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Postfeminist biopedagogies of Instagram: Young women learning about bodies, health and fitness

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ABSTRACT: Social media can become a site of public pedagogy (Rich & Miah, 2014) through which young people learn about health and fitness. Photo and video-sharing social networks are emerging as sites of media practices through which images of the perfect fit body circulate, popularly known as ‘fitspiration’ media. Our research examines how girls and young women negotiate contemporary discourses around body, health and fitness circulating through Instagram and the subjectivities such technology enables. We draw on participatory and collaborative research with young women from three Spanish Secondary schools who each engaged with exercise-related content on Instagram and who self-defined as physically active. Focus groups and semi-structured interviews explored participants’ uses, meanings and influences of this digital content over their embodiment and subjectivities. Through the concept of ‘postfeminist biopedagogy’, we articulate the learning processes that girls experience as they engage with media about ‘fit’ female bodies on Instagram. This involves a series of pedagogical micro practices through which girls learn about the health and fitness subject and which bring together a postfeminist sensibility (Gill, 2007), neoliberal notions of the self and discourses of health consumption. A postfeminist biopedagogy (Wright, 2009) instructs and regulates girls’ bodies and health subjectivities through a language of choice, empowerment and health although, at the same time, framing exercise as disciplined work to achieve the normative body. Although participants criticized such representation of the perfect body, they considered these normative pressures as necessary to ‘successful’ identities in postfeminist times. Our analysis reveals how some young women learn about exercise as ‘aesthetic labour’ through the biopedagogies circulating on Instagram, with continual work upon the body associated with performing subjectivities which are confident, happy

and powerful. We conclude by exploring the implications of our findings for Physical and Health Education and young women's wellbeing.

KEY WORDS: fitness, fitspiration, body pedagogy, social media, digital health, gender, public pedagogies, healthism, neoliberalism, postfeminism

INTRODUCTION

The use of social media and online networking has greatly increased amongst young people, with many now having internet access and their own mobile phones from a young age. For example, 15 year olds are spending an average of 29 hours per week online (outside school hours), 9 out of 10 own a smartphone and 73% participate daily in online social networks (OECD, 2017). Current data also reveal a gendered pattern to online activity, with girls being more frequent social media users than boys (OECD, 2017). Social media and social networking sites are also included in an ever expanding range of digital tools and platforms which are being used to enable people to learn about their health (Fullagar, Rich, Francombe-Webb, & Maturo, 2017; Goodyear, Armour, & Wood, 2018; Lupton, 2018; Rich & Miah, 2014). Such media are being used to communicate discourses regarding the contemporary healthy and fit subject (Fotopoulou & O’Riordan, 2017).

Informed by the critical perspective of Rich and Miah (2014), the way these technologies are playing an increasing significant role in how people learn about their bodies and health can be described as a form of ‘public pedagogy’ (Rich & Miah, 2014). Sandlin, Schultz and Burdick (2010, p. 338) define public pedagogy as ‘various forms, processes and sites of education and learning occurring beyond formal schooling’. Increasingly research in this area is addressing the pedagogies of digitised social spaces (Freishtat & Sandlin, 2010). Rich (2018) reveals how digital health technologies, including social media, are ‘instructive’, playing a pedagogic role in people’s everyday lives and being significant to how young people learn about their bodies and health. Contributing to this burgeoning literature, we focus our attention on the educative force of particular digital media practices related to health and fitness and examine how this impacts young people’s embodied subjectivities.

Acknowledging the relevance of gender to how young people engage with online practices, the purpose of our research was to examine how young females negotiate discourses around health and fitness whilst engaging with Instagram –a popular photo and video sharing social media platform. We used the concept of ‘postfeminist biopedagogy’ to develop our analysis, bringing together work on ‘biopedagogies’ (Wright, 2009) and ‘postfeminism as a sensibility’ (Gill, 2007). In doing so, we considered the values and practices that normalise and construct understandings of the body and the healthy citizen through digital public pedagogies, and then examined these from a postfeminist perspective. Here, postfeminism was understood as the cultural conditions that define contemporary gender relations, articulated for young women around empowerment and choice whilst reproducing normative ways of doing gender.

Health and fitness content on social media

One particular type of health and fitness related media is that which is associated with ‘fitspiration’ or ‘fitspo’ (a mix of the words ‘fitness’ and ‘inspiration’).

‘Fitspiration’ is an often-used hashtag within social media –a metadata tag which is attached to user generated material making it possible for others to find content within that specific theme. This popular trend promotes ‘healthy’ eating and exercise within a global philosophy of strength and empowerment (Tiggemann & Zaccardo, 2016). Here ‘perfection’ is framed by images of ‘fit’, ‘healthy’ and ‘strong’ bodies, which are implied to be virtuous, empowered and attained through hard work and ‘clean living’ (Tiggemann & Zaccardo, 2016). It is considered the healthy alternative to ‘thinspiration’, where the thin ‘ideal’ and weight loss are promoted through dangerous behaviors that characterize eating disorders (Ghaznavi & Taylor, 2015).

Academic research into ‘fitspiration’ and social media often employs content analysis

methods and frequently reveals: a strong focus on appearance, including images of thin and toned female bodies; the sexual objectification of women's bodies; and the promotion of exercise for appearance (Boepple, Ata, Rum, & Thompson, 2016; Carrotte, Prichard, & Lim, 2017; Simpson & Mazzeo, 2017; Tiggemann & Zaccardo, 2016). There are also 'inspirational' quotes or slogans advocating personal effort, challenge and empowerment, which can heighten undertones of moral superiority (Hodler & Lucas-Carr, 2015). These quotes or slogans are constituted through discourses of healthism (Crawford, 1980), which encourage a neoliberal moral imperative towards continual self-improvement as a matter of individual responsibility. They promote ideas about the ideal citizen as an autonomous, responsible and controlled subject who makes 'proper' decisions about health choices (Riley & Evans, 2018).

Consequently, 'fitspiration' content on social media could be considered a form of biopedagogy (Wright, 2009). Biopedagogies include normalizing and regulating practices that provide individuals with knowledge to understand themselves, change their behaviour and take action upon themselves and others to improve health. This idea is based on Foucault's (1987) concept of bio-power, or governance and regulation of individuals and populations through body practices. Biopedagogies occur through multiple pedagogical sites, with social media being a particularly pervasive and ubiquitous pedagogical space for young people. Social media, and specifically 'fitspiration' content, produce 'truths' about the relationships between body shape, fitness and health and urge young people to work on themselves. Despite this apparent power to teach in the name of health, 'fitspiration' images have been associated with body dissatisfaction, higher negative mood and lower appearance self-esteem (Tiggemann & Zaccardo, 2015).

‘Fitspiration’ content appears on numerous social media sites such as Facebook, Twitter and Tumblr. However, the biopedagogy around the ‘fitspiration’ movement is especially popular on Instagram when compared with other platforms (Carrote, Prichard, & Lim, 2017). Instagram is a photo and video sharing social media platform, with in-built tools to edit and caption visual content. Like other social media, Instagram is reflective of shifts towards digital engagement where participants are ‘producers’ that adopt a dual role where usage is also productive (Bruns, 2008). It is through this shift that Instagram has become home to a large health and fitness ‘community’ comprising of many fitness ‘influencers’ –those with potential to persuade a large number of engaged ‘followers’ (De Veirman, Cauberghe, & Hudders, 2017). However, despite being a site where there is much focus on both health and community, in a recent UK-wide survey of young people, participants rated Instagram as the overall most negative social network for psychological health, especially for body image (RSPH, 2017). It is not insignificant, perhaps, that much Instagram use involves engagement with ‘photo activity’, which is often associated with body image disorders in girls (Meier & Gray, 2014).

Postfeminism and digital health & fitness cultures

‘Fitspirational’ values and practices around the body are intensely gendered as they are specific for the construction of femininity and masculinity (Azzarito, Simon, & Marttinen, 2016). The gendered biopedagogy that emerges at the intersection of healthism and neoliberalism (Riley & Evans, 2018) can therefore be considered a ‘postfeminist biopedagogy’. This is because this biopedagogy is subsumed within what Gill (2007) describes as a ‘postfeminist sensibility’ –that is a distinctive cultural

condition in neoliberal western societies that define contemporary gender relations through a fluid and often contradictory pattern of characteristics (Gill, 2007, 2017a).

The patterned features of a postfeminist sensibility have been consistently identified in the research. One of these characteristics is the prominence of the body, and how it appears both as the definition of femininity and the key site of women's value. Influenced by popular culture, women's beauty disciplines have intensified and become normative, although arguably remain hidden within discourses that highlight choice, autonomy, agency, and empowerment. These neoliberal ideas are entangled with postfeminism (Gill and Scharff, 2011) and interpellate women to work on the body as another project that can be planned and managed in a never-ending process toward the perfect body as 'horizon of expectation' (McRobbie, 2015, p. 3). This individualistic endeavour is conceived as an 'aesthetic labour' (Elias, Gill, & Scharff, 2017) that compels women towards entrepreneurial modes of selfhood. Furthermore, the paradigm of self-transformation demands not only that individuals work on their bodies but also that they 'improve' their psychological attitudes. As such, it requires a makeover of subjectivity itself that could be identified in incitements toward upgraded forms of confident selfhood (Gill & Orgad, 2015; Favaro, 2017). Therefore, postfeminism is complicit with the 'undoing' of feminism (McRobbie, 2009), as the notions of the social or political are replaced by the empowered individualistic self.

Surveillance is another key feature of a postfeminist sensibility. Women are particularly subject to observation, scrutiny and regulation in our digital environments, reflecting the intensification of surveillance in postfeminist cultures (Gill, 2017b; Elias & Gill, 2017). Whilst surveillance is especially prominent in media and celebrity culture, this is frequently emulated in social relationships through peer surveillance or a 'girlfriend gaze' (Winch, 2013) by which young women surveil each other's appearance. This

gaze is then also internalised by the girls themselves through continuous self-scrutiny and self-improvement (Gill, 2017b).

This lens of postfeminism as a sensibility has been recently explored in physical activity and sport research studies, centred on the analysis of social media artefacts (Riley & Evans, 2018), sport and fitness celebrities (Toffoletti, 2016), and ‘fitspiration’ content on social media (Riley and Evans, 2018; Stover, 2017). These studies provide critical insights into the contradictory nature of digital constitution of the ideal fit and healthy woman and its pervasive consequences. Riley and Evans (2018), for example, analyse postfeminism within fitness content on the Tumblr microblogging platform and demonstrate how the visual and textual messages on exercise blogs communicate the idea that becoming a successful, fit and healthy woman means working on the body and mind in an endless process of self-transformation. This ‘transformation imperative’ recognizes how pain, difficulty and even failure can be overcome making the ‘proper’ choices and with the ‘right’ attitude. Stover (2014) also demonstrates how women’s ‘fitspirational’ blogs can reproduce a ‘postfeminist sensibility’ framed by self-surveillance and pressures to self-monitor. The emotions that accompany this self-surveillance can be even more powerful when self-regulation is insidiously framed as aspirational, healthy and fun.

Despite the importance of the above research studies, it must be acknowledged that postfeminism does not simply exist in media, but shapes subjectivities in ways that have real effects on the material bodies and desires of young women and their everyday practices (Gill, 2017a). Instagram is widely used by young women, yet we know little about how discourses around the fit and healthy female body on Instagram afford subjectivities for particular girls. Therefore, the purpose of this paper is to understand young women’s experiences and engagement with normative discourses of being a fit

female on Instagram and to examine how they negotiate these within this postfeminist digital space. Specific research questions that informed this study were: How do young women participate in Instagram fitness cultures? What meanings do young women construct about being a fit female on Instagram? How does this postfeminist digital space shape young women' physical activity experiences and subjectivities?

METHODOLOGY

The study utilized a two-phase qualitative methodology. In the preliminary phase, a participatory research design facilitated the girls' involvement in shaping the research method, thereby positioning them as active participants in the research process (Lamb, Kimberly, & Kirk, 2018). Four girls (aged 14-16 years) were contacted through the first researcher's social circle and, during three 90-minute sessions, helped to: shape research questions; advise about methods of collecting information; and recommend appropriate language use and study procedures.

In the subsequent phase of the research, participants were recruited from three Secondary Education schools (two public and one semi-private) located in a medium-sized town (50,000 inhabitants) in the centre of Spain. In total, thirty-seven young women, aged 15-17 years, took part. They were self-defined physically-active young women who possessed a personal Instagram account and defined themselves as viewers and/or followers of fitness content on Instagram.

Data were obtained from focus-group interviews with six groups of young women. Each group was interviewed twice, resulting in twelve focus group interviews in total.

Additionally, we conducted individual semi-structured interviews with ten of these participants, purposely selected to support the information provided and to follow up, in-depth, on key themes after the initial data analysis.

Participants were drawn from seven Physical Education (PE) classes with the collaboration of the PE teachers in each school. We developed information meetings with potential participants to explain our study and to invite them to participate. We provided an age appropriate information sheet, detailing the young women's roles in the study, guaranteeing that their participation was voluntary and highlighting their right to withdraw from the research at any time. We also guaranteed confidentiality and anonymity, except if we detected any risk for the participants or others, a limit that was clearly communicated by both verbal and written means. Informed signed consent was obtained from their parents/guardians.

Focus groups were structured around the following key themes: the participation of young women in Instagram fitness cultures; their views about normative discourses of being fit and healthy on Instagram; and the influence of Instagram fitness content on the girls' physical activity and body perceptions. Some task-orientated activities were used to create a comfortable interview environment, generate talk and stimulate rich conversation about the research topic. These included creating written statements for an imaginary persona and engaging in peer-led questions.

At the end of the first focus group, participants were asked to send Instagram posts that represented what it meant for them to be fit and healthy in this online environment, as well as relevant fitness-related posts from accounts they followed, to an Instagram research account created specifically for this study. We requested participants to send content sourced only from other public Instagram accounts and to use the Instagram Direct tool as this procedure precludes following the girls' accounts. This process respects platform terms of use and guarantees voluntary participation and confidentiality.

The study aligned with ethical issues in researching young people and social media. The British Educational Research Association (2011) ethical guidelines and the Ethic Guidelines for Internet-Mediated Research (British Psychological Society, 2017) were both adhered to throughout the study. We also considered recommendations about ethical online research with young people (Ólafson, Livingstone, & Haddon, 2013). Ethical approval was granted by the ethic committee of the Faculty of Psychology at the Complutense University of Madrid.

Data analysis was conducted through poststructuralist discourse analysis following Markula and Silk (2011) with the aim of capturing regularities of meanings (patterns in language use) as they are constitutive of discourses. Although discourse and language are different, it is through language that discourses construct social realities and conform subjectivities in multiple and contradictories ways (Wright, 2004). After reading the transcripts several times to become familiar with the data, we first inductively searched for and identified discourses relevant to our research questions. Then we analyzed the discourses looking for the intersections and discrepancies between and within them. Finally, we made connections with power relations, drawing on postfeminist sensibility as the theoretical framework, and interpreted our findings in the context of previous literature. In summary, we compared the overarching discourses with the characteristics of the postfeminist sensibility, exploring what elements could be identified, discrepancies and missing, and implications for subjectivity and practice.

RESULTS

Participants regularly used Instagram for a range of activities, but our analysis centres on how fitness content on Instagram reached them in different ways and had a significant influence on their health practices and subjectivities.

Fitness cultures on Instagram and the 'perfect' feminine body

The young women in our study were exposed to exercise-related information from automatically sourced accounts that Instagram preselects and promotes to young people when using the search and explore Instagram feature ('the magnifying glass'). As one of our participants explained, "Instagram has got the drift of the routines that I like" (Carma, Interview 7). Therefore, when scrolling down, these young women continually encountered the same types of images and videos. Some girls affirmed saving such 'randomly' found content with the intention of trying out or imitating the associated exercise activities later (although they would not always act upon these intentions):

As we spend so many hours a day on Instagram, seeing many of those pages, of people doing sports or exercises and all that. I think so, yes it motivates me to do it. [...]. I did not do anything before either and... suddenly one day this page of exercises appeared on Instagram and I said: 'Well, let's see what else there is' And I started to see more and I saw that there were loads of pages, information to nourish yourself well, about sport and all that, and it caught my attention (Almu, focus group 5).

Participants were aware that the Instagram 'explore' feature uses algorithms to ensure that posts are tailored to an individual's characteristics, likes, interests or network interests. This process is a significant aspect of social media, such that Carah (2014) describes this as 'algorithmic media', given the way in which platforms' algorithms can structure content and make it visible based on predictions made about what may be valued. Building on this work, Rich (2019) found that algorithmics and their associated human practices (e.g., liking, sharing) classify and hierarchize messages that teach girls *which* bodies and practices are laden with social value. In our study, whilst young

women considered it positive that Instagram would tailor content to their likes and interests, they were repeatedly exposed to images of bodies and exercise practices that were laden with ‘fitspirational’ rhetoric. Therefore, they had plenty of opportunities to scrutinise and compare their appearance to others (Kim & Chock, 2015).

In addition to inadvertent browsing, some of the young women in our study stated that they purposefully search Instagram for health information and specifically, about physical activity workouts and diets. Some of these participants followed specific fitness accounts set up by others who identify as ‘fitness experts’ or the accounts of ‘normal girls’ who were also adopting a micro-celebrity subject position (Marwick, 2016). However, these young women recognized that the more usual way in which they engaged with fitness content on Instagram was through influencers’ and celebrities’ lifestyles. As Dana pointed out, like Nuria (another participant in her focus group) who “follows models”, she follows “actresses who upload the same, videos in gyms, doing exercises, how they should be done” (focus group 5). Engaging with this fitness content can be a very persuasive way of learning about the body, especially when ‘fitness’ is linked to fashion, popularity and the ‘perfect life’ (McRobbie, 2015). The participants recognized that the fitness content on Instagram plays a powerful role in dictating cultural standards and ideals of the appearance of female bodies reflecting a ‘gendered neoliberalism’ (Gill, 2017a, p. 606) which cultivates individual empowerment, personal responsibility and entrepreneurship (Gill, 2017a; Gill & Orgad, 2015). Slenderness remained a crucial marker of the ‘perfect body’ for these girls, a characteristic strongly linked to the notion of femininity (Bordo, 1993). However, other characteristics such as a curvy body and a big bottom were also valued and are indicative of the contradictory demands of a (hetero)sexually attractive body. As one group of girls noted, Instagram can be a key site for this learning:

Cora: What a good body can be for person, that is what you see on Instagram and all that, is a thin person, tall, with defined abs, a good bottom, and so on.

Sonia: It's true

Isis: A 90-60-90[...]

Clidi: In the end what people have as a good body is that, almost always

Cora: That's why everybody later wants to lose weight, do sports, that's why

(focus group 1).

The participants' comments reflect the role of social media in learning about the narrow normative ideal, where it is not enough to demonstrate an appropriate shape (e.g. thin but appropriate curves) but to also achieve tone. Such comments reflect Heywood's (2015, p.32) observation that the toned body is the new compulsory requisite of the ideal female body and 'ideal neoliberal body practice'. In this way, these girls were learning to adhere to the paradox of both 'strong and skinny' or 'strong and sexy' (Washington & Economides, 2016) promoted by the 'fitspiration' movement (Tiggeman & Zaccardo, 2016). Whilst being toned was celebrated as a feature of the contemporary fit female body, excessive muscles were still seen as transgressive. As Azzarito et al (2016) suggests, muscularity continues to represent a physical feature of heteronormative masculinity within western cultures. One of our participants expounded this explicitly, whilst also detailing how influencers were role models of this body requirement:

It's that for girls it is not so good to have so much muscle because it is like ... it makes you more like a man. So I do not like so much muscle ... I think that the influencers, who are the models to follow, do not have it (Ziri, Interview 1).

The girls managed this contradiction between muscularity and femininity in different ways. For example, Lisi stated "I like muscle, but not in my body", whilst Eva explained "you have to be prepared for the critics if you have a muscular body" (focus

group 4).

When we asked participants to send publications of a fit body on Instagram, most girls selected photos of influencers in bikinis, posing at the gym, or videos doing physical exercises. These choices reflect the significance of the ‘kind of idealised and popular femininity which structures and frames young women’s engagement with digital culture’ (Dobson, 2015, p. 158). They both admired and criticized these bodies as too perfect and superficial and pointed out how some of the images were ‘fake’, having been edited or taken from a specific photo angle or posture. Similarly, they were aware of unhealthy practices that these models could engage in (such as cosmetic surgery or extreme diets). As the girls frequently critiqued these Instagram representations of the female fit body, it is possible that they have been influenced by feminist ideas which critique oppressive body ideals (Bordo, 1993). Paradoxically, it does not signify that they resisted such pressures, rather that they were resigned to these normative pressures as intrinsic to femininity. For example, one of our participants verbalized explicitly that this pressure is “due to patriarchy”, although she admitted that it affected her because “we have it very much inside” and then “it's hard to get rid of those thoughts” (Susi, Interview 6). Acknowledging all these body issues as normative and ‘framed as part of the course of growing up a girl’ (Dodson, 2015, p. 150), forms part of the process of acceptance and rejection of key tenets of feminism (McRobbie, 2009).

Self-comparisons with the ‘perfect body’ and desires to achieve such a body were constant in the conversation with the girls as they described feelings of displeasure about their own bodies and the desire to change. Therefore, even though participants critically evaluated social media representations, this nevertheless evoked powerful affects of desire. In this way, the biopedagogy of the perfect body that circulates on Instagram, worked to homogenize girls’ desires around their bodies towards this certain

ideal.

Learning about fitness as an ‘aesthetic labour’ to achieve the perfect body

The girls recognized that physical exercise is a compulsory requisite to have the valued attributes of a “flat stomach”, even a “six pack” or a “big and toned bottom”:

Clidi: To have the body that we call perfect you have to do exercise, for sure

Sonia: You have to do physical exercise, no matter what.

Interviewer: How much? What kind of exercise?

Iris: It depends on what you want ...

April: The typical thing that they upload to Instagram are squats, abs, planches...

Isis: Things to work the bottom, flat belly

Silvana: Flat belly and you're done (focus group1)

In relation to physical activity, the girls considered how narrow representations of the perfect body on Instagram could be discouraging for some girls but motivating for others. In this regard, it is important to acknowledge the fluid and multiple ways in which different girls engaged with digital fitness platforms. The affordances offered (Lupton, 2018) by these platforms vary, so for some girls these images were motivating but for others they could be discouraging, as evident in their descriptions of powerful affective forces such as leading them to “get depressed”:

Susi: But for example, it's only being uploaded by people who are thin and look good and already have a shaped body... [...]

Almu: But that motivates you more. I mean you see someone..., at least I see someone doing an exercise that is already super strong and I say, wow then ... it must be that by doing exercise, I can get like that.[...]

Dana: You get depressed seeing people doing that ... and you say "you can't do this". I mean, I can't do that because [...] (focus group 5)

The complexities of girls' encounters with fitness material on Instagram were embodied by young women like Ali. She clearly articulated her critique of the biopedagogies that she was exposed to, specifically the ideals of exercise as a discipline to attain the normative standards of beauty on social media:

It promotes ... it makes you not love yourself, when they should teach that you can exercise, if you feel like it, but not to be thin, but to be healthy or to feel better about yourself, but not for others, rather for yourself. And that's the problem, which does not focus well for the reason for doing exercise (Ali, focus group 6).

At the same time, she was an enthusiastic follower of this content, learning exactly how to achieve these same beauty norms:

Well ... especially I like to work, I would like to work my bottom because ... I mean I would like to get a bigger bottom and that is why I do squats or ... other exercises for the bottom [...].

Young women like Ali, clearly articulated a postfeminist discourse of individualism, empowerment and choice, framing exercise (and also eating habits) and health as positive choices, rather than a response to body pressures. We found that girls who possessed the privilege of embodying the (slender and fit) feminine ideal, such as Ali, more readily articulated this postfeminist discourse around physical activity, a tendency

that has been previously described in relation to food choices (Cairns & Johnston, 2015).

Physical activity on Instagram was commonly described by young women through neoliberal discourses which framed this as individual work to be done on specific body parts ('problematic female areas') to obtain a 'visual effect'. This could be through high intensity workouts, that can be done in little time, without equipment, and at home. For example, Carma explained how she has learnt "a lot of exercises thanks to Instagram" and offered a detailed description of the learned micropractices she performed as exercise routines. Specifically, she recalled using exercise variations to work the same body parts and performing series and repetitions with high intensity "to reach a limit that I know that if I do more, I exceed [...] until it hurts" (Interview 7). Susi also expressed how she uses Instagram to exercise now that "summer comes and I do think, I have to have good legs, more bottom and all that stuff" (Interview 6).

These young women embraced the notion of 'aesthetic labour' (Elias et al., 2017) through exercise that is conceived as another 'project to be planned, managed and regulated in a way that is calculative and seemingly self-directed' (p. 39) towards the ideal body. They clearly embodied the 'aesthetic entrepreneurship' subject (Elias et al., 2017), that is an autonomous and self-regulating subject in the pursuit of body practices. References to enjoyment, pleasure or even functionality were completely absent in the girls' discourses when they talked about their experiences of the physical activity they do or learn using Instagram. Pleasure was linked to the result obtained and the recognition of being successful in this body work and that is a key aspect of beauty regime within postfeminism (Riley, Evans, & Mackiewicz, 2016).

Transformation, the body and gender within Instagram

The biopedagogies of Instagram instructed participants about transforming the body through ‘proper work’. Participants explained that they learned about body transformation explicitly through before-after images, which were frequently posted to Instagram. Reflecting a postfeminist ‘makeover paradigm’ (Gill, 2007) or ‘transformation imperative’ (Riley and Evans, 2018), many of our participants described these images as “quite motivating” for engaging in the pursuit of fitness toward a “better version of the self”:

Interviewer: And what do you think about this type of before and after photos, what do they suggest to you?

Rosi: She has worked hard to eat healthy [...]. They are fine because it is like they motivate you, in addition to the people who do want to get into exercise motivates you to continue and for the end to reach your goal, which is to lose weight I suppose.

Laura: instead of losing weight I think it's healthy eating and being fit.

Rosi: Well, but that's what I mean, it's a motivation for them.

Laura: yes, because they see it and they say if she can, we all can

Yeah right

Laura: Eat healthy, exercise, live well, be happy ...(focus group 4).

One of the girls explained how she had experienced this change in her own body and explicitly articulated how Instagram was the pedagogical tool she used. She also referred to fitness influencers as the ‘expert’ authorities that she followed:

I was very heavy last year and I felt very [emphasis] bad about my body. And this year I've lost about 12 kilos. But for my own good. [...] I used a lot the girls of the Instagram that I see that they are very influencers and all that, that

have channels in which they upload meals plans or physical activity...There is a specific one that also has a channel in Youtube and it helped me a lot (Sara, focus group 6).

In our data participants consistently conflated 'looking good' with 'feeling good'. That is, the girls assumed that a transformation of the outer appearance produces a corresponding affective change. This is an example of the affective register of postfeminism (Gill, 2017a) that shapes girls' subjectivities –physical transformation in-line with the ideal body was associated in the girls' discourses with being happy, confident and powerful. Such prescriptions for confidence and loving your body reflect conditions of a 'confidence culture' (Gill & Orgad, 2015) as a gendered technology of self that invites girls to work on themselves. Here, subjectivity is constituted through self-improvement and self-transformation to the extent that failing or even hesitating is perceived as a result of lack of confidence in individuals themselves as opposed to a lack compounded by structural inequalities or cultural forces that remain hidden. Confidence or the lack of it is, therefore, framed as an individual and personal matter as was evident in the following comments:

You do it, you start eating well, exercising every day, then you can have "that body" [emphasis]. Or everything you want. According to people, depending on the person, you can be closer or further away [from that body], depending on what you like (Ziri, Interview 1).

Physical exercise was constructed as hard work that requires effort, discipline and constancy, but with sufficient confidence, the change can be achieved. Paradoxically, some girls contradicted themselves and conceived exercise as an easy endeavour. Specifically, they referred to feeling motivated by influencers whom they perceived as ordinary people, like themselves, and who encourage exercise as "something that

everyone can easily do" (Coral, Interview 2). These strategies resonate with the Banet-Weiser's (2017) analysis of beauty blogs in which influencers are positioned as close, intimate girlfriends of their fans. Whilst body work is marketed to minimize the difficult aspects of transformation, participants were nonetheless aware that people tended to only reveal positive aspects in their Instagram posts.

The girls frequently referred to a discourse of social pressure, failure and risk if somebody is fat ("girls who are chubbier") or if somebody reveals a lack of confidence ("people with low self-esteem"). These two ideas seem to be interrelated with the assumption that better self-confidence is derived from an attractive (always non-fat) body, while failure to transform the body points only to personal responsibility.

The gaze and the power of surveillance both online and offline

Our data additionally evidenced how surveillance regulated these young women's social relationships, bodies and subjectivities as social media use became an everyday practice. Participants perceived themselves to be under constant gaze (both positively and negatively) where the perfect body was considered a precondition for attracting the gaze of 'the boys' and for gaining the recognition of other girls. They explained that criticism was often associated with peer surveillance and specifically with the homosocial gaze –that is the girl-to-girl gaze, where girls are not only the objects of surveillance but are also the instigators (Riley et al., 2016; Winch, 2013). As participants in our study explained:

Interviewer: In which kind of publications do you see more criticism, both of boys and girls?

Eva: I think more [criticism] from girls

Yes [several agree]

Amanda: Because you can put comments like "I do not like that you have so much muscle" or "you're not a real girl" ...

Alma: Or the typical one of someone being told that she is fat when she is not

Eva: Or she's thin and they call her anorexic or things like that because she does sports, that she has a problem or an obsession when she's just doing sports (focus group 4).

This supports previous research where young adolescents have perceived their bodies and their actions to be intensely scrutinised by their peers within an online environment (MacIsaac et al., 2018). Similarly, our participants used tools (such as 'liking' and commenting in pictures) to explicitly monitor one another, leading to a hyper-critical social space whereby perceptions of the (dis)approval of others was used to regulate how they engage with their own bodies. Online peer to peer surveillance can be very powerful as individuals compare and contrast themselves to people who they connect with both online *and* offline.

The gym is particularly constructed as a space in which women are the object of surveillance, online and offline. Our participants frequently spoke about other girls "going to the gym for posing, and to take the photo to show to others" (Ana, interview 3), in an effort to emulate influencers. In this way, the visibility of young women in public spaces such as the gym reproduce the gender order as they depend upon the heterosexual gaze (Riley et al., 2016). However, whilst girls are part of the online fitness communities, their participation is mainly as consumers, not producers. When we asked our participants about the physical activity content that they upload to their Instagram account, most confirmed that they do not post very much since they assume that they do not have the required perfect body:

Not everyone has a 10 body and then there are people who obviously have... everyone has a complex, I believe. And then ... there may be people who do not like to upload photos in the gym because ..., comparing with girls like that, it's very rare that ... people say 'I'm going to upload a picture' because then you see this and you say 'my God, there's no comparison' (Coral, Interview 2).

Some girls did state that they upload (as physical activity content!) photos showing their bodies on display (photos posing in the gym and photos in bikinis). These were the girls that did assume a micro-celebrity subject position (Marwick, 2016). For example, they had a lot of followers and even spoke about future work opportunities as 'influencers'. They were the 'confident girls' (Favaro, 2017) who were aware that they could become 'do it yourself' celebrities, perhaps because their bodies did appear to be close to the 'perfect body'. Therefore, whilst previous research has evidenced the desires of young people to emulate a celebrity-like self-presentation online (MacIsaac et al., 2018), our research evidences that the production of such content on Instagram is restricted to those having a certain body, thus disempowering most of the girls, and reproducing the postfeminist biopedagogy about female fit bodies on Instagram.

CONCLUSIONS AND IMPLICATIONS

This study highlights the relevance of Instagram fitness cultures as a key site of what we have termed postfeminist biopedagogy that promotes the constitution of girls' fitness discourses around choice, empowerment and happiness but reproduces the normative feminine body in restricted and disempowering ways. This postfeminist biopedagogy circulates through the Instagram fitness cultures as public pedagogies which instruct and regulate young women's bodies (Rich, 2018). Our analysis reveals

how girls engage with online fitness content and postfeminist digital cultures (Dobson, 2015) in multiple and sometimes contradictory ways, experiencing both empowerment as well as surveillance, anxiety and disaffection (Rich, 2018). Through the above analysis, we have examined how the fitness content on Instagram offers new forms of ‘doing’ and ‘undoing’ feminist politics (McRobbie, 2009), as girls’ learnings about the ‘aesthetic labour’ (Elias et al., 2017) to achieve the perfect body are regarded as freely chosen rather than culturally required. Our research makes visible the complexities of girls’ use of digital fitness and how this is affecting their health and well-being, their embodiment and subjectivities.

The girls and young women reported that they were constantly exposed to images of ‘perfect’ fit bodies on Instagram, through pedagogies of algorithmic media (Rich, 2018) that sustain, nurture and reproduce postfeminist biopedagogies compelling girls to work on their bodies and their minds toward a constant improvement of the self. Young people engage with these postfeminist biopedagogies through ‘different bodily repertoires and habits’ (Ivinson, 2012, p. 491) and further research with different young people is needed on the complexities of gendered digital practices in these health and fitness cultures. Specifically, future research needs to engage with young people with different social, economic and cultural background or with different sexualities or (dis)abilities, in order to better understand the role of this digital health technology in the lives of diverse young girls.

Our research evidences that Instagram can be a hugely persuasive public pedagogy, influential in shaping how young women learn about the body. We may question what this means for social media companies and for those with responsibility to help young people form and negotiate bodily meanings through more formal pedagogies, for

example, those working within PE –a formal learning environment where learning about the body is central and compulsory for all young people and where embodied meanings are continually formed. There is also an urgent need for the social media platform themselves to be more transparent about their functionalities. The challenges for PE seem twofold. First, PE should provide spaces within the curriculum to help students critically reflect upon and negotiate their embodiment of gender within the context of social media. Young people also have to be helped to become aware of their power as producers of content in social media through digital activist approaches. Critical visual pedagogies that has been explored in terms of health, fitness and bodies (Azzarito et al., 2016) or other activist approaches around girls' bodies (e.g., Oliver & Lalik, 2004), should be developed to integrate the social media context. The dynamics of social media open up spaces of resistance to transgress these dominant meanings and this is an area that requires further investigation. In this line of inquiry, for example Lucas and Hodler (2018) analyzed the potential of fitspo memes to re-define physical activity, body ideals and the self, expanding the 'pedagogical possibilities' of social media (Rich, 2018). Secondly, it is important to explore and promote a form of PE that educates around the communicative and self-compassionate body in order to encourage young people to exercise for pleasure and to listen to their own bodies (Paechter, 2013). In the current social media context, where visual images and surveillance are ubiquitous and where girls are increasingly required to be constantly vigilant of their appearance (Elias et al., 2017), these becomes necessary endeavours for PE.

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