

## **Girlguides' awareness of and attitudes towards the risks of the sun and sun-protection behaviours**

This study was designed to explore Girlguiding members' awareness of and attitudes towards the sun and sun-protection behaviours. Girlguides represent a particularly important group for exploring awareness and attitudes, not only because of their adolescent age range but also the time spent participating in a variety of outdoor activities. Two focus groups were facilitated, with a total of ten participants between the ages of 12 and 18. Four themes were identified following thematic analysis of the data, which capture the awareness and attitudes of the participants: 1) Uncertainty over the specifics, 2) The importance of the influence of others, 3) Tanned appearance = positive, and 4) The importance of increased education. Implications of the research include a need for further education in schools and at home, as well as in groups such as Girlguiding, so that young people, especially adolescent girls, understand the importance of protecting themselves from UV radiation.

### **Key Words:**

Adolescents, Sun protection, UV Exposure, Skin cancer, Awareness, Attitudes, Qualitative

### **Key Points:**

The study showed that adolescent females articulated an awareness of the need for sun protection and the health and appearance risks of sun exposure but were uncertain about the specifics.

Despite some knowledge and awareness, a number of the participants did have ambivalent attitudes towards the use of sun protection (specifically because of perceived negative aspects associated with using it), and had positive attitudes towards sun exposure, in terms of having tanned skin.

The study emphasises the need for interventions in schools as well as outside groups such as Girlguiding, to educate young people about sun protection behaviours.

The Girlguides themselves had suggestions for health promotion ideas, including parental involvement, as well as focusing more on making activities and UV protective behaviours more fun.

### **Reflective questions**

Is there anything you could do in your day-to-day discussions with young people that might impact the way they view sun protection more positively?

How might you encourage conversations around sun protective behaviours such as sunbathing or using sunbeds, to try and help young people see the importance of protecting their skin?

### **Introduction:**

According to the World Health Organization (WHO), the incidence of both non-melanoma and melanoma skin cancers has been increasing over the past decades. Currently, between 2 and 3 million non-melanoma skin cancers and 132,000 melanoma skin cancers occur globally each year, and one in every three cancers diagnosed is a skin cancer (WHO 2021). Cancer Research UK (2019a) explain that the majority of skin cancers are caused by ultraviolet-radiation (UVR) through exposure to the sun and sunburn, meaning that skin cancers are largely preventable

through a variety of behaviours including using sunscreen, avoiding the midday sun and seeking shade, as well as sun-protective clothing.

Fernández-Morano et al. (2017) suggests that adolescents should be considered a priority group for targeted interventions to improve sun protection behaviour; with UV exposure during childhood and adolescence being of particular importance for skin cancer risk across the life span (Pettigrew et al. 2020). In addition to this, Berneburg and Surber (2009) suggest that adolescents are an important group to explore in terms of sun protective behaviours, as whilst parents are likely to protect their children from sun exposure when they are very young, when they move into adolescence they are less likely to be observed by their parents, and therefore need to take more responsibility for their own behaviours. It is therefore important to study awareness of and attitudes towards the risks of the sun and sun protective behaviours in adolescents. One useful approach for investigation is through using qualitative research methods; for example, focus groups, where adolescents can discuss their attitudes and opinions regarding these issues. Focus groups are advocated as being ideal for exploring participants' understanding and attitudes towards health-related topics (Wilkinson 1998).

Most of the previous research on this topic has focussed on exploring adolescents' awareness of and attitudes towards UV exposure and UV protection quantitatively, through questionnaires and surveys (e.g. Levine et al 2009). A qualitative study which explored adolescents' (11-14-year olds) awareness and attitudes towards UV exposure and sun protection was carried out by Williams, Grogan, Clark-Carter and Buckley (2013). The authors collected data from 227 Caucasian adolescents at a British secondary school, using open-ended questionnaires and ten focus groups. Williams et al. (2013a) found that all their participants were aware of sun protection and felt that there were both advantages and

disadvantages to the use of sunscreen, as well as advantages and disadvantages of UV exposure. They had mixed attitudes towards the benefits of tanned skin.

The Williams et al. (2013) study looked at adolescents in general, however it has been found that males and females do seem to do have different concerns and attitudes in regards to behaviours related to UV exposure and sun protection behaviours (Williams et al 2012; Williams et al 2013b). There is little research which explores UV exposure or related knowledge and attitudes among youth-group members who may face greater exposure due to the nature of their activities than average adolescents or children (Wright and Reeder 2005; Moehrle 2008). The current study, therefore, attempts to qualitatively explore the knowledge and attitudes of adolescent members of Girlguiding (Guides and Rangers) (an all-female youth-organisation providing an abundance of opportunities and learning across the UK (Girlguiding 2019) towards UV-exposure and UV-related behaviours.

## **Methods:**

### ***Participants:***

Ten participants were opportunistically recruited from a sample of two Girlguiding units in the UK: Guides and Rangers (four from the Rangers unit and six from the Guides unit). Participants ranged in age from 12-18 years old.

### ***Data collection and analysis***

Data was collected using focus groups. Focus groups have been described as a particularly valuable way of eliciting children or adolescents' views on health-related matters (Heary and Hennessy 2002). A focus group question schedule was developed, informed by findings from existing literature and consisted of 15 open-ended questions (with the addition of prompts).

Example questions included: 'what do you think ultraviolet (UV exposure) means' and 'how aware are you of the appearance risks associated with UV exposure?' A Dictaphone was used to record the focus groups, and all data was transcribed fully afterwards. Both focus groups were facilitated by the first author who at the time of the research volunteered at the Girlguiding groups from where the participants were recruited.

Data was analysed using inductive thematic analysis, a method for identifying, analysing, and reporting patterns within data (Braun and Clarke 2006). A realist theoretical approach was taken for analysis with the researcher treating participants responses as a reflection of reality in terms of their knowledge and awareness. Each focus group occurred in a quiet room adjacent to the Girlguiding groups' usual meeting rooms (a familiar setting to them, in an attempt to normalise the focus group as much as possible to encourage honest and open discussion), and both focus groups lasted approximately 50 minutes. After the focus group, participants were debriefed verbally and received a written debrief sheet which included contact information for questions and resources for further information.

***Ethical approval and consent:***

The study received ethical approval from [anonymised for peer review process], and the ethical guidelines from the British Psychological Society (BPS, 2009) and the British Educational Research Association (BERA 2011) were used to inform ethical practice throughout. A two-step consent collection occurred in accordance with the BPS (2014) Code of Human Research Ethics, which suggests good ethical practice includes seeking written permission for participation from parents/guardians, as well as the child participating.

**Results:**

Following thematic analysis of the data, four themes were identified which capture the Girlguiding members' attitudes towards the risks of the sun and sun protective behaviours: 1) Uncertainty about the specifics, 2) The importance of the influence of others, 3) Tanned appearance = positive, and 4) The importance of increased education. Participant pseudonyms accompany the supporting quotes.

### ***Uncertainty about the specifics***

Despite some knowledge and awareness of what UVR is and its associated risks, participants expressed uncertainty about the specifics. Participants were aware, for example, that UV exposure could be damaging to their skin and could have a negative impact on their appearance and health, particularly in relation to the skin cancer risk, for example:

“It can cause cancer from too much exposure” (Blair, 17)

“Skin cancer!” (*is a health risk associated with UV*) (Lily, 12)

There was though uncertainty amongst the participants regarding the accuracy of their knowledge surrounding skin cancer, with some asking the facilitator questions to clarify their understanding:

“Isn't melanoma a kind of skin cancer... I think you can get it removed maybe it's less harmful than another type? I don't know I might be wrong?” (Mia, 17)

“You don't really hear about skin cancer a lot. Is it even common?” (Olive, 13)

Similarly, whilst participants knew that UVR can have a negative impact on the skin, when asked specifically what it does, the following two responses highlight uncertainty:

“I learnt at school kind of thing, but I don’t remember it at all really” (Mia, 17)

“I know it does something to your skin, but I don’t know what” (Millie, 16)

Several of the participants expressed the belief that people are at greater risk of danger and damage from UV-exposure when they have insufficient knowledge of the risks:

Without the education of it you’re more at risk of being harmed by it ... you can’t reduce your risk if you don’t know what the risk is. – Blair (17)

People need to be aware that using a tanning bed is actually more harmful than the sun – Skye (14)

There are loads of people that don’t actually know what the sun can do –  
Millie (16)

Despite some knowledge and awareness of the benefits, several participants admitted to not always participating in safe UV protection behaviours, for example:

“It’s like we all know about dangers and how not to add to our risk but sometimes you just do you know, because you don’t always think about it in the moment” (Blair, 17)

“I can’t lie, sometimes I can’t be bothered” (Mia, 17)

### ***The importance of the influence of others***

This theme highlights the importance of the influence of others on the UVR-related knowledge, attitudes, and behaviours of the participants. Parents, particularly mothers, were talked about as being especially influential in terms of participants sunscreen use:

“My mum keeps making us top up on sun cream especially on holiday and cause my sisters got really sensitive skin she burns really easily” (Amy, 18)

“My mum checks what the temperatures gonna be all day and then puts the highest one on that she thinks, so like if its 24 degrees she’ll use 50, but if it’s only like 20 she’ll maybe only use 30” (Faith, 12)

“My mum always prompts me to put sun cream on anyway though, even if I couldn’t be bothered I will” (Blair, 17)

As well as their parents, some of the participants highlighted the impact peers could potentially have on UV protection behaviours. Jess (14) and Skye (14) gave an example of how those who followed the advice from their school with regards to sun safety, were the recipients of negativity and bullying.

Jess: The school advise you to bring a hat and sun cream but not very many people did

Skye: yeah and the ones that did sometimes got bullied for using it

Participants were mixed as to who they considered responsible for giving them information and advice about the risks of the sun and the importance of sun protective related behaviours. Some talked about their parents as their primary source of information for knowledge and advice regarding sunburn and protection, whereas others also reported school as a source of knowledge. Participants suggested that there might be a tension between schools and parents with some schools perhaps expecting parents to teach children about sun protection when they are young; but others suggesting that parents believe schools should be where in-depth learning about the risks of UV should take place.

“They don’t see it as a risk that they need to teach us about because your parents should have... you do learn it from your parents when you go on



holiday or when we're younger growing up they try and get it to stick with you" (Amy, 18)

### ***Tanned appearance = positive***

For many of the participants, having a tanned skin was considered positive.

"You get more attention if you're tanned" (Faith, 12)

"It makes you feel better about yourself" (Millie, 16)

Tanned skin seemed to be something that was considered as a societal expectation for many of the participants, for example Amy talked about it as being a "social norm":

"It's becoming like a social norm that you want to have a tan or that you should have a tan" (Amy, 18)

Participants talked, in particular, about how social media was influential in perpetuating this image, Several explained that a tanned complexion is something that is seen on a variety of celebrities and influencers, as well as on social media channels such as Instagram and YouTube:

"Social media cultivates everything like from your body type and body image and skin tone too like all these social influencers and celebrities are all tanned and flawless" (Blair, 17)

"on Instagram and YouTube there's always people with tans and talking about holidays and 'this will look good with a tan' and say they didn't tan enough on holiday and they want to be darker" (Jess, 14)

Despite most participants expressing the view that tanned skin was positive, several were keen to emphasise that they preferred to stay pale, for example Ruby said:

“I don’t want to look like everyone else, I like being pale, it suits who I am, I stay inside to stay pale” (Ruby, 16)

### *Sunless Tanning*

There was an awareness of different products which attempt to replicate the tanned complexion without the risks of UVR, known as sunless tanning (also referred to as self-tan or fake tan). Participants were aware that sunless tanner was healthier for the skin, in comparison to UV exposure:

“fake tan is not as harmful as natural real tanning to your skin” (Amy, 18)

“Products like self-tan are a lot more accessible than sun beds ‘cause that’s... expensive... and you have to be a certain age ... whereas anyone can just go in to Boots and buy self-tan” (Mia, 17)

However, for some, the use of these products appeared less desirable than the alternative:

“Fake tan, a lot of the time, does look artificial ... it goes streaky or patchy or orange” (Mia, 17)

### **The importance of increased education**

The participants emphasised the importance of increased education in terms of the risks associated with the sun, not only for themselves, but for other young people. In particular, it was emphasised that more education was needed about the risks of UV exposure, especially from sunbeds:

“People need to be aware that using a tanning bed is actually more harmful than the sun” (Skye, 14)

The participants made a number of suggestions for how Girlguiding groups could be used as a particularly effective platform for increasing education on this topic. One suggestion was for the units to design and deliver activities which make learning about the risks of the sun and sun protective behaviours more fun and engaging. This was thought to be particularly applicable for the younger Girlguiding groups (Rainbows: 5-7-year olds and Brownies: 7-10-year olds):

“The younger ones might not understand as much but their parents should, even if they just get more interested in putting sun cream on ‘cause they see it as good or fun” (Millie, 16)

“Maybe with Rainbows or Brownies turn it into a game and make it fun but still have facts” (Faith, 12)

The participants also suggested how advice and talks from experts could be particularly beneficial in increasing knowledge about the risks and the importance of protective behaviours.

“Maybe people could come in and have talks... if we got a teaching session or like it was all explained... that would be good” (Olive, 13)

### **Discussion:**

The findings of the study have indicated that the participants did have some awareness of the risks of the sun and particularly of the importance of using sunscreen as a protective behaviour. Awareness and knowledge however were limited, with some uncertainty about the specifics. Attitudes such as not wanting to wear sunscreen despite knowing its

importance, and the positive image of a tanned appearance are a concern, especially given the uncertainty of knowledge, which could be vulnerable to change. The influence of others on their knowledge and attitudes was highlighted, especially the importance of family members and schools providing information about the risks and appropriate UVR-related behaviours. Participants had suggestions for how the gaps in the knowledge and awareness of young people, about this topic, could be addressed and particularly how the Girlguiding association could draw upon strategies to help improve the knowledge and attitudes of adolescent girls who may be more vulnerable to the risks given the outdoor nature of many of their activities.

The study did indicate that some participants had ambivalent attitudes towards the use of sun protection, specifically because of perceived negative aspects associated with using it, and had positive attitudes towards UV exposure, in terms of having tanned skin. Several participants talked about social media and celebrities as perpetuating society's positive attitudes towards tanned skin. A previous study exploring Girlguides' thoughts and feelings about their appearance, found that young people reported having a positive body image and feeling about their bodies; however, they also identified areas that made them feel more negatively about their appearance, including social media and the media (Owen and Griffiths 2018), echoing our current findings about the influence of social media and participants' views on having a tan. This supports previous research specifically with regards to UV exposure, for example McWhirter and Hoffman-Goetz (2015) found that exposure to photos of people with tanned skin in traditional media (for example television and magazines) is correlated with significantly larger pro-tan attitudes, positive beliefs about tanning, frequency of tanning, and other behaviours linked to UVR exposure. The tripartite influence model is a socio-cultural theory of body image, which proposes that exposure to media leads to the

internalization of the ideals that define beauty, and according to this model, people make comparisons of their own appearance to the media ideals and subsequently experience body dissatisfaction (Keery et al 2004). Findings indicate activities designed to encourage Girlguiding members to challenge the beauty 'ideals' that circulate on and perpetuated via social media hold potential. Participants who articulated satisfaction with their non-tanned appearance could be encouraged to facilitate these activities and support others, especially given body comparisons with peers have been found to have a significant impact on the body image concerns of adolescent girls (Carey et al 2014).

Fernández-Morano et al. (2017) found adolescents favourable attitudes towards sunbathing and sun tanning have the most influence on inadequate habits of sun exposure and deficient measures of sun protection. Thus, it is important to educate young people about the impact of exposing their skin to UVR, and the importance of using sun protection, as well as encouraging alternatives ways of achieving a tan that are not associated with UV risk i.e. through sunless tanning products. Participants negative views on the aesthetics of these products need to be further explored and findings indicate that interventions teaching adolescent girls how to more effectively apply these products could have merit.

Participants discussed the influence of others on their attitudes to UV exposure, and specifically their sun protection behaviours. In particular, they talked about how parents were a major influence on whether they used sun protection. This support previous research, for example Mewse, Lea, Ntala and Eiser (2013) found that parental authoritativeness was positively associated with the use of sun protection, even after the effects of other familial and peer variables were controlled. Interestingly, Mewse et al. (2013) found that UV exposure, in terms of sunbathing, was not associated with parental authoritativeness, but was instead associated with friends' behaviour. This links to some of the findings in this research

in regards to the participants' sun protective behaviours, for example where the participants talked about how people who bought sun protection into school were bullied about it, suggesting that this may have discouraged people from carrying out this health protective behaviour in school time.

The participants provided recommendations of how they felt that schools and Girlguiding could incorporate UV-safety at several levels, from local Girlguiding unit meetings to the national Girlguiding programme, including expert talks on the risks and designing fun activities to engage and educate adolescents, and younger girls, on this topic. Girlguiding emphasises the importance of their sessions being led by the Girlguides (Girlguiding 2021) which means that new additions to their programme should involve decisions that members themselves have participated in; findings of this study are an ideal example of where this could be possible.

### **Limitations and Suggestions for Future Research**

Although this study had several strengths, particularly in terms of the rich data obtained from an under-researched group, there are limitations. All the participants were white British, which limits the transferability of the findings to adolescents of other ethnicities. Information regarding the skin type of the participants was also not known; research indicates that skin type can impact attitudes towards UV risks, with Stapleton and Turrisi (2008), for example, finding that those with a darker skin type expressed more favourable attitudes towards sunbed tanning. It would be of interest to capture information about participant skin types in future studies to explore its potential impact on attitudes.

### **Conclusion**

This study explored Girlguiding members' awareness of and attitudes towards the sun and sun-protection behaviours. Whilst participants did have some awareness of the risks and of the importance of sun protective behaviours, awareness and knowledge were limited, with some uncertainty about the specifics. The influence of others on their knowledge and attitudes was highlighted, especially that of family members, in particular mothers, and schools. Potential conflicting expectations between school and parents in terms of the responsibility for providing information about the risks were highlighted. The Girlguides themselves had suggestions for how Girlguiding groups could be used as effective platforms for increasing education with regards to this topic and suggestions are made in this paper for potential strategies that could be implemented in an effort to challenge the positive image of having a tanned appearance that appears entrenched.

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**Declaration of interest statement:**

None declared

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