APPEARANCE OF SKIN PROBLEMS IN HAIRDRESSING APPRENTICES DURING EDUCATION

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Introduction

• Hairdressers are at high risk of developing professional skin disease

• Period from the beginning of harmful exposure to first symptoms is very short, an average of only 2,1 years

• First symptoms occur in the average age of 19 years and the risk significantly decreases with increasing age

• Young hairdressers especially don’t use protection when working in wet

Appearance of skin problems in hairdressing apprentices during education – Aims of study

• Analyze pre-enrollment health examination of hairdressing apprentices

• Exposure to skin hazards in hairdressing and usage of personal protective equipment during practice

• Appearance of skin problems during education
Methodology

• 3rd grade hairdressing apprentices of one vocational school in Zagreb
• Presentation and flyers at school
  • response rate 81% (104 out of 128)
• Nordic Occupational Skin Questionnaire (NOSQ)
• EvaHair questionnaire
• International Study of Asthma and Allergies in Childhood Questionnaire (ISAAC)
Methodology

• Clinical examination of hands with Osnabrueck hand eczema severity index (OHSI)

• 6 morphological characteristics:
  1. Erythema
  2. Scaling
  3. Papule
  4. Vesicle
  5. Induration
  6. Fissures
Results

- 21 (49%) was asked about allergies and had clinical examination of hands.
- 43 of them remembered the examination.

Medical certification

- None: 12; 11%
- Occupational medicine specialist: 57; 55%
- School medicine specialist or GP: 35; 34%
Results

Performance of specific working tasks

- **Hair wash**: 91% perform, 9% do not perform
- **Hair rinse**: 76% perform, 24% do not perform
- **Dying hair**: 78% perform, 22% do not perform
- **Tool disinfection**: 52% perform, 48% do not perform

N=104
Results

Usage of protective gloves while performing specific tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Use Gloves While Performing</th>
<th>No Gloves While Performing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hair Wash</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>Hair Rinse</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Dying Hair</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Tool Desinfection</td>
<td>15%</td>
<td>85%</td>
</tr>
</tbody>
</table>

N=79  N=95  N=81  N=54
Results

Reported skin problems in hairdressing apprentices

- 59; 57% Dry skin after enrollment with no eczema
- 20; 19% Hand eczema before enrollment
- 19; 18% Hand eczema after enrollment
- 6; 6% No skin problems reported

18 (95%) aggravation of symptoms after being exposed to wet work and chemicals during school practice

14 (74%) withdrawal during brakes
Results

Reported skin problems in hairdressing apprentices and clinical findings

- Dry skin after enrollment with no eczema: 59 (57%)
- Hand eczema before enrollment: 19 (18%)
- Hand eczema after enrollment: 6 (6%)
- No skin problems reported: 20 (19%)

Positive clinical findings (OHSI score > 0)
- 8 (42%)
- 13 (65%)
Results

Localization and type of skin changes in apprentices who reported hand eczema and dry skin after enrollment  N=21

- Erythema: N=13
- Induration: N=12
- Scaling: N=10
- Fissures: N=2
- No papules nor vesicles were found
- No change was found on palmar area of hands!
Conclusion

• 37% reported appearance of skin problems during education
• 20% had positive clinical findings, mostly erythema, scaling and induration at the back of hands which suggests irritant genesis of skin changes
• Inadequate prevention of professional skin diseases in hairdressing apprentices during education
• Need for more effective health surveillance of apprentices before and during schooling
• Further education on usage of personal protective equipment
• Early detection of candidates for redirection to other educational programs
Questions?

Thank you!