

“You’d be going nuts putting on sunscreen every time you stepped out of the door”: acceptance of the sun protection times by Victorian adults

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Abstract

As part of an evaluation of the SunSmart app, six focus groups and fifteen interviews were conducted in November 2016 to explore understanding about the ultraviolet (UV) index, sun protection times and the communication of UV information. This research found that the participants lacked detailed information about the UV Index and how this translated to the need for sun protection. Among Victorian adults who had not used the SunSmart app prior to the research, sun protection times were often unfamiliar and were perceived to be overly cautious. Rather, these participants believed that temperature, cloud cover and personal experience of sunburn was sufficient to inform decisions about sun protection. Some participants commented that only high, very high and extreme UV levels necessitated protection of the skin to avoid sunburn.

Introduction

Information about ultraviolet (UV) radiation is complex to communicate to the public. The UV Index, adopted globally in 1995, is a standardised measure of UV radiation intensity at the Earth’s surface (WHO, 2002) and was recently reviewed as fit for purpose for communicating risk (Gies P, et al. 2018). The World Health Organisation recommends use of sun protection whenever the UV Index reaches 3 and above.

Only 61% of Australian adults are aware that the UV Index is the most useful weather factor to determine the risk of sunburn for the day, and only 8% know that sun protection is required from a UV Index value of 3 and above (Tabbakh T, Dobbins S. 2016-17). Further, about one in four (24%) Australian adults hold the misperception that temperature is a useful measure for determining sunburn risk for the day.

Findings of a systematic review suggest that the UV Index is not in itself an effective means for improving sun protection practices, due to poor understanding about what the UV Index means and how this translates to the need for sun protection (Italia N, Rehfuss EA. 2012). As such, it is recommended that information about UV is accompanied by a clear call to action. To address this, SunSmart Victoria developed the SunSmart app, which aims to communicate information about UV in a way that is easy to understand in order to inform decisions about sun protection. In 2016-17, an evaluation of the SunSmart app was jointly funded by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and Cancer Council Victoria (CCV) (Nicholson A. 2017). As

part of this evaluation, SunSmart also explored understanding of the UV radiation among Victorian adults. Here we discuss what was learned from this research, in particular misconceptions around UV and the acceptance around the times that sun protection is recommended (‘sun protection times’).

Method

Fifteen participants who use the SunSmart app were recruited via the app and interviewed in November 2016. In addition, 45 adults aged 20-39 years with skin susceptible to burning were recruited by a market research agency to road-test the SunSmart app and participate in one of six focus group discussions. The semi-structured interview and focus group guides included questions on knowledge about UV, interpretation of information presented in the app and the application of this information to decisions about sun protection. Each discussion was recorded and transcribed. Data were analysed thematically.

Results

Participants generally understood that too much UV exposure was harmful, but lacked detailed understanding about the UV Index and how this translated to the need for sun protection.

I’m certainly aware of it [UV] but I’m probably still not sure what it means, like I know it exists and I know different numbers must have different meanings, but I wouldn’t be able to competently sit here and tell you what that meant.

I know it’s dangerous but I don’t really know much else and I don’t really know the science behind it or anything like that.

I wasn’t sure that there was a UV index until today, I started looking, I started googling UV and stuff like that from looking at the app, on the UV index ... I didn’t know there was like you know, different levels of radiation.

Across the groups, there was an understanding that UV levels were high in Australia. It was common for participants to attribute high UV levels to climate change and its impact on ozone.

Well I know Australia is in a place that’s not protected by the ozone layer as much as other countries so we’re more susceptible to burning.

I think of like climate change, in relation to like the ozone layer, the whole, so the increase in the amount of UV that's actually reflecting down to us. So the need for this sort of promotion is probably a lot higher now, than what it would have been.

Some participants were aware that UV penetrates through cloud, and that UV levels were not dependent on temperature. However, this knowledge did not always prompt protection behaviours:

I wouldn't think about sunscreen on a cloudy day...

I think theoretically I knew that clouds didn't mean there wasn't extreme UV, but I just always associated sun's out I could get sunburnt. If it's not then I'd be alright.

In all focus groups, participants reported learning new information about UV radiation when trialling the SunSmart app, particularly about the number of hours that sun protection is required in Victoria during spring.

I guess prior to a year ago, I didn't really realise that there was UV all day long... I always thought that UV fluctuated based on how sunny it was.

I found it really interesting how the UV starts at 9.20 in the morning and finishes at 5.10 or something like that ... I still sort of had it in my head I didn't really need to worry even in summer until after 10.

There are kind of assumptions which I've always made about, like what times of the year and what kind of weather correlates with a high UV index. And those assumptions are pretty much wrong.

The sun protection times were longer and less variable than expected (based on the weather or prior learning) and thus interpreted with suspicion.

I was a bit like, I was a bit dubious as to how much I should really believe it [the sun protection times], because it felt like it never really tailored to what I was seeing, outside the window.

Because my mum always said 'From 11 until 3 stay under the tree'. And I thought that's probably when the UV rays are the worst, and then on the app it's until 5 o'clock so it's a lot longer than I would've thought.

For some participants, even with new understanding about the UV Index, only high, very high and extreme UV levels were associated with sunburn risk and/or the need to use sun protection. For these participants, advice to protect the skin when the UV is three and above was perceived to be overly cautious.

I wasn't aware that you needed to have sunscreen on if it was over 3. That seemed quite a low level.

They're [SunSmart are] just being cautious, it's kind of like a disclaimer...

Because even like knowing this now, sun protection required, I'm definitely not going to start putting

on sunscreen if it's like 3, 4, or 5. I'll consider it if it's like 6.

For this reason, the sun protection times did not always influence motivation to protect the skin from UV radiation.

I didn't know that you need sunscreen at 9.20 am ... like do you really need sunscreen this early? Like do you really need sunscreen for just a short amount of time when the UV is so low? I kind of thought that if you follow that, you'd be going nuts putting on sunscreen every time you stepped out of the door.

Conclusions:

Many Victorians see little need for UV forecast information. Instead, it is common to consider cloud cover, temperature and experiences about sunburn to inform whether sun protection is needed. For this reason, tools such as the SunSmart app have a limited potential to change sun protection behaviours of Victorian adults generally. Public education regarding UV radiation is required to increase understanding of the relevance and role of the sun protection times in Victoria.

References

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