

GUIDELINES FOR USING SOCIAL MEDIA TO INFORM BEHAVIOURS RELATED TO PHYSICAL ACTIVITY, DIET, AND QUALITY OF LIFE

University of Birmingham



EXECUTIVE SUMMARY

This report provides evidence-based guidelines on how social media use can positively influence behaviours related to physical activity, diet, and overall quality of life.

Researchers from the University of Birmingham worked with young people and adults (aged 16-88) to understand if and how social media use informs health-related behaviour change. Data were collected during the initial COVID-19 lockdown period of 2020 to better understand the key factors that drive social media use for behaviour change.

KEY FINDINGS

1. Participants tended to spend between 1-2 and 2-4 hours on social media per day, and the most popular media were WhatsApp, Facebook and YouTube
2. The overall perception about social media being a good source of health-related information was relatively mixed, with participants tending to have more neutral views about social media information on diet and quality of life, and more positive views about social media information on physical activity
3. A greater proportion of the participants reported using social media content related to diet (e.g. recipes) and quality of life (e.g. hobbies/clubs) compared to physical activity (e.g. online workouts)
4. Social media influencers (qualified/unqualified health professionals), peers/family members and official organisations influenced the use and application of health-related information accessed via social media
5. Contextual factors including work, home and lifestyle arrangements, pre-existing health-related knowledge and behaviours, and the perceived value of social media for health improvement influenced relationships between social media use and self-reported changes to physical activity, diet and quality of life

KEY RECOMMENDATIONS

The design of health interventions that use social media can be guided by the following principles:

1. **SOCIAL**: Promotion of social interactions through social media should be used to facilitate behavior change
2. **TAILORED**: Content should be tailored to meet different groups' specific health needs
3. **AUTHENTIC**: Content should be original, unmodified and evidence-based
4. **RELATABLE**: Personal connections should be created through social media to facilitate the use and adoption of content
5. **TRUST**: Content should be accredited and/or evidence-based
6. **ENGAGING**: Ensure variety in the design and format of content to engage target groups
7. **REGULATED**: Include guidance on misinformation and privacy

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BACKGROUND INFORMATION

These guidelines have been developed in the context of growing international concerns that the majority of young people and adults fail to meet the World Health Organisation's recommendations for physical activity¹ and diet² and that the prevalence of mental ill-health is increasing worldwide³. At the same time, the increased accessibility of social media and its relevance to the lives of diverse population groups has given rise to its use in health promotion^{4,5,6}.

Evidence suggests that social media can positively impact physical activity and diet-related behaviours, as well as quality of life⁷⁻¹³. Numerous health-related benefits of social media use for behaviour change include: the accessibility of health information, increased interaction, peer, social and emotional support, real-time and low cost information and interaction and health surveillance⁷⁻¹³.

In addition, there is literature highlighting the negative impacts of social media use in relation to: reduced physical and psychological health due to sedentary lifestyle, loss of sleep, poor dietary habits and cognitive impairment; increased risks for mental health conditions, such as anxiety, depression, stress, low mood and body dissatisfaction; and impact on cognitions, such as negative self-perception and social isolation^{6,14-16}. Social media has the potential to lead to harm due to: excessive time spent on social media; variations in the quality and reliability of public health information; inaccurate interpretations of information; and privacy and confidentiality^{5,6,14,16}.

To date, there is no robust published evidence on the key characteristics of social media use that are associated with positive behaviours related to physical activity, diet and quality of life, and the contextual factors that drive social media use for health-related behaviour change. In addition, there is currently no guidance available for policy makers, professionals or organisations on how to responsibly and effectively use social media in physical activity and diet interventions.

These guidelines report new evidence on how social media use informs physical activity and diet-related behaviours, and perceptions of quality of life, and the contextual factors that drive social media use for health-related behaviour change for diverse groups. Recommendations are provided for practitioners, policy-makers and organisations on how to deploy social media to develop, support and enhance physical activity, diet and quality of life across key stakeholder audiences.



METHODS

The evidence provided in this report was generated from the following research activities:

1. **Systematic Review:**

The effect of social media interventions on physical activity and dietary behaviours in young people and adults.

2. **Systematic Review:**

The influence of online physical activity interventions on children and young people's engagement with physical activity

3. Stakeholder Consultations:

Seven focus groups (FG) were completed with 50 participants with diverse expertise and from varied organisations. Participants included researchers (n=29), teachers (n=8), postgraduate students (n=6), professionals working in sport contexts (n=5) and undergraduate students (n=3) from education, public health and sport and exercise sciences*

4. Empirical Evidence:

A mixed methods explanatory research project was undertaken with participants predominantly from the UK. Data were generated between April 2020 and June 2020:

i. **An online survey*** (n=786; *Mean* ± SD = 45.1 ± 19.1 (range 16-88) years; Female =69%) that assessed social media use in relation to physical activity levels, diet quality and quality of life

ii. **20 Purposive Focus Groups*** (n=69; *Mean* ± SD = 52.88 ± 18.45 years, Female 68%) to understand the contextual factors that drive social media use for health-related behaviour change

*The full sample characteristics of the empirical data set can be accessed from the Appendix.

FINDINGS

The findings report on how participants used social media, perceptions of social media for health-related behaviour change, and the use of social media content that related to physical activity, diet, and quality of life during the initial COVID-19 lockdown period in the UK.

Contextual factors including work, home and lifestyle arrangements, pre-existing health-related knowledge and behaviours, and the perceived value of social media for health improvement influenced the relationship between social media use and self-reported outcomes. Social media influencers, peers/family members, and official organisations influenced the application of health-related information accessed via social media.

Differences in Health-Related Social Media Use by Population Groups

Differences were observed across five main population groups in how social media use informs physical activity and diet-related behaviours, and perceptions of quality of life. The groups had different experiences of COVID-19 social distancing measures and/or changes in their physical activity levels. The five groups are described in Table 1.

Table 1. Descriptions of population groups based on different experiences of COVID-19 social distancing measures and physical activity levels.

Category	Explanation
Self-Isolating (SI)	Self-isolation is when individuals did not leave their home. There are a few reasons people self-isolated, and these included: (i) due to medical advice; (ii) due to the development of symptoms related to COVID-19; or (iii) due to having been in contact with people who have developed symptoms related to COVID-19.
Leaving Home to Work (W)	Refers to individuals who left their home to go to work, to get medication, to do food shopping and daily exercise.
Working or Studying from Home (H)	Refers to individuals who self-identified themselves as only leaving their house to get medication, to do food shopping, and undertake daily exercise.
Low Physical Activity Levels (LP)*	Refers to individuals who did not meet the recommended levels of physical activity per week (i.e. less than 150 minutes of moderate intensity aerobic physical activity or less than 75 minutes of vigorous-intensity per week) prior to lockdown.
High Physical Activity Levels (HP)*	Refers to individuals who exceeded the recommended levels of physical activity (i.e. 150 minutes of moderate intensity aerobic physical activity or less than 75 minutes of vigorous-intensity per week) and reported engaging with three hours or more of aerobic or vigorous activity per week prior to lockdown.

*The classification was informed by our stakeholder consultations and the [World Health Organisation guidelines for physical activity](#)

FINDINGS

Characteristics of Social Media Use

- Participants (72%) reported that the time they spent on social media had increased during the lockdown period, and a greater increase was observed in the self-isolating group (86%), compared to individuals leaving home to work (74%) or working/studying from home (69%)
- The average time spent on social media was between 1-2 hours (30%) or 2-4 hours (27%)

Social media was defined broadly and participants accessed health-related information from social networking sites (e.g. Facebook, Twitter), media sharing apps (e.g. YouTube, Instagram, SnapChat), interest-based media (e.g. Strava), bookmarking tools (e.g. Pinterest) and video-conferencing media (e.g. Zoom).

The most popular social media reported in the sample were*:



75% (WhatsApp)



70% (Facebook)



54% (YouTube)



48% (Instagram)



35% (Twitter)

*Note – participants could select more than 1 option

FINDINGS

Perceptions and Use of Social Media for Physical Activity, Diet and Quality of Life

The overall perception about social media being a good source of health-related information was relatively mixed, with participants tending to agree and/or have more neutral views. Moreover, a greater proportion of the participants reported seeing content related to physical activity than diet or quality of life. Moreover, a greater proportion of participants used content related to diet or quality of life to make behavioural changes, as compared to physical activity. A higher percentage of individuals working or studying from home reported acting on social media content related to physical activity, diet or quality of life as compared to the self-isolating group or those who reported leaving home to work.

PHYSICAL ACTIVITY

- 43% of participants agreed that social media was a good source of information for physical activity
- 35% of participants reported seeing posts related to physical activity, and out of those participants, 41% used the information to inform their physical activity behaviours
- Across the different population groups, a higher percentage of participants who were working/studying from home (63%) reported used posts related to physical activity, compared to self-isolating (43%) or those who reported leaving home to work (53%)

DIET

- 27% of participants agreed that social media was a good source of information for diet, with 49% reporting neutral views
- 53% of participants reported seeing posts related to diet, and out of those participants, 56% used the information to inform their diet-related behaviours
- Across the different population groups, a higher percentage of participants who were working/studying from home (59%) reported used posts related to diet, compared to self-isolating (54%) or those who reported leaving home to work (51%)

QUALITY OF LIFE

- 23% of participants agreed that social media was a good source of information for quality of life, with 49% reporting neutral views
- 30% of participants reported seeing posts related to quality of life, and out of those participants, 53% used the information to inform their behaviours related to quality of life
- Across the different population groups, a higher percentage of participants who were working/studying from home (56%) reported used posts related to quality of life, compared to self-isolating (29%) or those who reported leaving home to work (50%)

FINDINGS

Types of Social Media Content Used to Inform Behaviours Related to Physical Activity, Diet and Quality of Life

PHYSICAL ACTIVITY

- Online workouts – High Intensity Interval Training, yoga, weights and resistance training
- Running Challenges – e.g. Run 5 Give 5

DIET

- Recipes
- Advice for specific diet patterns or types – e.g. vegan, vegetarian, anti-stress, Vitamin D

QUALITY OF LIFE

- Hobbies
- Clubs
- Social Interaction e.g. zoom
- Meditation

SOURCE OF INFORMATION

Of the posts that participants reported they had used to inform their behaviours related to physical activity, diet or quality of life, the following types of individuals/accounts were reported:

- **64%** Celebrities/influencers and personal trainers/fitness coaches
- **13%** Blogs, medical advice and/or news articles
- **10%** National health/sport organisations
- **6%** Local health/sport organisations
- **4%** Celebrity doctors
- **3%** Celebrity chef



FINDINGS

Social Media Accounts Referred to the Most

CELEBRITIES/INFLUENCERS AND PERSONAL TRAINERS/FITNESS COACHES

Joe Wicks, The Body Coach

"Welcome to the Body Coach TV where I post weekly home workouts to help you get stronger, healthier and happier (YouTube)."

Alice Living

Daily Live Workouts, Qualified Personal Trainer 3 x Bestselling Author, Women's Health Columnist, Women's Aid Ambassador, Give me Strength Podcast – Here to lift you up (Instagram)

Athlean X

If you want to look like an athlete you've got to train like an athlete! (Instagram).

BLOGS, MEDICAL ADVICE, NEWS ARTICLES

Cannabidiol

Coronavirus treatment: Could CBD help with COVID-19? Results of new study revealed

NATIONAL HEALTH/SPORT ORGANISATIONS

Public Health England - One You

One You is a new campaign from Public Health England, launched in March 2016, to help adults live more healthily (Facebook)

Sport England – Join the Movement

We're all about simple, fun and free ways to get active, both indoors and outdoors, that you can enjoy safely

LOCAL HEALTH/SPORT ORGANISATIONS

UB Sport and Fitness

UB (University of Birmingham, UK) Sport & Fitness is an iconic new club providing world-class opportunities for everyone in the region, from beginner to elite athlete (Facebook)

Digbeth Dining Club

Where the Midlands come to eat (Instagram)

CELEBRITY DOCTOR

Dr Chatergee

Keeping Health simple. Podcast: Feel better, live more (25 million listeners). Author: 4 x Sunday times Bestsellers, BBC Radio 2 Presenter (Instagram)

CELEBRITY CHEF

Jamie Oliver

Chef and Dad. Keep Cooking Daily – Weekdays from mid-day over on Facebook

FINDINGS

Contextual Factors Influencing Social Media Use for Health-Related Behaviour Change

Free Access/Easy to Engage:

(a) the provision of free social media accounts (e.g. Facebook, Zoom) and health-related content that was accessible across devices (tablet, phone) and platforms (e.g. Android, Apple); and (b) content delivered in a video format that was short in duration, and that required no equipment or minimal/inexpensive ingredients.

“With gyms being closed, training has shifted quite a lot more to body weight and resistance band type training as well as your daily runs. I find when you see videos on Instagram or whatever, like different push-up variations, for example, just to spice things up from just doing a standard push-up or a wide grip. You can do loads of different variations.”

(Male, Age 20)

Work-Home-Health Balance:

The ease of completing online/social media workouts at home and with the family were key drivers for using social media for physical activity and diet information.

“Just being able to do it when I think I've got a spare 30 minutes or 45 minutes in the day, I can switch on YouTube and do the session at home. And normally, I'll get up and I know I'm going to do a class or something in the day. So, I'll put on my workout kit, it's the first thing I put on. I don't know when I'm going to be doing it exactly...but it's on already, and then when that moment comes, I can just go and do it straight away, I don't have to then go and get changed and everything else.... At work, just to do a half an hour class, it was a 10-minute walk to the gym, get changed, do the class, get changed again, 10-minute walk back to the office, and that would be your whole lunch hour gone to do the half an hour class. So, I think in terms of convenience as well in terms of being able to just almost focus it down in terms of time at home has been really helpful... [and] I always felt I couldn't do my physical activity when I was at home, because I was in that mother role and I had to be totally 100% mum. And so, if I did something for myself, because I want to do the physical activity, I felt bad or guilty about doing that. But because we have no choice, until very recently for all of us to be at home together, I had to work out how to do things that I got wellbeing from for me, as well as being mum. So, I found ways to do physical activity with the children...So I've learnt that as well...that I can do those things for me and still be at home with the children.”

(Female, Age 39)

FINDINGS

Contextual Factors Influencing Social Media Use for Health-Related Behaviour Change

Creating E-Local

Communities: Local organisations delivering exercise and cooking sessions online (e.g. Zoom cooking parties, Facebook Live Pilates) provided a sense of community, a ritual/schedule, and enabled participants to maintain social connections, influencing overall quality of life.

I do a yoga class each week, and I've done the yoga class with someone I used to do a yoga class with... where I was living. I've just kept going with her, like training sessions. I haven't done any of the mass ones, which I probably should do, I keep meaning to do, but I haven't done. But it's quite interesting because, in theory, I could go and do a yoga class anywhere in the world, with anyone in the world, and I've stuck doing the same one that was, like, two minutes walk away from where I was. I think, to some extent, because it's still keeping, like, that personal touch of it. The instructor certainly tailored her class to me. She only had about six or seven people, and actually I quite like that, like the personal side of it.

(Male, Age 33)

Authentic Experiences:

Live physical activity and diet videos shared on social media were particularly helpful resources to inform physical activity and diet behaviours when presenters (e.g. celebrities/influencers) portrayed their real lives, personalities, everyday bodies (rather than unattainable elite), were warm, calm, and laidback, and opened their doors to their homes (babies and dogs). In turn, this promoted feelings of "in this together" and reduced feelings of isolation.

I think the quality is important...about how the camera is so clear for Joe Wicks' lessons. That is very, very important, I think, the quality needs to be there and that personable aspect of it. We don't want to see these beautiful people in beautiful homes doing these impossible kinds of things. It needs to be a bit relatable, I think, a bit more relatable. The quality needs to be there in terms of the way it looks. And also, the quality of the content it needs to be to the point. I can't stand faffing around, I know we're in lockdown and it seems like time is endless and it has no meaning at the moment. It needs to be something broad that's for everyone and everyone can get behind. I think that's why Joe Wicks is so successful, it's just very, very accessible by many different people from many different backgrounds... what people want to feel is that they're not so isolated. And if you can have something that's connecting us all, then I think that's where the win is going to go be.

(Female, Age 38)

FINDINGS

Contextual Factors Influencing Social Media Use for Health-Related Behaviour Change

Recommended:

Misinformation (including conflicting health advice from media, government and potential conspiracy sources) and diverse health conditions, health-related knowledge and experience with social media impacted on the willingness and interest to engage with and use health-related social media content.

However, recommendations or endorsements by peer/family members and/or official organisations that participants were affiliated with and/or trusted (e.g. NHS, Diabetes UK, Runners World, University accounts) influenced participants to use and engage with content related to physical activity, diet and/or quality of life.

My use of the media has changed with Covid. So, I now exercise to online YouTube videos. I use Spotify, which I didn't really use before.... 'Jean' [professional associated with official organisation for target group of older adults] shared a little video clip about exercise ... and it was only about 10 minutes, and she was giving very simple advice about exercises, what you can do at home...but it was very easy to look at, and I've passed it on to a couple of elderly people and they've enjoyed looking at it and knowing what they can do, like just walking up and down stairs more. So, that was a very useful exercise information clip

(Female, Age 67)

FINDINGS

CASE STUDIES

From our 20 focus groups, differences were observed across 3 main population groups in how social media was used to inform behaviours related to physical activity, diet and/or quality of life. The 3 population groups are represented in the following case study videos (view by the '**click here**' link on each case) on adults who had/were:

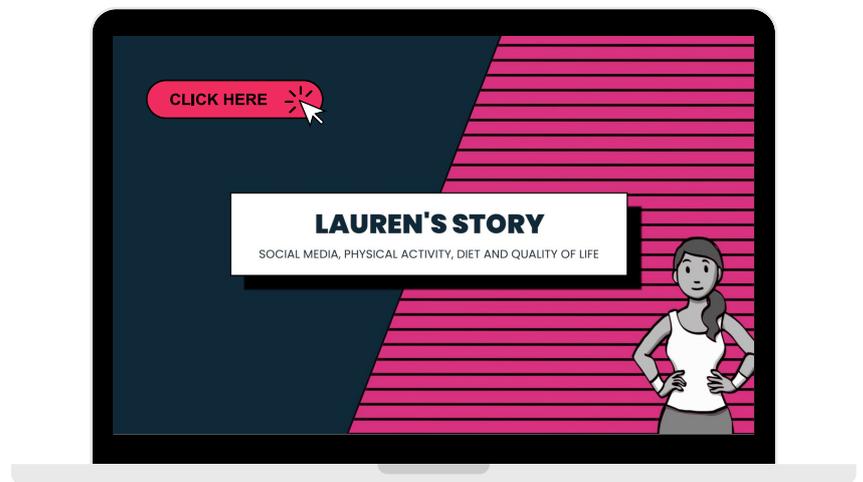
1. HIGH PHYSICAL ACTIVITY LEVELS

Adults who had high physical activity levels prior to the lockdown (Table 1) used social media as a substitute/add-on for social contact related to physical activity/sport (i.e. groups, networks, teams, and clubs). These adults rarely turned to social media for health-related information to inform their physical activity and diet behaviours.



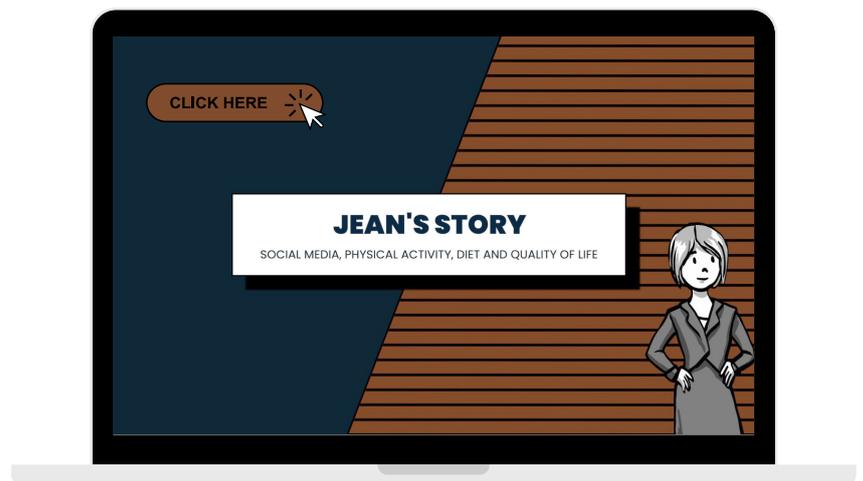
2. LOW PHYSICAL ACTIVITY LEVELS

Adults who had low physical activity levels prior to the lockdown (Table 1) used social media to improve their physical and mental health. The ease of completing online workouts and cooking classes at home and with the family, coupled with the perceived improvements to overall quality of life, re-enforced the use of social media for physical activity and diet information.



3. SELF-ISOLATING

For adults who were self-isolating due to COVID-19 restrictions, physical isolation was prominent and these adults turned to social media to fill a void and help them maintain physical activity behaviours and social relationships. However, social media was not a resource for all adults self-isolating, and was approached critically in relation to diet and issues of privacy and misinformation.



RECOMMENDATIONS

Based on the evidence generated from our systematic reviews, stakeholder consultations, and empirical data, we have identified 7 key recommendations for health behaviour change. By using the acronym **STARTER**, the design of health interventions that use social media can be guided by the following principles: Social, Tailored, Authentic, Relatable, Trust, Engaging, Regulated.

SOCIAL

Promotion of social interactions through social media should be used to facilitate behaviour change. Sport and physical activity centres, clubs or associations could facilitate the use of social media for social interaction, the sharing of health-related content and participation in 'health' challenges between members and groups

TAILORED

Content should be tailored to meet different groups' specific health needs. Qualified professionals and practitioners could reach specific populations and groups (e.g. individuals with health conditions) through creating and sharing exercise and diet content and sessions on social media that are tailored to specific health needs

AUTHENTIC

Content should be original, unmodified and evidence-based. Health organisations could work with celebrities/influencers to ensure that both parties reach and engage diverse groups through social media in authentic, evidence-based and optimal ways

RELATABLE

Personal connections should be created through social media to facilitate the use and adoption of content. 'Live' content can be used to create 'real world' experiences of health behaviours and facilitate engagement and interaction with those who share similar experiences and health behaviours

TRUST

Content should be accredited and/or evidence-based. Local, national and international physical activity and diet organisations are 'trusted' sources of information and should provide free exercise or diet sessions and/or verify evidence-based or credible sources of information

ENGAGING

Ensure variety in the design and format of content to engage target groups. How social media content can be consumed and produced by participants across different mediums (e.g. Facebook vs Instagram), formats (e.g. text, image, meme) and spaces (e.g. private vs public) should be considered based on the interests of the participants

REGULATED

Include guidance on misinformation and privacy. Online regulators should support the health-related uses of social media by providing free and accessible guidance and/or training on how to navigate issues related to misinformation and privacy

RECOMMENDATIONS

Based on our stakeholder consultations, the following considerations for health-related social media use were made for specific population groups.

Young People	Teachers and Schools	Diabetes, Lung-related Disease	Elite/Non-Elite Athletes	Multiple Sclerosis, Rheumatoid Arthritis and Older Adults Focus Group	Young Adults	Older Adults
A lot of good things for young people to access, and this is increasing	Crucial time in development of identity	Older people not using social media as much	Elite don't rely on social media for information, all provided through National Governing Body/club	Key organisations don't signpost to social media	More content being produced, and more time to view it	Many older adults do not have email addresses and/or use social media
Social aspect can be a motivator. Encouragement from peers is important	Follow people who are 'fun' and entertaining rather than only for education	Information often comes from family members	Information overload is a problem	Connections and social support are very important for this group	Platform-specific advice may be a good idea	Family and friends seem to be the main source of information through indirect transfer
Parents can help them navigate, but this can be flipped	Choice of what/who to follow is important to young people	Older people know what Govt. guidance is, but not how to implement	Quality of content varies and there is a lot of it: varies between closed groups and 'Wild West'	Rely on information from professionals. Can have concerns about exercise aggravating their condition	People who wouldn't normally do exercise are being influenced to participate via workout posts	Fear of misinformation and trust of source if it is not from TV/newspaper/traditional source
Three-point message could be useful to help them navigate social media use	They need to know what quality content is but currently not sure if this is the case	TV seems to provide more fact-checked information	Is it good information? Is it for you?	Lots of good information online, needs to be open-access and shared by organisations	Think about the person who has posted - 'what are they, who are they and what are they trying to do?'	Because older adults may not source the information from social media themselves, targeting the 'gatekeepers' is important
View, do, review, is it for you?	Image more important than content	Joe Wicks can get the family to exercise together	Commercially motivated posts are easy to spot	One size fits all advice won't suit this group	Families engaged through Joe Wicks	Older adults often don't feel related to the producers of social media content (viewed as 'younger')
Can build bridges between schools and families	Deep rooted education on consumption of social media is important	People can feel overloaded with information on social media	Information needs to be specific to athlete needs	Seek/speak/try/share Seek/fact-check/try	Young people should be involved in the creation of advice	Information overload is a problem. There needs to be a screening/filtering process for relevance
Phones are the key to unlocking everything	Teach them how to fish, don't give them the fish	Movement instead of exercise	Posts can vary depending on motives of poster	Information has to be evidence-based	What is in it for the provider? Think about the source	How can this group of people learn how to evaluate the quality of information?

APPENDIX

Existing Evidence-Base Informing this Report

1. Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, Cardon G, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *Br J Sports Med.* 2020;54(24):1451-62.
2. Afshin A, Sur PJ, Fay KA, Cornaby L, Ferrara G, Salama JS, et al. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet.* 2019;393(10184):1958-72.
3. Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. The Lancet Commission on global mental health and sustainable development. *The Lancet.* 2018;392(10157):1553-98.
4. Ofcom. Adults' media use and attitudes report 2020 2020 [Available from: https://www.ofcom.org.uk/...data/assets/pdf_file/0031/196375/adults-media-use-and-attitudes-2020-report.pdf].
5. Moorhead SA, Hazlett DE, Harrison L, Carroll JK, Irwin A, Hoving C. A new dimension of health care: systematic review of the uses, benefits, and limitations of social media for health communication. *J Med Internet Res.* 2013;15(4):e85.
6. Jane M, Hagger M, Foster J, Ho S, Pal S. Social media for health promotion and weight management: a critical debate. *BMC Public Health.* 2018;18(1):932.
7. Hamm MP, Shulhan J, Williams G, Milne A, Scott SD, Hartling L. A systematic review of the use and effectiveness of social media in child health. *BMC Pediatr.* 2014;14:138.
8. Muller AM, Alley S, Schoeppe S, Vandelanotte C. The effectiveness of e- & mHealth interventions to promote physical activity and healthy diets in developing countries: A systematic review. *Int J Behav Nutr Phys Act.* 2016;13(1):109.
9. Chau MM, Burgermaster M, Mamykina L. The use of social media in nutrition interventions for adolescents and young adults-A systematic review. *Int J Med Inform.* 2018;120:77-91.
10. Williams G, Hamm MP, Shulhan J, Vandermeer B, Hartling L. Social media interventions for diet and exercise behaviours: a systematic review and meta-analysis of randomised controlled trials. *BMJ Open.* 2014;4(2):e003926.
11. Hsu MSH, Rouf A, Allman-Farinelli M. Effectiveness and Behavioral Mechanisms of Social Media Interventions for Positive Nutrition Behaviors in Adolescents: A Systematic Review. *J Adolesc Health.* 2018;63(5):531-45.
12. Shaw JM, Mitchell CA, Welch AJ, Williamson MJ. Social media used as a health intervention in adolescent health: A systematic review of the literature. *Digit Health.* 2015;1:2055207615588395.
13. Goodyear VA, Armour KM, Wood H. Young people and their engagement with health-related social media: new perspectives. *Sport, Education and Society.* 2018;24(7):673-88.
14. Przybylski AK, Weinstein N. A Large-Scale Test of the Goldilocks Hypothesis. *Psychol Sci.* 2017;28(2):204-15.
15. Fardouly J, Pinkus RT, Vartanian LR. The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives. *Body Image.* 2017;20:31-9.
16. Keles B, McCrae N, Grealish A. A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth.* 2019;25(1):79-93.

ATTENDEES OF STAKEHOLDER FOCUS GROUPS

Children and Young People Focus Group

Dr Victoria Goodyear	Senior Lecturer in Pedagogy in Sport, Physical Activity and Health, The University of Birmingham
Prof Kathleen Armour	Pro-Vice-Chancellor (Education), The University of Birmingham
Dr Mark Griffiths	Lecturer in Sport Pedagogy, The University of Birmingham
Hannah Wood	Research Lead, The Active Wellbeing Society
Jagdish Sohal	Learning Experience Designer, JustJag Education
Will Patz	Postgraduate Researcher, Sport Pedagogy, The University of Birmingham & Primary Physical Education Teacher, Singapore
Jon McKeever	Postgraduate Researcher Sport Pedagogy, The University of Birmingham & Secondary Physical Education Teacher, Sweden
Polly Lassota	Senior Lecturer in Physical Education and Coaching Science, University of Worcester
Vikki Keeping	PE Teacher, Head of Year 10, Buckingham School, Buckinghamshire
Gareth Evans	Head of Healthy Active Lifestyles, Ninestyles School, Birmingham

Teachers and Schools Focus Group

Dr Kyriaki Makapoulou	Lecturer in Physical Education and Sport Pedagogy, The University of Birmingham
Dr Fiona Chambers	Head of the School of Education, Senior Lecturer in PE and Sport Pedagogy, University College Cork, Ireland. Secretary General International Association for Physical Education in Higher Education (AIESEP).
Erin Sanchez	Healthier Dancer Programme Manager at Dance UK
Karla Pinney	PE Teacher, Higham Ferrers High School, Northamptonshire
Jess Lowe	Dancers' Health Wellbeing and Performance Administrator, Dance UK

ATTENDEES OF STAKEHOLDER FOCUS GROUPS

Diabetes/Heart disease/Lung-related diseases Focus Group

Prof Janice Thompson	Professor of Public Health Nutrition and Exercise, The University of Birmingham
Prof Peymane Adab	Professor of Chronic Disease Epidemiology & Public Health, The University of Birmingham
Prof Kate Jolly	Professor of Public Health and Primary Care. Deputy Director of the Institute of Applied Health Research, The University of Birmingham
Dr Rachel Jordan	Reader in Epidemiology and Primary Care, The University of Birmingham
Dr Alex Wadley	Lecturer in Exercise Metabolism, The University of Birmingham

Elite and Non-Elite Athletes Focus Group

Dr Ian Boardley	Reader in Sport Psychology, The University of Birmingham
Dr Gareth Wallis	Reader in Exercise Metabolism and Nutrition, The University of Birmingham
Caroline Tarnowski	Postgraduate Researcher in Performance Nutrition, The University of Birmingham
Prof Barry Drust	Industrial Professorial Fellow in Applied Exercise Physiology, The University of Birmingham
Dr Francois-Xavier Li	Lecturer in Motor Control and Learning, The University of Birmingham
Oliver Odell	Postgraduate Researcher in Sports Nutrition and Metabolism, The University of Birmingham
Dr George Balanos	Senior Lecturer in Exercise Physiology, The University of Birmingham
Andrew Heyes	Elite athlete and Postgraduate Researcher, The University of Birmingham

Older Adults Focus Group

Dr Afroditi Stathi	Reader in Active Ageing and Health, The University of Birmingham
Dr Janet Withall	Research Manager in the Department for Health, University of Bath
John Mulcahy	Director, Sport Science Agency
Prof Carolyn Greig	Professor of Musculoskeletal Ageing and Health, The University of Birmingham
Grace Wood	Postgraduate Researcher in Promoting Physical Activity in Older Adults, The University of Birmingham
Prof Janice Thompson	Professor of Public Health Nutrition and Exercise, The University of Birmingham

ATTENDEES OF STAKEHOLDER FOCUS GROUPS

Multiple Sclerosis, Rheumatoid Arthritis and Older Adults Focus Group

Dr Sally Fenton	Lecturer in Lifestyle Behaviour Change, The University of Birmingham
Dr Shin-Yi Chiou	Lecturer in Motor Control and Rehabilitation, The University of Birmingham
Prof George Metsios	Professor in Clinical Exercise Physiology, University of Thessaly
Dr Andrew Soundy	Lecturer in Physiotherapy, The University of Birmingham
Matt Willett	Clinical Physiotherapist, Postgraduate Student & Teaching Fellow, The University of Birmingham
Katie Cronin	Teaching Fellow in Physiotherapy, The University of Birmingham
Lizzie Gibbens	Sandwell and West Birmingham Hospitals NHS Trust & Clinical Tutor in Physiotherapy, The University of Birmingham
Dr Jet Veldhuijzen van Zanten	Senior Lecturer in Biological Psychology, The University of Birmingham

Adolescents and Young Adults Focus Group

Grace Tidmarsh	Postgraduate Researcher in Sports Psychology, The University of Birmingham
Elena Emo	Undergraduate Student in Sport, Physical Education and Coaching Science, The University of Birmingham
Freya Bignell	Undergraduate Student in Sport, Physical Education and Coaching Science, The University of Birmingham
William Stoner	Undergraduate Student in Sport, Physical Education and Coaching Science, The University of Birmingham
Dr Miranda Pallan	Reader in Public Health & Epidemiology, The University of Birmingham
Haihui Wang	Postgraduate Researcher in Social Media, Mental Health, Physical Activity and Sleep, The University of Birmingham

ONLINE SURVEY PARTICIPANT CHARACTERISTICS

Participant Characteristics

N	Country		Age	Gender		Ethnicity			IMD (UK only)	COVID context		
	UK	Other		F	M	WB	OW	O		SI	W	H
786	597 (76)	98 (13)	45.1 (19.4) 16-88	531 (69)	235 (31)	592 (77)	104 (13)	75 (10)	6.3 (2.6)	62 (8)	190 (24)	527 (67)

*F-female; m-male; o-in another way in another way is not reported here as this represented 0.38% of the sample and comparative analysis with other demographics was not feasible. **WB-White British; OW-Other White; O-Other, including white and black Caribbean, white and black African, White and Asian, Indian, Pakistani, Bangladeshi, Chinese, African, Caribbean, Arab, Other. ***IMD refers to the Index of Multiple Deprivation and is a relative measure of deprivation in the UK on a scale of 1-10. ****SI-Self-Isolating; W- leaving home to work; H-working/studying from home.

Publication Information

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The research team who contributed to this work are:

Dr Victoria A. Goodyear^{1*}, <https://orcid.org/0000-0001-5045-8157>

Dr Ian Boardley¹ <https://orcid.org/0000-0001-5651-7816>

Dr Shin-Yi Chiou¹ <https://orcid.org/0000-0002-4200-5243>

Dr Sally A.M. Fenton¹ <https://orcid.org/0000-0002-3732-1348>

Dr Kyriaki Makopoulou¹ <https://orcid.org/0000-0003-0728-1135>

Dr Afroditi Stathi¹ <http://orcid.org/0000-0003-2162-777X>

Dr Gareth A Wallis¹ <https://orcid.org/0000-0002-1400-0859>

Dr Jet J.C.S. Veldhuijzen van Zanten¹ <https://orcid.org/0000-0001-8422-9512>

Grace E.R. Wood¹ <https://orcid.org/0000-0003-2622-2501>

Prof. Janice L. Thompson¹ <https://orcid.org/0000-0002-7312-3226>

¹ School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, UK.

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Contact Details

For further information about this study please contact:

Dr Victoria Goodyear
School of Sport, Exercise and Rehabilitation Sciences
University of Birmingham
B15 2TT
v.a.goodyear@bham.ac.uk

Twitter: @VGoodyear
Website: opencpd.net

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