"When you think of exercising, you don't really want to think of puking, tears, and pain":
Young adolescents' understanding of fitness and #fitspiration.

Beth T. Bell, Nova Deighton-Smith and Megan Hurst

Abstract

Adolescents access information about fitness, including content labelled as *#fitspiration*, through social media. Seventy-seven adolescents (*M age* = 12.49; *SD* = 0.55; *Girls* = 27) participated in semi-structured focus groups to explore their perspectives on *#fitspiration* and fitness more broadly. Through inductive thematic analysis, four themes were developed: (1) Fitness enhances physical function and appearance, but these are not always linked, (2) Fitness is transformative but requires hard work, (3) Fitness should be an intrinsically motivated personal choice, (4) Pain in the pursuit of fitness. Findings highlight young adolescents' complex understandings of fitness negotiated through their critical interpretation of #fitspiration.

"When you think of exercising, you don't really want to think of puking, tears and pain":

Young Adolescents' Understanding of Fitness and #Fitspiration

#Fitspiration (a literal amalgamation of the words fitness and inspiration) is used to label social media content that ostensibly promotes physical fitness through diet and exercise (e.g., Deighton-Smith & Bell, 2017). It can be found in abundance across social media channels, though is particularly common on image-focused site Instagram (Tiggemann, Churches, Mitchell, & Brown, 2018). Despite the seemingly positive façade of _#fitspiration_, concerns have been raised about the high levels of appearance-ideal imagery found within, as well as the problematic diet and exercise messages it proliferates (Boepple, Ata, Rum, & Thompson, 2016; Boepple & Thompson, 2016; Deighton-Smith & Bell, 2017; Tiggemann & Zaccardo, 2018). Adolescents are responsive to sociocultural norms, including those surrounding health behaviour (Berzonsky, 1990; Blakemore & Mills, 2014) and increasingly use social media as a source of health and fitness information (Beck et al., 2014; Jong & Drummond, 2016; Vaterlaus, Patten, Roche, & Young, 2015). While research has started to consider how older adolescents and young adults understand and interpret #fitspiration content, none has considered the views of young adolescents. Yet, as heavy users of image-based sites such as Instagram (Anderson & Jiang, 2018; Ofcom, 2019), it is likely they will regularly encounter #fitspiration content. The present study uses focus groups to facilitate young adolescents' discussions of #fitspiration, in order to examine their perspectives on #fitspiration and fitness more broadly.

Adolescent Health and Fitness

Adolescence (age 10-19 years) is a critical period for health development (Patton et al., 2016). The biological processes of puberty can trigger dramatic physical changes over a short period; adolescents experience substantial growth spurts, accrue bone mass, and reach

their peak cardiovascular fitness levels (Patton et al., 2016; Spear, 2002). The benefits of positive health behaviour engagement during this time are both immediate and long-lasting, as health behaviour adopted during adolescence likely persists into the adult years (Currie et al., 2012; Patton et al., 2016). Behaviours conducive to physical fitness, such as physical activity, have implications for adolescents' current and future health. That said, although qualitative research suggests adolescents understand the importance of health and fitness (Wang et al., 2014; Woodgate & Leach, 2010), many do not engage in healthful practices. A recent report indicates that less than 8% of UK adolescents meet the recommended government guidelines for physical activity (Youth Sport Trust, 2019).

From a health perspective, adolescents' understandings of diet and exercise may be problematic. Qualitative research suggests both adolescents and young adults inextricably intertwine physical fitness and health with physical appearance; valuing health behaviours for their appearance-enhancement qualities rather than their health benefits (Beltrán-Carrillo, Devís-Devís, & Peiró-Velert, 2018; Wright, O'Flynn, & Macdonald, 2006). Exercising for appearance goals, over health and fitness goals, is associated with lower levels of physical activity (Sebire, Standage, & Vansteenkiste, 2011), and more negative body image (Hurst, Dittmar, Banerjee, & Bond, 2017). It is likely that adolescents' perspectives are largely shaped by the sociocultural environment; analyses of health and fitness magazines suggest these texts position healthy eating and physical activity as means of achieving an ideal and attractive body, while placing less emphasis on health benefits (Bazzini, Pepper, Swofford, & Cochran, 2015; Willis & Knobloch-Westerwick, 2014). Multiple approaches to the study of adolescence suggest that adolescents may be particularly responsive to sociocultural messages, from perspectives as diverse as neuroscience (Blakemore & Mills, 2014) and identity formation (Berzonsky, 1990). Therefore, understanding how adolescents interact with media information about health and fitness is important.

Social Media and #Fitspiration

Most UK adolescents (69%) report using social media sites, with visual media focused sites, such as YouTube, Instagram and Snapchat, being the most popular (Ofcom, 2019). This is a trend mirrored across the Western world, with, similar levels of use being reported in the USA for example (Anderson & Jiang, 2018). Increasingly, adolescents use social media for health and fitness information (Beck et al., 2014; Jong & Drummond, 2016; Vaterlaus et al., 2015). However, the unregulated and user-generated nature of social media content means that it may be inaccurate, misleading, or dangerous (Boepple & Thompson, 2016; Deighton-Smith & Bell, 2017). Despite this, almost 40% of young people report engaging with some form of potentially problematic health and fitness material on social media, with #fitspiration being the most popular (Carrotte, Vella, & Lim, 2015).

Content analyses of #fitspiration content found that *#Fitspiration* idealises a muscular body ideal, with very low body fat, for both men and women, which has clear skin, white teeth, and other visible markers of traditional Western beauty (e.g., Boepple et al., 2016; Deighton-Smith & Bell, 2017; Tiggemann & Zaccardo, 2018). Body ideal models within #fitspiration are presented in objectified ways; typically adopting static poses rather than exercising, wearing sexualised clothing, displaying large proportions of body flesh or concealing their face (Deighton-Smith & Bell, 2017; Tiggemann & Zaccardo, 2018). Consistent with research involving mass media (e.g., Grabe, Ward, & Hyde, 2008), exposure to models who adhere to the #fitspiration body ideal has been found to cause body dissatisfaction among young women (Prichard, McLachlan, Lavis, & Tiggemann, 2017; Tiggemann & Zaccardo, 2015). Such imagery also appears to fail in its stated aim of motivating women to engage in exercise behaviour (Robinson et al., 2017).

Furthermore, text-based messages within #fitspiration bear similarities to content typically found in eating disorder communities (Boepple & Thompson, 2016). Messages that promote dietary guilt, weight-stigma, and restraint, complemented by extreme depictions of thinness, have been found to be commonplace. Perhaps unsurprisingly, research has found women who post #fitspiration content were at increased risk of disordered eating and compulsive exercise (Holland & Tiggemann, 2017). A more exploratory thematic analysis of #fitspiration posts found this text sexually objectifies the fit body, encourages self-regulation and personal responsibility for health and fitness, and normalises pain in physical activity contexts (Deighton-Smith & Bell, 2017). Furthermore, these messages were interwoven with ostensibly positive messages that offer social support in achieving fitness goals and foster a sense of community (Deighton-Smith & Bell, 2017; Santarossa, Coyne, Lisinski, & Woodruff, 2019). Such mixed messages may explain why young adults are said to be ambivalent towards social media health and fitness information, recognising both its inspirational and de-motivational qualities (Ragnatt et al., 2018; Vaterlaus et al., 2015). However, research has yet to examine how younger adolescents understand and relate to this content. Yet young adolescents (age 10-14), are also heavy social media users (Ofcom, 2019) who are likely to encounter #fitspiration content as part of their everyday use of these sites. Young adolescents are an important group to consider, as they are at the start of puberty-related physical development and so are more biologically and cognitively immature (Patton et al., 2016). As such, they are likely to show increased sensitivity to social information (Patton et al., 2016) and interpret health and fitness messages differently,

The Present Study: Aims and Research Questions

Given the importance of physical activity and fitness for adolescents' current and future health, and the rise of social media fitness content, the present study aims to understand 1) young adolescents' perspectives on fitspiration content on social media and 2) how young

adolescents, growing up in an appearance-focused culture that has created #fitspiration, relate to this content and conceptualise fitness more broadly. More specifically, the study focuses on affluent youth, who are more likely to use Instagram (Lenhart, 2015), where #fitspiration content is most prevalent (Tiggemann et al., 2018). We use focus groups with photo-elicitation, the practice of incorporating visual stimuli within a qualitative interview setting (Bates, McCann, Kaye, & Taylor, 2017), to facilitate the exploration of social norms and prompt discussion of #fitspiration posts. Photo-elicitation is widely used in focus groups with young people as a way of involving participants in shared discussions about their emotions, feelings, or perceptions on a particular topic, and steering such discussions without limiting responses (Bates et al., 2017). The research seeks to address the following research questions:

RQ1. How do young adolescents understand and relate to fitspiration messages?

RQ2. How do young adolescents understand fitness, within the cultural context of #fitspiration?

Method

Participants

Seventy-seven participants (*M age* = 12.49; *SD* = 0.55; *Range* = 12-13; *Girls* = 27)
took part in the study as part of "Body Image and Eating Disorders Awareness Day" at a
local university campus. All participants attended the same fee-paying, co-educational school
in Northern England, where some also resided. The school provides an extensive range of
sports and exercise opportunities for participants. Though parental income was not captured,
the cost of tuition fees (£15,000 per/annum non-residential, £26,500 per/annum residential)
would indicate that the majority of participants were from affluent backgrounds. All
participants invited to participate in the study did so, representing the whole school year
group (except those absent from school). Participants self-identified as regular Instagram
users, though no detailed social media usage data was collected.

Focus Group Design

As understandings of fitness and social media content are co-constructed amongst
peers, focus groups were used to collect data, since they facilitate collaborative discussions of
social norms (Uhls & Greenfield, 2012) by stimulating peer-led responses and debate
(Kitzinger, 1995). Discussions were semi-structured with facilitators using both physical
stimuli (i.e., publicly available #fitspiration images) and a questioning schedule to allow
research questions to be addressed, while retaining flexibility to explore unexpected topics of
interest. Physical stimuli have been widely used in focus group research with adolescents to
elicit discussion (Peterson-Sweeney, 2005), particularly where they may be less familiar with
the health messages in question (e.g., Ashikali, Dittmar, & Ayers, 2016).

Physical Stimuli. In a previous analysis of #fitspiration content on Instagram,
Deighton-Smith and Bell (2017) generated six pertinent themes in #fitspiration content; (1)

Fit is sexy, (2) A fit physique requires commitment and self-regulation, 3) Your choices define you, (4) Pleasure and perseverance through pain, (5) Battle of the selves: You vs. You, and (6) Here's to Us! A celebration of a community. Due to time constraints imposed on focus groups, images were chosen to represent four of the six themes only (Themes 1, 4, 5 and 6 were selected as they were the most conceptually distinct themes). The images representing each theme were selected by the first and second author and checked to ensure that the text/slogans were appropriate for young adolescents (i.e., not too sexualised). See Table 1 for a list of #fitspiration themes explored in the focus groups and descriptions of the images chosen to represent these.

Questioning Schedule. The schedule had three parts. The first section included introductory questions that explored adolescents' knowledge and understanding of fitness and #fitspiration more broadly (e.g., "What does fitness mean to you?"). The second section contained prompts to explore participants' thoughts and feelings towards each set of #fitspiration images (e.g. "Would these images motivate you to exercise?"). The third and final section focused on any lasting reflections on #fitspiration and fitness (e.g., "What are your thoughts about the people who create #fitspiration?").

Procedure & Ethics

The study received full ethical approval from the first author's institutional ethics committee and adhered to British Psychological Society Code of Human Research Ethics (BPS, 2014). Gatekeeper approval to recruit pupils was granted by the school head-teacher and informed consent was obtained from both parents and participants in advance. Focus groups took place on University campus. Adolescents chose who they were grouped with; thus, discussions were held in naturally-occurring friendship groups. Before each focus group commenced, participants were reminded of their right to withdraw and assured of anonymity.

The facilitator (one of three young, white women trained in focus group facilitation) used the questioning schedule and images to assist discussions. At the end of each group, participants were thanked and debriefed. A more in-depth debrief took place in an assembly on the school premises one week later. In total, 12 focus groups were conducted; four with male participants, two with female participants, and six with mixed-gender composition. Each focus group comprised of 5-7 participants and lasted between 20.23 and 28.26 minutes. Focus groups were audio-recorded and transcribed verbatim.

Analytic Procedure

Reflexive thematic analysis was used to analyse the dataset, adopting the six-step process outlined by Braun & Clarke (2006; 2019a). The process involved engaging in familiarisation with the dataset (Step 1), by reading transcripts and listening to recordings several times. Initial semantic codes (Step 2) were then assigned to the data. A combination of semantic coding (explicit and surface meanings within the data) and latent coding (underlying conceptualisations) was employed. Step 1 and 2 were initially performed by all three authors on a subset of three focus groups. Then, the authors met to discuss their coding and engage in a collaborative process of coding refinement, where each initial code and the corresponding data were examined to ensure codes were unique and analytically relevant to the research questions. Having collaboratively developed principles of confirmable coding practice, the authors independently coded the remaining focus group scripts. To create initial themes (Step 3), the authors met to group related codes and identify patterns of meaning across the dataset. They reviewed the content of themes against the coded extracts and entire dataset (Step 4) with the aim of producing clearly defined and distinct themes (Step 5).

Throughout the analysis, the researchers adopted an inductive approach, allowing themes to be data-driven rather than guided by existing literature. Themes however, were

interpreted and contextualised according to existing research examining adolescents' attitudes to physical fitness, as well as the literature surrounding #fitspiration. Once the final report was produced (Step 6), the authors verified the analysis by collaboratively checking themes against the original recordings and transcripts. Inter-rater reliability was not considered appropriate since it is not consistent with Braun and Clarke's (2006) approach to thematic analysis, and therefore any disagreements between the authors were resolved through active and reflexive discussion as recommended by Braun and Clarke (2019b).

Findings

The majority of adolescents described engaging in some form of sport or exercise, both in and out of school. Many were familiar with #fitspiration content, having seen images in places such as the gym and in sports stores *("So saying strong is the new sexy, buy our stuff."* [M5: Male, focus group 5]). They also reported seeing them in traditional media such as TV and digital media (including Instagram e.g., in sponsored ads or the search page - "*Every single day they're on my Explore page* [Instagram]." [F3: Female, focus group 3]). But many did not recognise the label #fitspiration per se. Using reflexive thematic analysis, four themes were developed that encapsulate adolescents' understandings of fitness and #fitspiration.

Theme 1: Fitness enhances physical function and appearance, but these are not always linked

Adolescents overwhelmingly positioned fitness as an important and worthwhile pursuit, primarily because of the enhanced body functionality being fit brings. They described fitness as beneficial to their everyday activity, overall health, and longevity ("*It means you can do more stuff…and …you can live longer.*" [M12]). Moreover, adolescents discussed how their competitive sport performance would improve as a consequence of being physically fit, especially among adolescent boys.

> "*Well, you want to be better than everyone else, that's the reason you do the sport. So, in order to be better that everyone else, you have to stay fit and be able to equal what everybody else is doing, and better it*." [M4].

Fitness was also positioned as being externally visible. Slimness and visible muscle tone were perceived as a desirable consequence of fitness-promoting activities (*"…the person is really strong so, and quite good looking, so it makes you think that if you be, if you ,*

become strong then you'll look like that" [M5]), however, as the following extract shows, the view that fitness equates to attractiveness was not endorsed by all:

> *"People who just judge other people and the way they look, "oh, this guy's buff, he's, he's really, he's really fit, he can run long distances, he can do what he likes", but some people might look different, maybe they're not buff, they haven't got muscles and that, but they can run long distances, and they can maybe do stuff better than the person that actually looks good."* [M2].

Adolescents recognised that #fitspiration messages explicitly promoted the view that being fit will make you more attractive (*"They're saying if you, if you work out then you'll be fitter and be sexier"* [M12]) and did not dispute these messages. However, they were critical of the hyper-muscular models in the #fitspiration extracts.. Hyper-muscularity was positioned as unhealthy (*"Looking at that guy that's absolutely massive, I don't think that's healthy, that's abnormal."* [M12]) and unattractive in men (*"I think that's unrealistic and kind of gross."* [F10]), and unfeminine and threatening in women (*"ooh he's scary…wait is that a woman?..oh yeah it is."* [F9]). In many instances, images of models were regarded to have been digitally-altered and unrealistic (*"I don't think that's real…I think it's photo shopped."* [M12]).

Many evaluated the character of #fitspiration models negatively, for various reasons: as being arrogant (*"this person's just like, "oh I'm muscly, look at me, be jealous""*. [M2]), or obsessive (*"It's only a small percentage workout that much...and it's not, probably that good for you, to work out that much."* [M7]. They suggested that #fitspiration posts would be more motivational if greater emphasis was placed on physical achievements.

P: *These two, these two they're not really persuading you to get fitter, to have good stamina or to be able to do more stuff in the world, they're persuading you to get fitter just so you can look more attractive.* [Male 1 – Focus Group 3]

Facilitator: *So, if that's the case then what would persuade you to maybe do exercise in order to be fit?*

P: *Maybe, I don't know* [if I saw] *a picture of someone at the top of a mountain-* [M1-3]

P: *Achieved something –* [M2-3]

P: *Yeah –* [M3-3]

P: *Yeah, you'll kind of feel like I wish I could achieve something like that.* [M1-3]

Theme 2: Fitness is transformative, but requires hard work

Adolescents agreed with #fitspiration posts that the body could be transformed by exercise. In this way, the body was constructed as malleable, with fitness positioned as a means of transforming both the function and appearance of the body. However, adolescents suggested that transforming the body through fitness was a laborious and demanding process, requiring hard work and dedication:

P: *I mean, you can't… You can't be good if you don't try it. I mean, you can't just turn up one day and be absolutely amazing. You have to—* [M2-4]

P: *- Have a go at it* [M1-4]

P: *—work at it, put the effort in* [M3-4]

P: *Yeah, you got to put the effort in.* [M1-4]

P: *You get the reward out of it* [M3-4]

14

Consistent with adolescents' preference for slim and toned bodies (Theme 1), adolescents universally constructed fatness as something to be avoided ("*It's good to be fit, because when you're older, you don't want to be fat and things*". [M4]). Adolescents equated slimness with fitness and discussed how fitness-related activities were more important for individuals living in larger bodies, than "slim" people:

> "*If you're, like, quite fat, then you might have to go through that... if, yeah, if you're overweight. It's trying to inspire fat people to get like that.*" [M5].

Though adolescents interpreted #fitspiration slogans as endorsing the notion of hard work, they argued that #fitspiration images were inconsistent with this message. They suggested hyper-muscular #fitspiration ideals only showed the 'end result' of the fitness process. Hence, adolescents were critical of #fitspiration images because these implied that fitness-induced bodily changes would be instantaneous:

> "*Because I think that you both, with both images, you have to put a lot of work into it and it makes it look like you don't have to do huge training sessions to get to that point.*" [F3].

> "*It's too much like 'oh I'll do that and I'll automatically become this'.*" [M11].

Adolescents also described how #fitspiration posts only showing the end result (i.e., an idealised fitness model) might be demotivating for some (e.g., "*Yeah if you're fat then you look in the mirror and you're like oh...then there's no point of me like getting up to do it...exercise.*" [F3]). They suggested that #fitspiration would be more motivational if more diverse bodies, showing the starting point of the fitness process, were represented ("*yep... if they put an average person in, it might actually inspire you to do something.*" [M11]). Alternatively, posts that told the story of a person's fitness journey were described as more motivational, especially if that person was a famous sports star who they admired:

"*Sometimes I'll see a post on Instagram that tell maybe a backstory or how they, or how a famous person's done it. Like, a famous footballer, maybe like Lionel Messi, how he's done it or maybe his backstory. You can see that more as motivation, but we don't know these two people* [models].*" [M2].

Theme 3: Fitness should be an intrinsically-motivated personal choice

This theme encapsulates the tensions between adolescents' understandings of exercise motivations and their interpretation of those contained in #fitspiration messages. When adolescents described their own fitness-related physical activities, they cited intrinsic factors such as enjoyment, competition, and spending time with friends as their main reasons for participation:

"*I* […] *well most of my family rides and* […] *well I live next door to my cousin and she has a pony too so we go riding together and it's really social 'cause I have loads of friends outside school who ride also and we go riding together so…as well as it being really fun competitively, it's really fun, kind of like social side.*" [F9].

Furthermore, adolescents described how the decision to engage in physical activity is a personal and free choice made by individuals:

"*At the end of the day, it's down to whether you think you want to do it and whether you're motivated to do it. I don't think these sort of motivational things really help* […] *and people can say them all the time but they don't really get it done like you will if you just, if you want to do it for yourself.* [M2]

In contrast, adolescents described how #fitspiration messages were pressurising people to engage in physical activity for extrinsic reasons. For example, they expressed dislike that #fitspiration messages sought to motivate the achievement of what they perceived to be an unattractive and unrealistic appearance ideal (Theme 1). Thus, while they

expressed approval of #fitspiration text that encouraged self-improvement and transformation (Theme 2), they were critical of the way #fitspiration dictated that this self-improvement should entail the achievement #fitspiration body ideals.

> P: *Yeah, I think without the picture it'll be good (-) 'cause saying you gotta, if you want to you can try and do better for yourself* [F1- 11]

> P: … *it's just trying to motivate you, to do it, but* [M1-11]

> P: *Yeah, it's trying to force you, make you look like that…* [M2-11]

> P: … *in one way its good saying you can do that but in another way its saying you have to…*[M3-11]

By focusing on unrealistic self-improvement appearance goals, adolescents discussed how #fitspiration content might induce low self-esteem or guilt. Hence #fitspiration was positioned as demotivating and likely to reduce exercise participation, since it belittled any sense of achievement derived from exercise unless unrealistic or extreme standards were attained.

> "*…and you could have done a really long run or some really hard exercise and then you're proud cause you've done exercise and then you see that picture that absolutely ripped guy and you just think…feel really bad, give up.*" [M8].

> "*Because like, then they're not happy because, they want to be better, they wanna be more than that, they wanna be like, if you're looking at yourself in the mirror and being, you know 'I wanna be better than this', it's like, I'm not, and you might get like really depressed because you're like really stressed because you're trying so hard to make yourself better than you already am. And thinking like 'oh my gosh' you know, 'I'm, I'm like really not in a good shape'.*" [F6]

Theme 4: Pain in the pursuit of fitness

The final theme describes adolescents' understandings of perseverance and pain as characteristics of fitness-related behaviours and consequences for health outcomes. Adolescents discussed reasons why a person might endure through pain in exercise contexts and acknowledged that pain might occasionally feature as part of a fitness regime. They argued that individuals need valid reasons for experiencing pain (e.g., goal attainment):

> "*I don't think it's a bad thing. Say if you were to do like, I don't know, a run and it was like an hour, but then you'd got to 45 minutes and it started to hurt, I'd probably try to carry on...[...] it's like, to build up your stamina.*" [F1].

Pain was also understood to be an acceptable outcome if an athlete was proficient in their sport ("*Rugby players they get nervous that they vomit don't they?*" [M10]) or if a person felt passionate about the sport they played ("*If it's* [pain] *for something that you don't like, then quit. But if it's for something that you love and want to kind of keep on going, then those things are alright.*" [M4]). These conceptualisation of acceptable pain in sports contexts were particularly common among adolescent boys. Pain was also deemed more acceptable in exercise contexts where it was perceived to be a personal choice (linking back to theme 3):

> "*Well, if you enjoy doing something, then you're not gonna stop* (because of the pain) *...but if you don't enjoy doing it, then you'll just stop really quickly.*" [F2].

Thus, participants could understand and relate to the messages contained in #fitspiration posts promoting perseverance through pain. However, in contrast to such extreme representations of pain, they argued there were limits to the amount of pain that should be experienced during fitness-related behaviours. They also recognised that pain experienced during exercise could be detrimental to physical health:

"*I don't think this is actually correct where it says, 'Don't stop when it hurts', you are going to seriously injure yourself, you'll have to stop, and it says, 'stop when you're done'. You might not be done but you might be seriously injured and might not make, and it, just make it worse if you keep going.*" [M7].

"*...and if you carry on, like if you've got a pulled muscle and you're carrying on it can really damage your body.*" [F6].

Furthermore, they were critical of the way in which #fitspiration messages seemingly endorsed the experience of pain during exercise for aesthetic purposes "*I mean it's obvious that they're putting themselves through a lot, but in the end, it's just to make themselves look good.*" [M4]. Experiencing pain or injury in the pursuit of the unrealistic #fitspiration body ideal was positioned as pointless and potentially problematic. Adolescents expressed concerns with the implications of such messages for physical and mental health:

"*Yeah, some pictures you can never naturally get your body like it. You have to take steroids and stuff.*" [M10]

"*I think this one could promote anorexia.*" [F10]

"*The last two don't* [promote a healthy lifestyle], *they, they can promote like addictive lifestyles, where you push yourself too much.*" [M11]

Furthermore, #fitspiration messages focusing on the negative extremes of exercise engagement (e.g., vomiting) were argued to be de-motivating or to contradict exercise as an activity to be enjoyed ("*When you think of exercising, you don't really want to think of puking, tears and pain.*" [M12]). There was real consensus that exercise does not have to be as extreme as it is represented in #fitspiration:

P: -*That's really really extre-extreme, if you were to get to the point where*-[M1-5]

P: *-You puke* [M2-5]

P: *Yeah then you-* [M1-5]

P: *(You puke)* [M2-5]

P: *Yeah when you-* [M1-5]

P: *(Should probably stop).* [M2-5]

Facilitator: *Yeah*

P: *Probably be better for you to stop yeah (*laughs*).* [M1-5]

P: *Same with this one, don't stop when it hurts, 'cos if you're hurt and you're in the gym or something, you probably pulled a muscle or something.* [M2-5]

Discussion

Four themes were developed that captured adolescents' understandings of fitness and #fitspiration. Adolescents in our sample positioned fitness as being important to physical function and physical appearance, but challenged the link between these (Theme 1), a transformative process that requires hard-work (Theme 2), and an intrinsically-motivated personal choice (Theme 3), and finally, discussed how pain might be negotiated in fitness contexts (Theme 4). While their conceptualisations of fitness bore similarities to #fitspiration content, there was general consensus that #fitspiration represented an extreme version of fitness that is overly-focused on the achievement of unrealistic appearance ideals and has the potential to adversely affect both physical and mental health. Importantly, themes reflect adolescents' active interpretation of #fitspiration messages and emerged primarily through adolescents' negative reactions to the #fitspiration content and attempts to articulate reasons behind these.

Consistent with previous qualitative research conducted outside of the UK, adolescents offered complex and fragmented conceptualisations of fitness, focused on the enhancement of physical function through physical activity (Wang et al., 2014; Woodgate & Leach, 2010). Furthermore, they placed importance on a sense of autonomy, choice, and agency in physical activity settings, again echoing previous research (Woodgate & Leach, 2010). Adolescents reflected on how their own high levels of physical activity were driven by intrinsic motivations, such as social, competitive, and enjoyment factors, and were critical of fitness pursued purely for aesthetic purposes, as they saw depicted in #fitspiration content. Thus, messages linking fitness to physical attractiveness, which are an integral part of #fitspiration content, may not resonate as much with younger adolescents as with older populations (e.g., Raggatt et al., 2018). Understanding how intrinsic motivations for physical activity can be sustained during adolescence, when faced with cultural messages like

#fitspiration that promote extrinsic aesthetic motivations, may be an important avenue for future research. Dominant theories of exercise motivation purport that engagement in physical activity for intrinsic reasons is more conducive to long-term adherence (Teixeira, Carraça, Markland, Silva, & Ryan, 2012), therefore sustaining intrinsic motivations may help reduce decline in physical activity that is typically reported over adolescence (Currie et al., 2012).

Despite adolescents' criticism of #fitspiration posts linking fitness to attractiveness, they still endorsed the dominant and longstanding cultural view that slim bodies are more attractive (Thompson & Stice, 2001). Physical activity was positioned as a means of reducing undesirable fatness, reflecting adolescents' reproduction of common public health discourses which equate fitness and health with the absence of fatness (Thing & Ottesen, 2013; Wardle, Rapoport, Miles, Afuape, & Duman, 2001). This weight bias may have potential negative implications for health behaviour. For example, weight bias among peer groups may to lead to increased victimisation of adolescents living in larger bodies, particularly in physical activity settings (Puhl, Luedicke, & Heuer, 2011). Furthermore, many adolescents suggested, explicitly or implicitly, that exercise is more important for those living in larger bodies, again reflecting broader societal discourses that position fatness as a personal deficiency that individuals should overcome (Brownell et al., 2010). It is unclear how endorsement of such attitudes relates to physical activity participation over the course of adolescence, and future research should explore this further.

Research has highlighted how #fitspiration glorifies and normalises pain in physical activity settings (Deighton-Smith & Bell, 2017). Our findings suggest that young adolescents may be somewhat resistant to these messages, and actively interpret and critique #fitspiration content within the context of their pre-existing beliefs around fitness. While adolescents understood pain as a justifiable consequence of physical activity in some circumstances (e.g.,

sporting contexts), they expressed concerns about the extreme representation of pain present in #fitspiration content for physical and mental health. This is an important contribution to the literature, as previous research on how adolescents understand pain and overtraining is limited, focusing primarily on young athletes in youth sports environments (e.g., Gomes, Faria, & Vilela, 2017). The rising prominence of #fitspiration content on social media may suggest a need to research adolescents' understanding of pain, overtraining, and burnout in physical activity contexts more broadly, given that the majority are unlikely to have access to specialist coaching or be knowledgeable about growth-related injuries.

Gender differences were noted in adolescents' discussion of fitness and #fitspiration. Boys were more likely to suggest athlete role models as motivational; interestingly, every example given in group discussion was male (e.g., Lionel Messi). The theme of pain in the pursuit of fitness was also driven more strongly by the boys' responses. In particular, battling through pain was positioned as more understandable and acceptable by the boys (although only in sports contexts) than the girls. This emphasis on valuing fitness because of its link to sports, and on interpreting #fitspiration in the context of sports, that was present among boys, is likely to be the product of living in a sociocultural environment where male sporting prowess is more celebrated (e.g., Cooky, Messner, & Hextrum, 2013). Furthermore, both boys and girls expressed more negative opinions of hyper-muscular women than men, indicating that new female body ideals emerging among young adult populations (e.g., Betz & Ramsey, 2017), are not openly endorsed by our young adolescent sample.

Importantly, the findings highlight how young adolescents actively interpret #fitspiration in the context of their existing knowledge of fitness and physical activity, supporting active models of media engagement (e.g., uses and gratification model, Ruggiero, 2000). Our findings demonstrate the ability of young adolescents to critically engage with appearance-focused social media content, supporting recent intervention work in this field

23

(McLean, Wertheim, Masters, & Paxton, 2017). The use of photo-elicitation helped to stimulate dialogue within groups and enabled shared understandings and interpretations to emerge from participants (Bates et al., 2017). Future research into young adolescents' understandings of health, or responses to health-related media messages, may benefit from using similar techniques. The findings also have important implications for public health agendas aiming to increase young adolescents' physical activity. Participants offered suggestions for motivational messages, including a desire to see the fitness process (i.e., an athlete's journey) and for it to be presented as their choice. These suggestions could be used in public health campaigns for this demographic or provided as guidelines for socially responsible social media content.

Though the purpose of qualitative research is not to generalise findings to other populations, we acknowledge the understandings of fitness and #fitspiration described by participants may not be shared by other young adolescents. Our sample comprised predominantly white, physically active, middle- to upper-class, adolescents, attending the same fee-paying school in Northern England. Attending a fee-paying school may shape adolescents' attitudes towards health and fitness, due to the strong emphasis placed on sport in such schools in the UK (Swain, 2006). Furthermore, adolescents from higher socio-economic status (SES) backgrounds have demonstrated greater ability to critically interpret media content related to health behaviours than their low SES counterparts (Levin-Zamir, Lemish, & Gofin, 2011). Thus, the participants may have been particularly likely to respond critically to #fitspiration content. Future research should focus on the experiences of more diverse groups of young people, including those from ethnic minority and less privileged social class or SES groups.

Features of our data collection may also have influenced the nature of discussions. All groups were facilitated by female researchers, and this may have resulted in reticence from

male participants, particularly regarding discussions of gender differences (Allen, 2005). In contrast, female participants who typically prefer female facilitators in discussions about appearance and health (Yager, Diedrichs, & Drummond, 2013), may have been more expressive. The use of focus groups may also have shaped the responses from participants. There may be social norms that mean body-related concerns are less likely to be disclosed in group contexts, particularly for boys (Allen, 2005; Hargreaves & Tiggemann, 2006; Yager et al., 2013). As such, the group context may have been more likely to elicit rejections of appearance-related fitness media and agreement with more 'masculine' perspectives.

Conclusion

Previous work examining how individuals interpret #fitspiration content has focused on young female university students, including those who regularly engage with #fitspiration content. In contrast, the present study focused on young, affluent, and physically active adolescents, who regularly use social media sites where #fitspiration is commonplace. Adolescents engaged in active interpretations of #fitspiration content, drawing on their existing knowledge and experiences of fitness to critically decipher messages. Through these critical discussions of #fitspiration content, we elucidated adolescents' complex and fragmented understandings of fitness focused on functionality, transformation, hard-work, choice, and pain. Though #fitspiration messages resonate with these conceptualisations of fitness, #fitspiration was positioned as an extreme version that is overly focused on attractiveness.

Declaration of Conflicting Interests

The authors declare that there are no conflicts of interest.

Table 1: List of #fitspiration themes explored in focus groups and description of images chosen to represent each theme.

Theme (taken from Deighton-Smith & Bell, 2017)	Description of Representative Images
(1) Fit is Sexy	(1) Thin woman in athletic clothing doing a complex yoga pose with the words "Train like a beauty, look like a beast"; (2) Thin muscular woman wearing sports bra and pants, chain around neck, facing the camera with the words "strong is the new sexy"
(2) Pleasure and perseverance through pain	(1) Muscular tattooed man wearing sports shorts sat with face obscured on gym equipment with the words "Crawling is acceptable. Puking is acceptable. Tears are acceptable. Pain is acceptable. Quitting is unacceptable." (2) Woman in sports bra and shorts engaging in exercise appears with faded in the background with the words "Don't stop when is hurts, stop when you're done" emblazoned on top.
(3) Battle of the selves: You vs. you	(1) Muscular woman wearing sports crop top and shorts, face cropped out and overlaid with the text "Be stronger than your excuses"; (2) Muscular man looking at self in mirror revealing his abs and pectoral muscles with the words "Look in the mirror… that's your competition".
(4) Here's to us! a celebration of community	(1) Muscular man focused on his face and abs in a gym with the words "Surround yourself with people who are only going to lift you higher"; (2) Muscular woman wearing crop top and shorts, face cropped out overlaid with the words "Make your supporters proud and your haters jealous".

References

Allen, L. (2005). Managing masculinity: Young men's identity work in focus groups. *Qualitative Research*, 5, 35–57. doi: 10.1177/1468794105048650.

Anderson, M., & Jiang, J. (2018). Teens, Social media & Technology Overview 2018. Retrieved from http://www.pewinternet.org/2018/05/31/teens-social-media-

Ashikali, E. M., Dittmar, H., & Ayers, S. (2016). Adolescent girls' views on cosmetic surgery: A focus group study. *Journal of Health Psychology*, *21*(1), 112-121. doi:10.1177/1359105314522677

Bazzini, D. G., Pepper, A., Swofford, R., & Cochran, K. (2015). How healthy are health magazines? A comparative content analysis of cover captions and images of women's and men's health magazine. *Sex Roles, 72*(5-6), 198-210. doi:10.1007/s11199-015-0456-2

Bates, E., McCann, J., Kaye, L. K., & Taylor, J. C. (2017). "Beyond words": a researcher's guide to using photo elicitation in psychology. *Qualitative Research in Psychology, 14(4)*, 459-481. doi: 10.1080/14780887.2017.1359352.

Beck, F., Richard, J. B., Nguyen-Thanh, V., Montagni, I., Parizot, I., & Renahy, E. (2014). Use of the internet as a health information resource among French young adults: results from a nationally representative survey. *Journal of Medical Internet Research, 16*(5), e128. doi:10.2196/jmir.2934

Beltrán-Carrillo, V. J., Devís-Devís, J., & Peiró-Velert, C. (2018). The influence of body discourses on adolescents'(non) participation in physical activity. *Sport, Education and Society, 23* (3), 257-269. doi:10.1080/13573322.2016.1178109

Berzonsky, M. D. (1990). Self-construction across the life-span: A process view of identity development. In G. H. Neimeyer & R. A. Neimeyer (Eds.), *Advances in personal construct psychology* (Vol. 1, pp. 155–186). Greenwich, CT: JAI Press

Betz, D. E., & Ramsey, L. R. (2017). Should women be "All About That Bass?": Diverse body-ideal messages and women's body image. *Body Image*, *22*, 18-31. doi:10.1016/j.bodyim.2017.04.004

Blakemore, S. J., & Mills, K. L. (2014). Is adolescence a sensitive period for sociocultural processing? *Annual Review of Psychology*, *65*, 187-207. doi:10.1146/annurev-psych-010213-115202

Boepple, L., Ata, R. N., Rum, R., & Thompson, J. K. (2016). Strong is the new skinny: A content analysis of fitspiration websites. *Body image*, *17*, 132-135. doi:10.1016/j.bodyim.2016.03.001

Boepple, L., & Thompson, J. K. (2016). A content analytic comparison of fitspiration and thinspiration websites. *International Journal of Eating Disorders, 49*(1), 98-101. doi:10.1002/eat.22403

British Psychological Society (2014). BPS Code of Human Research Ethics. Retrieved from: https://www.bps.org.uk/news-and-policy/bps-code-human-research-ethics-2nd-edition-2014

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. doi:10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019a). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*. doi:10.1080/2159676X.2019.1628806

Braun, V., & Clarke, V. (2019b). *Answers to frequently asked questions about thematic analysis*. Retrieved from: https://www.psych.auckland.ac.nz/en/about/our-research/research-groups/thematic-analysis/frequently-asked-questions-8.html#c83c77d6d1c625135085e489bd66e765

Brownell, K. D., Kersh, R., Ludwig, D. S., Post, R. C., Puhl, R. M., Schwartz, M. B., & Willett, W. C. (2010). Personal responsibility and obesity: a constructive approach to a controversial issue. *Health Affairs*, *29*(3), 379-387. doi:10.1377/hlthaff.2009.0739

Carrotte, E. R., Vella, A. M., & Lim, M. S. (2015). Predictors of "liking" three types of health and fitness-related content on social media: a cross-sectional study. *Journal of medical Internet research*, *17*(8), e205. doi:10.2196/jmir.4803

Cooky, C., Messner, M. A., & Hextrum, R. H. (2013). Women play sport, but not on TV: A longitudinal study of televised news media. *Communication & Sport, 1*(3), 203-230. doi:10.1177/2167479513476947

Currie, C., Zanotti, C., Morgan, A., Currie, D., de Looze, M., Roberts, C., … Barnekow, V. (2012). *Social determinants of health and well-being among young people. Health behaviour in school-aged children (HBSC) study: International report from the 2009/2010 survey*. Copenhagen, WHO Regional Office for Europe, 2012 (Health Policy for Children and Adolescents, No. 6). Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf

Deighton-Smith, N., & Bell, B. T. (2017). Objectifying fitness: A content and thematic analysis of# fitspiration images on social media. *Psychology of Popular Media Culture, 7*(4), 467-483. doi:10.1037/ppm0000143

Gomes, A.R., Faria. S., & Vilela, C. (2017). Anxiety and burnout in young athletes: The mediating role of cognitive appraisal. *Scandinavian Journal of Medicine & Science in Sports*, 27(12), 2116-2126. doi:10.1111/sms.12841

Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: a meta-analysis of experimental and correlational studies. *Psychological Bulletin*, *134*(3), 460-476. doi:10.1037/0033-2909

Hargreaves, D. A., & Tiggemann, M. (2006). 'Body image is for girls': A qualitative study of boys' body image. *Journal of Health Psychology, 11,* 567-576. doi: 10.1177/1359105306065017.

Holland, G., & Tiggemann, M. (2017). "Strong beats skinny every time": Disordered eating and compulsive exercise in women who post fitspiration on Instagram. *International Journal of Eating Disorders*, *50*(1), 76-79. doi:10.1002/eat.22559

Hurst, M., Dittmar, H., Banerjee, R., & Bond, R. (2017). "I just feel so guilty": The role of introjected regulation in linking appearance goals for exercise with women's body image. *Body Image*, *20*, 120-129. doi:10.1016/j.bodyim.2016.12.002

Ingledew, D. K., & Markland, D. (2008). The role of motives in exercise participation. *Psychology and Health*, *23*(7), 807-828. doi:10.1080/08870440701405704

Jong, S. T., & Drummond, M. J. (2016). Exploring online fitness culture and young females. *Leisure Studies*, *35*(6), 758-770. doi:10.1080/02614367.2016.1182202

Kitzinger, J. (1995). Qualitative research. Introducing focus groups. *British Medical Journal, 311*, 299–302. doi:10.1136/bmj.311.7000.299

Lenhart, A. (2015). Teens, Social Media and Technology Overview 2015. Retrieved from:

http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/

Levin-Zamir, D., Lemish, D., & Gofin, R. (2011). Media Health Literacy (MHL):

Development and measurement of the concept among adolescents, *Health Education Research*, *26*, 323–335, doi:10.1093/her/cyr007.

McLean, S. A., Wertheim, E. H., Masters, J., & Paxton, S. J. (2017). A pilot evaluation of a social media literacy intervention to reduce risk factors for eating disorders. *International Journal of Eating Disorders*, *50*(7), 847-851. doi:10.1002/eat.22708

Ofcom (2019). Children and parents: Media use and attitudes report 2018. Retrieved from:

https://www.ofcom.org.uk/__data/assets/pdf_file/0024/134907/Children-and-Parents-Media-Use-and-Attitudes-2018.pdf

Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., ... & Kakuma, R. (2016). Our future: A Lancet commission on adolescent health and wellbeing. *The Lancet, 387*(10036), 2423-2478. doi:10.1016/S0140-6736(16)00579-1

Peterson-Sweeney, K. (2005). The use of focus groups in pediatric and adolescent research. *Journal of Pediatric Health Care, 19*(2), 104-110. doi:10.1016/j.pedhc.2004.08.006

Prichard, I., McLachlan, A. C., Lavis, T., & Tiggemann, M. (2018). The impact of different forms of# fitspiration imagery on body image, mood, and self-objectification among young women. *Sex Roles*, *78*(11-12), 789-798. doi:10.1007/s11199-017-0830-3

Puhl, R. M., Luedicke, J., & Heuer, C. (2011). Weight-based victimization toward overweight adolescents: observations and reactions of peers. *Journal of School Health*, *81*(11), 696-703. doi:10.1111/j.1746-1561.2011.00646.x

Raggatt, M., Wright, C. J., Carrotte, E., Jenkinson, R., Mulgrew, K., Prichard, I., & Lim, M. S. (2018). "I aspire to look and feel healthy like the posts convey": engagement with fitness inspiration on social media and perceptions of its influence on health and wellbeing. *BMC public health*, *18*(1), 1002. doi:10.1186/s12889-018-5930-7

Robinson, L., Prichard, I., Nikolaidis, A., Drummond, C., Drummond, M., & Tiggemann, M. (2017). Idealised media images: The effect of fitspiration imagery on body satisfaction and exercise behaviour. *Body Image*, *22*, 65-71. doi:10.1016/j.bodyim.2017.06.001

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, *3*(1), 3-37. doi:10.1207/S15327825MCS0301_02

Santarossa, S., Coyne, P., Lisinski, C., & Woodruff, S. J. (2019). #fitspo on Instagram: A mixed-methods approach using Netlytic and photo analysis, uncovering the online discussion and author/image characteristics. *Journal of Health Psychology, 24*(3), 376–385. doi:10.1177/1359105316676334

Sebire, S. J., Standage, M., & Vansteenkiste, M. (2011). Predicting objectively assessed physical activity from the content and regulation of exercise goals: evidence for a mediational model. *Journal of Sport and Exercise Psychology, 33*(2), 175-197. doi:10.1123/jsep.33.2.175

Spear, B. A. (2002). Adolescent growth and development. *American Dietetic Association Journal of the American Dietetic Association*, S23-9. Retrieved from https://manchester.idm.oclc.org/login?url=https://search.proquest.com/docview/218461689?accountid=12253

Swain, J. (2006). The role of sport in the construction of masculinities in an English independent junior school. *Sport, Education and Society, 11*, 317-335, doi: 10.1080/13573320600924841.

Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity, 9*, 78. doi: 10.1186/1479-5868-9-78.

Thing, L. F., & Ottesen, L. S. (2013). Young people's perspectives on health, risks and physical activity in a Danish secondary school. *Health, Risk & Society*, *15*(5), 463-477. doi:10.1080/13698575.2013.802294

Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. *Body Image, 15,* 61-67. doi:10.1016/j.bodyim.2015.06.003

Tiggemann, M., & Zaccardo, M. (2018). 'Strong is the new skinny': A content analysis of# fitspiration images on Instagram. *Journal of Health Psychology, 23*(8), 1003-1011. doi:10.1177/1359105316639436

Tiggemann, M., Churches, O., Mitchell, L., & Brown, Z. (2018). Tweeting weight loss: A comparison of# thinspiration and# fitspiration communities on Twitter. *Body Image, 25,* 133-138. doi:10.1016/j.bodyim.2018.03.002

Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science*, *10*(5), 181-183. doi:10.1111/1467-8721.00144

Uhls, Y. T., & Greenfield, P. M. (2012). The value of fame: Preadolescent perceptions of

popular media and their relationship to future aspirations. *Developmental Psychology, 48*(2), 315-326. doi:10.1037/a0026369

Vaterlaus, J. M., Patten, E. V., Roche, C., & Young, J. A. (2015). #Gettinghealthy: The

perceived influence of social media on young adult health behaviors. *Computers in Human Behavior, 45,* 151-157. doi:10.1016/j.chb.2014.12.013

Wang, S. M., Zou, J. L., Gifford, M., & Dalal, K. (2014). Young students' knowledge and

perception of health and fitness: A study in Shanghai, China. *Health Education Journal*, *73*(1), 20-27. doi:10.1177/0017896912469565

Woodgate, R. L., & Leach, J. (2010). Youth's perspectives on the determinants of health.

Qualitative Health Research, *20*(9), 1173-1182. doi:10.1177/1049732310370213

Wright, J., O'Flynn, G., & Macdonald, D. (2006). Being fit and looking healthy: Young

women's and men's constructions of health and fitness. *Sex Roles*, *54*(9-10), 707-716. doi:10.1007/s11199-006-9036-9

Wardle, J., Rapoport, L., Miles, A., Afuape, T., & Duman, M. (2001). Mass education for

obesity prevention: The penetration of the BBC's 'Fighting Fat, Fighting Fit' campaign. *Health Education Research*, *16*(3), 343-355. doi:10.1093/her/16.3.343

Willis, L. E., & Knobloch-Westerwick, S. (2014). Weighing women down: Messages on

weight loss and body shaping in editorial content in popular women's health and fitness magazines. *Health Communication, 29*(4), 323-331. doi:10.1080/10410236.2012.755602

Yager, Z., Diedrichs, P. C., & Drummond, M. (2013). Understanding the role of gender in

body image research settings: Participant gender preferences for researchers and co-

participants in interviews, focus groups, and interventions. *Body Image, 10,* 574-582.

doi: 10.1016/j.bodyim.2013.06.004.

Youth Sport Trust (2019). Retrieved from:

https://www.youthsporttrust.org/system/files/resources/documents/Girls%20Active%20-
%20Time%20for%20Change%20research%20report.pdf