Are social media promoting ocular protection in the community? Content analysis of home-improvement Do-It-Yourself videos on YouTube

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Background

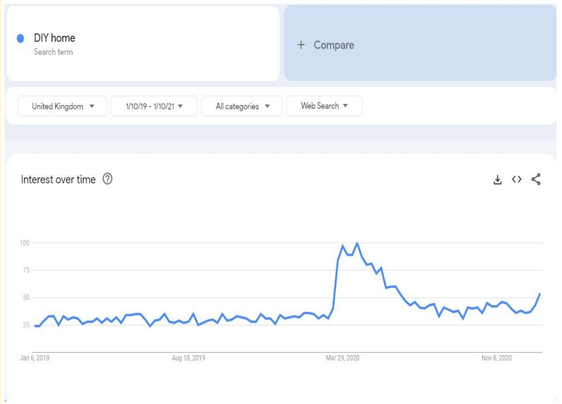
- Since COVID-19, many countries worldwide introduced lockdown measures to control the spread of the pandemic
- People are therefore spending more time at home; DIY home improvement projects became more popular
- Increased incidence of DIY-related trauma during that time period [1]

Aims and objectives

- To identify how well eye protection is being promoted on social media in the most relevant DIY home improvement searches especially on YouTube
- To assess the quality of YouTube content regarding ocular safety PPE when doing DIY home improvement projects

Methods

- Search phrase decided using Google Trends



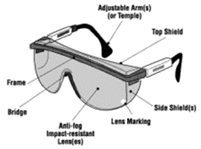
YouTube search: default filter, search limited to first 300 videos

Inclusion criteria: Videos showing DIY work at home using devices that may produce eye hazards

Data: channel name and subscribers, view counts, length of video, year of video uploaded, what DIY activities shown, any ocular safety hazards and its categories, was ocular protection demonstrated or described, adequacy of ocular safety PPE

UK Health and Safety Executive (HSE)

- Types of ocular safety PPE







Safety spectacles/glasses

Goggles

Face screens/face shields/visor

Ocular hazard: dust/projectiles, chemical/liquid splash, gas and vapour, thermal, electric arcs or sparks, radiation, cryogenic

NOTE: There are areas where eye protection is **mandatory** as indicated by the **coloured ticks**

General lab areas	Non prescription based					Prescription based				
	Safety Glasses	Goggles	Vented goggles	Visor	High impact goggles	Safety Glasses	Goggles	Vented goggles	Visor	DSE glasses
Biological agents	√	√				√	√			
Chemical agents	√	√				√	√			
Dust particles and vapours		√	x				√	x		
Strong acids/bases	√	√√	x	x		√	√√	x	x	
Cryogenic	√	√		√ p8						
Thermal	√	√√								
Close screen work - laboratory						√√				√

Specialist areas	Non prescription based					Prescription based				
	Safety Glasses	Goggles	Vented goggles	Visor	High impact goggles	Safety Glasses	Goggles	Vented goggles	Visor	DSE glasses
Ionising radiations	√									
Optical - UV				√ p8						
Optical - laser		√* P9								
Close screen work - office										√√
Maintenance/ workshop	√	√			√√					

Voucher scheme is available for help with the purchase of these specialist forms of eyewear

√ = recommended
√√ = highly recommended
x = unsuitable

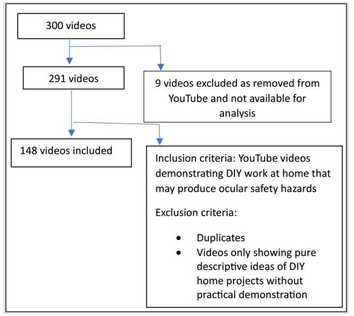
* Laser eyewear is based on calculations dependent on the beam characteristics – specialist advice is required

Standard guidance on eye protection from the UK Health and Safety Executive (HSE) regulations [2]

Conclusion

- Portrayal and promotion of ocular protection in social media platform (YouTube) is still inadequate
- Efforts to increase awareness in the community to wear ocular safety PPE during DIY work that may pose ocular hazards

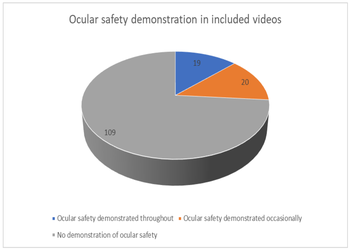
Results



42.6%
Popular channels with >1 million subscribers

39.9%
Videos with >1 million view counts

100%
Videos uploaded since 2015



85.1%
Showed inadequate ocular protection

0%
Provide any general advice of what to do in case of eye injury

Ocular Hazard categories	Number of videos
Dust, projectiles (working with power-driven tools)	100
Chemical or liquid splash	68
Gas and vapour	2
Thermal (fire, molten metals, hot solids)	14
Electric arcs or sparks	8
Radiation (light/laser)	1
Cryogenic substances	0
Types of ocular safety PPE	**Number of videos**
Safety spectacles/glasses	32
Goggles (vented/non-vented)	9
Face screens/face shields/visors	5

References

1. Stedman EN, Jefferis JM, Tan JH. Ocular trauma during the COVID-19 lockdown. Ophthalmic epidemiology. 2021 Jan 21:1-3.
2. Preston P. HEALTH & SAFETY AT WORK. Eye Protection: A Guide To Provision And Use. March 22 2016 (Accessed 10 October 2021).