Institution: York St John University

Unit of Assessment: UoA 4 (Psychology, Psychiatry and Neuroscience)

Title of case study: Improving Body Image, Reducing Maladaptive Body-Shaping Behaviours and Promoting Critical Digital Literacy in the Digital Age

Period when the underpinning research was undertaken: 2011 - present

Details of staff conducting the underpinning research from the submitting unit:

Name(s): Beth T. Bell	Role(s) (e.g. job title): Senior Lecturer in Psychology	Period(s) employed by submitting HEI: 2013 - present

Period when the claimed impact occurred: 2014 - present

Is this case study continued from a case study submitted in 2014? N

1. Summary of the impact (indicative maximum 100 words)

Bell's research has demonstrated how digital media and technology shape adolescents' and young adults' body image and body-shaping behaviours in negative ways. Based on these findings, Bell developed the *Body Image in the Digital Age* programme*: Interventions* (BIDA-I) for adolescents, and *Training* (BIDA-T) for professionals with responsibility for the wellbeing of young people. Participation in BIDA-I increases adolescents' critical awareness of the potential impact of digital technologies (i.e., critical digital literacy), and reduces their risk of negative body image. Participation in BIDA-T programme provides professionals with the confidence and skills needed to deliver BIDA-I interventions to young people, maximising the reach of BIDA-I. Findings from Bell's research have directly informed local and national policy, including NICE guidelines.

2. Underpinning research (indicative maximum 500 words)

Bell's research has sought to understand how digital media and technologies, specifically social media and mobile apps, negatively influence the body image and body-shaping strategies of young people. Drawing on her early research demonstrating how idealised and unrealistic body ideals in mass media cause negative body image **[3.1]**, Bell examined how these processes play out in the social media environment, which primarily consists of user-generated content and is more interactive than traditional media. In particular, Bell has systematically documented the high prevalence of unrealistic body ideals in social media imagery, using content analysis **[3.2]**. Her qualitative research with adolescents has demonstrated how, despite critical engagement with these body ideals, adolescents still feel pressure to conform to them **[3.3; 3.4]**. In particular, adolescents have described feelings of inadequacy when viewing appearance ideals, and motivation to change their appearance **[3.3; 3.4]**. They also describe having tried to replicate appearance ideals in the images they create for social media, e.g., in selfies; a behaviour that not only further perpetuates appearance ideals, but also contributes to negative body image, due to the increased self-appearance scrutiny that it brings **[3.3]**.

Bell's research has also developed understandings of how appearance-related interactions with peers on social media serve to reinforce the desirability of appearance ideals and contribute to negative body image. Her qualitative research has shown how appearance-related feedback from other social media users is highly valued by adolescents and can influence their body image and self-perceptions **[3.3]**. Positive feedback, such as "likes" and compliments, has potential to make users feel good about themselves, whereas negative comments can have a detrimental effect on adolescents' body image **[3.3; 3.6]**. That said, both types of commentary reinforce appearance ideals and so may be problematic **[3.3; 3.6]**. For example, her research has shown that young women are more likely to post self-sexualising images to social media when they have a past

history of receiving more positive feedback on these posts **[3.5]**. Thus, feedback provided in social media increases behaviour that perpetuates harmful appearance ideals.

A final strand of research has documented how social media and other digital technologies (diet and exercise apps) contain problematic information about diet and exercise **[3.2; 3.6]**, which can contribute to negative body image, poor wellbeing and maladaptive eating and exercise behaviours in young people **[3.4; 3.6]**. In particular, the EPSRC-NIHR funded Eating Disorders in the Digital Age (EDDA) project used qualitative interviews, focus groups and surveys to understand the negative consequences associated with using commercially available diet and exercise apps, and which features of these technologies contributed most to this (e.g., self-monitoring, weight-related goal setting) **[3.3]**. Then, content analysis was used to identify the high prevalence of these problematic features in the Top 100 commercially available mobile diet and exercise apps in Google Store **[3.3]**. Collectively, this innovative research demonstrates the potential of commercially available diet and exercise apps, as well as other unregulated sources of digital diet and exercise information, to elicit negative body image and maladaptive body-shaping strategies in young people.

3. References to the research (indicative maximum of six references)

The research underpinning this impact case study was published in high quality peer-reviewed interdisciplinary journals.

Publications
[3.1] Bell, B. T., & Dittmar, H. (2011). Does media type matter? The role of identification in adolescent girls' media consumption and the impact of different thin-ideal media on body image. *Sex Roles, 65*(7-8), 478-490. doi: 10.1007/s11199-011-9964-x

[3.2] Deighton-Smith, N., & **Bell, B. T.** (2018). Objectifying Fitness: A Content and Thematic Analysis of #Fitspiration Images on Social Media. *Psychology of Popular Media Culture, 7,* 467-483. doi:10.1037/ppm0000143

[3.3] Bell, B. T. (2019). "You take fifty photos, delete forty-nine and use one": A qualitative study of adolescent image-sharing practices on social media. *International Journal of Child-Computer Interaction, 20,* 64-71. doi: 10.1016/j.ijcci.2019.03.002

[3.4] Bell, B. T., Deighton-Smith, N. L., & Hurst, M. (2019). "When you think of exercising, you don't really want to think of puking, tears, and pain": Young adolescents' understanding of fitness and #fitspiration. *Journal of Health Psychology.* Advanced online publication. doi: 10.1177/1359105319869798

[3.5] Bell, B. T., Cassarly, J. A., & Dunbar, L. (2018). Selfie-objectification: Self-objectification and positive feedback ("likes") are associated with frequency of posting sexually objectifying self-images on social media. *Body Image, 26,* 83-89. doi: 10.1016/j.bodyim.2018.06.005

[3.6] Honary, M., **Bell, B. T.,** Wild, S., Clinch, S., & McNaney, R. (2019). Understanding the role of healthy eating and fitness applications in the formation of maladaptive eating and exercise behaviors in young people. *JMIR mHealth and UHealth, 7, e14239.* doi: 10.2196/14239

Supporting Grants

[3.9] Body Image in the Digital Age Education Initiative, £14,697, National Collaborative Outreach Partnership and York St John University [Lead; Sept 2017- Present]

[3.10] The Healthy Bodies Project, £3,600, York High School [Lead; Mar 2015 - Aug 2018]

4. Details of the impact (indicative maximum 750 words)

Improving Adolescents' Body Image and Critical Digital Literacy. In light of findings from her research, Bell developed a series of *Body Image in the Digital Age Interventions* (BIDA-I) for adolescents (age 11-25). BIDA-I reduce adolescents' risk of developing negative body image and maladaptive eating/exercise behaviours by promoting critical engagement with the aspects of digital media and technology use identified as negatively contributing to this in Bell's research (e.g., harmful appearance ideals on social media). BIDA-I are delivered in group settings, including classrooms and youth clubs. Since 2015, BIDA-I have been directly delivered by Bell and colleagues to 2,162 adolescents across the North of England **[5.1]**. Mixed-methods evaluation of BIDA-I has shown how participation increases adolescents' knowledge of the ways in which digital technology (e.g., social media) negatively impact body image, resulting in increased critical digital literacy **[5.1]**. Moreover, BIDA-I participants report critically reflecting on how their own digital technology use affects body image and make plans to use technology in more positive ways **[5.1]**. They also report increased body confidence and satisfaction **[5.1; 5.2]**. As one adolescent remarked "*I learned to be more wary of how I use social media and other apps [...] and take charge of what I am doing online (like unfollowing "perfect bodied" celebs who make me feel bad). I also learned to be more confident with my body and not judge others – especially not on social media*" **[5.1]**. The positive impact of BIDA-I has been further supported in controlled trials, which showed that BIDA-I can be effective in reducing negative body image among adolescents over time **[5.2; 5.3]** and can also lead to more positive engagement with social media, e.g., reduced engagement in appearance commentary **[5.3]**. BIDA-I has been effectively delivered to young people who may be particularly at risk of body image disturbance or belong to hard-to-access groups (e.g., history of mental illness, and/or experience of trauma) **[5.4]**. Bell has also designed and developed interventions based on her research findings in response to individual school needs. This includes the "Healthy Bodies" programme, which was found to be effective in improving adolescent body image and health behaviour (e.g., physical activity) among low SES adolescent girls **[5.5]**.

Improving Professional/Teaching Practice in Relation to Body Image and Critical Digital Literacy. Findings from the research were integrated into *Body Image in the Digital Age Training* (BIDA-T), a training programme developed by Bell that equips teachers with the relevant knowledge and skills to deliver BIDA-I to young people, enabling more young people to participate in the programme than would be possible than through direct delivery (i.e., by Bell and colleagues) alone. Since 2018, BIDA-T has been delivered to over 150 professionals responsible for young people's wellbeing, including teachers, trainee teachers, youth workers and counsellors, across the North of England in partnership with the National Collaborative Outreach Programme **[5.6; 5.7]**. BIDA-T delegates report increased knowledge about the impact of digital technologies on adolescents' body image **[5.6; 5.7]**. They reported having developed the confidence and skills needed to discuss the role of digital technologies in the development of negative body image with young people **[5.6; 5.7]**, as well as intentions to implement BIDA-I within classrooms and other settings **[5.6; 5.7]**. One delegate commented "*It [BIDA-T] has inspired me to focus on this topic more in the work I am doing in schools – I had an awareness of these issues but no idea of how to address them with young people. I feel equipped to do it now*". Furthermore, in follow-up emails and surveys, teachers who have attended BIDA-T report having successfully implemented activities from the programme within their schools **[5.8]**, extending the confirmed reach of BIDA-T to at least 10,000 young people **[5.8]**. Participating in BIDA-T may have benefits beyond the classroom. A pilot controlled-trial involving trainee teachers found that those who participated BIDA-T reported improved body image and critical digital literacy, in comparison to a control group **[5.7]**. As one trainee teacher remarked: "*It [BIDA-T] made me reflect on my own social media use and body image issues, and how I can protect myself from the negative impacts of these technologies on my own body image in future, as well as how I can encourage my future classes of children to do the same*".

Influencing NICE Guidelines and Other Policy. Following the publication of findings from the EDDA project, Bell was invited to provide expert testimony to NICE in order to inform guideline NG183 on *Behaviour change: digital and mobile health interventions* **[5.9]**. The expert testimony provided by Dr. Bell, based on the EDDA project findings, directly shaped guidelines surrounding the development of digital interventions for diet and exercise in clinical settings, including recommendations that interventions prohibit setting of unhealthy (e.g., underweight) goals. It furthermore shaped NICE guidance surrounding the use of digital interventions for diet and exercise promotion, including recommendations that at-risk users (e.g., those with history of eating disorder) should avoid using digital interventions that include components found to be problematic within the EDDA project, such as self-monitoring **[5.9]**. Lastly, Bell's research has also shaped local policy. In 2019 she was commissioned by York City Council safeguarding team to work with young people in the city to co-produce a set of social media safety guidance. The resulting "Social Media Charter" was implemented across York schools to promote more responsible social media use among young people, including in relation to body image. According to testimonials from the safeguarding team "*Bell's research has been key to the project in developing a new way of approaching the risks of social media use with young people across the city*" **[5.10]**.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[5.1] Report: Summary of qualitative and quantitative evaluation data from BIDA-I delivery (*N*=2162)

[5.2] Article: Controlled evaluation of Digital Bodies (part of BIDA-I), *under peer review*

[5.3] Article: Controlled evaluation of Body Talk in the Digital Age (part of BIDA-I), *under peer review*

[5.4] Testimonials: Group leaders from BIDA-I delivery to at-risk and hard-to-access groups

[5.5] Report: Summary of Healthy Bodies evaluation data, including teacher testimonial

[5.6] Report: Summary of feedback from BIDA-T delegates immediately post training

[5.7] Report on the impact of participation in BIDA-T on trainee teachers

[5.8] Summary of feedback from BIDA-T delegates at follow-up (at least 3 months post training)

[5.9] Document: Expert Testimony supplied to National Institute of Clinical Excellence to inform guideline *NG183* on *Behaviour change: digital and mobile health interventions* (& resulting guidance).

[5.10] Testimonial: Representatives of the York City Council Child Safeguarding Team.