Compliance with the Control of Substances Hazardous to Health Regulations (COSHH) 1988 and health and safety awareness in hairdressing establishments

K. T. Palmer,* J. Freegard†

*Health and Safety Executive, Priestley House, Basingstoke, Hants RG24 9NW, UK; †North Wiltshire District Council Department of Environmental Health, Brookfield House, Chippenham, Wilts SN15 5JF, UK

Hairdressers are known commonly to suffer work-related skin problems. To explore the steps taken by employers and employees to prevent or control such problems, we visited 12 randomly selected high street hairdressing establishments in North Wiltshire and interviewed the proprietors and 43 of the employees by means of structured questionnaires. Relatively few of the establishments had taken any steps to comply with the statutory requirements of the Control of Substances Hazardous to Health (COSHH) Regulations 1988. Some premises lacked basic skin care facilities and employers often failed to provide hand care training and health monitoring. More than half of the employees had experienced work-related skin problems, typically dermatitis. Those with skin problems more commonly identified precautionary skin care measures; however, many employees could not identify desirable skin precautions when questioned. A fifth had never received skin care training. For the remainder the median elapsed interval since last trained exceeded 6 years. Only one establishment had a satisfactory skin care programme. Future efforts should be directed at training and influencing the attitudes of hairdressing employers.

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INTRODUCTION

Contact dermatitis is a major problem in hairdressers. Many ingredients commonly handled are capable of producing irritant or allergic reactions. Continual exposure to water, detergents, bleaches, dyes and other agents may lead to chronic hand dermatitis; studies suggest a high level of sensitization: the Italian Contact Dermatitis Research Group found that 61% of a sample of 302 Italian hairdressers were occupationally sensitized, UK workers quote a similar figure, while the European collaborative study revealed that 51% of the German sample and 19% of the London sample were sensitized to one ingredient alone.

The Control of Substances Hazardous to Health Regulations (COSHH) 1988 has introduced a systematic framework to control occupational problems of this nature—built on the basic hygiene precepts of assessment, followed by institution of control measures (elimination, substitution, enclosure, personal protective equipment), training, maintenance of controls and review, including health surveillance. Given the exceptional potential of professional hairdressing materials to affect skin, it might be expected that this framework would be of benefit to employers and employees in tackling the problem. This survey examined health and safety awareness and the steps taken to comply with COSHH by workers and managers in hairdressing establishments.
SUBJECTS AND METHODS

Twelve high street hairdressing salons in North Wiltshire were selected from the inventory held by North Wiltshire District Council's Environmental Health Office using random number tables (a 20% sample). All were small employers with between two and six hairdressing assistants in employment or training.

The premises were visited by an Employment nursing Adviser (HSE) and an Environmental Health Higher Technician (Local Authority). Two structured questionnaires were administered to managers and staff.

The employer's questionnaire concerned awareness of the COSHH regulations and steps taken in assessment of hairdressing products hazardous to health (Regulation 6); control, including systems of work and hand care programmes (Regulations 7 and 8); health surveillance (Regulation 11); and information, instruction and training of employees (Regulation 12). Managers' questionnaires were completed at each establishment and written records and working conditions examined to verify the histories obtained.

The employee's questionnaire concerned the occurrence of work-related skin conditions, knowledge and use of precautionary measures and training received. Sixty-four hairdressers and stylists were employed or in training in the sampled premises, 43 of whom were present at the time of the visit: all of these completed a nurse-administered employee questionnaire.

RESULTS

Results of the employers' questionnaire

The main outcomes are summarized in Table 1. None of the employers knew of the COSHH regulations by name; only two (17%) were able to identify, with prompting, some of the underlying principles; only a quarter had any form of written assessment, of which one only was deemed suitable and sufficient in compliance with the regulatory requirement.

Only two claimed to provide specific training in the use of hazardous substances, while five assumed that their staff would learn such matters in training college.

The provision of creams and cleansers varied between establishments: two supplied a full range (that is, a choice of hand cleansers, barrier creams and after-work emollients), two did not supply any, and seven did not supply after-work creams. Only one in 12 was judged to be operating a proper hand care programme—the minimum standard being defined as assessment, instruction and training, a full range of appropriate creams and hand drying facilities and gloves when required.

Five of the 12 employers said that prospective employees were asked at interview about pre-existing skin problems. No health surveillance was provided for current employees, (though two employers felt they were complying with the spirit of COSHH Regulation 11 by virtue of vigilance and periodic general welfare enquiry). For practical purposes all employers were in breach of one or more of the statutory requirements of COSHH.

Results of the employee's questionnaire

Employee characteristics and materials handled. All but two of the employees were women. Their ages ranged from 16-55 with a median of 23 years. Their median duration of employment in hairdressing was 8 years (range=3 weeks-35 years). Twenty-eight (65%) were stylists, seven (16%) trainees and eight (19%) owners.

Between them they handled a representative range of hairdressing materials (Table 2). As a group trainees were somewhat (but not statistically) more likely to use shampoos, and stylists more likely to use finishing products such as setting lotions and sprays (χ² test of proportion, Fisher's Exact test: p<0.05). All groups were exposed to dye and perming products in application or removal or both (differences were not statistically significant).
Work-related skin complaints

Twenty-four interviewees (56%) gave a history suggestive of current or recent work-related skin complaint (that is, a skin condition caused or worsened by work in hairdressing). Two individuals had more than one complaint, so that 26 complaints were identified altogether. Diagnoses were based on history and examination without patch-testing.

Eczema/dermatitis was the most common complaint: 16 employees (37%) were current or past sufferers: three pre-dating employment, but worse for it; 13 post-dating work as a hairdresser and attributed in the interviewee's opinion to work factors. A further five workers (11.5%) experienced persistent troublesome skin soreness, chaffing or fissuring, which may have also represented mild eczema: here too symptoms had a work-related time course and pattern. Individuals with symptoms suggestive of work-related eczema were identified in 11 of the 12 salons.

The severity of symptoms varied. Five of those with eczema, persistent soreness, chaffing and fissuring had symptoms 'more or less continuously' and eight others 'several times a year'. Thirteen employees had received prescription steroid preparations to alleviate their skin complaint.

Other skin complaints were identified with definite or possible work association: skin burns from bleaches (two individuals); hand warts (two individuals); and impetigo (one individual).

Fifteen (63%) of the skin complaints arose within the first six months of employment in hairdressing and 81% within the first five years. Trainees complained most commonly, but the numbers were small and proportionate differences by job description and materials handled were not statistically significant at the 5% level ($\chi^2$ test). Only 31 working days had been lost through skin complaint for all participants.

Health and safety training, awareness and behaviour

Participants were asked what instruction they had received in hand care, and (if any) by whom and when it was last received. Nine (21%) could not recall receiving any training in hand care; 34 recalled some training, the source of which is identified in Table 3. For most individuals training college represented the sole source of information on matters of hand care. Relatively few had received instruction in employment. The median interval that had elapsed since last receiving hand care training was 6.2 years (range=1 week–21 years, $n=34$). In this small sample no association was found between source or periodicity of training and frequency of skin complaint.

Participants were also asked to identify those precautions appropriate for protection of their skin. Their responses were marked against a check list of items, namely: wearing gloves, avoiding skin contact with the materials, thorough hand-drying, use of barrier creams and use of after-work (emollient) creams. The frequency of mention for each item was scored and a composite skin care awareness index derived by summing the responses on the basis of one point per item mentioned. Those identifying two or fewer items from the checklist were arbitrarily defined as having 'low' skin awareness. Finally, the association between frequency of work-related skin complaint and skin care awareness was examined (see Table 4).

Twenty-five respondents (58%) had a 'low' composite score for skin care awareness. Although numbers were small and confidence intervals correspondingly wide, those with skin problems more commonly identified specified precautions (and in particular the importance of thorough hand drying), and more commonly had a 'high' skin care awareness score than those without.

### Table 3: Sources of training in hand care

<table>
<thead>
<tr>
<th>Source of training</th>
<th>Number of respondents ($n=43$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training college only</td>
<td>22</td>
</tr>
<tr>
<td>Current employer</td>
<td>8</td>
</tr>
<tr>
<td>Former employer</td>
<td>2</td>
</tr>
<tr>
<td>General practitioner</td>
<td>1</td>
</tr>
<tr>
<td>More than one of these</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>9</td>
</tr>
</tbody>
</table>

### Table 4: Awareness of health and safety precautions amongst hairdressers

<table>
<thead>
<tr>
<th>Precaution</th>
<th>All respondents ($n=43$)</th>
<th>Respondents with skin problems ($n=24$)</th>
<th>Odds Ratio* (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specified Items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wearing gloves</td>
<td>35</td>
<td>21</td>
<td>2.5 (0.4–16.4)</td>
</tr>
<tr>
<td>Avoiding skin contact</td>
<td>13</td>
<td>9</td>
<td>2.3 (0.5–11.4)</td>
</tr>
<tr>
<td>Thorough hand-drying</td>
<td>13</td>
<td>12</td>
<td>18.0 (1.9–428.3)</td>
</tr>
<tr>
<td>Use of barrier cream</td>
<td>23</td>
<td>14</td>
<td>1.6 (0.4–6.3)</td>
</tr>
<tr>
<td>Use of after-work cream</td>
<td>20</td>
<td>14</td>
<td>3.0 (0.7–13.3)</td>
</tr>
<tr>
<td>Composite awareness score</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–2 ('low' awareness)</td>
<td>25</td>
<td>9</td>
<td>8.9 (1.7–52.8)</td>
</tr>
<tr>
<td>3–5 ('high' awareness)</td>
<td>18</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

*Each awareness element was examined in a separate univariate analysis. Odds ratios are for respondents who declare an item compared to those who do not (specified items), or for 'high' awareness compared with 'low' awareness (composite awareness score).
It is possible that individuals who employ skin precautions have difficulty naming them in open questioning. Later on in the employee's questionnaire, as a prompt and validity check, direct, closed questions were asked on the use of gloves and items used to clean, dry and moisturise the hands. A further six employees recalled using barrier creams and a further one using gloves, but no-one claimed to use these precautions for 'more than half the time'. In total 36 employees (83%) claimed to use after-work creams: in most instances these were self-supplied. The use of barrier creams (odds ratio 1.6 [95% CI 0.4-6.3]) and after-work creams (odds ratio 3.0 [95% CI 0.7-13.3]) was again more common in those with skin complaint.

**DISCUSSION**

This survey, though limited in size, is of interest because the issue of health and safety behaviour and compliance in hairdressing has seldom been examined. The selection of premises is believed to be representative of high street hairdressers, as nearly all hairdressing establishments are known to the Environmental Health department, but may not be representative of hairdressers who work from customers' homes. Only those at work on the occasion of our visit were interviewed. As such our sample under-represents the experience of the part-time worker. It may not include workers with sickness absence, (although no employee was believed by managers to be in this category at the time) and does not include those who have given up a hairdressing career because of skin complaint [the turnover due to health problems in trainees is believed to be higher again (personal communication: Rivett J, 1994)]. Although the diagnosis of skin complaints was not substantiated by patch testing, the high prevalence of skin problems is fully compatible with the findings of other larger surveys. The materials handled are also representative of those in the hairdressing industry.

This study examined the precautions adopted by a sample of the industry who, as it happens, have failed to ward off problems that could have been anticipated. The findings represent a disappointing response to a well known problem: few employers were aware of the principles and statutory requirements of the COSHH regulations; some premises lacked basic skin care facilities; employers often failed to provide hand care training or health monitoring; and employees often failed to identify desirable skin precautions when questioned. Those with skin problems were more aware of precautionary measures than those without: probably the occurrence of a problem had led to the search for a solution, a reactive rather than a proactive approach. Training would appear to be a central issue. Approximately half of the respondents had received their sole training in technical college. This was particularly true of respondents who had started their own business, some of whom now have legal responsibility for training others. Commercial training schools represent another common source of information. All trainee hairdressers should have access to essential instructions in skin care. Several years ago, following an earlier HSE survey, the Hairdressing Training Board introduced occupational health and safety material at all hairdressing NVQ levels, but many hairdressers seem either to have forgotten essential messages or to have escaped this avenue of information. The relative lack of refresher training may have compounded the problem.

Ultimately the statutory responsibilities lie with the employer. In a field of acknowledged difficulty the scope of the employer to prevent skin problems in hairdressing remains untested, as judged by the compliance standards evidenced in this survey. We recommend that future efforts be directed at educating and influencing the attitudes of hairdressing employers, and through them their staff.

**ACKNOWLEDGEMENTS**

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**REFERENCES**