be carried out, including the identification of allergens and irritants to the skin and respiratory tract in the workplace. Prevention is furthermore crucial, a reason why the consistent application of preventive measures to reduce exposure must already be part of vocational training. The adequate use of gloves, to be provided by the employer, for personal protection is indispensable for hairdressers as it reduces threats to skin health and transdermal absorption of chemicals. It is also very important that appropriate ventilation systems are used in hairdressing salons. High risk groups in hairdressing (e.g., pregnancy, reproductive age, neurotoxicity in young people, atopics) need to be considered specifically. Information about the hazardous properties of chemicals in hair care products, exposure route and the extent and pattern of exposure is crucial.

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