The efficacy of industry self regulation of the use of UV skin tanning equipment

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Abstract

Although there is considerable guidance available, the skin tanning industry in the UK is unregulated, although legislation currently in force in Scotland will regulate tanning salons with effect from October 2009. Commercial tanning salon operators through The Sunbed Association (TSA) has, and continues to resist, calls for regulation of the industry claiming that they are regulating it themselves and that customers are appropriately advised of all of the potential issues surrounding the use of the equipment. For this study 120 premises offering sunbeds were identified and 69 of them visited by a researcher posing as a potential customer to determine what advice and controls were in place to prevent misuse of the facilities. None of the premises surveyed made all of the appropriate inquiries or gave all of the advice identified in the existing guidance, including those premises that were members of the TSA, and no meaningful controls were exerted over the users or the use of the facilities. It is therefore suggested that self regulation of the UV skin tanning industry is not effective and that given the potential short and long term skin damage that can be caused by UV skin tanning equipment, the industry should be subject to legislative control and enforcement.

Key words: sun beds, The Sunbed Association, skin cancer

Introduction

The sunbed industry in England, Wales and Northern Ireland is unregulated insofar as use of the skin tanning facilities is concerned. Regulation came into force in Scotland in October 2009. The industry relies on self regulation. There is a considerable volume of advice on use of sunbeds, most of which is directed at the industry, including advice from the British Medical Association (Policy on the use of sunbeds, 2003), the Health and Safety Executive (HSE Guidance Note INDG209) and European Guidance (European Standard EN60335-2-27:2003). The advice, however, is not consistent, varying across the organisations, and the industry is free to disregard it should it wish to do so.

The Sunbed Association (TSA) is the professional body representing sunbed operators. It has issued a Code of Practice, “The Sunbed Code” with which its members are required to comply. It is based on European Standard EN60335-2-27:2003 and on HSE Guidance Note INDG209 and is implemented through a safety manual and training programme. Membership of TSA is voluntary and currently TSA represents approximately 22% of sunbed operators in the UK.

Research into the efficacy of self regulation in this industry in Australia suggests that it is not an effective control mechanism (Paul et al., 2005, Dobbinson et al., 2006, Gordon et al., 2008). In 2004 the Australian Government Radiation Health Committee issued a position statement that encouraged compliance with the Australian/New Zealand Standard on solarium for cosmetic purposes (AS/NZ 2635:2002) a voluntary code of practice designed to provide solarium operators with procedures to minimise health risks associated with indoor tanning. All of the studies found that compliance with industry-led voluntary Codes of Practice was poor and all concluded that other forms of harm minimisation were necessary, citing various taxation strategies and mandatory staff training programmes but with the introduction of regulation being the preferred option.

Current guidance

Age of user

Both the British Medical Association (BMA) and Cancer Research UK advise that no-one should use sunbeds for cosmetic purposes, and both organisations advise that no person under the age of 18 should use a sunbed. HSE Guidance Note INDG209 and TSA recommend that individuals under the age of 16 years should not use sunbeds.

Skin type

Skin type is divided into six categories, depending on how the skin reacts to sun.

- Skin type I: Always burns, never tans, sensitive to sun exposure. Redhead/freckles.
- Skin type II: Burns easily, tans minimally, fair skinned, blue/green/grey eyes.
- Skin type III: Burns moderately, tans gradually to light brown.
- Skin type IV: Burns minimally, always tans well to moderately brown, olive skin.
- Skin type V: Rarely burns, tans profusely to dark, brown skin.
The TSA Code of Practice states that individuals with Type 1 skin should never use sunbeds. HSE Guidance Note INDG209 advises that sunbeds should not be used by individuals who have fair, sensitive skin that burns easily or tans slowly or poorly; a history of childhood sunburn; a large number of freckles and/or red hair or a large number of moles.

### Intensity of use

There is considerable confusion surrounding intensity of use. The BMA in its policy statement on use of sunbeds says that sunbeds should not be used for cosmetic purposes at all. However, The British Photodermatology Group (BPG) recommends that, should people choose to use sunbeds, they should not exceed two courses a year of no more than 10 sessions per course. The HSE recommends no more than 20 sessions a year and suggests that the user consult with the operator of the sunbed to determine how long a session should be, depending on their skin type. TSA advises that two to three sessions a week is acceptable but that skin should be rested for 24 hours between each session where user is of skin type 3 and 4 and 48 hours where the user is of skin type 2.

While some operators claim that they will not allow users to exceed recommended limits either in respect of frequency of use or cumulative use over a period of time, it is not at all clear how such a policy can be enforced. This is particularly the case as some operators offer reduced rates for block booking, such as discounted offers – ‘24 sessions for the price of 20’ being on example identified during the study. Meaningful control over frequency of use of the sunbeds in a salon would require some form of customer identification and registration such that use over a prescribed number of times could be prohibited.

### Use while taking medication or with pre-existing medical conditions

Some skin conditions and medication increase the photosensitivity of skin, making it more likely to burn. The BMA recommends that sunbed users should be screened to ensure that they are not taking any medication that would induce photosensitivity reactions or suffer from abnormal sensitivity to ultraviolet and/or visible radiation. This advice is also given in HSE Guidance Note INDG209. The training given to TSA members includes the advice given by the HSE in INDG209 and therefore should include advice regarding medication and pre-existing skin conditions and the use of sunbeds.

### Use of eye protection

The adverse health effects of UV radiation on eyes is well documented (NRPB 2002). All of the guidance regarding use of sunbeds is clear that eye protection should be used. HSE Guidance note INDG209 states that where eye protection is not provided, the facility should not be used. TSA requires that its members provide eye protection.

### Availability of advice

There are a number of disparate sources of advice. General advice is available from sources such as the internet, television and health and women’s magazines, with very specific advice being available from specialist websites such as the SunSmart pages of the Cancer Research UK web site. For those who have made the decision to use a sunbed, however, the advice should be obtainable at the salon, either from posters or leaflets or from the staff. For users to be fully aware of the potential risk they may be taking when using a sun bed it is essential that information is readily available and staff are able to give appropriate advice.

The sunbed industry claims that it is capable of managing the risk that exists from the use of UV skin tanning equipment by self regulation. It claims that advice for customers is readily available and that customers are protected from over exposure by its ability to prevent them accessing sunbeds for too long or too frequently. This research project sought to establish the validity of those claims and to determine whether the public are adequately protected by the practice of self regulation.

### Methodology

The research was carried out in South East Wales and took the form of secret shopping at premises offering sunbeds. Secret shopping was the preferred method of information gathering as it was considered that advice given to a secret shopper would be more ‘real’ than would be given if the researcher revealed the purpose of the visit, which may be more likely to provoke the giving of model answers. At each site the researcher sought advice regarding safe use of the equipment either from staff or by checking whether advice in the form of a poster or leaflet was available. Where staff could be questioned, a pre-planned interview script was used to ensure
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consistency of questioning; follow-up questions were used where additional clarification was required. All visits were cold calls, the researcher posing as an individual wishing to get a sun tan before going on holiday and seeking advice about how best this could be achieved.

Study sample

The study was carried out across eight local authority areas in South East Wales: Blaenau Gwent, Caerphilly, Cardiff, Monmouthshire, Newport, Rhondda Cynon Taf, Torfaen and the Vale of Glamorgan. From a desktop study and telephone survey, 120 premises were identified as having sunbeds within the study area. These included manned and unmanned premises and premises operated by local authorities, private members clubs and those available for public use.

Of the 120 premises, six were found to be entry/use by private members only and were therefore excluded from the physical survey.

Fifteen unmanned facilities were identified. Of these, three were stand-alone independent businesses, the remaining 12 being operated by two multi-outlet groups. Each of the stand-alone unmanned premises was visited; one each of the premises operated by the two multi-outlet groups was visited as being representative of the remainder.

The 104 manned general access facilities identified fell into definite types, being sunbed salons, beauty salons, fitness centres/gyms and hairdressers. Sixty-nine premises were visited (66%), being a representative sample each group.

Information sought

A series of questions was designed that the researcher asked at each premises. Where the premises was unmanned, the researcher used the available literature to source the answers. If that information was available it was recorded as a positive response. It is, however, recognised that users of the facility may chose to ignore such literature in the absence of staff to draw it to their attention, so this may artificially inflate the results.

The information sought was:

1. Must users register with the premises?
2. Were they asked if they had used a sun bed before?
3. Were they asked when they last used a sun bed?
4. Was a skin type assessment carried out?
5. Was a suggested tanning period recommended?
6. Were they suffering any illness/skin condition?
7. Were they asked if taking medication?
8. Was advice on display?
9. Was safety advice given?
10. Were under 16s allowed to use the sunbeds?
11. Was eye protection provided?
12. What time period was recommended between sessions – 24h, 48h or freeflow?
13. Is salon a member of TSA?

The first question asked (was it necessary to register at the premises) was asked to determine whether the salon had any method of measuring how many sessions an individual user had had within a finite time period.

The final question asked was whether the salon was a member of TSA. In the light of the training and guidance given by TSA to its members, it would have been reasonable to expect higher levels of knowledge and awareness to be demonstrated by TSA members. This question was asked as the final question since it was considered that an ordinary member of the public was unlikely to have been aware of the existence of TSA and, that being the case, to ask the question earlier in the exchange might have caused suspicion and the offering of model answers.

At the end of the interview the researcher indicated that it was not convenient for them to have a sunbed session at that time and that they might return later. No sunbed sessions were purchased.

Results

Manned facilities

Q1.Must users register with the premises?

Of the salons visited, some did offer a registration card. This was not, however, linked to any form of detection of overuse; it was generally linked to an offer of discounted or block booked sessions and was used to record the number
of sessions remaining unexpired. In the view of the researcher, where block sessions were purchased there would have been little to prevent the user taking all of the purchased sessions in a very short period of time.

**Q2 Was the user asked about previous sunbed use?**

At 25 (36%) premises the researcher was asked about previous sunbed use. Where this issue was addressed it was in relation to determining the user’s need for advice and ability to operate the equipment rather than as an attempt to elicit information about previous health reactions to exposure to UV.

**Q3 Was the user asked when they last used a sun bed?**

None of the 69 premises surveyed asked the researcher when they had last had a sunbed session. This meant that overuse of sunbeds was not restricted or prevented.

**Q4 Was a skin type assessment carried out?**

At 16 (23%) of the premises the researcher was given a formal skin type assessment. In the remainder, it is possible that the operator formed an informal judgement based on the colouring of the hair, eyes and skin of the researcher, but in no case was there formal acknowledgement that this had been done.

**Q5 Was a suggested tanning period recommended?**

As noted, 25 (36%) of the premises asked the researcher if they had used a sunbed before. The researcher indicated that there had been previous use but that it was years before. This led to varying periods being suggested as a first session, usually based on the strength of the individual tanning equipment. Seventeen (25%) of the 69 premises surveyed did not offer a suggested tanning period, leaving it for the researcher to decide how long to purchase.

**Q6 Was the researcher asked about pre-existing illness?**

Of the 69 premises where interviews were conducted only three (4%) asked whether the researcher was suffering any form of illness. Of those premises displaying notices regarding illness, none verbally confirmed whether the researcher was suffering any form of ill health.

**Q7 Was the researcher asked whether taking medication?**

On only two (3%) occasions, the researcher was asked whether they were taking any form of medication. As with pre-existing illness, where notices were displayed giving advice about use of prescription medication there was no attempt to confirm verbally whether the advice had been read and was applicable.

**Q8 Was advice on display?**

Advice that can be displayed in sunbed salons is available from a number of sources. It can be downloaded from the internet from a number of skin cancer web sites and is also a free-standing attachment to HSE Guidance Note INDG209. This notwithstanding, only 19 (28%) of the premises displayed clearly legible warning notices in prominent places, both in reception and in the individual cubicles.

**Q9 Was safety advice given?**

In 18 (26%) of the premises, the researcher was given a safety sheet or card to read. Some of the sheets were leaflets containing questions that if answered positively by the potential user, should cause them to reconsider having a sunbed session, e.g. Are you pregnant? Are you taking prescription medication? The researcher was given the sheet to read but was not questioned in any premises as to whether the answer to any of the questions was positive.

**Q10 Were under 16s allowed to use the sunbeds?**

In order to gain a response to this question, the researcher indicated that they had a 15 year old daughter who would be accompanying them on holiday, and wanted to know whether she could have a sunbed before travelling. Of the 69 premises surveyed, 30 (43%) refused to allow under 16s to use the sunbeds. Thirty-nine (57%) were willing to allow under 16s to use the sunbeds, subject to them being accompanied by an adult or having parental consent. Three of the 39 premises were members of TSA.

**Q11 Was eye protection provided?**

Sixty-eight out of the 69 manned premises provided eye protection in the form of goggles. Some additionally provided adhesive patches which were offered as an alternative and were seen as preferable by some customers as they prevented ‘panda eyes’. In the one premises that did not have eye protection available, the researcher was advised that the business was in the course of being taken over and the provision of eye protection had been overlooked. It was indicated that sale of sessions would be refused until goggles could be provided or unless the customer provided their own eye protection.

**Q12 What time period was recommended between sessions?**

Of the 69 manned premises interviewed, 61 (88%) would allow a customer to have a session every day, subject to there being 24 hours between uses. Eight (12%) premises required a 48 hour period between sessions. In
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all of the cases it was strongly suggested to the researcher, on further detail being requested, that the sunbed should not be used more than once on any day.

Q13 Was the salon a member of TSA?
Of the 69 manned premises where interviews were conducted, 21 operators (30%) were members of the TSA. This is slightly above the national average of 22%.

Unmanned facilities

Unmanned facilities do not offer any form of one-to-one advice to users. As no staff are present at the facility, all advice and information is given in the form of posters or leaflets. Time units on the sunbeds are accessed through purchase of coins representing a number of units of time; it is a matter for the customer to decide how many coins are purchased and used at any one time. Fifteen unmanned salons were identified in the survey area; of those, five were visited by the researcher. The researcher attempted to find readily available information at the unmanned premises to satisfy the questions asked of the manned salons.

The unmanned salons all had signage indicating that the facility should not be used by persons under the age of 16 years. There was, however, nothing to prevent such use and at the time of the visit to one of the salons, the researcher observed a number of customers who appeared to be under the age of 16 years placing coins into a machine in order to access a sunbed session.

There was also no obvious mechanism for controlling the number of sessions purchased by an individual customer. Although CCTV was in evidence at all of the salons, in the view of the researcher it was felt to be unlikely that a recognition of the same user on having repeated uses on the same day would elicit any emergency physical response from the premises operator to deny further use. This would in any event be too late to prevent the use that had already taken place. It was considered more likely that the CCTV equipment was in place to deter damage, vandalism and theft.

All of the unmanned facilities had health advice in the form of posters, but there was no requirement on the part of the potential user to read the advice.

Importantly, in unmanned facilities the provision of goggles was not free. Goggles could be purchased from vending machines, where the cost of purchasing them equated to several minutes of sunbed use. It was also noted that there was nothing to preclude users bringing their own eye protection to use while using the sunbed, but it was a serious concern to the researcher that some users, and particularly those under 16 years, may chose not to use goggles but additional minutes of sunbed time instead and that there was nothing to prevent this happening.

A number of operators, notably some local authorities, justify their continued sunbed offer by claiming that they operate to a higher level of control and restrict users to a fixed number of sunbed sessions within a prescribed period. The researcher therefore set out to establish how many sunbed sessions could be accessed by one user in the course of one day. Manned sunbed salons typically operated between 9.00am and 5.30 pm, although those operated by gyms and health clubs operated for longer hours. Unmanned salons typically operated by the opening of a remote-controlled time lock operated between 7.00am and 9.00pm or 10.00pm.

Clearly, as the user had more sunbed sessions their skin would begin to colour and they would be unlikely to wish to continue to access further sessions, or would be refused further sessions by the operator of manned salons, making all day use unlikely. However, allowing for travel time and time spent undressing, using the sunbed and dressing, it was noted that in Cardiff it was possible to visit up to 20 sunbed salons in the same day, including a number of unmanned facilities where the time spent on the sunbed would not be controlled by an operator. In a smaller town in the South East Wales valleys it would be possible to access six sunbed salons on foot in the same day.

Discussion

The research shows that within the skin tanning industry knowledge of risk attributable to sun beds where it exists is patchy and inconsistent. None of the salons asked all of the questions that were regarded by the research team as important. Where inquiries were made, there was no suggestion that the potential customer would be prevented from accessing a sunbed; rather the choice whether to do so or not would be a matter for the customer.

Knowledge of the importance of skin type and time period since most recent use, which is critical if the operator is going to give meaningful advice regarding overuse and excessive exposure, was poor. Less than 25% of manned premises made adequate inquiry regarding these issues and even where inquiry was made, there was
no guidance given to the potential user about the adverse health effects of overuse. The researchers saw no evidence of any system on operation that would have prevented an individual customer exceeding a maximum recommended of sessions. Indeed, given the prevalence of sunbed salons, both manned and unmanned operating as commercial competitors, it is hard to see how any such system could operate effectively.

While most operators recommended that users should not have more than one session in 24 hours, many of the premises operated on a ‘cash over the counter’ basis and the researcher felt it would have been possible to access more than one session in a day had the customer been determined to do so. It was also noted that in those premises with longer opening hours such as gyms and health clubs, the receptionists changed during the day, making it possible to access two sessions – one at the beginning and one at the end of the day.

There is considerable evidence to show that salon operators and those operating unmanned facilities are aware that exposure for under 16s is undesirable. It is a cause for concern, however, that over 5% of the manned salons would allow a 15-year-old to have a sunbed session subject to parental approval or the presence of an adult at the time. This suggests that the operators are more concerned with respect to the issue of their own liability in the event of an episode of burning or skin damage than they are cognisant of the potential long term skin damage that could result from the use. There was no control at all over the age of users of unmanned facilities. It is unrealistic to expect those under the age of 16 years to take account of an unenforced notice warning that they may not use any unmanned facility, and indeed the researcher was able to see some individuals who appeared to be under the age of 16 disregarding the notices and accessing the facilities.

It is well established that the use of particular medication and the pre-existence of certain skin conditions can cause skin to be more photosensitive. There was little understanding of this concept or of the need for those taking medication or suffering from the conditions to avoid exposure to UV light. In both cases the customer would have to disclose information that was uniquely known to them, and it is questionable whether an operator in a sunbed salon would have the necessary knowledge to advise as to whether a particular drug or drugs in combination would give rise to adverse health effects. The only meaningful advice that could be given would be for the potential customer to seek advice from their GP. Given the accessibility of sun tanning facilities, it is possible that a customer determined to use a sunbed may leave one facility on being given advice and go to another where the relevant information would not be disclosed.

The need for eye protection was understood and in all but one case in the manned premises was provided. In the unmanned facilities, eye protection could be purchased, but its use could not be required. It is, however, acknowledged that even in manned premises, the operator could not be sure that the customer was using eye protection once they went into the sun-tanning booth.

Twenty-one (30%) of the 69 manned premises surveyed and interviewed were members of TSA. It was the view of the researcher that those premises were better run and the staff appeared, on questioning, to be more knowledgeable. It is, however, a matter of considerable concern that three of the 39 premises that would allow under 16s to have sunbeds were members of TSA even though TSA states clearly in its Code of Practice that under 16s should not use sunbeds. It is also the case that TSA speaks for the sunbed industry while representing only 22% of sunbed operators in the UK. Its requirements of its members are good, if enforced, but on the evidence of this research its own members do not comply with its requirements, calling into question the effectiveness of its role as a regulating body.

This study suggests that the skin tanning industry is not effectively controlled. The guidance available conflicts and is not helpful. Advice, where it is given, is given on the basis of assisting the potential user to access the sunbed rather than on deterring or preventing use. Given that the operation of sunbeds is a commercial one, this is hardly surprising, but it is not appropriate that an industry capable of causing acute short term as well as long term skin damage should be allowed to self regulate.

The results of this research are consistent with results from studies carried out in Australia between 2005-2008 (Paul et al., 2005, Dobbinson et al., 2006, Gordon et al., 2008). In both countries, regulation of the sun-tanning industry was by way of compliance with a voluntary code of practice and in both compliance when tested by way of secret shopping was poor and did not protect the health of the users of the facilities. The failure of the sun tanning industry to regulate itself in Australia and New Zealand has led to calls for the industry to be subject to legislative control. Based on the findings of this research the same case for legislative control can be made for the UK industry.
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Conclusions

- Self regulation of the manned skin tanning industry is not effective, and is wholly ineffective in respect of unmanned skin tanning facilities.

- Legislation is required to control the operation of UV skin tanning facilities. Regulators should have the power to close premises that operate in breach of legislation.

References


**Health and Safety Executive Guidance Note INDG209** (2010). Controlling risks from the use of UV tanning equipment. Health and Safety Executive; The Stationery Office; Norwich.

