Title: ‘"You have to know how to live with it without getting to the addiction part": British young adult experiences of smartphone over-reliance and disconnectivity’

Dominic Conroy[1] Email: d.conroy@londonmet.ac.uk (article correspondent);

Biographical note: Dr Conroy is a Principal Lecturer in Psychology at London Metropolitan University.

Darren Chadwick[2] Email: D.Chadwick@wlv.ac.uk;

Biographical note: Dr Chadwick is a Reader in Psychology at University of Wolverhampton.

Chris Fullwood[2] Email: C.Fullwood@wlv.ac.uk;

Biographical note: Dr Fullwood is a Professor in Cyberpsychology at University of Wolverhampton.

Joanne Lloyd[2] Email: Joanne.Lloyd@wlv.ac.uk;

Biographical note: Dr Lloyd is a Reader in Psychology at University of Wolverhampton.

[1]School of Psychology, London Metropolitan University, Tower Building, 166-220 Holloway Road, London, N7 8DB, United Kingdom. Phone: +44 207 423 0000

[2]Faculty of Education, Health and Well-being, University of Wolverhampton, Wulfruna Street, Wolverhampton, WV1 1LY. Phone: +44 190 232 1000

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Abstract

Smartphone usage offers undeniable upsides (social connectivity, increased productivity). However, the ever-expanding utilities of smartphones have prompted debate around device over-reliance, which has prompted interest in 'digital detox', 'technology pushback' and 'disconnectivity'. We report an in-depth qualitative exploration of perceptions of smartphone over-reliance and experiences of attempting to modify usage (i.e., efforts to disconnect) among fourteen 18-30-year-old university students. Semi-structured interview transcripts were subjected to interpretative phenomenological analysis (IPA). A first theme – 'It's like an addiction' – concerned the drift from valuing the convenience/productivity afforded by smartphones into feeling over-reliant on devices. Over-reliance could hinder meeting basic needs, limit time for valued pastimes and could unsettle feelings of agency. A second theme – 'It's difficult to maintain abstinence' - concerned barriers to modification efforts, including fearing possible social repercussions, transferring attention to other Internet-affording devices, and self-deception. This article highlights how modifying habitual usage patterns may be challenging and encourages debate around how 'smartphone over-reliance' could be framed.

Keywords: Smartphones, Addiction, Disconnectivity, Phone-free days, Interpretative phenomenological analysis (IPA)

Study Public Significance Statement

- Feelings of over-reliance on smartphones were hard to pin down clearly, partly as the devices were so central to productivity/function in users' everyday lives.
- Smartphones were disruptive regardless of users' personal 'problematic use' scores
- Provides evidence of varied barriers to users' efforts to reduce smartphone use involving, illustratively, self-deception about having reduced usage levels and fears of social repercussions linked to reduced smartphone level engagement.

Abstract

Smartphone usage offers undeniable upsides (e.g. social connectivity and increased productivity). However, the ever-expanding utilities of smartphones have prompted debate around device over-reliance, which has prompted interest in 'digital detox', 'technology pushback' and 'disconnectivity'. We report an in-depth qualitative exploration of perceptions of smartphone over-reliance and experiences of attempting to modify usage (i.e., efforts to disconnect) among fourteen 18-30-year-old university students. Semi-structured interview transcripts were subjected to interpretative phenomenological analysis (IPA). A first theme – 'It's like an addiction' – concerned the drift from valuing the convenience/productivity afforded by smartphones into feeling over-reliant on devices. Over-reliance could hinder meeting basic needs, limit time for valued pastimes and could unsettle feelings of agency. A second theme – 'It's difficult to maintain abstinence' - concerned barriers to modification efforts, including fearing possible social repercussions, transferring attention to other Internet-affording devices, and self-deception. This article highlights how modifying habitual usage patterns may be challenging and encourages debate around how 'smartphone over-reliance' could be framed.

1. Introduction

Around four-fifths of UK adults now own a smartphone and, with over three-quarters of users engaging with social media (Blank et al., 2020), they are heavily embedded into most people's daily routines and social lives. While social media use has increased across all age groups, the under-30s are especially heavy users, and are more prevalent users of newer applications ('apps', hereafter) like Snapchat and Instagram (Perrin & Anderson, 2019). Because they tend to rarely use desktop or laptop computers to access social media, young people's social media use is particularly heavily entwined with their smartphone usage (Clement, 2020). US teens (13-17 year olds), for example, have 'almost ubiquitous' smartphone access, with almost 90% using social media multiple times a day (Anderson & Jiang, 2018).

1.1. Smartphone and social media 'addiction'

Evidence for harms associated with 'screen time', including smartphone and social media use, is equivocal. Some studies have reported links between smartphone and/or social media 'addiction' and negative outcomes in young people and adolescents, including quality of life (Kumcağız, 2018), mental health (El Asam et al., 2019), and sleep disruption (Woods & Scott, 2016). Others have found smartphone engagement and social media use to be linked with positive outcomes, including enhanced 'social capital' and wellbeing (Kim & Kim, 2017). All these studies utilised cross-sectional, correlational designs (as have most studies in this area) which, by their nature, cannot determine the direction of causality between smartphone use and associated variables. Longitudinal work, and more sensitive analytical approaches have shown no evidence of causal impact of social media use (Heffer et al., 2019) or screen time more broadly (Orben & Przybylski, 2019) on mental health.

While prospective studies are costly and still cannot definitively prove causality, qualitative work can afford valuable insights into individuals' perceptions of how their devices and social media use impact on their lives. A sample of young UK students in a qualitative study described positive feelings towards smartphones, linking them to feeling more secure in unfamiliar contexts, and sometimes even referring to them in anthropomorphic or sentimental terms (e.g., "she's my best friend", Fullwood et al., 2017: 350). However, some users report overuse of social media and qualitative work has helped identify how factors like loneliness and fear of missing out can motivate people to become 'addicted' to social media (e.g., Aksoy, 2018; Blackwell et al., 2017; Fabris et al., 2020).

Notwithstanding the controversy around the validity of applying diagnostic criteria and terminology of addiction to technology use (e.g. Ryding & Kaye, 2018), it is clear some people experience excessive/problematic use of technology, including smartphones (e.g. Sohn et al., 2019). Recent studies suggest complex (possibly reciprocal) links between mental health issues and owning and using smartphones for some people (King & Dong, 2017). However, particular patterns of smartphone usage, rather than frequency or amount of usage alone, may explain increased risks of negative outcomes (e.g. Reiner et al., 2017). Recent qualitative research in multiple international settings has started to raise interesting questions around links between social media engagement and well-being but also well-being related factors (e.g., health-related behaviours) and have flagged the importance of acknowledging both positive and negative well-being outcomes of social media engagement among younger people (Throuvala et al., 2019; Walker et al., 2021; Weinstein, 2018). These studies contribute to an appraisal of how qualitative research might play a crucial role in terms of unpicking the complexity of social media and Internet use at an individual level.

1.2. Technology pushback, disconnection and 'digital detox'

Many owners hold positive attitudes toward their smartphones as they facilitate personal organisation and entertainment (Fullwood et al., 2017), and help maintain social networks from a distance (Chen & Katz, 2009). However, evidence of dissatisfaction with the incursion of time spent on smartphone devices has sparked popular and empirical interest in the idea of 'digital detox' from devices, 'pushing back' from technology or (more broadly) embracing a spirit of disconnectivity in life as a counterweight to the 'constant connectivity' of contemporary life. Consistent with the notion of an 'extended self' (Belk, 1988), decisions concerning the smartphone devices and even operating systems that we choose as consumers have demonstrated close links with personality traits and act as important mechanisms for communicating information about ourselves to others (e.g., Shaw et al., 2016). Recent focus group research has suggested how smartphones are experienced by users as 'an extension of self', externalising personal identity and even shaping the dynamics of inter-personal relationships (Harkin & Kuss, 2021).

Some owners, however, identify downsides to smartphone usage and difficulties with attempting to modify usage levels. This is evident in concepts like 'technoference' – i.e., how devices can intrude on and interrupt everyday interactions (McDaniel, 2015) which has been linked to, illustratively, lessened adult relationship quality (McDaniel et al., 2020); and to diminished well-being and raised incidence of behavioural problems among children

(Sundqvist et al., 2020; Zayia et al., 2021). Smartphone and social media engagement provide opportunities for new social connections, but risk a present-absent paradox, which can negatively impact on pre-existing relationships (Jarvenpaa & Lang, 2005). 'Phubbing' ('phone-snubbing' - the ignoring of someone who is co-present in favour of engaging with one's phone), in particular, correlates with lower levels of satisfaction and poorer communication quality within relationships (Chotpitayasunondh & Douglas, 2018). Some Facebook users have described how opting out from site participation seemed impossible, due to collective investment in the site promoting compliance and making breaking away more difficult (Orchard et al., 2015). Digital disconnection has been discussed as containing paradoxical discursive strands with users' "right to disconnect" understandable as part of a broader (and ongoing) renegotiation of, and effort to weaken, the social contract to constant connectivity which all smartphone users arguably hold in the modern era of mass-mediated connectivity (Hesselberth, 2018).

Mannell's (2019) typology of disconnective affordances, drawing on interviews with 24 young Australian students about text messaging, outlines five ways through which individuals manage and limit connections with friends and family, and to devices and online platforms. For example, Mannell highlights 'disentanglement' (e.g., putting the phone somewhere out of sight, changing text alerts); and jamming (e.g., turning the phone off at certain times) as possibilities for action that smartphones, as objects, afford their owners to 'disconnect' from device engagement. These ideas offer a more nuanced theoretical understanding of smartphone/device engagement which emphasises user agency/perception and which offer some de-emphasis of the 'addictive' properties of smartphone devices and of connectivity.

Disconnecting, limiting, or 'detoxing' from one's personal device usage may, on a practical level, be difficult to maintain given that social participation, alongside fundamental everyday tasks (e.g., banking), often require connection to the Internet. Empirical work suggests that there are no certainties in terms of how new, less reliant, relationships with smartphones might be successfully forged. For example, recent qualitative work has demonstrated how users may have false perceptions of control over their smartphones (Harkin & Kuss, 2021), while some scholars (e.g., Bucher, 2020) have questioned whether disconnection is indeed a viable source of agency. For example, liberation from smartphone-attributed 'technoference' might also involve sacrificing opportunities for economic and education advancement and community participation. Notable here is Schrock's (2015)

theoretical work concerning the varied affordances of smartphone devices (e.g. portability, locatability), which has helped to steer understanding of smartphone over-reliance and disconnection efforts toward a more dynamic understanding of the user-device interface. Recent discussion has advocated that empirical work should steer towards developing understanding of the self-regulatory and self-reflective processes underpinning smartphone engagement to encapsulate *both* the opportunities and threats of agentic uses of mobile media (Karsay & Vandenbosch, 2021).

Whether, and the extent to which, disconnecting/digitally detoxing remedies the problem of technoference, and the extent to which disconnection is achievable and desirable requires further empirical consideration. Recent qualitative investigation suggests that exploring these experiences may help unpack more coarse assumptions around 'internet addiction' among young people. For example, Canadian focus group research with 13–19-year-olds has suggested that teenagers embrace the label 'addiction.' They recognise that separating older adults into "digital immigrants" and young people into "digital natives" is misleading and consider their parents to be as, if not more, addicted to technology as they are (Adorjan & Ricciardelli, 2021). However, overall, little qualitative work has been done to explore the lived experiences of those who may experience over-reliance on smartphones (or 'technoference'), who may subsequently choose to disconnect/detox and the potentially diverse implications for choosing to disconnect to some degree from smartphone usage. In addition, little is understood about individual variability in ease of disconnecting from devices and how experiences of this might vary in relation to objective measures of smartphone over-reliance. Such work would offer useful insights into their developing and fluctuating relationships with their devices and their motivations for, and benefits/implications of, 'disconnecting'.

1.3. The current study

Evidently, the possibilities afforded by online/smartphone engagement represents key positives (e.g. personal organisation and social connections) yet also downsides (e.g. difficulties with regulating long periods of device use and interference with 'face to face' social relationships). Despite the clear possibilities for 'pushing back' highlighted in the emerging disconnectivity literature, there are likely to be important potential disadvantages to 'pushing back' against technology use (e.g. sacrificing social options) which may give pause for thought to a user's plans to heavily reduce/regulate or abstain altogether from device usage patterns. We sought to explore these issues in greater detail, via inductive, idiographic

research focussing on young adults' (18-30-year-olds) experiences of owning and using smartphones. We sought to build on Mannell's work by focusing on smartphone related (dis)ownership and engagement more broadly (i.e., beyond text messaging). We sought to achieve this by moving beyond an account of techniques used to disengage to understanding the experiential context/climate in which disconnection occurs and the implications this may hold for broader life and by studying these phenomena with a UK sample. Young adults are an interesting and distinct sample of smartphone users/owners because they will recall a 'pre-smartphone era' yet will have acclimatized to using the devices (unlike older individuals, who have more clearly 'transitioned' to smartphone technology). We also note that the pace of technological change necessitates ongoing investigation. Our study concerned individuals' over-reliance on smartphone devices, and their experiences of previous efforts to modify engagement levels (i.e., their smartphone disconnectivity experiences). Accordingly, we were guided by two primary research questions:

1. How do 18-30-year-old young adults discuss experiences of smartphone device over-reliance?
2. What are experiences of attempting to overcome smartphone over-reliance among young adults?

2. Method

2.1. Participants

All participants were students at a UK university, were aged 18-30, and who used smartphones regularly (defined as at least daily for at least half an hour). Recruitment took place in January 2019, via six weekly email invitations sent on consecutive weeks and lecture announcements to psychology students studying at the first author's institution. Twenty-eight eligible individuals indicated, by email, interest in participation, of whom twelve did not engage in further email correspondence, and sixteen were interviewed. The data relevant to this article were available from fourteen of the sixteen study participants (*Mean age* = 25.4, SD = 3.2, range = 19 – 30 years old, 79% female). As discussed previously, part of our concern was to consider variability in individual's experiences of disconnecting from devices and how this might correspond with objective measures of smartphone over-reliance. Accordingly, participants completed the Mobile Phone Problem Use Scale (MPPUS) one week prior to interviews. The MPPUS (Bianchi & Phillips, 2005) is a diagnostic tool for assessing problematic mobile phone use. Though widely deployed as a benchmark measure

of problematic phone use (e.g., Lopez-Fernandez et al., 2014; Mach et al., 2020; Montag et al., 2015) the measure precedes the smartphone era and measure limitations are discussed later in this article. Participant MPPUS scores were categorised using a previously described three-level system (Smetaniuk, 2014), into low-to-moderate, moderate-to-high, or high-to-severe degree of concern (for raw scores of 27- 76, 77-126, and 127-145, respectively). Sample scores ranged between 98 and 232 (M = 172.7, *SD* = 38.3). The current analysis was based on interview data from the 14 of the 16 individual interviews whose interviews contained vivid accounts of dynamics involved in modifying smartphone reliance (i.e. the target phenomenon). To support transferability of article findings, sample characteristics are shown in Table 1. In support of sampling validity, the majority of participants (88%, N= 12) reported material concerning modifying smartphone reliance, a proportion that would be considered stringent (Smith, Flowers, & Larkin, 2009: 107).

<INSERT TABLE 1 ABOUT HERE>

2.2. *Procedure*

Approval from the first author's institutional Ethics Committee was secured. Individual semi-structured interviews were conducted by the first author in private university campus rooms after acquiring written informed consent. The interview schedule (see Figshare file, Conroy, 2022a) covered key areas (e.g. when smartphones were used during the day; views on friends' smartphone use), but was used flexibly to focus on those issues of most relevance to individual participants. Minor adjustments to schedule content to clarify item wording and optimise question sequencing were made following piloting with two students. Interviews lasted 39-67 minutes (*Mean time* = 54.1, *SD* = 9.6) and were digitally audio-recorded.

2.3. Analytic approach

Audio recordings were transcribed verbatim and subjected to interpretative phenomenological analysis (IPA). IPA offers a flexible but systematic means of understanding and exploring lived experience in idiographic terms (Smith et al., 2009). In the context of understanding accounts of owning/using smartphones, we identified IPA as appropriate for examining how phenomena are *done*, in order to enrich understanding of how lived experience is enacted, how these activities *feel*, and how experience can be understood in cultural and contextual terms (*cf.* Eatough & Smith, 2005). Given that the qualities of our dataset were relatively strong in terms of features like embodied experience, emotion, and life transitions (e.g. away from and towards lives characterised by relative over-reliance on

smartphones), IPA was our analytic framework of choice over other options (e.g., a reflexive thematic analysis). Analysis involved initial familiarisation with text meanings, leading to conceptual codes which formed the foundations of provisional candidate themes. Superordinate themes were critically re-examined against the dataset as part of an iterative process until a satisfactory final structure had been produced. The second author performed a quality audit, tracking process links between the raw data files to the final theme structure, to strengthen the accuracy and credibility of data interpretation.

Talk concerning 'smartphone reliance' featured prominently in the data (see Figshare file, Conroy, 2022b). As authors, we acknowledge difficulties in choosing terminology to conceptualise participant talk accurately in a way that preserves idiographic commitments and offers analytic value. Interviews contained evidence that participants were using smartphones more than they were comfortable with and revealed many having considered, or in the process of considering, how they might reduce smartphone usage levels. Describing these phenomena was difficult in terms of conceptual emphases, and this dilemma was heightened by the fact that participant talk was sometimes discursive, drawing on cultural repertoires concerning 'internet addiction'. Producing the analysis that we were interested in involved, therefore, navigating coarse language and avoiding tropes or simplified conceptual labels that risked concealing a closer, more accurate, and fresh understanding of the phenomena and sense making we witnessed in participant interviews. One issue here concerned the myriad things that 'smartphone reliance' could refer to in the data; for example, this could refer to reliance as an embodied experience linked to engaging with the device itself, but also to feelings of reliance relating using the internet as an administrative tool, feeling over-reliant on specific functional apps (e.g. email, calendar) or interfaces/apps for social connections (e.g. Instagram / Twitter / Facebook), or a sense of reliance linked to connectivity or 'being online'. Given that the smartphone was the common denominator to all these experiences – i.e., as a device providing internet access as well as being a phenomenological object in its own right – the expression 'smartphone reliance' is favoured over other options as standard phrasings in this article.

2.4 Positionality statement

Acknowledging researcher positionality is increasingly recognised as important within qualitative research (e.g., Holmes, 2020). All authors were born in an era preceding the existence of the Internet and smartphone devices, and are not, therefore, 'digital natives'. As authors we share difficulties with strong theoretical/ discursive notions around addiction in

the context of Internet/ social media/ smartphone engagement partly as this may mask opportunities to more fully understand the characteristics and dynamics involved in a sufficiently nuanced account of Internet-mediated human experiences and interactions. We approached the topic area as both pragmatists and post-positivist researchers in terms of our approach to data collection and analysis.

3. Results

This section presents a number of themes and sub-themes concerning participants' experiences of smartphone reliance and efforts to manage their relationship with these devices. One theme was "it's like an addiction" with four sub-themes of "convenience/productivity and over-reliance", "subjugated needs", "lost leisure-time and pastimes" and "thwarted agency". A second theme was "it's difficult to maintain abstinence" with four sub-themes of "scope for self-deception", "inter-twining of devices with life", "possible social repercussions" and "transference to other devices". Each extract is followed by participant pseudonym, age, and MPPUS total score and problem use related concern category. The latter are included to demonstrate that narrative accounts of smartphone reliance and efforts to regulate usage appeared across our sample regardless of how they were differentiated by these quantitative self-report measures. We will focus here on an interpretative account of lived experience of smartphone reliance/abstinence before considering implications for existing/novel theoretical frameworks in the discussion section.

3.1. It's like an addiction

Participants consistently engaged in and reflected on narratives around addiction and the supposed addictive properties of smartphone devices as recognisable in cultural discourses. Participant language orientated toward notions of smartphone 'addiction' but positioning was handled carefully: individuals were uncertain about whether to view lengthy periods of smartphone use as illustrative of, or analogous to, addictive behaviour.

3.1.1. Convenience/productivity and over-reliance

Smartphones were viewed as essentials tools particularly for permitting quick/easy connections with other people, but most participants described experiencing a flipside to this: that device-afforded convenience/productivity was frequently linked with feeling over-reliant on smartphones. Findings here evoked the freeing-enslaving paradox (David & Roberts, 2017; Turkle, 2017), i.e., that although smartphones allow us to work, communicate and entertain ourselves from anywhere we like, this freedom comes with the cost of never being

truly free from smartphone (or other) devices that permit connectivity. These features were prominent in Danielle's extract:

> There's so much convenience, you end up becoming dependent on this phone. It's like my admin kind of thing, people need their PA, it feels like it's like that… I use it for so many things that I cannot withdraw away from it. And what I don't realise is that's actually causing a negative effect on my health… I realised it's a level of dopamine that gets released when the use of phone (which) brings a sense of achievement… your dopamine is a very addictive hormone in your body but it may not be for the right reasons. (Danielle, 28, high-to-severe concern)

There were several illuminating features here. Smartphones are spoken of as a normative prerequisite to efficient/productive functioning ("people need their P.A."). Delegating administrative duties to her smartphone ostensibly made life easier but this meant reliance on constant device engagement. The task delegation described here aligns with concepts including 'cognitive offloading' and the advantages in offloading memory tasks to computers which are less prone to distortion, freeing up cognitive resources for other tasks (Barr et al., 2015; Risko & Gilbert, 2016). A tentative suggestion of Danielle's account is that one phenomenological feature of smartphone over-reliance involved *perceived* over-reliance and the psychological burden that accompanied such anxiety. Danielle drew strongly on a biological discourse around addiction, locating her experience of smartphone reliance within a culturally recognisable framework where physiological processes 'cause' smartphone over-reliance, and this appeared to blur *where* responsibility for high levels of smartphone usage should be located. Uncertainty surrounded the health implications referred to here; these felt unrecognisable and muffled; smartphone over-reliance appeared as hidden, fleetingly visible, yet impactful.

3.1.2. Subjugated needs

Other extracts offered more direct illustrations of how long periods of smartphone use held implications for subjugated needs – i.e. neglecting physical and mental well-being:

> It would probably be healthier to turn phones off at a certain time and for the device to not be within reach… That's a bad thing about smartphones, not being able to wait for certain things, just the sleepless nights (spent Google searching). I mean, it's my fault, not the smartphone's. (Lisa, 30, high-to-severe concern)

> I choose to look at a smartphone instead of attending to my basic needs… I might wake up hungry but just continue (looking) at my phone… that shows the more addictive side of it, because it's literally interfering with your needs. (Rosa, 23, high-to-severe concern)

Questions circle in Lisa's account about dilemmas involved in owning a smartphone; no easy solutions were available here. As with Danielle, the question of responsibility was again raised and, here, explicitly addressed ("my fault, not the smartphone's"). Rosa's extract clearly illustrated disruptive features of smartphone usage. Again, constructive phrasing orientating to something like addiction was apparent, but the intrusive effects which she identifies (physical neglect) were more readily identifiable and less insidious than in Danielle's account.

3.1.3. Lost leisure-time and pastimes

While pinpointing where 'responsibility' for feeling over-reliant lay, participant accounts commonly concerned discomfort about how smartphone reliance could result in lost leisure-time and pastimes. Individuals differed on where/how these incursions were most keenly felt:

> In the last ten years I have (learnt) to exist without my smartphone… (prior to having a smartphone) I loved reading books, (then I owned a smartphone) and I stopped reading books… being on the phone is not the same as reading a book… we need smartphones or we want the phone, the newest model but we must control it… it's like an addiction… you have to know how to live with it without getting to the addiction part. (Sejla, 29, high-to-severe concern)

> I don't like to be dependent on material things… I'm shifting towards being more spiritual… prioritising things… when I switch off my phone I start meditating (which) helps clear out the mind... from the constant thoughts about weather, people, the world… turn off all the distractions. (Fawzi, 20, high-to-severe concern)

Sejla's account spanned her historical relationship of owning and using a smartphone. There was also an emphatic tone of dissatisfaction here but also satisfaction as long-cherished pastimes returned following reconfigured smartphone usage patterns. We could go further; reflecting on her experiences of smartphone over-reliance appeared to help Sejla challenge and redefine meanings (e.g., unyoking links between life's 'necessities' and superficial drives for "the newest model"), bringing life priorities into sharper focus. Careful orientation around the notion of 'smartphone addiction' was again apparent. Sejla experienced smartphones as

akin to ('like') addiction, not directly analogous with it, and recognising 'the addiction part' was an important starting point for modifying her relationship with the device. Key for Sejla was personal epiphany (i.e. re-discovering pleasures of reading through contrasts with competing activities), but important too was ensuring that life can accommodate affordances of smartphones without living in abeyance to the devices. Fawzi's account also gravitated toward discussing her smartphone's addictive qualities, with focus on how the wide-ranging functionality of the device felt burdensome. Resonating with Sejla's reflections, Fawzi's talk here expressed the desire to gain perspective and return to a more basic, essential experience of life; achieved perhaps via meditation but also through recalibrating her relationship with her smartphone device.

3.1.4. Thwarted agency

One feature of higher levels of device usage, evident consistently across accounts, was thwarted agency linked to smartphone reliance; clearly apparent in the following two illustrations:

> It was important to modify usage levels because smartphones, kind of, ask you to look at them all the time… you don't even think about going on Instagram… you just find yourself on it, you get trained into it almost. I got fed up with my smartphone constantly asking me to um, bow into it almost. (Emma, 28, moderate-to-high concern)

> My boyfriend is worse than me… we'll put a film on and he will literally sit and scroll forever on Twitter or whatever, and he's like, I don't know… but saying that, if I pick my phone up, I'll automatically open Instagram… and I'll be like, why did I pick my phone up again? (Bethany, 25, moderate-to-high concern)

Closely echoing findings from Fullwood et al. (2017), the anthropomorphic character of Emma's account ("ask you") positioned the smartphone as a persistent, demanding character at the heart of life and the involuntary and automatic nature of the process of stop-starting smartphone use felt mysterious and unsettling here. An unsettled sense of agency is also apparent in Bethany's extract. Frustration with her partner's immersion in the hypnotic lure of his smartphone device collapsed into recognition of similar patterns of her own behaviour. All participants discussed here expressed a palpable sense of agency that had either been lost or, by virtue of having been transferred/delimited to internet-mediated activities, a sense of agency circumscribed. However, as seen in Danielle's extract, the possibility of her

smartphone ‘addiction’ was talked about with care, and in experiential terms appeared sometimes as obscure or eccentric to comprehend.

Participants all described loss of control/agency as a key characteristic of smartphone usage which could jostle against the many positive affordances of the device. This was the case regardless of ‘problem phone use’ scores identifiable by objectives measures; Helena, for example, was one of just two participants with ‘low-to-moderate concern’ MPPUS scores, and spoke of how periods of smartphone use could produce a trance-like state:

> I don't want to be reliant on my phone… you can get a bit lost looking at your… you use it and it's like an hour's past. Just like staring at a screen… you scroll through it, not really engaging in anything, looking at things like oh, it looks pretty. And then you’re like oh, that’s it. That’s all I get from it. (Helena, 27, moderate-to-high concern)

In Helena's interview, daily tracking of her exercise/diet regimens was a valued aspect of smartphone usage but striking a balance between enjoying this functionality and over-immersion presented challenges. Concerns about lost time, lost quality time, and a missing sense of life purpose linked to smartphone engagement were palpable in her account. Straying from key life aspirations were significant hazards of smartphone over-reliance which risked an unfulfilling, empty experience of life. Two distinct experiences of life were apparent here - a more administrative and passive way of doing of life ("staring", "scrolling") versus a life approach that felt obscure/hidden but was unquestionably implied in the "all I get from it" statement. These costs were not insignificant – a sense of life purpose was described as being at stake here.

3.2. It’s difficult to maintain abstinence

The previous theme demonstrated the centrality of smartphones within life and struggles to resolve a sense of over-reliance on the devices. We now turn to the phenomenological characteristics of attempting to modify usage patterns and efforts to embed a new relationship with the smartphone as an object/device. Most participants wished to spend less time on their smartphones, but this was far from straight-forward; the devices were deeply embedded in daily routines and symbolised connections/ accessibility to important others. But the urge to spend less time on smartphones was strong, and accounts demonstrated deep frustration with how efforts to reduce levels of smartphone engagement could easily unravel. Content showcased the range of strategies available to modify/regulate smartphone usage patterns

(e.g. having phone-free days; using ‘lockout’ apps) though optimism about how successful these approaches had been (or could be) varied dramatically within and between accounts.

3.2.1. Scope for self-deception

Experiences here illustrated the scope for a multi-layered negotiation with the self that underpinned efforts to modify/regulate smartphone usage levels. The scope for self-deception was clearly apparent in Violet’s and Danielle’s interviews:

> The whole thing of sharing on Instagram to feel good… I get just annoyed at myself… I got to the point where I thought “I’m going to do a no phone day”… I set [a timer on a lockout app] to tell me when to stop… it was like, oh my God, one hour already so I (just over-rode the lockout app) and spent more time on my smartphone and then did that again later on… so it’s easy to cheat yourself with that… you have to be true to yourself; either you want to stop using it as much or you don’t. (Violet, 27, high-to-severe concern)

> I tried introducing a screen curfew where the screen cuts off at a certain time (but it’s difficult because) of the emotional erm attachment… (the smartphone is like) a person that you need to be there. (Danielle, 28, high-to-severe concern)

Though pleasurable, ritualistic patterns of phone use (e.g. habitually sharing something on social media) involved complex forms of self-negotiation. Sharing could tether Violet to a process where enjoying an experience was conditional on social media validation from other people. However, deciding on and committing to an approach to modify smartphone usage patterns, was difficult. The possibility of a 'no phone day' was raised but (ironically) solutions to smartphone reliance were immediately available from the device itself, in the form of ‘lockout apps’. However, while device-driven technology available to regulate usage felt impressive, fragmented layers of selfhood were involved (i.e. lockout apps could be overridden), which could cheat Violet from securing a new relationship with her device. Simultaneously, these dynamics appeared also as a possible source of authentic self-dialogue for Violet which, like Sejla above, might inform a longer-term strategy for successfully modifying usage patterns. Danielle's extract was less explicit and contained fewer details than Violet's but the experience was very similar. For Danielle, lockout apps offered a superficial solution which she had tried yet which had ultimately failed ('tried') to challenge the close emotional attachment she associated with smartphone usage.

3.2.2. Inter-twining of devices with life

There were many obstacles to embedding meaningful and lasting change in smartphone usage patterns. These obstacles to modifying habits were visible across daily routines highlighting how the deep-seated inter-twining of the device within life makes reduction efforts difficult. These difficulties were particularly apparent in the context of friendships and peer network expectations. Two extracts from Mandy and Clara clearly illustrate this:

> My friend disengaged from phone use saying “I'm only on emails now” and it was difficult, you’re trying to call and she wouldn’t reply… but then she realised, oh, I need to go back on it because when people are trying to get hold of me and I can’t reach out to them… but I’m not that attached to it, so I wouldn’t need to do that. (Mandy, 25, moderate-to-high concern)

> For my friend’s birthday we went to a drag show and he was pulled up on stage, and I felt the itch to record it (via smartphone), but then I saw like three friends were already recording it and… I don’t really know what this means but I was tempted to say “can you guys just be in the moment?” (Clara, 25, high-to-severe concern)

Similarly to Orchard et al. (2015), where they discuss the notion of collective investment enforcing compliance and creating difficulties in opting out from Facebook participation, abstaining from smartphone-afforded connectivity evidently held social consequences for Mandy’s friend, and being “on emails only” proved short-lived. Efforts to reduce time spent on smartphones met formidable and multiple hindrances; stemming from within the person (e.g. denial, contradictory desires) but, evident here, also from peer norms and expectations. Mandy distanced herself from her friend’s smartphone habits thereby establishing the terms on which regulating her own smartphone usage should be judged (e.g. concerning phone-free days: “I wouldn’t need to do that”). Interesting here was the sheer social awkwardness involved in attempting to instil change. Mandy's friend’s abrupt initiation (“I’m just on emails now”) felt coarse and potentially provocative; an impression consolidated by Mandy's irritation at her friend's new arrangements (“she wouldn’t reply”).

Specific situations tested understandings of when and how devices should and should not be used. As with Mandy, social context was key here, with Clara's "itch" checked by reflecting on what smartphone-mediated video recording would mean in terms of dampening the vivid reality of "being in the moment". The hesitative tone here (e.g. "I don't really know what that means") underscored Clara’s apprehensions about railing against an intrusive role of smartphone devices while socialising.

3.2.3. Possible social repercussions

We get the reverse perspective in Lisa and Emma's accounts where we learn about the possible social repercussions of modifying smartphone engagement linked to taking 'time out' from smartphone engagement:

> Occasionally, I turn off my phone for a few days… I don't like being expected to constantly have your phone with you and be permanently contactable… I suggested that my best friend try it… and she said "absolutely not"… it was just unimaginable… I do understand it 'cos it is like losing a limb (without) your mobile phone (Lisa, 30, high-to-severe concern)

> For January, instead of not drinking alcohol I gave up social media. You come back in a healthier way… I was less in the loop… I'd not seen a friend's birthday celebration plan until she'd messaged me and said, you haven't replied to this… but important things were brought to my attention through other channels… (since January) I've turned off my blinking light notifications. (Emma, 28, high-to-severe concern)

Lisa's reactions to social expectations acted as a trigger to take a few days' break from using her smartphone. The effort involved here was palpable: prosthetic imagery (losing a limb) underscored the strength of psychological attachment held with devices and helped explain why efforts to modify usage could meet robust psychological resistance. Several participants, including Emma, referred to 'phone-free January detoxes', evoking alcohol-related temporary abstinence initiatives (e.g. 'Dry January' in the UK). Like Mandy's account of her friend, this meant detaching from some planned socialising, but most striking here was how disruptions to communications with friends were minimal. Pausing regular phone use had fostered Emma's appreciation that news/plans can circulate regardless of smartphone-mediated connectivity. Returning to using social media on her phone in February, Emma configured phone settings: a pragmatic but also symbolic way of initiating a more boundaried relationship with her device and affirmation of personal agency in the face of ever more innovative (and therefore potentially intrusive) communication technology.

3.2.4. Transference to other devices

The scope for self-deception in changing smartphone habits was apparent in subtle ways. One difficulty involved transference to other devices and recognising where boundaries between using different devices/technologies stopped and started. As with Mandy's friend's

"just on email now" statement, a hierarchy of technology was evident in terms of how sophisticated (and therefore how intrusive) specific devices were deemed to be:

> On weekends, I take a break from the smartphone but then I go straight onto the laptop and do something else. I don't really get away from tech, but I do take breaks from the smartphone, because it's a smaller screen and strains (your eyes) if you look at it for too long. (Kesar, 19, high-to-severe concern)

Efforts to modify smartphone usage patterns were possible but would involve transferring time and attention over to another device (Kesar's laptop). We might question whether Kesar was cheating himself by switching from smartphone to laptop engagement; after all, a convincing pragmatic explanation is present (e.g., wanting fewer distractions while studying). But the issue at stake here was consistent with evidence from other participants in this section; that attempts to modify engagement with online technology can be impeded by wide-ranging competing factors whether external (e.g., others' expectations of maintaining online availability) or internal (e.g., including difficulties with self-regulation and adherence to personally set usage targets).

4. Discussion

Smartphones facilitate and enrich users' lives, and life without them (or an equivalent Internet-affording device) feels, for some, almost inconceivable. Yet, cultural concerns about over-reliance on smartphone devices and social media engagement are mirrored in a surge of research interest in exploring 'smartphone addiction' in the last decade. Despite the widespread nature of this phenomenon, idiographic research designed to understand experiences of over-reliance and efforts to modify device engagement has been very limited. Mirroring similar conclusions of Fullwood et al., (2017), this article highlights how notions of 'smartphone addiction' are not straightforward and should be re-framed in less pathological/judgemental terms where possible. In addition, this article draws attention to the wide-ranging and subtle challenges that smartphone users face when, for whatever reason, they may wish to instigate change and attempt to modify/reduce personal usage patterns. Participants' accounts of smartphone usage revealed preoccupation with valuing convenience/productivity of the devices, and their importance as a tool for maintaining constant contact with their social networks, yet also feeling over-reliant on them in a way that held undesirable implications for meeting needs, for personal agency, and for pursuing valued (offline) pastimes. Past research has also identified tensions between benefits of technology

and negative correlates of its overuse. For example, Douglas and colleagues' qualitative synthesis highlighted that many researchers who had interviewed 'internet addicts' found such individuals tended to use the Internet heavily for communication/ remote social activities in preference to face to face interaction. One explanation for this might be that Internet-mediated communication allows for greater control over pace and timing of interactions, and permits presenting a more idealised version of self (Douglas et al., 2008). As well as potentially distracting us from our offline social networks, the phenomenon of 'evertime', or the notion that these devices make us perpetually contactable and thus impinge upon our liberty to be free from social interaction, which was referenced by our participants, has also been discussed by numerous scholars (e.g., Vanden Abeele et al., 2018).

Our findings accord with features of Mannell's (2019) typology of disconnectivity, suggesting how participants were inventive and could be committed in terms of how they approached modifying or, at the very least, becoming more mindful of levels of smartphone/social media engagement. However, current study findings also illuminated the diversity of obstacles faced by individuals seeking disconnectivity. Our participants faced important social obstacles to disconnectivity (e.g., Mandy's account of her friend's 'emails only, now' approach, Section 3.2.2) but efforts to disconnect were also sabotaged by the transference to other devices hinted at in Kesar's 'straight onto the laptop' interview (Section 3.2.4). In this way, possibilities but also impediments to disconnectivity characterised the overarching dynamics of data reported in the current study. These findings might inform a future expanded typology of disconnectivity though we suggest this cautiously given that, in a world of ever-changing technological possibilities and social practices, any account of disconnectivity will be situated in historical and cultural terms. We encourage future research to build on these 'transference' findings particularly, as these seem likely to hold implications for future elaborations of disconnectivity/pushback typologies as they will draw attention to the caveats and contextual implications surrounding efforts to disconnect/ pushback from device engagement. Broader cultural and contextual factors are likely to be relevant in terms of understanding how 'over-reliance' on smartphone devices and 'disconnectivity' are framed. For example, the importance of integrating digital inequality and digital well-being perspectives has recently been invoked in Büchi and Hargittai's (2022) emphasis that socio-economic status is likely to be associated with not only unequal access to digital devices, but also potentially to differential levels of skills relevant for regulating digital media use (and non-use) and opportunities to develop/practice such skills.

Current study findings present a nuanced account of the experiences, and difficulties, involved in attempting to set in motion new habitual usage patterns with smartphone devices. Difficulties often hinged around self-deception or failure to adhere to pre-commitment strategies, for example, through over-riding pre-formed decisions about modifying usage patterns, or simply transferring attention to other Internet-affording devices (e.g., Kesar switching to his laptop). Interestingly, fear of social repercussions of non-/limited use was a frequent barrier to changing patterns of smartphone use for social media and interpersonal messaging within our sample. While many studies have focused on excesses of smartphone and/or social media use, some view social media as such a ubiquitous and inevitable interface for human interaction, that non-users are deemed to be taking an elitist stance, and may be perceived as "abnormal, suspicious, or deviant" (Bullinger & Vie, 2017, p.81). Current study findings highlighting the varied social repercussions of disconnectivity match Caron and Mays' (2021) work with 78 French young adults who, after voluntary withdrawal from smartphone devices and social media engagement for ten days, reported guilt/anxiety about violating a social contract due to their online non-availability alongside personal benefits including enhanced experiences of creativity and entrepreneurial spirit in life.

Young adults are not a homogenous group and we recognise that a more targeted sampling approach – looking, for example, at experiences of smartphone reliance and efforts to manage this among vulnerable young adults (e.g. mental health service users) - would provide a focused avenue for a future replication study. Relatedly, future research could usefully explore possibilities for and impediments to overcoming smartphone reliance among adolescent samples (e.g., 13-17-year olds). However, the current study focus on digital 'over-reliance' may privilege the views and experiences of a 'digitally included' demographic and ensuring greater research focus on socially marginalised groups (e.g. lower socio-economic status; non-urban geographical location), who may have limited access to newer technologies or who are under-involved in product development, is acknowledged as a research priority. We also note that most of our participants (11 of 14) were female. This disparity creates difficulties for considering scaling up findings in a way that applies to equally to women and men and could be addressed in future research adopting a quota sampling approach.

The MPPUS scores provided a useful self-reported quantitative measure of participants' smartphone usage levels. However, our sampling approach was not systematic, and with just two 'moderate-to-high' (and no 'low-to-moderate') scoring participants, the full range of user types may not be represented in the current study. We also note that the MPPUS is now 15

years old and may not capture smartphone norms and expectations around users' mobile phone use and accessibility. This may explain why we found users from all categorisations of risk on the MPPUS describing feelings of over-reliance on their smartphones and considering ways of moderating it. However, ~~we found~~ this in itself was interesting, in that it generated questions around the kind of scale that might act as an appropriate, clinically relevant tool to assess an individual's smartphone over-reliance. Current study data suggests that one aspiration of future smartphone 'over-reliance' measures should be to reflect the multi-functional nature of devices. A device over-reliance scale would therefore need to differentiate between nuances of over-reliance (e.g., social media engagement; work-related device over-reliance) to be of practical use to the user or to a clinician. Future research could also explore individual differences in self-identified thresholds for considering mobile use problematic and how this may vary in association with an individual's social networks, social capital/aspirations, life stage and investment in face-to-face social interaction. Pre-interview MPPUS scale completion may have primed participants to reflect on smartphone reliance in a way that magnified its relative relevance to them above and beyond how this was routinely experienced. However, we also note here that many participants commented, spontaneously, either during, or after, the interview, that they had appreciated the formal opportunity to articulate views and experiences about smartphone usage and that this had been an important source of reflection about the pros and cons of smartphone usage in broader life.

5. Conclusions

Smartphones have grown to become one of the dominant modern mediums for connecting with others and are a valued and even pleasurable feature of daily life. Our data revealed how the desire to modify device usage patterns found in our participant accounts was always balanced against recognition of the practical and desirable features of smartphone device engagement. In addition, our data demonstrated how the varied negative aspects of efforts to reduce smartphone engagement levels, notably the negative social impact, demarcated efforts to reduce usage levels (or to abstain entirely) as a potentially multi-faceted, demanding enterprise. We hope to foster further scholarship concerning accounts of reliance on smartphone and Internet-affording devices and experiences of efforts to modify patterns of device usage, building on the evidence presented in this article.

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Table 1. Sample demographic and mobile phone problem use scores (MPPUS)

Pseudonym [a]	Sex	Ethnic background	Total MPPUS score [b]	Three category cut-off classification [c]
Helena	Female	White British	98	moderate-to-high
Mandy	Female	Black British	118	moderate-to-high
Fawzi	Male	Indian	148	high-to-severe
Clara	Female	White British	146	high-to-severe
Bethany	Female	White British	154	high-to-severe
Emma	Female	White British	166	high-to-severe
Lisa	Female	White British	168	high-to-severe
Violet	Female	White European	174	high-to-severe
Elena	Female	White British	186	high-to-severe
Sejla	Female	White European	192	high-to-severe
Kesar	Male	Indian	206	high-to-severe
Rosa	Female	White British	212	high-to-severe
Tanay	Male	British Indian	218	high-to-severe
Danielle	Female	Black British	232	high-to-severe

[a]Listed in ascending order by MPPUS raw score

[b]Measured using 27 items with responses from 1 ("Not true at all") to 10 ("Extremely true") which were then summed.

[c]Following Smetaniuk's (2014) three category classification for MPPUS total scores of "low to moderate" (27-76 score), "moderate to high" (77-126 score), and "high to severe" (greater than 126).