

AMY H. LUCAS BSc (Hons)

UNDERSTANDING THE LIVED EXPERIENCE OF  
MALADAPTIVE DAYDREAMING

Section A:

Disorder of Paradox: A Systematic Review of Maladaptive Daydreaming

Word Count: 7,999

Section B:

“This Darkness Inside”: Exploring Aversive Fantasy in  
Maladaptive Daydreaming

Word Count: 8,584

Overall Word Count: 15,999 (584)

A thesis submitted in partial fulfilment of the requirements of  
Canterbury Christ Church University for the degree of  
Doctor of Clinical Psychology

May 2021

SALOMONS INSTITUTE FOR APPLIED PSYCHOLOGY  
CANTERBURY CHRIST CHURCH UNIVERSITY

## **Acknowledgements**

I would like to express my gratitude to the eight participants who invited me into the depths of their worlds. I am deeply thankful for all that you shared; the light and the dark.

I am incredibly grateful to my two supervisors, John and Nollaig, for your guidance, encouragement, and support – especially during the Covid-19 pandemic.

Thank you also to Eli, the project consultant, for your patience, wisdom, and inspiration.

Finally, thank you to my family and friends, for giving me both sustenance and space when I needed them most – and to Richard, without whom I would not be where I am today.

## Summary of Major Research Project

**Section A:** Maladaptive Daydreaming (MD) is a distressful phenomenon with limited understanding and recognition, which leads to controversy regarding potential diagnostic classification. This literature review systematically investigated research prioritising the voices and lived experiences of people who identify with MD. Findings relate to quality of daydreaming and fantasy content, pervasion and absorption, compensatory fantasy themes, emotional salience in fantasy, dependence, impact on health and functioning, secrecy, and challenges with help-seeking. Implications for practice and future research are discussed.

**Section B:** Fantasy in MD can include both positive and aversive content, yet little research has investigated aversive fantasy. The latter raises potentially important questions regarding its seemingly pleasurable, compulsive, and addictive nature. This study explored the experience of MD for people who engage in aversive fantasy. Findings illustrate three superordinate themes (a lonely adventure, seeking safety, and torn between worlds) and seven subthemes (ineffability of daydreaming, intrinsic part of being, is there something wrong with me, managing the world, dealing with negative emotion, a life of its own, and fantasy battles reality). Benign masochism may be one way to interpret outcomes, highlighting a potential subtype of MD (MD-AF) with unique emotion regulation factors. This is discussed in relation to research and clinical implications.

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**Section A: Literature Review**

**Disorder of Paradox: A Systematic Review of  
Maladaptive Daydreaming**

## Abstract

**Background:** Maladaptive Daydreaming (MD) is a recently identified phenomenon that refers to excessive absorption in complex fantasy worlds. Its compulsive and addictive nature presents an experience both pleasurable and distressful, with significant interference of life-functioning. Despite global recognition, it remains a matter of controversy and underrepresentation in diagnostic and clinical settings. This research contributes the first systematic review in the field, aiming to enhance understanding of the phenomenon from the perspective of people with lived-experience. **Method:** Literature was systematically searched, screened, and selected against defined criteria, in accordance with the PRISMA method. Searches were carried out across four databases. Articles were critically assessed using paired appraisal tools, and thematic analysis was used to obtain outcomes. **Outcomes:** Findings are illustrated within four primary themes (phenomenology, function, consequences, and help-seeking). These include seven subthemes (quality and content, pervasion and absorption, compensatory themes, emotional salience, dependence, health and functioning, and secrecy). **Discussion:** MD appears to begin as an entertaining and rewarding coping mechanism, that evolves into an inescapable way of life with severe impact. It could be distinguished from conventional daydreaming, while barriers to recovery are emerging. Clinical recognition may be necessary for progression of awareness and support.

**Key words:** Maladaptive Daydreaming, Lived Experience, Fantasy, Mind-Wandering, Consciousness

## **Introduction**

### **Maladaptive Daydreaming**

Maladaptive daydreaming (MD) is a phenomenon first officially identified in 2002 by Professor Eli Somer. In his seminal paper, he explored the fantasy lives of six individuals in psychiatric care, who reported excessive absorption in vivid, pleasurable daydreams. MD impairs social and/or life functioning and results in distress (Schimmenti et al., 2019). This can include withdrawal from relationships, neglecting daily tasks or work, and reduced concentration. Fantasies are consciously activated, commonly with the aid of repetitive kinaesthesia (e.g. pacing) or emotive music. They can be replayed (or sometimes ‘acted out’) for several hours at a time, creating the illusion of a ‘parallel reality’ (Somer et al., 2016b). People with MD (PwMD) typically discover their ability to activate visceral fantasies during childhood. This subsequently develops into a habitual entertaining or coping mechanism, which results in conflict between an intense yearning to daydream and suffering the consequences of its impact (Somer et al., 2017). Common co-morbidities include attention deficit difficulties and obsessive-compulsive indicators (Somer et al., 2016). MD is also associated with shame, and increased depression, dissociation, and anxiety (Soffer-Dudek & Somer, 2018).

### **Conceptual Evolution**

Despite relative disregard for daydreaming in mainstream psychology, the field has been examining this complex phenomenon as early as the 18-1900s. Ideas were expanded regarding consciousness and ‘waking fantasy’ by philosophers such as William James (Singer, 2003) and Jung’s work with ‘active imagination’ (Rozuel et al.,

2012). Psychoanalyst Sigmund Freud deciphered daydreaming with adaptive ‘incidental effects’, from ‘over-luxuriant’ fantasies, supposedly driven by egoistic and erotic wishes that were socially unacceptable at that time. He believed the latter indicated neuroticism and risk of psychosis (Morrison, 2016). Debates arose during the 1960-70s, with psychologist Jerome Singer challenging sociopolitical vindications of daydreaming in favour of adaptive properties (e.g. Singer, 1975; Singer, 2009). Systematic experimentation led to initial categorisation of three daydreaming styles associated with personality profiles: Positive-Constructive (playful and wishful content), Guilty-Dysphoric (obsessive and anguished fantasies), and Poor Attentional Control (difficulty concentrating on ongoing thought and external tasks) (Singer, 1966).

Wilson and Barber (1982) expanded the field with exploration of ‘fantasy-prone personalities’. They described individuals with vivid daydreams similar to PwMD, however the population they identified demonstrated confusion between fantasy and reality. High levels of belief in parapsychological phenomena were also present - both factors mostly absent in the MD population (Somer et al., 2017). Singer’s most relevant contribution with respect to MD came later, with the discovery of ‘volitional daydreaming’ (Bonanno & Singer, 1993). Reinforced by neuroscientific studies into mind-wandering and attentional control (e.g. Gilbert et al., 2005; Spreng et al., 2010), Singer highlighted capacity to actively disengage from external tasks and pursue internal thought streams. This offered a different lens to that of unintentional cognitive mishap (McMillan et al., 2013). The notion made limited progress with scant investigation however, despite continued recognition that unintentional and deliberate daydreaming may be dominated by different mental processes (Zedelius & Schooler, 2016).

Early pioneer Klinger (2009) differentiated daydreaming and fantasy from one another. He points to confusion in the field due to difficulty agreeing upon construct definitions. Conventional daydreaming is predominantly defined as a mind-wandering activity characterised by temporary and intermittent loss of awareness of mental state. It accounts on average for almost 50% of waking cognition (Killingsworth & Gilbert, 2010), and has equal propensity and temporal orientation across the lifespan (Giambra, 1977). Schooler et al. (2011) note goal-driven, adaptive properties of mental imagery. These include future-planning, addressing current concerns, cycling information streams, distributed learning, and creativity. Bigelsen and Schupak (2011) argue, for this reason, that the term “maladaptive daydreaming” may therefore be a misnomer; the exclusive nature of this phenomenon may be better referred to as “excessive fantasising”. Given popular global adoption of the term ‘MD’ however, efforts to enhance clarity require priority over disputed terminology.

### **Clinical Controversy**

Perhaps the earliest reported case of MD in its unique form (prior to its term) is that recorded by Anna Freud (1923, in Freud, 1999). She depicted a woman with a ‘strong propensity’ to daydream. The woman was dominated by repetitive scenes that she expanded and interposed with new material. Despite shame, both positive and negative content brought pleasurable gratification. It was not until Somer’s (2002) pivotal enquiry however, that related ideas began to take shape in the form of a unique disorder. MD was characterised not only by deliberate daydreaming, but as having a compulsive and distressful nature that could lead to suicidality (Schimmenti et al., 2019). Since the publication of Somer’s paper, a proliferation of online communities arose. Thousands

around the world shared relief at having their experience named, shock that they were not alone, and hope for support. PwMD implored researchers to raise awareness and understanding of the phenomenon; highlighting that MD has been largely disregarded to the detriment of those it affects.

Debate in academic and media domains questions the existence of MD as a disorder distinct from conventional daydreaming (Bershtling & Somer, 2018), and raises concerns about pathologising a natural experience (CNN, 2016). These are critical questions because they influence whether MD has clinical utility in the current system. Having clinical status depends on: whether its entity can be aptly understood, and whether classification would facilitate better communication and development of pathways to reduce suffering (Clark et al., 2017). Countless PwMD who have sought professional help for their experiences report unhelpful reactions due to unfamiliarity and misunderstanding in the mental health field. Misdiagnosis, mistreatment, and dismissal are commonly described (Bershtling & Somer, 2018). In rare cases where it has been accurately identified however, and targeted pilot interventions trialled, research has shown promising results (e.g. Somer, 2018) - albeit mixed at this embryonic stage. Whether or not MD represents the extreme end of a universal spectrum, current research proclaims core characteristics that significantly differentiate its condition. This is shown in terms of quantity, content, experience, controllability, functional impairment, and distress (Schimmenti et al., 2019). Failure to recognise MD within the current system arguably risks failure to respond or prevent, which may further compound negative outcomes.

## **Aims**

This project is the first systematic review in the area of MD. It is intended to offer a step towards a more comprehensive understanding of the topic and raise further awareness in the field. It aims to explore MD through the perspective of those with lived experience, privileging where it first began; with the voices of those unheard. The aim of the review is not therefore to query the construct in all its complexity and entirety, nor to determine whether or not it is distinct and diagnostically classifiable. This would require a more extensive review of a variety of factors and literature available. Instead, it will attempt to lay the foundation for such enquiries, with a particular focus on the following questions:

- a) What are the defining features of MD as reported in research by those with lived experience?
- b) What does the research tell us about how is MD experienced by those who identify with it?

Systematic selection and synthesis will summarise and critique articles, present key findings, and discuss implications for research and clinical practice.

## **Method**

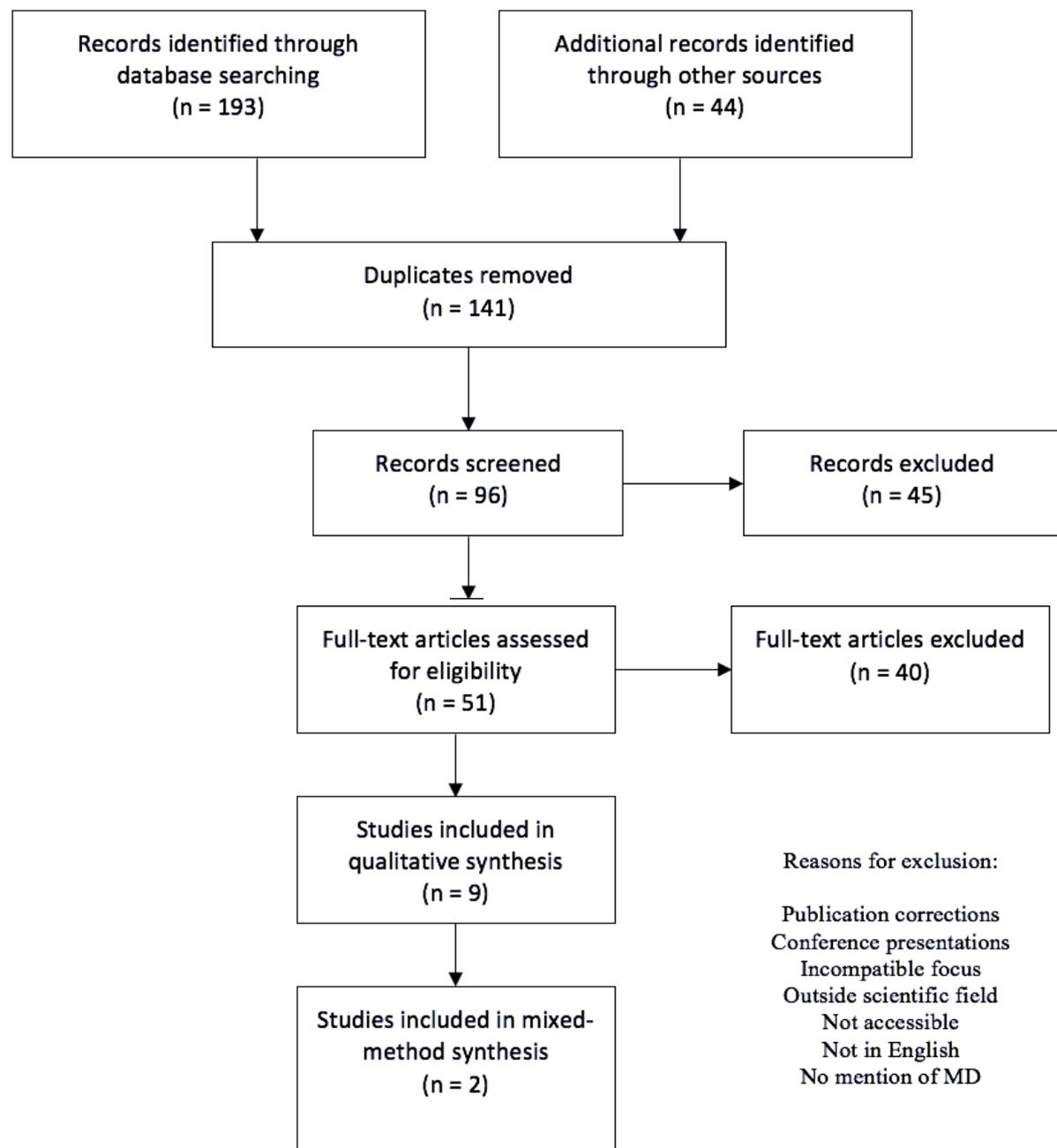
### **Strategy**

An electronic search was carried out in October 2020, across four databases: PsycINFO, Web of Science, The International Consortium for Maladaptive Daydreaming Research (ICMDR), and Google Scholar (first five pages). Given that the first publication of the

term ‘Maladaptive Daydreaming’ was in Somer (2002), a search was conducted within dates ranging 2002-2020. Reference lists of eligible articles were hand-searched. Search terms were chosen to reflect the topic area and included: “maladaptive daydream\*” or “daydreaming disorder” or “pathological daydream\*” or “immersive daydream\*” or “pathological fantasy”. See Figure 1 for an overview of the literature screening process.

Figure 1

*Adapted PRISMA Flow Diagram (Moher et al., 2009) Depicting Article Selection Process*



Selected articles were assessed (Appendix A) using the Critical Appraisal Skills Programme (CASP, 2018) Qualitative Studies Checklist, the Joanna Briggs Institute (JBI, 2017) Checklist for Case Reports, and the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018). Analysis was conducted thematically (Thomas & Harden,

2008); first coding article findings before grouping codes together in order for salient themes to emerge.

## Criteria

Table 1

*Inclusion/Exclusion Criteria for Article Selection*

<b>Inclusion</b>	<b>Exclusion</b>
Involving participant descriptions of MD	Identifying or investigating comorbidities
Exploring the concept of MD (e.g. nature, experience, function, development, or impact)	Comparing or differentiating MD from other classified diagnoses
Case studies	Directive variables (e.g. relationship between MD and emotion regulation, the role of media)
English language accessible	Investigating effects of treatment
	Development of measures to assess MD
	MD as complimentary to main variable/s
	Works outside scientific field (e.g. English theses)

Literature inclusion/exclusion criteria were determined prior to searching (Table 1), with eligibility for full-text screening if MD was referenced in the title or abstract. Exclusion criteria only applied in the absence of inclusion criteria.

## Review

### Summary of Articles

Table 2

*Overview of Selected Articles for Review*

<b>Citation</b>	<b>Aims</b>	<b>Designs/Analyses</b>	<b>Procedures</b>	<b>Sampling</b>
Somer (2002)	Explore nature & experience of MD	Cross-Case Analysis	1-3, 60-minute interviews	6 Israeli participants, 50% male/female, ages 24-53 (all but one 24-35), all single, employed or studying
Bigelsen & Schupak (2011)	Explore impact of MD & preliminary definition	Thematic Analysis, t-tests & descriptive statistics	Developed questionnaire & emailed follow-up questions	90 participants, 15 male/75 female, ages 18-63 (90% 18-39), multi-national
Bigelsen et al. (2016)	Explore MD experience & 'symptomology', related disorders, & relevance of trauma history	Grounded Theory, t-tests & Chi-square	Developed questionnaire	447 participants, 96 male/347 female/2 transgender/2 omitted, ages 13-78 (M = 30.08), multi-national
Somer et al. (2016a)	Generate theory about etiology, developmental course, & experience of MD	Grounded Theory	45-90 mins interviews	16 participants, 2 male, 14 female, Ages 17-38, majority single (3 not), employed or studying
Somer et al. (2016b)	Further understanding of MD	IPA	45-90 min interviews	21 participants, 5 male/16 female, ages 18-42, majority single (4 not), employed or studying, multi-national
Somer (2018)	Present rationale, process, & outcome of therapy for MD	Pilot case report	Therapeutic assessment & intervention	1 participant, male, 25yo, single, student
Bershtling & Somer (2018)	Explore attempts of people with MD to gain clinical	Content & Critical Discourse Analysis	N/A	35 email exchanges & 2 petitions

recognition & examine micro-political processes of medicalisation				
Pietkiewicz et al. (2018)	Explore narrative of individual with MD	Case study: IPA	2 assessments totalling 4 hours	1 case participant, male, 25yo, single, Poland, caucasian, studying
Somer et al. (2019)	Further understanding of MD experience & ontology	Visual Thinking Strategies & IPA	Requested submission of artwork and descriptions	9 participants (17 images/comments), 4 male/5 female, ages 20-63, majority single (2 not), multi-national
Rebello et al. (2019)	Discuss diagnosis and 'management'	Case report	Therapeutic assessment & intervention	1 participant, male, 24yo, single, studying
Witkin (2019)	None stated	Case report	Therapeutic assessment & intervention	1 participant, 'they/their' (referred as female), 14yo, caucasian

### *Summary of Objectives*

Seven articles explored the nature and/or experience of MD to better understand the phenomenon. Focus varied on characteristics, fantasy, meaning, development, and impact. Bigelsen and Schupak (2011) specifically aimed to provide preliminary MD definition through systematic delineation of characteristics, and Bigelsen et al. (2016) examined the relevance of trauma history. Three articles discussed diagnosis and intervention of individuals with MD. One article examined micro-political processes of medicalisation through PwMD's discourse when seeking legitimisation of their experience.

### *Summary of Designs/Analyses*

Nine articles were qualitative and two employed mixed-methods, conducting one or multiple models, including Cross-Case Analysis, Thematic Analysis (Braun & Clarke, 2006), Content Analysis, and Critical Discourse Analysis. Somer (2002) deconstructed and synthesised data into core themes. Bigelsen and Schupak (2011) calculated percentages of participants reporting consistent themes - perhaps more in line with a coding reliability approach (e.g. Boyatzis, 1998) - while Bershtling and Somer (2018) sought patterns within and differences between data sets. They additionally drew on Livnat and Lewin's (2016) micro-analysis model, used to explore verbal manoeuvres in political speeches. Two articles employed Grounded Theory Method (GTM), developing and refining a coding scheme until saturation. Bigelsen et al. (2016) based this upon 10 randomly chosen participants at each stage of the process. Somer et al. (2016a) referred to a set of theoretically open questions during initial coding, a second level of 'Pattern Coding', and comparative analysis of data with previous levels. Three articles employed Interpretative Phenomenological Analysis (IPA; Smith & Osborn, 2003; Pietkiewicz & Smith, 2014; Smith, 1996). Somer et al. (2016b) noted emerging codes and relationships and analysed testimonies until saturation of key points representing experiences, followed by comparative analysis with two previous levels of coding. Pietkiewicz et al. (2018) analysed transcripts using Nvivo11. Somer et al. (2019) additionally employed Visual Thinking Strategies (Housen, 1992) to examine visual literacy and how meaning was made from imagery. Authors described three phases: verbal description of images and identifying themes in participants' written comments, collating analyses to extract collective themes, and IPA.

Two articles conducted multiple independent sample t-tests on questionnaire items. Bigelsen and Schupak (2011) used standardised z-ratios, and Bigelsen et al. (2016) applied Bonferonni corrections on p-values. Bigelsen and Schupak (2011) calculated proportions for questionnaire items. Tests compared severity ratings related to fantasy activity between those with/without trauma histories and who sought/did not seek professional help for fantasy behaviour. Relative severity spectrum of distress and/or functional impairment was catergorised as ‘1-2.5 = little-to-no’, ‘3-5.5’ = moderate’ and ‘6-7’ = severe’. Bigelsen et al. (2016) employed propensity score analysis, using a logistic regression model, to correct mean differences in age, race, education, and student status between groups, using R package twang (Ridgeway et al., 2015). Chi-square testing was also implemented to assess differences in early trauma, using Rao and Scott (1987) adjustments.

### ***Summary of Procedures***

Four articles conducted recorded interviews either in person or video-call, two distributed questionnaires, and three delivered therapeutic intervention. Somer et al., (2019) required submission of A4-size artwork representing the self and MD experience, and 100-word image-descriptions. Measures used to assess additional variables (e.g. emotion dysregulation, co-morbidity) are not reported here in order to maintain focus.

Three articles employed open-ended questions into daydreaming experiences (Somer, 2002; Somer et al., 2016b; Somer et al., 2016a), with two utilising Spradley’s (1980) ‘grand-tour’ and mini-tour questions for clarity. Pietkiewicz et al. (2018) used the Trauma and Dissociation Symptoms Interview (TADS-I), including examination of

absorption and daydreaming. Interviews lasted between 45-90 minutes in 1-3 sessions. Questionnaires were developed based on data from Bigelsen and Schupak (2011) and Somer (2002). Some questions were derivative of other measures (e.g. sense of presence and immersion), due to no MD-specific survey being available. They ranged 14-38 items - including open-ended questions, Likert scales and binary-response questions - addressing multiple components of excessive daydreaming. Bigelsen and Schupak (2011) additionally elicited trauma history and emailed follow-up questions regarding belief in parapsychological phenomena and hypnotic susceptibility. Cognitive-Behavioural Therapy (CBT) was delivered in all three articles, with additional Motivational Interviewing (Somer, 2018; Witkin, 2019), mindfulness (Somer, 2018), medication (Rebello et al., 2019), and integration of other techniques (Somer, 2018; Witkin, 2019). Somer (2018) conducted therapy via video-call, and monitored pre/post 'average daily daydreaming time and pleasure' and at two-month follow-up.

### ***Summary of Participant/Data Sampling***

**Recruitment.** Five articles relied on purposive sampling to recruit participants (Somer, 2002; Bigelsen & Schupak, 2011; Bigelsen et al., 2016; Somer et al., 2016b; Somer et al., 2016a), four of which advertised online for voluntary participation. Somer (2002) recruited within a trauma practice where he worked as a psychologist. Online adverts were placed in MD, mental health, and psychology forums. Three articles recruited based on a provided definition of MD (Bigelsen et al., 2016; Somer et al., 2016b; Somer et al., 2016a), while Bigelsen and Schupak (2011) advertised for individuals who experience "excessive daydreaming". Snowball sampling of control

participants was also employed by Bigelsen et al. (2016). Two articles recruited individuals who had contacted the authors about previous research participation or from their own initiative (Somer, 2018; Somer et al., 2019). Peter (Pietkiewicz et al., 2018) was recruited as part of another study looking at ‘alterations of consciousness’, while Lee (Witkin, 2019) and Rebello et al.’s (2019) participant presented to mental health services.

Total participants in qualitative articles ranged from 6-21 individuals. Mixed-method articles recruited 90 and 447 participants; 341 PwMD and 106 people without MD. Bershtling and Somer (2018) referred to 35 email exchanges to the authors between 2010-2016 and two petitions from 2015-2016. These were submitted to the American Psychiatric Association (APA) and UK Parliament, demanding recognition of MD as a mental health disorder. Case studies centered around Ben (“patient 001”, p. 18, Somer 2018), Peter (Pietkiewicz et al., 2018), Lee (Witkin, 2019), and an unnamed participant (Rebello et al., 2019).

Participants in four articles self-identified with MD (Bigelsen & Schupak; 2011; Bigelsen et al., 2016; Somer et al., 2016b; Somer et al., 2016a), three assessed MD (Somer, 2018; Somer et al., 2019; Witkin, 2019), and three suspected MD by description (Somer, 2002; Pietkiewicz et al., 2018; Rebello et al., 2019). Assessment involved completion of the MDS-16 and/or SCIMD. Emails in Bershtling and Somer’s (2018) study were sent by individuals self-reporting MD. Bigelsen et al.’s (2016) study encompassed a control group of 24% people without MD.

**Demographics.** In articles with multiple participants, females made up more than three-times the total, except two studies, which had an almost or exact 50% male/female ratio. One included two transgender participants. Most case study participants were male, except Lee (Witkin, 2019) whose pronouns were ‘they/their’ (referred to as ‘she/her’ in the article). Ages ranged from 13-78 years-old, with majority averaging 20s-30s. Bershtling and Somer (2018) were unable to identify complete demographics due to data being retrospective. Participants spanned at least 45 countries within and between articles. The most common nationalities were the US, Israel, UK, Canada, Australia, and India. Where reported, the US (Bigelsen et al., 2016; Somer et al., 2016b; Somer et al., 2016a) and Israel (Somer et al., 2016b; Somer, 2018) had the highest counts. Two articles identified race (Caucasian; Pietkiewicz et al., 2018; Witkin, 2019).

Where reported, most participants were unattached, with a minority in romantic relationships in three articles (Somer et al., 2016b; Somer et al., 2016a; Somer et al., 2019). Education level and employment status varied, with majority currently studying or working. Seven articles reported on additional mental health difficulties, such as diagnoses or indications of personality disorder, anxiety disorders, psychotic disorders, and addiction, as well as autism spectrum, attention-deficit hyperactivity, and more (Somer, 2002; Bigelsen et al., 2016; Somer et al., 2016a; Somer, 2018; Pietkiewicz et al., 2018; Rebello et al., 2019; Witkin, 2019).

## **Critique of Articles**

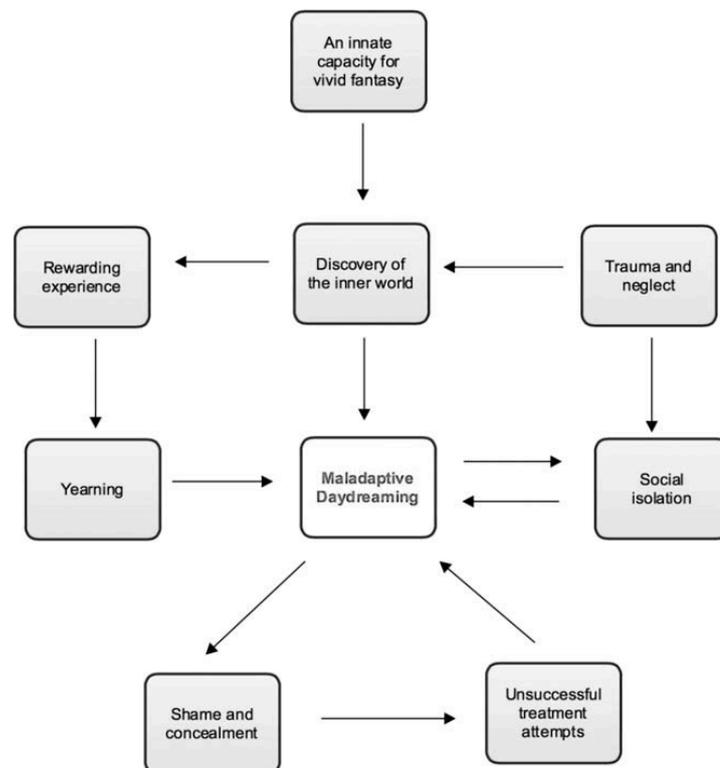
### ***Design***

Study designs are appropriate to both their aims and context at the time of publication. Explorative questions seeking rich description of experience and meaning, invite aspects not yet considered and depth of understanding to new areas of investigation (Frost, 2011, p. 50). Self-report surveys are also suitable when variables in a new population or phenomenon are yet to be identified (Silverman, 2000). Similarly, case studies are crucial during initial stages of research as they generate new directions for exploration and develop theory and intervention (Baxter & Jack, 2008). Only a handful of studies exist piloting intervention for MD, highlighting its necessity.

Somer et al.'s (2016a) article provided a valuable contribution as the first to construct a substantive model regarding development and maintenance of MD (Figure 2). Authors structured findings as a storyline, suggested to aid in data conceptualisation (Strauss & Corbin, 1990). Thomas and James (2006) posit however, that GTM may invoke theoretical 'invention' rather than 'discovery'. They heed caution regarding interpretation of such models as entirely legitimate foundations. Bershtling and Somer (2018) and Somer et al. (2019) were similarly responsive to the needs of the field; the first designed with political relevance, while the second drew on artistic expression to add projective data to the ontological question of MD. The latter seems pertinent given the creative and potentially projective nature of the phenomenon itself.

Figure 2

*Somer et al.'s (2016a) Model of Maladaptive Daydreaming*



### ***Participant/Data Sampling***

Purposive sampling obtains information pertaining to the experience of particular individuals (Devers & Frankel, 2000), from which outcomes can be extrapolated for future research. This was necessary for Somer (2002), due to first observations of the phenomenon being within the author's clinical setting. Purposive and convenience sampling both share an element of bias however, in non-random participant selection, which potentially limits inferences made about populations (Etikan et al., 2016). Somer et al. (2019) for example, sent 30 invitations based on prior participation and one who had previously sent artwork to the authors. Yet it is not clear why these participants were chosen in place of an 'open call'. Participants were rigorously assessed for MD

nonetheless, including assessor blindness to ensure accuracy. The selection process is equally unclear regarding Ben (Somer, 2018) and Peter (Pietkiewicz et al., 2018). Somer (2018) reports that Ben contacted the author expressing interest in research participation. Nevertheless, according to extant literature, he was presumably one amidst many PwMD who contacted. Peter's initial participation was in an alternative project, however Pietkiewicz et al. (2018) do not report recruitment strategy or reference this research.

Most recruitment and participation occurred online, accessing multi-national individuals and providing survey anonymity. This potentially encouraged honest reports regarding a topic highly associated with shame. Despite little report on race and culture, participants are internationally diverse, demonstrating high global applicability of findings (Clark et al., 2017). The average age group may suggest greater prevalence of MD in working-age populations. However, the higher number of respondents under 40-years-old may be influenced by greater use of online social spaces by younger individuals (Perrin, 2015). Similarly, findings may not be entirely extrapolated to minors, where some articles limited participation to those 18-years-old and over. Most studies relied upon MD assessment to confirm if participants met criteria, while a few were forced to rely upon subjective self-identification prior to development of MD measures. It is possible these samples are less representative of the proposed population. Self-selection was based on a given definition however - with the exception of Bigelsen and Schupak (2011) - to increase clarity.

The split between studies in clinical and non-clinical samples offers insight into MD within the broader population. Sample sizes are suitable to research aims, with 5-25

participants considered appropriate for phenomenological studies (Creswell, 1998, p. 64). Studies involving artistic artefacts cite similar sizes to Somer et al. (2019) (e.g. Terry-Clark, 2016). Mixed-method articles also boast fairly substantial sample sizes implying reasonable statistical power (Akobeng, 2016).

### ***Rigour***

Most studies report thorough detail regarding analytical processes. This includes high inter-rater reliability and enhanced credibility with use of member-checking (Korstjens & Moser, 2018). Findings were cross-checked between co-authors in six studies (Bigelsen et al., 2016; Somer et al., 2016b; Somer et al., 2016a; Bershtling & Somer, 2018; Somer et al., 2019). Later contact was made with participants to clarify data and/or ascertain feedback on interpretation in three (Somer et al., 2016b; Somer et al., 2016a; Somer et al., 2019). Four studies employed further triangulation strategies, corroborating and strengthening accuracy of outcomes (Glesne & Peshkin, 1992) while facilitating further levels of conceptualisation (Saldaña, 2009). This included collecting data from multiple sources (Somer et al., 2019), analysing multiple levels of data (e.g. email content and form, Bershtling & Somer, 2018), and comparatively analysing multiple levels of coding (Somer et al., 2016b; Somer et al., 2016a). Such strategies suggest a critical realist approach in which a ‘universal truth’ is being sought, though ontological positioning is not made clear by the authors. Somer (2002) is less specific regarding thematic derivation and offers little interpretation due to the absence of formal analysis. Descriptive observation was appropriate for this initial foray into the topic however, with quotes presented to sufficiently support findings.

Statistical procedures are also aptly outlined in mixed-method studies, with some gaps to note. Bigelsen and Schupak (2011) for example, divided participants into three categories of distress and impairment severity but do not report the number of participants in each. The decision to employ multiple independent sample t-tests in Bigelsen et al.'s (2016) study seems intuitive in line with aims to provide a comprehensive, pioneering investigation into different areas of the MD experience. This increases the risk of making a Type 1 error however (Armstrong, 2014), and impacting effect size. Tests were also divided into two conceptual camps of 38 and 17 t-tests without explanation. This leaves only assumption that it allowed focused family-wise error rates for each investigative area. Models such as MANOVA may have been dismissed as less ideal where items were rated on Likert scales, rendering non-normal distribution of dependent variables (Yatim & Ismail, 2014). Bonferroni correction is a conservative adjustment to alpha that can greatly improve probability risks (Armstrong, 2014) and was applied to each group separately. Differences between PwMD and people without MD were consistent across all items, except confusing daydreams for reality - further highlighting less need for alternative statistical models. Nonetheless, it may have been helpful for the authors to offer more detailed rationale of analytic decisions given methodological complexity.

Two case reports (Somer, 2018; Witkin, 2019) present detailed description regarding formulation, assessment, intervention, and outcomes. Detail includes rationale for support offered and how this was tailored to individual needs, relevant personal history, and reflections on participant process at differing phases of intervention and outcome. Rebello et al. (2019) provide less information, lacking indication of personal history, participant experience, and assessment and outcome measures. Therapeutic techniques,

medication, and outcomes are briefly listed with little detail, which possibly compromises replicability for future trials (Hoffmann et al., 2014). Whilst challenges are identified, it is worth noting the potential for placebo effects (Yahne & Miller, 1999). Participants may have invested hope in such pioneering pilots, conceivably influencing outcome scores. Positive and negative results are evaluated equally nevertheless.

### ***Reflexivity***

Seven articles (Somer, 2002; Somer, 2018; Witkin, 2019; Bershtling & Somer, 2018; Pietkiewicz et al., 2018; Somer et al., 2019; Rebello et al., 2019) report existing or prior connection between researchers and participants. Connections were clinical, from previous research participation, or email contact. All but two (Pietkiewicz et al., 2018; Somer et al., 2019) examine varying levels of ethical reflexivity regarding potential impact of this. While Somer (2002) acknowledges the setting as his own practice and participants as his own service users, he does not address potential influence of his dual role as therapist and primary researcher, with respect to data collection and analysis. Possible biases, such as demand characteristics may have been present (Kanter et al., 2004). Therapeutic communication may also have been influential, such as transference (Freud, 1958), or desire to portray oneself in a particular way to meet needs in the relationship. Conversely, therapeutic alliance could be perceived as a strength. It could benefit potential likelihood of openness regarding typically shame-filled experiences (Carabellese et al., 2019). For that reason, Somer et al. (2016b) note possible limitations on their findings, due to requirement of participants to reveal intimate fantasy detail to a stranger during interviews. Furthermore, as a long-term expert in the field, Somer has been immersed in online MD communities, participant assessment and interaction, and

correspondence with PwMD across the world. This could enhance the relevance of email data in Bershtling and Somer's (2018) study for example, and overall credibility in his work (Lincoln & Guba, 1985).

## Findings

Table 3  
*Table of Themes Capturing Data Findings*

Primary Themes	Sub-Themes
Phenomenology	Quality and Content
	Pervasion and Absorption
Function	Compensatory Themes
	Emotional Salience
Consequences	Dependence
	Health and Functioning
	Secrecy
Help-Seeking	

### *Phenomenology*

Daydreaming experience for PwMD was captured within the nature of fantasy, pleasure derived from it, conditions for daydreaming, and sense-of-self.

**Quality and Content.** Daydreams were described as highly intricate, vivid, and elaborate in detail. They spanned a variety of genres and time periods - such as science fiction or animation - with often ongoing plotlines and characters evolving over many years. These were labelled by some as ‘fantasy archives’ one could replay, though Bigelsen and Schupak (2011) acknowledged that a minority did not return to fantasies. This was less common for people without MD, who reported more static fantasies based on real-life or concrete desires, such as winning the lottery (Bigelsen et al., 2016).

Content was idiosyncratic, however recurring themes and characters were common within and between individuals. Characters could be original, but were often borrowed from media, books, public figures, or strangers. Themes included heroism, hidden talents, romantic or sexual relationships, imaginary families, violence, captivity and rescue, illness and death, revenge, etc. Ben (Somer, 2018), for example, fantasised about playing guitar for cheering crowds and admiring girls. Fantasies in Somer’s (2002) study, based in a trauma clinic, had a “preponderance of aggression, sadism, and bloodshed” (p. 205).

Some PwMD believed daydreaming was like watching a movie, while others felt immersed within it. It could stimulate a sensory experience of internally rich colours, smells, sights, and sounds (Somer et al., 2016b). This could be juxtaposed to a dreary outside world, pictorially depicted in Somer et al.’s (2019) study in darkness and monochrome. PwMD depicted visceral pleasure, reward, and soothing when daydreaming. Participants in Bigelsen and Schupak’s (2011) study used words like

“calm, relaxed, excited, in-control, confident, euphoric, and happy” when describing what daydreaming felt like, with one referring to it as a “comforting mist” (p. 1644).

**Pervasion and Absorption.** Inspiration for content and triggers appeared to be two sides of one coin. Almost any external stimulus afflicted a strong urge to daydream or create new material. This included music, film and television, books, media, news, porn, emotions, jogging, or learning something new. One could even get ‘hooked’ onto a thought that spiralled into fantasy (Pietkiewicz et al., 2018). Multiple participants in Bigelsen and Schupak’s (2011) study suggested asking when daydreaming stops, rather than what triggers it, as the urge was felt to be constant.

The ability to activate visceral daydreams was almost unanimously discovered in childhood before escalating into a habit. MD was portrayed as an integral and inseparable part of one’s identity. It influenced one’s self-image/understanding, while seemingly impossible to imagine existence without it. Some even contemplated representation of self-aspects, for example within characters (Somer, 2002; Somer et al., 2019). The ability to distinguish between fantasy and reality was evident across articles and in almost all cases (e.g. 98%; Bigelsen & Schupak, 2011), with insight into MD’s self-generated origin. This remained true for Lee (Witkin, 2019), where psychosis was present, expressing sadness that her/their fantasy world was not real.

Kinesthetic activity during daydreaming, such as ritualised movement or enactment of fantasies (e.g. muttering, facial expressions) and listening to music, were common. These included tossing objects, pacing, rocking, flapping, etc., reported by 79-80+% of participants in two studies (Bigelsen & Schupak, 2011; Bigelsen et al., 2016).

Movement was felt to facilitate hypnotic-induction, while music could enhance emotive inspiration (Somer et al., 2016b); both resulting in deeper immersion. Pacing while listening to music was the most common activity in Bigelsen and Schupak's (2011) study. One participant stated they would do this for long periods of time "even if my feet ached" (p. 1640).

### ***Function***

MD was predominantly described as a coping mechanism and entertainment source, with escape and self-soothing at its core.

**Compensatory Themes.** Fantasy worlds were reported to provide flight from the harshness or dullness of daily life into preferred realities; typically, when a sense of inadequacy, pain, or solitude was present. MD could begin, for example, in response to social or romantic rejection, bullying, parental criticism, etc. Loneliness came in many forms, including illness, being an only child, social awkwardness, etc. Undesirable circumstances ranged on a spectrum; from Ben (Somer, 2018) who used fantasy to alleviate boredom and contemplate the meaning of life, to another who fantasised to distract from violent disputes at home (Somer, 2002). The majority of PwMD reported a preference for their alternative worlds, which felt easier and safer. They provided craved-for environments and a "protective shield" (Somer et al., 2019, p. 104) from fear, stress, or boredom. MD was felt to provide a source of happiness and reward entirely from the mind. Pictorial contrasts illustrate flat emotion, sadness, anxiety, and pitch-dark emptiness in the outer world, compared to vibrant, colourful, smiley daydreaming bubbles (Somer et al., 2019).

Daydreaming about idealised selves, relationships, and lives were most common. Characters and storylines often seemed to represent unmet needs or desires. Such themes were mentioned significantly less by people without MD (Bigelsen et al., 2016). These frequently included imagined partners, social confidence, success, heroism, adoration, power, beauty, or talents. Revenge and/or moral triumph over those who caused pain was also reported (Somer et al., 2016b; Pietkiewicz et al., 2018). Those who lacked confidence or social status fantasised, for example, about breaking many hearts, astonishing others by levitating, or being a “warm, family woman” instead of her real-life depiction as “cold” and “alienated” (Somer, 2002). Other examples included fantasies incorporating a strong sibling relationship following the death of one’s brother (Bigelsen & Schupak, 2011), and athletic bravado in place of delayed puberty (Somer, 2002).

A sense of power and control was also frequently described, inciting feelings of relief. PwMD were positioned as master-creators of their universes (Somer et al., 2019), deciding what happens to characters or endings. For example, Somer (2002) described daydreams involving sexual domination in response to frustration or sadness, sadistic violence from a usually “timid, soft-spoken” woman (p. 205), and overtaking powerful institutions. Imaginary worlds were created exclusively for oneself, while those external might be seen as “alien forces” that could not truly understand (Somer et al., 2019, p. 106).

**Emotional Salience.** MD was consistently described as inviting an emotional state (e.g. resulting in laughter or tears), as well as difficulty accessing, expressing, or tolerating real emotional states. Bigelsen and Schupak (2011) recognised that most

PwMD seemed preoccupied with intensely emotional scenes corroborating affect-laden imagery (Somer et al., 2016b). Arousing aversive emotion was salient in some reports, with one participant in Somer's (2002) study contemplating whether MD enabled enactment of feelings and "allegories of memories" (p. 204). This was more broadly perceived by authors as potentially disguised dissociated memories. One participant, for example, remembered the satisfaction of being a "seeing but unseen" detective in their fantasies, during a period of emotional neglect and sexual abuse. Another began having fantasies about captivity at the time that she was abused by her grandfather. Two articles suggested MD may provide relief from emotional processing, seek distraction from negative thoughts, and discharge emotional tension (Somer, 2002; Pietkiewicz et al., 2018). Others framed it as a creative form of more bearable processing. This was reported in one case to result from a need to develop inner-resources to express feelings and self-soothe, where caregivers failed to regulate these experiences (Somer et al., 2016a). When angry with their teacher as a child for example, one PwMD fantasised about them eating grass in a cage (Somer, 2002). Another chose accompanying music that helped express and understand feelings (Somer et al., 2016b). Compensatory themes may allow transformation of mood-states, rendering 'negative scripting' an enjoyable experience. For example, fantasising about terminal cancer equally incited worry from characters, feeling loved and cared for, and being brave (Bigelsen & Schupak, 2011). Peter (Pietkiewicz et al., 2018), who believed emotional expression was weakness, attributed self-associated vulnerability (e.g. hopelessness) to characters he would save/inspire.

### *Consequences*

Reported benefits of MD included enhanced creativity, pleasure, and emotion regulation. Conversely, it was markedly characterised by distress, due to its overpowering, all-consuming, and unrelenting nature.

**Dependence.** Along with pleasurable lure of fantasy, articles unanimously described an uncontrollable compulsion to daydream and/or cycle of daydreaming. Many reported unsuccessful attempts to limit time spent daydreaming. In Bigelsen and Schupak's (2011) study, 79% of PwMD tried avoiding triggers, battling urges, and being present - with almost all failing. Time spent daydreaming varied across articles up to 10 hours per day, or 'any minute that allows'. This averaged 57% of waking hours compared to 16% for people without MD (Bigelsen et al., 2016). When not daydreaming, Rebello et al.'s (2019) participant reported being preoccupied by how he would act things out. Additionally, 8% in Bigelsen and Schupak's (2011) study engaged in research for their fantasies. Many reported an immediate urge to daydream upon waking, or irritation if interrupted by real-life interactions and responsibilities. MD seemed to increasingly consume time and energy until one felt unable to function without it. Taking over life and losing control were primary sources of distress. PwMD frequently referred to their experience as compulsive, addictive, or an obsession. PwMD's comparison to psychiatric conditions in Bershtling and Somer's (2018) study may have sought validation of their struggle, along with metaphors representative of internal conflict. For example, "the war in my own mind" (p. 1993). Rebello et al.'s (2019) participant, spending hours locked in a bathroom, felt powerless to reduce MD despite its impact. Another would make excuses for time alone to "get my fix" (Somer

et al., 2016a, p. 474). One man could not sleep until he fantasised about seducing women and made love to a folded blanket every night (Somer, 2002).

The involuntary urge of MD appeared to cycle in response to positive and negative reinforcement processes. It first offered distraction from a boring or stressful reality and provided pleasure and a sense of control. This was followed by a dreaded or shame-filled return to reality, made less satisfying by comparison (Bigelsen & Schupak, 2011), and increased sadness or stress due to neglect of real-world obligations. This in turn led to the seeking of comfort in MD. PwMD acknowledged times when they were able to restrain daydreaming. This was usually when focus or performance was a priority (e.g. during exams) or when interests were engaging. Suppression of MD however, was reported by the majority in Bigelsen and Schupak's (2011) study to cause increased frustration, stress, anxiety, and even illness, such as migraines and stomach pains. This led one participant to 'binge' on daydreaming in the summer following exams, feigning illness to do so undetected.

**Health and Functioning.** Impaired functioning was highlighted across articles, including academic or occupational, social, and romantic pursuits. Comparatively, 97% of PwMD indicated interference in one-or-more areas, exceeding 34% of people without MD (Bigelsen et al., 2016). Social/familial relationships could become lost or fractious where PwMD became withdrawn and isolative (Rebello et al., 2019; Witkin, 2019). In Bigelsen and Schupak's (2011) study, 9% felt that meaningful relationships only existed within their daydreams. Awkwardness, social anxiety, and alienation were present for 24% of participants, and a majority reported preference for MD over real-life interactions. Peter (Pietkiewicz et al., 2018) expressed regret over lost opportunities

to mature in intimacy, feeling that MD deprived him of age-appropriate experiences. MD was also reported to diminish concentration and motivation, negatively affecting education, with some feeling under-achieved relative to peers. Most maintained employment in Bigelsen and Schupak's (2011) study, however this was described as a "delicate and stressful balancing act" (p. 1643). Producing and sharing something 'worthwhile' in the real world was a primary reason for the desire to reduce daydreaming in their sample. Many articles reported risk of damage to PwMD's health due to daydreaming via diminished self-care, such as lost sleep and – in one article (Somer et al., 2016b) - eating. That participant reported "nothing gets done" (p. 566), including cleaning their home and relieving themselves. Moreover, Lee (Witkin, 2019) reported increased somatic complaints.

PwMD experienced themselves as a coherent self, exhaustingly divided between two worlds; shifting attentional awareness between two lives that created a schism within them. One felt never truly present in either world and prevented from living life to its full potential; unable to meet needs, goals, and responsibilities. Some described feeling hollow in relation to reality (Somer et al., 2016a), or a sense that one was 'like a ghost' (Somer et al., 2016b; Somer et al., 2016a). Death-related imagery may signify the profound impact of MD on one's existential harmony. Urgency and guilt often accompanied distress, where MD was perceived as wasting limited time. In Pietkiewicz et al.'s (2018) article, with multiple addictions present, MD was reported as Peter's main area of concern. In Bershtling and Somer's (2018) article, MD was described as a "parasite in my brain... ruining life" (p. 1992) and inhibiting focus on the "actual person I am" (p. 1994). PwMD's suffering in general was described as "horrible" (Bershtling & Somer, 2018, p. 1992), "painful" (Somer et al., 2019, p. 107), and "a

nightmare” (Somer et al., 2016b, p. 567). There was an overall desperation for change, with 88% experiencing moderate-to-severe distress in Bigelsen and Schupak’s (2011) study.

**Secrecy.** Shame was overwhelmingly present for participants. This led to extreme measures to hide MD (82% of participants in Bigelsen and Schupak’s (2011) study) and fear about their secret being discovered. Worries included being ridiculed, pitied, or misunderstood. This was a paradox however: not wanting to be seen as “crazy” or pathetic, but equally fearing minimisation or dismissal of their experience. Solitude seemed thus an ideal environment for daydreaming, to avoid distraction and permit disinhibition - though 57% daydreamed around others when possible (Bigelsen & Schupak, 2011). PwMD reported only engaging in kinesthetic activity (or acting out) when alone. One participant sought isolated locations so he could “scream and shout there without shame” (Somer, 2002, p. 208). Shame and secrecy were also reported barriers to social support and help-seeking. While some ‘partially’ told a trusted person (Bigelsen & Schupak, 2011), many PwMD who emailed Bershtling and Somer (2018) were disclosing experiences for the first time. PwMD reported reluctance to fully disclose to professionals or talk about it in therapy. Witkin (2019) revealed that showing Lee an online testimony during therapy however, created a “turning point”. She/they felt less shame, increased engagement, and empowerment to explore daydreams, highlighting the potentially powerful role of shame in MD recovery.

### ***Help-Seeking***

Many who sought psychiatric/therapeutic support recalled unhelpful reactions due to unfamiliarity with their experiences and lack of recognition. Ben (Somer, 2018), for

example, was diagnosed with ADHD and prescribed Ritalin. Despite improved concentration, it reportedly increased daydreaming by 50% (possibly a result of absorptive influence on MD). Most help-seeking attempts in Bigelsen and Schupak's (2011) study, sought by 23% of participants, were also unsuccessful. These included CBT, anti-depressants, ADD medications, and dietary alterations.

In rare cases where individuals were 'accurately diagnosed' and targeted pilot interventions trialled, PwMD experienced positive – albeit mixed – results. Participants gained insight into the role of MD in their lives, fantasy themes, and emotion (Somer, 2002; Witkin, 2019). Lee grieved the loss of her/their alternate reality and reframed the benefits of daydreaming when under control (Witkin, 2019). Reductions were seen in time spent daydreaming (Somer, 2002; Rebello et al., 2019) and violent themes (Somer, 2002). Ben (Somer, 2018) formed a romantic relationship – developing real attachment by shedding the fantasy of perfection – and improved scores for work/social adjustment. Lee (Witkin, 2019) made new friends, developed new interests, and improved familial communication. Perfectionism and motivation were reported barriers in each case, both experiencing little decrease in pleasure associated with MD. This rendered most techniques to reduce MD itself unsuccessful for Lee (Witkin, 2019). Participation on peer-forums was also reported, where discovering shared experience had a powerful impact on improved quality of life (Bershtling & Somer, 2018).

## **Discussion**

### **Outcome**

The articles portray a distinct population of people who daydream. They demonstrate a complex, vibrant, sensory, and pleasurable fantasy experience. An innate talent for conscious narrative daydreaming, combined with isolation and absorption as key factors in MD, develops into a habitual, rewarding, and/or soothing mechanism that permeates one's life and identity. MD was felt to enhance creativity, and provide conditions for psychological processing and emotion regulation. For many, it became a primary source of imagined social sustenance. This came at a cost however, spiralling into an uncontrollable compulsion to daydream that consumed time and energy. It significantly impacted daily functioning, personal growth, relationships, and health. Distress could be severe for PwMD, highlighting these critical factors in its maladaptation, while shame could prevent help-seeking. What follows is a vicious cycle: avoiding an undesirable reality within a preferred existence, in turn exacerbating adverse real-life outcomes, leading to increased flight into fantasy in order to cope. MD thus offers both evasion and containment of emotional discomfort, and allows safe contact and/or transformation of less bearable experiences.

### **Clinical Recognition**

Many PwMD reported long-term shame and suffering before stumbling upon the concept of MD online. Poor responses from professionals were commonly experienced in the minority that sought help, due to its foreign nature in the mental health field. Articles demonstrate encouraging results however, for those met with better understanding and targeted intervention pilots. The power of validation was also

evident for therapeutic engagement, social support, and reported reduction in shame. Clinical recognition may therefore be necessary, for development and access to appropriate support. This has seen researchers and PwMD both calling for diagnostic classification to assist this issue and raise awareness (Schimmenti et al., 2019).

Distinguishing normative experience from that which becomes maladaptive may be important, to detect and mitigate impairment and distress (Jablensky, 2016). Although deliberate daydreaming may be a creative solution to a spectrum of needs, compulsion to daydream to excess implies a maladaptive shift with devastating impact. Similar arguments can be made for people with dependence on alcohol, food restriction and/or compulsive exercise (i.e. anorexia nervosa), or ruminative and ritualistic anxiety (i.e. obsessive compulsive disorder).

Diagnostic nosology is a complex issue, challenged by how one defines and measures etiology, dimensions, thresholds, and comorbidity (Clark et al., 2017). It is fundamentally predicated however, on the value of categorising an experience (Egger & Emde, 2011) as outlined in Table 4. The World Health Organisation (WHO) places particular focus on clinical utility and global applicability (Reed et al., 2013). This depends upon discerning clear elements of the entity (phenomenology), reliability of measurable criteria, and whether it can be validly distinguished from both conventional experience and existing classifications of distress.

Table 4

*Factors Involved in Clinical Utility and Global Applicability for Diagnostic Validation (Reed et al., 2013)*

Clinical utility	Global applicability
The extent to which a mental-disorder classification or diagnostic category:	The extent to which a classification is useful in different:
(a) facilitates communication among users	(a) regions and countries
(b) facilitates conceptualization and understanding of the entity or entities classified	(b) languages
(c) can be implemented easily and accurately by relevant health professionals (e.g., because the categories fit patients well, the system is easy to understand and use, or clinicians can easily reach a diagnostic conclusion)	(c) cultural contexts
(d) helps health professionals to select treatments and manage clinical conditions (i.e. helps reduce distress and associated disease burden)	(d) settings with dramatically different levels of resources

It was not within scope of this review to consider all research addressing these concerns, but findings support the existence of an exclusive pattern of behaviour posing a significant challenge to those it consumes. Since conception, MD research has evidenced high construct reliability, validity, and global applicability, branching into numerous areas of exploration. These include theory/model development (e.g. Somer et al., 2016a; Schimmenti et al., 2019), factor correlations and comorbidities (e.g. Greene et al., 2020; Ross et al., 2020), case studies and treatment pilots (e.g. Schupak & Rosenthal, 2009; Wang et al., 2019), and development of robust measures to detect and assess it (e.g. Somer et al., 2016; Somer et al., 2017; Sándor et al., 2020).

Contrary to this, one may assert that clinical recognition only depends on diagnostic classification within the medical model of illness, which may not be the most valuable focus of research and practice efforts. The diagnostic model tends to locate problems within the individual – generally on the assumption of biological or ‘chemical’ faults –

and seeks to treat apparent symptoms rather than the real cause of the problem (Johnstone & Boyle, 2018). This may neglect the importance of contextualising expressions of suffering (i.e. 'disorders') as adaptive responses to one's circumstantial and social environment. Efforts for clinical recognition of the phenomenon described as MD may therefore be best focused on a holistic and strengths-based alternative to diagnosis when raising awareness, such as biopsychosocial formulation. This may direct more effective advancements in understanding and helping PwMD, and highlighting (even harnessing) the talent of this daydreaming style.

### **Areas of Future Investigation**

Efforts to further pilot potential support avenues are necessitated; predominantly to regain control of daydreaming, reduce its impact, and improve quality of life. Research may explore a range of modalities and techniques, with additional areas of significance relating to addiction and ruminative compulsion, social anxiety, emotional literacy and regulation, and self-esteem. Peer support may additionally be indicated, where this is shown to reduce isolation and motivate recovery orientation in many contexts (Ibrahim et al., 2020). Outcomes of intervention attempts in selected articles are mixed but encouraging, highlighting motivation as a potential barrier to reducing MD. All studies, with anomalous exception (one participant in Somer, 2002), focused on those currently experiencing MD. Future studies could seek participants with retrospective experience, to help determine routes to recovery.

PwMD almost unanimously believed the seeds of MD to have begun in childhood or adolescence, subsequently entrenching into identity and affecting the lifespan. According to McMillan et al. (2013) the more a person switches between inner and

outer streams of consciousness, the more developed this capacity becomes. This suggests that early intervention and/or prevention may be critically relevant. Identifying early warning signs may be a priority, as well as increased research with children and young people who may display or be subject to them - or identify with immersive deliberate daydreaming.

There is much complexity and debate regarding how the extant literature theorises MD at this early stage, as evidence increasingly attempts to build on the accepted notion that MD is a distinct clinical construct that develops and operates as such. A vast majority of publications deciphering the foundations of this phenomenon were carried out by Somer or researchers associated with the ICMDR, which he founded - including the present author and all but two review articles. This includes many commentaries evaluating similarities and differences between MD and other patterns of distress, such as dissociative identity disorder (Ross, 2018). While this does not necessarily equate to bias of conceptualisation, the field may mitigate such risk with continued expansion of ideas from differing theoretical perspectives (e.g. cognitive, psychoanalytic, systemic) and alternative methodological interpretations.

Finally, it would be useful to gain richer comprehension of the role fantasy plays in PwMD's psychological and emotional lives. In particular, significantly less attention has been given to daydreams with aversive content. This is despite findings intimating relevance with respect to compensatory themes and emotional states. This lends to queries regarding possible similarities and differences between the function and experience of positive and negative content, as well as what may trigger aversive fantasy and related factors otherwise overlooked.

## **Conclusion**

This review systematically selected, critiqued, and synthesised articles exploring MD from the perspective of people with lived experience. As the first systematic review on this topic, it aimed to clarify MD's defining features as experienced by those who identify with it, with particular intent to raise understanding and awareness in the field. These findings reveal a possible disorder of paradox: pleasure versus distress, coping versus destruction, 'here versus there'. That which seduces an individual into a sense of mastery leads to a loss of control, and that which promises escape rewards with entrapment. MD may therefore be perceived as an experience of warring worlds and divided self. Not only does it propose core characteristics that distinguish it from conventional daydreaming, but barriers to recovery already emerge. Despite controversy surrounding diagnostic classification, clinical recognition may be necessary to advance development and access to appropriate support avenues. Gaps in the literature are also identified, including a need for deeper understanding of aversive fantasy as a less explored expression of MD.

## References

- Akobeng, A. K. (2016). Understanding type I and type II errors, statistical power and sample size. *Acta Paediatrica*, *105*(6), 605-609. <https://doi.org/10.1111/apa.13384>
- Armstrong, R. A. (2014). When to use the Bonferroni correction. *Ophthalmic and Physiological Optics*, *34*(5), 502-508. <https://doi.org/10.1111/opo.12131>
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*(4), 544-559. Retrieved from <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf>
- Bershtling, O., & Somer, E. (2018). The micro-politics of a new mental condition: Legitimization in maladaptive daydreamers' discourse. *Qualitative Report*, *23*(8), 1983-2002. Retrieved from [https://www.researchgate.net/profile/Eli-Somer/publication/327242999\\_The\\_Micro-Politics\\_of\\_a\\_New\\_Mental\\_Condition\\_Legitimization\\_in\\_Maladaptive\\_Daydreamers%27\\_Discourse/links/5b83ebe7299b1d5a72ab691/The-Micro-Politics-of-a-New-Mental-Condition-Legitimization-in-Maladaptive-Daydreamers-Discourse.pdf](https://www.researchgate.net/profile/Eli-Somer/publication/327242999_The_Micro-Politics_of_a_New_Mental_Condition_Legitimization_in_Maladaptive_Daydreamers%27_Discourse/links/5b83ebe7299b1d5a72ab691/The-Micro-Politics-of-a-New-Mental-Condition-Legitimization-in-Maladaptive-Daydreamers-Discourse.pdf)
- Bigelsen, J., Lehrfeld, J. M., Jopp, D. S., & Somer, E. (2016). Maladaptive daydreaming: Evidence for an under-researched mental health disorder. *Consciousness and Cognition*, *42*, 254-266. <https://doi.org/10.1016/j.concog.2016.03.017>
- Bigelsen, J., & Schupak, C. (2011). Compulsive fantasy: Proposed evidence of an under-reported syndrome through a systematic study of 90 self-identified non-

- normative fantasizers. *Consciousness and Cognition*, 20(4), 1634-1648.  
<https://doi.org/10.1016/j.concog.2011.08.013>
- Bonanno, G. A., & Singer, J. L. (1993). Controlling one's stream of thought through perceptual and reflective processing. In D. M. Wegner & J. W. Pennebaker (Eds.), *Century psychology series. Handbook of mental control* (p. 149–170). Prentice-Hall, Inc.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications, Inc.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. Retrieved from <https://www.tandfonline.com/doi/abs/10.1191/1478088706QP063OA>
- Cable News Network. (2016, December 30). Maladaptive daydreaming: When fantasies become a nightmare.  
<https://edition.cnn.com/2016/12/30/health/maladaptive-daydreaming-feature/index.html>
- Carabellese, D. J., Proeve, M. J., & Roberts, R. M. (2019). Relationship of patient shame to working alliance and satisfaction: A preliminary investigation. *The Journal of Mental Health Training, Education and Practice*, 14(4), 251-263.  
<https://doi.org/10.1108/JMHTEP-10-2017-0059>
- Clark, L. A., Cuthbert, B., Lewis-Fernández, R., Narrow, W. E., & Reed, G. M. (2017). Three approaches to understanding and classifying mental disorder: ICD-11, DSM-5, and the National Institute of Mental Health's Research Domain Criteria (RDoC). *Psychological Science in the Public Interest*, 18(2), 72-145.  
<https://doi.org/10.1177/1529100617727266>

- Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Critical Appraisal Skills Programme. (2018). CASP qualitative checklist. <https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf>
- Devers, K. J., & Frankel, R. M. (2000). Study design in qualitative research—2: Sampling and data collection strategies. *Education for Health, 13*(2), 263–271. DOI:10.1080/13576280050074543
- Egger, H. L., & Emde, R. N. (2011). Developmentally sensitive diagnostic criteria for mental health disorders in early childhood: The diagnostic and statistical manual of mental disorders—IV, the research diagnostic criteria—preschool age, and the diagnostic classification of mental health and developmental disorders of infancy and early childhood—revised. *American Psychologist, 66*(2), 95-106. <https://doi.org/10.1037/a0021026>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1-4. DOI: 10.11648/j.ajtas.20160501.11
- Freud, A. (1999). *The relation of beating-phantasies to a day-dream1*. Female Sexuality: Contemporary Engagements, 71, Aronson.
- Freud, S. (1958). The dynamics of transference. In *The standard edition of the complete psychological works of Sigmund Freud, Volume XII (1911-1913): The case of Schreber, papers on technique and other works* (pp. 97-108).
- Frost, N. (2011). *Qualitative research methods in psychology: Combining core approaches*. McGraw-Hill Education (UK).

- Giambra, L. M. (1977). Daydreaming about the past: The time setting of spontaneous thought intrusions. *The Gerontologist*, 17(1), 35-38.  
<https://doi.org/10.1093/geront/17.1.35>
- Gilbert, S. J., Frith, C. D., & Burgess, P. W. (2005). Involvement of rostral prefrontal cortex in selection between stimulus-oriented and stimulus-independent thought. *European Journal of Neuroscience*, 21(5), 1423-1431.  
<https://doi.org/10.1111/j.1460-9568.2005.03981.x>
- Glesne, C., & Peshkin, A. (1992) *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Greene, T., West, M., & Somer, E. (2020). Maladaptive daydreaming and emotional regulation difficulties: A network analysis. *Psychiatry Research*, 285, 112799.  
<https://doi.org/10.1016/j.psychres.2020.112799>
- Hoffmann, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher, D., ... & Michie, S. (2014). Better reporting of interventions: Template for intervention description and replication (TIDieR) checklist and guide. *Bmj*, 348.  
<https://doi.org/10.1136/bmj.g1687>
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., ... & Vedel, I. (2018). Mixed methods appraisal tool (MMAT), version 2018. [http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/attach/127916259/MMAT\\_2018\\_criteria-manual\\_2018-08-01\\_ENG.pdf](http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/attach/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf)
- Housen, A. (1992). Validating a measure of aesthetic development for museums and schools. *International Laboratory for Visitor Studies Review*, 2, 214.
- Ibrahim, N., Thompson, D., Nixdorf, R., Kalha, J., Mpango, R., Moran, G., ... & Slade, M. (2020). A systematic review of influences on implementation of peer support

- work for adults with mental health problems. *Social Psychiatry and Psychiatric Epidemiology*, 55(3), 285-293. <https://doi.org/10.1007/s00127-019-01739-1>
- Jablensky, A. (2016). Psychiatric classifications: Validity and utility. *World Psychiatry*, 15(1), 26-31. <https://doi.org/10.1002/wps.20284>
- Joanna Briggs Institute. (2017). JBI: Critical appraisal checklist for case reports. [https://jbi.global/sites/default/files/2019-05/JBI\\_Critical\\_Appraisal-Checklist\\_for\\_Case\\_Reports2017\\_0.pdf](https://jbi.global/sites/default/files/2019-05/JBI_Critical_Appraisal-Checklist_for_Case_Reports2017_0.pdf)
- Johnstone, L., & Boyle, M. (2018). The power threat meaning framework: An alternative nondiagnostic conceptual system. *Journal of Humanistic Psychology*, 1-18. <https://doi.org/10.1177/0022167818793289>
- Kanter, J. W., Kohlenberg, R. J., & Loftus, E. F. (2004). Experimental and psychotherapeutic demand characteristics and the cognitive therapy rationale: An analogue study. *Cognitive Therapy and Research*, 28(2), 229-239. <https://doi.org/10.1023/B:COTR.0000021542.40547.15>
- Killingsworth, M. A., & Gilbert, D. T. (2010). A wandering mind is an unhappy mind. *Science*, 330(6006), 932-932. DOI: 10.1126/science.1192439
- Klinger, E. (2009). Daydreaming and fantasizing: Thought flow and motivation. In K. D. Markman, W. M. P. Klein, & J. A. Suhr (Eds.), *Handbook of imagination and mental simulation* (p. 225–239). Psychology Press.
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120–124. <https://doi.org/10.1080/13814788.2017.1375092>.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. California: Sage Publications.

- Livnat, Z., & Lewin, B. A. (2016). The interpersonal strand of political speech. *Language & Dialogue*, 6(2), 275-305. <http://dx.doi.org/10.1075/ld.6.2.04liv>
- Lusebrink, V. B. (1990). *Imagery and visual expression in therapy*. New York, NY: Plenum Press. DOI:10.5860/choice.28-4798
- McMillan, R., Kaufman, S. B., & Singer, J. L. (2013). Ode to positive constructive daydreaming. *Frontiers in Psychology*, 4, 626. doi: 10.3389/fpsyg.2013.00626
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Med*, 339(10), b2535. <https://doi.org/10.1136/bmj.b2535>
- Morrison, H. (2016). Writing and daydreaming. In *The restless compendium* (pp. 27-34). Palgrave Macmillan, Cham. DOI 10.1007/978-3-319-45264-7\_4
- Perrin, A. (2015). Social media usage: 2015-2015. *Pew Research Center*, 125, 52-68. Retrieved from <http://www.pewinternet.org/2015/10/08/2015/Social-Networking-Usage-2005-2015/>
- Pietkiewicz, I. J., Nęcki, S., Bańbura, A., & Tomalski, R. (2018). Maladaptive daydreaming as a new form of behavioral addiction. *Journal of Behavioral Addictions*, 7(3), 838-843. <https://doi.org/10.1556/2006.7.2018.95>
- Pietkiewicz, I. J., & Smith, J. A. (2014). A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological Journal*, 20(1), 7-14. doi:10.14691/CPJ.20.1.7
- Rao, J. N. K., & Scott, A. J. (1987). On simple adjustments to the chi-square tests with sample survey data. *Annals of Statistics*, 15, 385-397. <http://dx.doi.org/10.1214/aos/1176350273>.

- Rebello, P., Johnson, K., D'Souza, P., Rao, P. P., & Malarmathi, M. S. (2019). A case report on maladaptive daydreaming. *Galore International Journal of Health Sciences and Research*, 4(1), 33-36. Retrieved from [https://www.gijhsr.com/GIJHSR\\_Vol.4\\_Issue.1\\_Jan2019/7.pdf](https://www.gijhsr.com/GIJHSR_Vol.4_Issue.1_Jan2019/7.pdf)
- Reed, G. M., Roberts, M. C., Keeley, J., Hooppell, C., Matsumoto, C., Sharan, P., . . . Medina-Mora, M. E. (2013). Mental health professionals' natural taxonomies of mental disorders: Implications for the clinical utility of the ICD-11 and the DSM-5. *Journal of Clinical Psychology*, 69, 1191–1212. doi:10.1002/jclp.22031
- Ridgeway, G., McCaffrey, D., Morral, A., Burgette, L., & Griffin, B. A. (2015). Toolkit for weighting and analysis of nonequivalent groups: A tutorial for the twang package. *Santa Monica, CA: RAND Corporation*. Retrieved from <https://cran.r-project.org/web/packages/twang/vignettes/twang.pdf>.
- Ross, C. A. (2018). The potential relevance of maladaptive daydreaming in treatment of dissociative identity disorder in persons with ritual abuse and complex inner worlds. *Frontiers in the Psychotherapy of Trauma and Dissociation*, 1(2), 149-162. doi: <https://doi.org/10.XXXX/ftpd.2017.0010>
- Ross, C. A., Ridgeway, J., & George, N. (2020). Maladaptive daydreaming, dissociation, and the dissociative disorders. *Psychiatric Research and Clinical Practice*, 2(2), 53-61. <https://doi.org/10.1176/appi.prcp.20190050>
- Rozuel, C., Ketola, T., & Rozuel, C. (2012). Moral imagination and active imagination: Searching in the depths of the psyche. *Journal of Management Development*, 31(5), 488-501. <https://doi.org/10.1108/02621711211226060>
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Los Angeles, CA: Sage.

- Sándor, A., Münnich, Á., & Molnár, J. (2020). Psychometric properties of the maladaptive daydreaming scale in a sample of Hungarian daydreaming-prone individuals. *Journal of Behavioral Addictions*, 9(3), 853-862. <https://doi.org/10.1556/2006.2020.00050>
- Schimmenti, A., Somer, E., & Regis, M. (2019). Maladaptive daydreaming: Towards a nosological definition. *Annales Médico-psychologiques, Revue Psychiatrique. Elsevier Masson*, 177(9), 865-874. <https://doi.org/10.1016/j.amp.2019.08.014>
- Schooler, J. W., Smallwood, J., Christoff, K., Handy, T. C., Reichle, E. D., & Sayette, M. A. (2011). Meta-awareness, perceptual decoupling and the wandering mind. *Trends in Cognitive Sciences*, 15(7), 319-326. <https://doi.org/10.1016/j.tics.2011.05.006>
- Schupak, C., & Rosenthal, J. (2009). Excessive daydreaming: A case history and discussion of mind wandering and high fantasy proneness. *Consciousness and Cognition*, 18(1), 290-292. <https://doi.org/10.1016/j.concog.2008.10.002>
- Silverman, D. (2000). *Doing qualitative research: A practical handbook*. London: Sage.
- Singer, J. L. (1966). *Daydreaming: An introduction to the experimental study of inner experience*. Crown Publishing Group/Random House.
- Singer, J. L. (1975). Navigating the stream of consciousness: Research in daydreaming and related inner experience. *American Psychologist*, 30(7), 727-738. <https://doi.org/10.1037/h0076928>
- Singer, J. L. (2003). Daydreaming, consciousness, and self-representations: Empirical approaches to theories of William James and Sigmund Freud. *Journal of Applied Psychoanalytic Studies*, 5(4), 461-483. <https://doi.org/10.1023/A:1026075732578>

- Singer, J. L. (2009). Researching imaginative play and adult consciousness: Implications for daily and literary creativity. *Psychology of Aesthetics, Creativity, and the Arts*, 3(4), 190–199. <https://doi.org/10.1037/a0016507>
- Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology and Health*, 11(2), 261–271. <https://doi.org/10.1080/08870449608400256>.
- Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51–80). London, UK: Sage.
- Soffer-Dudek, N., & Somer, E. (2018). Trapped in a daydream: Daily elevations in maladaptive daydreaming are associated with daily psychopathological symptoms. *Frontiers in Psychiatry*, 9, 194. <https://doi.org/10.3389/fpsy.2018.00194>
- Somer, E. (2002). Maladaptive daydreaming: A qualitative inquiry. *Journal of Contemporary Psychotherapy*, 32(2-3), 197-212. <https://doi.org/10.1023/A:1020597026919>
- Somer, E. (2018). Maladaptive daydreaming: Ontological analysis, treatment rationale; a pilot case report. *Frontiers in the Psychotherapy of Trauma and Dissociation*, 1(2), 1-22. <https://doi.org/10.XXXX/ftpd.2017.0006>
- Somer, E., Lehrfeld, J., Bigelsen, J., & Jopp, D. S. (2016). Development and validation of the Maladaptive Daydreaming Scale (MDS). *Consciousness and Cognition*, 39, 77-91. <https://doi.org/10.1016/j.concog.2015.12.001>
- Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017). Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a

- structured clinical interview. *Psychology of Consciousness: Theory, Research, and Practice*, 4(2), 176-189. <https://doi.org/10.1037/cns0000114>
- Somer, E., Somer, L., & Halpern, N. (2019). Representations of maladaptive daydreaming and the self: A qualitative analysis of drawings. *The Arts in Psychotherapy*, 63, 102-110. <https://doi.org/10.1016/j.aip.2018.12.004>
- Somer, E., Somer, L., & Jopp, D. S. (2016a). Childhood antecedents and maintaining factors in maladaptive daydreaming. *The Journal of Nervous and Mental Disease*, 204(6), 471-478. doi: 10.1097/NMD.0000000000000507
- Somer, E., Somer, L., & Jopp, D. S. (2016b). Parallel lives: A phenomenological study of the lived experience of maladaptive daydreaming. *Journal of Trauma & Dissociation*, 17(5), 561-576. <https://doi.org/10.1080/15299732.2016.1160463>
- Spradley, J. P. (1980). *Participant observation*. New York, NY: Holt Rinehart Winston.
- Spreng, R. N., Stevens, W. D., Chamberlain, J. P., Gilmore, A. W., & Schacter, D. L. (2010). Default network activity, coupled with the frontoparietal control network, supports goal-directed cognition. *Neuroimage*, 53(1), 303-317. <https://doi.org/10.1016/j.neuroimage.2010.06.016>
- Strauss, A.L., & Corbin, J. M. (1990) *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.
- Terry-Clark, L. (2016). At the crossroads of midlife: Journeying the midlife transition with guided imagery and music. *Music and Medicine*, 8(2), 55–61. <http://dx.doi.org/10.47513/mmd.v8i2.489>
- Thomas, G., & James, D. (2006). Reinventing grounded theory: some questions about theory, ground and discovery. *British Educational Research Journal*, 32(6), 767-795. <https://doi.org/10.1080/01411920600989412>

- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, *8*(1), 1-10. <https://doi.org/10.1186/1471-2288-8-45>
- Wang, Q., Dong, X., & Li, X. (2019). rTMS as an add-on treatment for maladaptive daydreaming over 10 years in patients with schizophrenia: A case report. *Asian Journal of Psychiatry*, *43*, 208-209. [10.1016/j.ajp.2017.10.025](https://doi.org/10.1016/j.ajp.2017.10.025)
- Wilson, S. C., & Barber, T. X. (1982). The fantasy-prone personality: Implications for understanding imagery, hypnosis, and parapsychological phenomena. *PSI Research*, *1*(3), 94–116. Retrieved from <https://psycnet.apa.org/record/1983-22322-001>
- Witkin, M. (2019). Maladaptive daydreaming: Is it a “real thing”? *The Brown University Child and Adolescent Behavior Letter*, *35*(2), 1-6. <https://doi.org/10.1002/cbl.30353>
- Yahne, C. E., & Miller, W. R. (1999). Evoking hope. In W. R. Miller (Ed.), *Integrating spirituality into treatment: Resources for practitioners* (p. 217–233). American Psychological Association. <https://doi.org/10.1037/10327-011>
- Yatim, B., & Ismail, S. (2014). MANOVA versus alternative methods. *AIP Conference Proceedings*, *1635*(1), 934-939. <https://doi.org/10.1063/1.4903694>
- Zedelius, C. M., & Schooler, J. W. (2016). The richness of inner experience: Relating styles of daydreaming to creative processes. *Frontiers in Psychology*, *6*, 2063. <https://doi.org/10.3389/fpsyg.2015.02063>

**Section B: Empirical Paper**

**“This Darkness Inside”: Exploring Aversive Fantasy in  
Maladaptive Daydreaming**

### Abstract

**Background:** Maladaptive Daydreaming (MD) is a complex disorder of dissociative absorption, that results in significant distress and impairment of daily functioning. Positive fantasy content is most prominently reported. There are many reports regarding aversive fantasy content however, raising questions about the pleasurable lure of dark themes and emotional pain. This study is the first to explore the experience of MD with aversive fantasy specifically, aiming to gain better understanding and provide suggestions for further investigation. **Method:** Interpretative Phenomenological Analysis (IPA) was employed, with additional use of artwork, to enable in-depth exploration of lived experience of MD with aversive fantasy. Individual, semi-structured interviews were conducted with eight participants. **Analysis:** Outcomes are represented within three superordinate themes (a lonely adventure, seeking safety, and torn between worlds) and seven subthemes (ineffability of daydreaming, intrinsic part of being, is there something wrong with me, managing the world, dealing with negative emotion, a life of its own, and fantasy battles reality). **Discussion:** Aversive fantasy may provide a safe place to enact experiential avoidance of difficult emotions. This could be understood as a form of benign masochism, seeking pleasure in threat-safety perception. Findings highlight a potential subtype of ‘MD with Aversive Fantasy’ (MD-AF) that may have unique practice implications with respect to emotion regulation.

**Key words:** Maladaptive Daydreaming, Fantasy, Mind-Wandering, Masochism, Consciousness

## Introduction

### Maladaptive Daydreaming

Maladaptive Daydreaming (MD) is a recently recognised disorder of dissociative absorption that causes significant distress. It is characterised as a behavioural addiction to mental fantasy that can consume more than half of waking hours (Somer, 2002; Somer, 2018). The result is substantial disruption to interpersonal, occupational, and domestic functioning, as well as impairment to identity, self-care, and psychological wellbeing (Bigelsen et al., 2016; West & Somer, 2020). These factors differentiate MD from conventional daydreaming and mind-wandering states, which are complex phenomena that take the form of many different styles and benefits (Singer, 1975; Regis, 2013; Sándor et al., 2021). A growing body of evidence for MD demonstrates high global applicability (Soffer-Dudek et al., 2021), and reliability and validity (e.g. Schimmenti et al., 2020; Somer et al., 2017; Bigelsen & Schupak, 2011). It has been widely accepted by professional and public mental health communities, yet need for clinical recognition remains a priority.

Propensity for imaginative play and internal visualisation are necessary foundations for MD, combined with compulsive avoidance of distressful, lonely, or dysphoric conditions (Somer, 2002; Somer et al., 2017; Ross et al., 2020). Fantasies for people with MD (PwMD) generally involve complex and multifaceted storylines, universes, and characters (Bigelsen & Schupak, 2011). They may replay and evolve over lifetimes; enhancing daydream-based pleasure, while increasing real-life distress due to its impact (Somer et al., 2016a). Somer et al. (2016b) speculate latent meaning of MD content for individuals, where compensatory and affect-laden themes are commonly identified (Bigelsen et al., 2016). Somer et al. (2019) further illustrate self-controlled emotion

regulation as one of the self-reported functions of MD. This was along with protecting oneself from reality, transforming adversity, and gaining a sense of mastery over one's inner world. Despite perceived benefits in emotion regulation, MD predicts significant emotion regulation difficulties (West & Somer, 2020; Sándor et al., 2021; Ross et al., 2020), clinical levels of distress (Somer et al., 2021; Greene et al., 2020), and high levels of co-morbidity with other mental health difficulties (Somer et al., 2017).

Whilst MD fantasies contain positive content in the form of wish-fulfilment (e.g. popularity, rescue, a better version of the self or life), it is not uncommon for PwMD to take pleasure in aversive fantasies. They may immerse themselves in daydreams about grief, violence, illness, or captivity, etc.; even reducing themselves to tears (e.g. Somer, 2002; Bigelsen & Schupak, 2011). Only one study has focused exclusively on the existence of aversive fantasy in MD, illustrating traumatic re-enactments for people with childhood trauma (Somer et al., 2021). Participants demonstrated a need to experience emotional suffering in fantasy, though reasons why remain a matter of speculation at this early stage. Moreover, whilst survivors of trauma are susceptible to MD, this is not a necessary or sufficient condition for its development (Somer & Herscu, 2017).

### **Benign Masochism**

Enjoyment of tragedy and voluntary arousal of 'negative' emotion – for example, in cinema or the arts – has puzzled societies as early as Aristotle's theory of poetic tragedy (Golden, 1975; Menninghaus et al., 2017). Hedonic reversal may be one way to understand this paradox, as it involves reversing an innate (e.g. sadness) or acquired (e.g. disgust) aversion into something pleasant (Rozin et al., 2013). Examples include

consumption of spicy food, listening to melancholy music, watching scary films, or riding rollercoasters. Rozin et al. (2013) argue that the element of pleasure is critically derived from the safety of protective distance from supposed threat. They propose this to be a form of 'benign masochism'; referring to pleasure in negative experiences that the brain misinterprets as threatening, while simultaneously realising it has been fooled.

Somer et al. (2016a) liken aversive fantasy in MD to benign masochism, due to its presence in existing literature that indicates the enjoyable and addictive nature of daydreams. If related to such principles, the concept of embracing painful experiences at safe distance raises interesting considerations. Firstly, PwMD are not passive viewers of daydream content, but active creators. Secondly, research shows that daydreams reveal aspects of one's inner-world. Psychoanalytic theory suggests that fantasy may be a way to create a sense-of-self that must be concealed from "the gaze of the external world" in order to protect it (Morrison, 2016, p. 30). Attention may therefore be given to the potential role of real-life emotional aversion and psycho-emotional conflict for PwMD who experience aversive fantasy. Additionally, Wied et al. (1995) demonstrated that, when exposed to a film of tragedy genre, people with high empathy experienced significantly greater empathic distress and overall enjoyment (hedonic reversal) of the film. West and Somer (2020) found an association between MD and enhanced empathy for fantasy characters and personal distress in response to imagined distress in others. Where characters and plotlines can be understood to express an extension of oneself however, it is possible that PwMD are in fact attempting to empathise with themselves.

## **Research Aims**

Research has not yet investigated the specific domain of aversive fantasy for the broad population of PwMD. It is possible this type of daydreaming serves different functions to positive fantasy, and may illuminate nuances in experience, impact, and risk for this group. This could highlight implications regarding development of assessment measures and therapeutic modalities. This study therefore seeks to explore how PwMD make sense of aversive fantasy; aiming to address the following questions:

- a. What is it like to experience MD with aversive fantasy?
- b. What emotions do PwMD associate with the experience of aversive fantasy?

## **Method**

### **Design**

This study employed a qualitative, Interpretative Phenomenological Analysis (IPA; Smith et al., 2009) approach, to understand experiences within an emerging area of research. Individual, semi-structured interviews were conducted with eight participants, while data analysis carried out in-depth exploration of how individuals made sense of their experience.

IPA has a philosophical underpinning comprised of phenomenology, hermeneutics and interpretation (Smith et al., 2009). The former means that it seeks to understand experience and how this is made sense of from participant perspective. At the same time, IPA recognises a 'double hermeneutic', in which researchers must interpret participant interpretations of experience. By gathering descriptions, a chain of

connection from linguistic, affective, and cognitive dimensions allows insight to sense-making. Its idiographic approach focusses on the same experience in a small participant sample. Understanding of lived experience is contextualised within socio-cultural and historical contexts of significance to each individual.

IPA allows analysis of the human experience at multiple levels, paying attention not only to content but to use of language, manner, and affect. The approach therefore seeks to access embodied (held within), cognitive-affective (thoughts and feelings), and existential (how one is being) domains of experience. One can further adopt interpretation on both a descriptive-empathic and critically-tentative level (Willig, 2013). The former examines that which is explicitly understood and spoken by participants; entering their world. The latter critically – and tentatively – interrogates this account, to gain further insight into the nature and meaning of participant experience. This level thus ventures into potentially less conscious – even warded off – realms of experience. Where emotional experience and regulation is thought to occur within both explicit and implicit processes (Koole & Rothermund, 2011), IPA is therefore well-suited to address the aims of this research.

### **Participants**

Eight individuals (Table 1) were recruited according to criteria in Table 2; adapted from Somer (2018).

Table 1

*Participant demographics*

Participant	Age	Gender	Ethnicity/Nationality	Mental Health Difficulties	MDS-16 Score
Emma	32	Female	White British	Anxiety & depression	51
Isabelle	34	Female	White American	None identified	67
Joe	25	Male	White British	Depression	64
Kyan	24	Male	Mixed / African-American	Post-traumatic stress disorder	82
Sarah	28	Female	White American	None identified	83
Megan	19	Female	White American	None identified	79
Olivia	19	Female	White American	Past depression	62
Charlotte	18	Female	White British	None identified	68

Table 2

*Inclusion and exclusion criteria for study participation*

Inclusion	Exclusion
Age 18+	Learning disability
English as first language	Active psychosis or mental health episode
Self-identifies as currently experiencing MD with aversive fantasy	
Scores minimum cut-off of 50 on the Maladaptive Daydreaming Scale (MDS-16)	
Rated threshold ‘Moderate’ or ‘Severe’ in the Structured Clinical Interview for Maladaptive Daydreaming (SCIMD)	

**Materials**

The MDS–16 (Somer et al., 2017; Schimmenti et al., 2020; Appendix B) is a 16-item self-report measure, with a cut-off score of 50 indicating possible MD. Five dimensions of daydreaming are assessed: content/quality, compulsion/control, distress, perceived benefits and interference with life-functioning. Scales range from 0% to 100%, with 10% intervals (e.g. 0% ¼ ‘never’ to 100% ¼ ‘extreme amounts’). Cronbach’s alpha is reported at .93 and Spearman-Brown split-test reliability coefficient at .94. It demonstrates high cut-off sensitivity (96.8%) and specificity (100%).

The SCIMD (Somer et al., 2017; Appendix C) is a 10-question structured interview designed to indicate possible MD and severity. It demonstrates good reliability (Cohen’s kappa = .63 - .84), as well as high sensitivity (83.87%) and specificity (100%).

## **Procedure**

Advertisements were placed on social media (Facebook, Twitter, and Reddit) with a description of MD with aversive fantasy (Appendix D) and a link to the MDS-16. Respondents who indicated consent completed the MDS-16 online, with the request to provide a name and email at the end of the questionnaire. In order to protect potential wish for anonymity at this stage, permission to use a pseudonym was stated. Those who met the cut-off score were invited on an iterative basis to a screening interview, via the email they provided. The researcher spoke with prospective participants for 20-30 minutes via audio-call on their preferred platform, to administer the SCIMD and additional screening questions (e.g. mental health). Those who met the criteria were invited to take part in an individual semi-structured interview (Appendix E) lasting approximately 60-minutes. These took place via online video or audio call, at which point participants provided identity to confirm proof of age and written consent.

Participants were asked to create or select an object or picture they felt was representative of aversive fantasy to bring to interview. This approach helps guide interviews; giving opportunity to share what feels significant, more agency in choosing what to talk about, helping to develop rapport, and facilitating insight (Glaw et al., 2017). One participant was unable to provide a photograph of his chosen object for inclusion in the report, therefore demonstration was selected by the researcher. One participant produced two representations, one image of which was omitted from the report due to concerns this might compromise her identity.

### **Data Analysis**

Transcripts were read twice to enhance familiarity with data. This enabled the researcher to note emerging thoughts and ideas. First-level coding drew out initial descriptions and interpretations, which informed second-level coding to identify emerging themes. The analytic process was conducted one data-set at a time; grouping emerging themes into super-ordinate and sub-themes for each participant before moving onto the next. The researcher then looked across structures to ascertain general themes that applied to all participants. Some emerging themes were re-grouped, dropped, and/or reconceptualised, until the data suitably captured both the broad picture and essence of participant experience.

### **Quality Assurance**

In order to preserve IPA quality, guidance was consulted (i.e. Kacprzak, 2017). This included transparency, with clear description of the analytic process, and meaningful reflexivity, to identify possible influences (i.e. bias) on data-interpretation. The latter involved a bracketing interview prior to data-collection (Appendix F), continuous research diary entries (Appendix G), and utilising supervision to discuss preconceptions. Diary entries included thoughts, feelings, and dreams that were evoked, as well as arising participant impressions, and any theory or knowledge that risked straying attention from the data. Awareness enabled the researcher to keep matters that arose as separate as possible from the research process and outcomes (Berger, 2015; Smith et al., 2009). Kacprzak (2017) proposes ‘sensitivity to context’ as characteristic of good quality analysis. Wagstaff et al. (2014) however, recognise tension for IPA researchers in trying to hold the depth of idiographic focus whilst drawing general themes. Consideration to this issue has been captured within the ‘discussion’ section.

## **Ethics**

Ethical approval (Appendix H) was granted by a review board at Salomons Institute for Applied Psychology, and research was conducted in accordance with British Psychological Society Code of Ethics (BPS, 2014). The study was proposed in line with Compassion, Respect and Dignity (e.g. seeking to understand every person's needs), and Improving Lives (e.g. innovation), as values of the National Health Service Constitution for England (NHS, 2021).

Informed consent (Appendix I) was obtained for all participants, and both written and verbal debrief provided (Appendix J). Consent was requested for printing of verbatim quotes and copies of selected or created artwork. Pseudonyms were used for participants and fantasy characters to protect confidentiality. Identifiable information within reported quotes was also amended. The Salomons Advisory Group of Experts by Experience (SAGE) were consulted during initial stages of development. This was to aid sensitivity and respect for participants within the research process and design, in line with Patient and Public Involvement principles (PPI; University of Oxford, 2017).

Given the possibility that fantasy for PwMD may consciously or unconsciously re-enact or attend to adverse real-life experiences (e.g. suppressed trauma), the researcher was mindful that interviews had the potential to unearth sensitive material for participants. In order to mitigate risk of re-traumatisation, this was explored gently with participants during the SCIMD screening interview, including their own sense of stability and access to support networks. Participants were reminded during the study that they could take breaks or stop at any time. The researcher also attended to changes in affect where

appropriate to ‘check in’ with participant wellbeing. A one-week follow-up email and optional online call was offered to discuss post-participation wellbeing. Signposting to support avenues was also provided prior and following participation.

### Analysis

Findings were organised into three superordinate and seven subthemes (Table 3).

Table 3

*Overview of IPA Themes*

Superordinate Themes	Subthemes
A Lonely Adventure	Ineffability of Daydreaming
	Intrinsic Part of Being
	Is There Something Wrong with Me?
Seeking Safety	Managing the World
	Dealing with Negative Emotion
Torn Between Worlds	A Life of Its Own
	Fantasy Battles Reality

#### **A Lonely Adventure**

There was an overall impression of longing for connection, understanding, and acceptance through daydreaming, which appeared to represent a core aspect of oneself.

Increasing isolation felt compounded however, due to shame and complexity. Participants described a multidimensional experience that one could not grasp through communication alone. They also alluded to epistemic tensions about: the seemingly regressive nature of daydreaming, and whether the seduction of aversive fantasy was a matter of character and experience, or indicative of something more troubling within. Seclusion of experience appeared to result in participants feeling fundamentally unseen; exacerbating existing wounds for those who grew up feeling abandoned, alienated, and/or misunderstood.

### *Ineffability of Daydreaming*

All participants expressed difficulty describing their fantasy worlds and translating their daydreaming experience. This reflected that fantasies, and the alternate universes in which they were set, were often felt to be vast and complex in story, time, and space. As explained by Kyan, there was a sense of yearning to share something profoundly unspoken.

There's so much on the inside that I want to express, and words just aren't enough. I could try to describe a picture and images that I see, but unless you see it for yourself, it's not the same experience... So I feel like I'm trapped... so many experiences, lifetimes, knowledge, pain... I can't bring it back. When I go, I go alone. (Kyan)

It seemed that to understand Kyan's fantasies was synonymous with understanding his inner-world. The impossibility of this task was perceived in exasperation, as participants explained fantasy worlds and stories with passion. Most frequently sighed, stumbled over sentences, or interjected statements, as was often the case for Sarah.

It's so [titters] complicated. I know I keep saying that, but it's *so* complicated.

(Sarah)

Daydreams felt like a web, where every part could only be understood in the context of the whole. Complexity extended to ideas surrounding 'light versus dark' and a sense that each existed to serve the other. Emma highlights this while describing her image's (Figure 1) metaphorical portrayal of fantasy-based survival after trauma.

... the fact it's in black and white kind of, for me, erm, because the other part of my daydreaming is all like really positive... it's really quite interlinked... it is really connected with kind of the light and the dark. (Emma)

Figure 1

Emma's representation of aversive fantasy in MD: image from the internet

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Emma suggested that to understand aversive fantasy, one must understand all elements of her fantasy experience. This echoed unanimous difficulty creating/choosing representational artwork, with a back and forth process that could feel paralysing for participants. Emma highlighted difficulty capturing her experience as the core of this struggle.

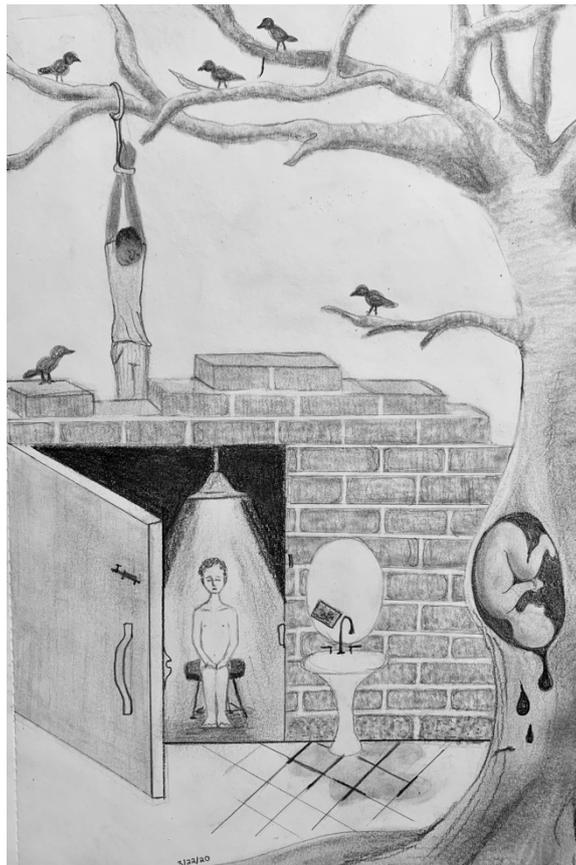
Yeah, I found it really, like really difficult, Um. There's, just, so, so many aspects and so many things kind of, on the darker side that I daydream about, um, and so it's hard to find a picture that kind of encompasses all of it. (Emma)

It seemed for all participants that no image felt sufficient, yet conveying accurate depiction felt of utmost importance. This sentiment was echoed by Sarah's artistic and rehearsal efforts to prepare for interview (Figure 2).

... I kind of like practiced. I'm like, 'how am I going to [laughing] describe this picture that I drew?' And I did over the course of the last couple of days, like each specific thing has a reason and a purpose... (Sarah)

Figure 2

Sarah's original drawing representing aversive fantasy in MD



### *Intrinsic Part of Being*

The inherent self that seemed connected to immersive daydreaming resonated with participants' inability to recall a time when this did not exist.

I can't really remember a time when I didn't do the style of daydreaming that I do. I think I've done it from when I was a very young child. (Charlotte)

Whilst participants identified shifting to *maladaptive* daydreaming in pre-teen or early-adolescence, this did not appear to feel separate to earlier years. Joe likened this to his tendency to journey ‘elsewhere’.

It's how my parents used to describe me... 'he always had his head in the clouds'  
you know... And they're like... “Joe, I wonder where you go”... So do I. (Joe)

He later alludes to a dawning realisation that he was unable or unwilling to ‘grow out’ of daydreaming. One could perceive a sense of participants feeling left behind in their propensity for vivid play, imagination, and stories as children, while others moved on with social, adult lives.

I mean, it's I guess it's hard to tell where the lines blur between like: I guess when you're a child, you play... I think I was like ten or eleven when I realized I don't want to give up this... (Olivia)

Olivia’s resistance to adult reality was similarly explicit for other participants, who struggled to tolerate a disappointing or frightening world.

And it's harder as I get older... as you're younger, you're like 'oh maybe it will happen, maybe I will become really rich and, you know, have this absolutely perfect man' as if that exists and the longer you go on you realise that's not a reality and at some point, most people just settle. (Emma)

Whether experienced as a “cool, private world” or shameful secret, there was intuitive belief that continuation of immersive daydreaming should remain hidden. Sarah reflected on this while talking about her friends laughing at games they used to play.

Because ha ha ha you think about fourth grade and it's been 20 years now and it's still happening inside of my mind... my friends didn't want to play, they didn't want to talk about it anymore. And I didn't know how to communicate to

people that, 'well, it's still happening'. And I was like, 'well, it's weird. So I shouldn't talk about it'. (Sarah)

What had once perhaps felt connecting, felt increasingly isolating. This was the case for Kyan, whose twin brother also had MD.

We used to always tell each other stories and it was just I always felt like stories was kind of like a, I dunno, it was our connecting point... I used to have this thing where I would say 'I didn't understand loneliness because I've always had a twin', but at the same time we've always been able to be in the same room together and be completely alone 'cause we're both in our own separate worlds. (Kyan)

### ***Is There Something Wrong with Me?***

The sense that one must be kept hidden was echoed in fear of judgement, as well as internal confusion, shame and worry.

Ashamed... Embarrassed that I have those dark thoughts. Because it certainly doesn't feel like a normal thing. It feels quite shameful and embarrassing. (Emma)

Is it a self-shame or is it shame based on how others might perceive you? (Interviewer)

Probably others... It's obviously very weird to me... actually admitting that you have really dark, horrible thoughts that *you're* making up yourself... why would you do that to yourself? Why would you put yourself in that situation and have these thoughts? (Emma)

Emma appeared to make a confession, and question her desire for aversive fantasy in a seemingly critical manner. Despite undisputed certainty that aversive fantasy did not

indicate desire to manifest content in real life, there were frequent assertions of self-criticism. This gave the impression at times of an expectation that the researcher may share similar perspective, with use of words such as ‘you know’.

Which er [stammers] like you know, you know it's a bad thing to think about but... it helps vent those emotions... (Joe)

Participants also speculated the inappropriateness of creating dark content relative to age (e.g. “bad for a kid to think about”) or life experience.

... that freaks me out, that I'm doing that mentally. Because that's- I've never experienced any kind of sexual abuse... (Charlotte)

Lacking ownership of real-life experience appeared to feel indicative of disturbing realms within for Charlotte, who may then be forced to own uncomfortable fantasy creations. Such concerns seemed to underpin a desire to understand and/or rationalise aversive fantasy, as participants wrestled to make sense of this.

... I was five, like, where'd that come from? ... I have this weird thought that maybe there was something wrong with me, like I was a secret sociopath or something. But then when you really think about it, I don't have real-life urges to hurt anybody. So maybe that's not it, but I don't know... (Isabelle)

This may amplify the fragility of disclosure, ultimately related to fear of rejection for a group that already experienced alienation in their lives. Sarah became tearful when sharing her experience of disclosure in therapy and to her parents.

... it was intense, you know, it was [voice wobbles] 27 years I don't say anything about it.

... my mom just like held me and hugged me for however long that I'm crying... like, "no, honey, you're fine, you're not weird, you're normal. This is OK. Like, I understand. I still love you". (Sarah)

Additionally, all participants noted feeling relieved or surprising pleasure having shared and explored fantasy worlds freely without judgement during interviews.

I wouldn't even know how to begin trying to tell someone about it... It's been nice, honestly talking with you about it just because I've never talked about it with anyone. And it's nice that you have, like, the background knowledge necessary to understand what I'm saying. (Megan)

### **Seeking Safety**

This theme captures psychological and emotional reliance on daydreams. Participants appeared to use daydreaming to make sense of the world and their experiences, and both escape and cope with it. Evoking and immersing in strong emotion seemed not only the heart of aversive fantasy experience, but the root of its existence. Juxtaposition could be seen between negative emotion reserved for fantasy, and needed composure in the real world. This suggested fear of the potentially intolerable and/or destructive power of negative emotions.

### ***Managing the World***

Recurring fantasy content themes were ubiquitous, but idiosyncratic in nature and detail for each participant. Daydreams appeared to aid perspective-taking, compensate for real-life disappointments or denied parts of oneself (e.g. "bisexual world"), and provide a safe place to transform and process confusing or difficult interactions and experiences.

Aversive fantasy helped Joe connect with conflict experienced in real life and within himself.

The guy I used to live with, complete bully in every sense of the word... I hit him back but I'd never get to, you know, the point I should have because you've also got this emotional manipulation... like 'oh, it's my fault'... So there was months and months where I was literally seething like fuckin vibrating rage and just imagining... just beating the shit out of him... be like 'fuck you. Don't ever treat me in this way'. (Joe)

Emma's daydream counterpart was recurrently rescued and taken care of following severe traumas, speaking implicitly to her own longing for care, due to lack of familial nurturing in childhood. Her character's fame also meant that when abducted, she disappeared "from the whole world". The emphasis of many people worrying about where she had gone seemed related to her own existential fears.

I think it's just that sort of feeling like when I die, I'm just going to be a name on 'ancestry.com'. I'm not gonna leave anything behind, and I want to be special and I want to feel beautiful and feel loved. (Emma)

Many participants noticed explicit parallels between real-life experiences or inner-conflicts, and characters or storylines. One of Sarah's significant characters was a pianist sensation whom she fell in love with; a nod to her own painfully complex relationship to the piano and her father. Charlotte alluded to processing negative experiences with male figures through the oppression of her character by men.

... this other version of myself that I think must have - I must have invented when I was maybe even younger - kind of her story continues with my life and

gets better or like worse in accordance to things that I guess happened to me.

But then I make it a thousand times more extreme. (Charlotte)

Additional to a seemingly organic process, some noted conscious efforts to make sense of real-world experiences. Fantasies illuminated deeper self-aspects for Olivia that demanded attention and resolution.

... when there's something bothering me, I would have these daydreams where I'm just, like I guess in a therapy room... It's usually some part of me, I guess... giving advice to me... a way of talking through events and just kind of processing... (Olivia)

Complexity may create distance that enabled safety in this process. Charlotte described layers of universe in which a character based off herself was an actor in the main world, with many daydreams taking place within the scenes of her character's films. She explained "when I play it in my head, it's not a movie saga. But on this level [gestures] it is."

... there's a fictional world and then there's another fictional world on top and they're distinct and one exists in the other... often the dark daydreams between those things are linked. (Charlotte)

Similar effects were seen for other participants; energy may be spent on character's lives post-trauma, but focused on recurring nightmares or flashbacks. Such styles gave the impression of 'a daydream within a daydream'. Safety in distance was manifested significantly for Kyan and his brother, who lived with their abuser as children and had nowhere to escape.

... So only half of us is here talking to you and the other half of us has gone. And the half of us that's gone in the safe half... if you have all of us, you might hurt all of us... as long as we do this, then that means we can survive... (Kyan)

### ***Dealing with Negative Emotion***

Ultimately, storylines and characters were driven by *feeling*. Daydreaming was described as “an emotional tool”. This could be appreciated in the array of artwork (e.g. Figure 3) that participants based upon emotional and atmospheric feeling, as explained by Emma.

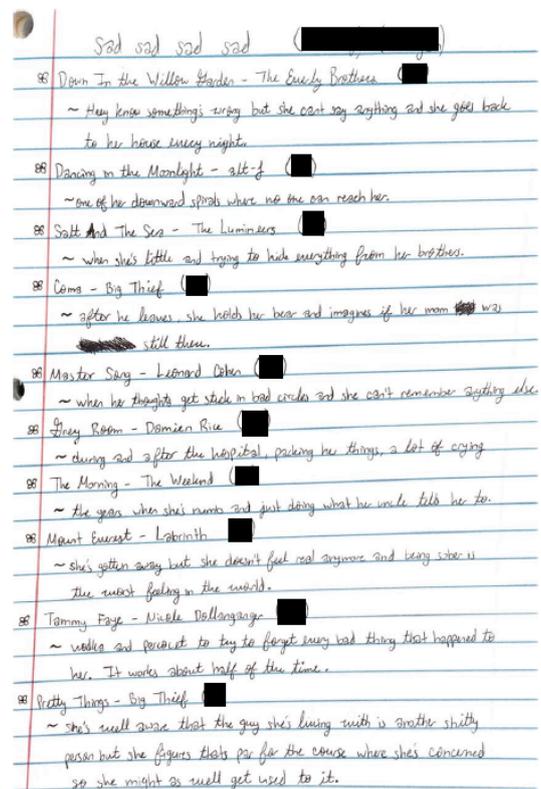
So I sort of started looking for sort of blood and stuff, and I thought well it's not that's probably not the important part of it. It's the kind of helplessness and um, kind of being dominated... (Emma)

Figure 3

Representations of aversive fantasy for Isabelle (original painting), Olivia (image from the internet), and Megan (“sad sad sad sad” songs relating to scenes for different characters)



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electronic copy.*



Paradoxically, all participants portrayed themselves in real life as: emotionally-detached, expressionless (e.g. “robotic and passive”), and/or intensely-feeling but in private. Some struggled to identify emotional states when invited during interview. Like others, Sarah appeared only able to experience certain feelings in fantasy.

I feel like an emotional zombie a lot of the time... real-life things happen that I rationally acknowledge should upset me more... it's like the emotions are there, they're just... they're usually filtered through the daydream. (Sarah)

Moreover, when negative emotion was highlighted in daydreams, they tended to be emotions participants did not identify with or permit expression of in real life.

... I don't ever get angry at people in real life. Like that part, I keep it strictly like in my daydreams. I feel angry, but it's only for the character. (Megan)

... it's interesting because I almost never cry in real life... when I start to get distressed, I daydream instead... I cry in my daydreams regularly. Daily. (Sarah)

Sadness was a common daydream affect, as well as occasional fear, helplessness, guilt, despair, grief, and disgust; but most prominent was anger. Anger could be perceived in violent themes (e.g. mass shootings, fights and wars, torture) or felt within characters – as victims and perpetrators of abuse and hostility. The metaphorical and dichotomous consequence of anger for Charlotte's character suggested its associated threatening nature.

I think she's incredibly angry and I think I like really closely associated the idea of light and dark to the character... this idea that if she gets too angry and murders all the people that are doing the bad things to her, then she will, like, become [inaudible] to the dark side... So she has to, like, remain good while going through all this hardship. (Charlotte)

This sense of danger resonated with other accounts, where channelling anger through fantasies endorsed strategic calm in real life. Violence (represented in his chosen object; Figure 4) had to be carefully contained for Joe, who feared that rage from his fantasies was spilling into real-world fights. He achieved distance by imagining violent content in unrealistic, stylised ways.

Figure 4

Joe's representation of aversive fantasy in MD: an object exemplified by an image from the internet

*Photograph of hammer*, <https://www.pexels.com/photo/black-claw-hammer-on-brown-wooden-plank-209235/>

Kyan shared similar concerns about difficulty understanding how to “build a bridge versus burn one down” when expressing himself.

It's the emotional side of me. Because here [reality], I feel like I try to be logical and try to be calculated. And but there [daydream], I don't have to be. There can be anger, there could be sadness; there's this free expression... When I'm there I can be emotional, without worry, without fear. 'Cause you know, sometimes if you're feeling a negative emotion, you don't want to hurt- I don't wanna hurt nobody. (Kyan)

He perhaps further illustrated fear of anger in fantasy itself, an equal expression of his own trauma, in which tormented children turned into monsters and devoured others.

The monster - the evil inside - with all the emotion I never expressed, 'cause I didn't feel I could. But I always have this anger inside, that I've always thought of as a monster... a lot of my characters have this theme of this darkness inside. (Kyan)

### **Torn Between Worlds**

Daydreaming seemed to manifest as a state of tenacious, disabling conflict; with participants experiencing oneself as equally creator and recipient of fantasies, and with each world attempting to subsume the other. Participants seemed to be a portal between

parallel universes, unable to live without either place, and their existence condemned to a fragmented one both special and tragic.

### *A Life of its Own*

Despite recognition of oneself as creator of daydream worlds, there was a consistent impression of fantasy unfolding itself. This could be seen in explicit mention of mysteriously-driven content, as well as references to the brain as an autonomous organ.

... for whatever reason my brain decided, 'OK, we're going to have daydreams now about like... being like kidnapped and sold as a child prostitute', because it's not fun! (Sarah)

When describing fantasies, participants would frequently point out unknown causes for detail (e.g. "I don't really know why"). This was in contrast to other assertions that daydreams could be intentionally designed through repetition. Some engaged in research to enhance their worlds, such as learning new languages or studying geographical and cultural knowledge. Such contradiction gave the impression of distancing from responsibility for aspects of content and alluded to unknown realms within. This can be seen for Kyan when he described simultaneously creating and rejecting fantasy.

I have some stories that... I reject entirely because they're [inaudible] disturb me so much. I don't know why, but my worst fear - or one of my worst fears - is to be eaten alive... I have a whole daydream around that, that I made, and I don't know why, 'cause I hate it. (Kyan)

He appeared to respond to uncertainty about parallel desire and repulsion with dismissal.

Similar distance could be observed in how participants commonly related to characters as living entities, with apparent agency separate from their own.

I can't eat without someone there next to me going 'oh I don't know about this, it's not spicy enough' you know like, it was a constant commentary... (Emma)

I was doing math homework. And I was like, 'you know I bet Anna would be good at this... maybe I can just like start a daydream where Anna is doing homework and maybe she'll understand it better than I can'. (Megan)

Intense attachment to characters evoked deeply emotional connections, much like real-life relationships, and interpersonal complexity, such as guilt (e.g. disloyalty to characters) or irritation (e.g. characters not leaving one alone). Sarah ended her real-life relationship due to indescribable love for Noah, who existed only in fantasy.

... I'm fundamentally in love with someone else. But that person doesn't exist.

And the level of how fucked up that is. (Sarah)

The pain of his unattainability and the conflict of his separateness, were perhaps amplified within fantasy, as Sarah grappled with Noah's homosexuality.

Which doesn't make any sense at all because Noah is gay and it's actually more like I'm in love with being Noah... (Sarah)

### ***Fantasy Battles Reality***

Just as real life was felt to influence storylines, affect, and characters, daydream worlds appeared to spill into real life in symbiotic dance. Many described a parallel universe, invisible to lay people, that existed not only within participants but within which they existed at the same time as the real world.

... there's ghosts around me, of people talking and joining in the conversation.

(Emma)

Emma's description of characters seemed tantamount to her own sense of being a 'ghost' in the world. This was shared where participants functioned as a shell of oneself while daydreaming, or a suppressed self while in reality. Similar to others, Charlotte gave the impression of disorientation in time and space; equally illustrated in the "chaotic" MD experience in her image (Figure 5).

I will just be doing it for hours. And I'm kind of like losing my sense of time and reality at this point because it's almost- I'm like doing it too much... And now I'm like, 'er, what do I do? Wh-what day is it?' sort of a feeling. (Charlotte)

Figure 5

Charlotte's representation of aversive fantasy from the internet

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Contrary to beings with separate agency, enmeshment with characters was equally common. Participants' sense-of-self seemed to blur with fantasy counterparts or characters that appeared to represent extension-of-self in other ways. Kyan illustrated emotional enmeshment.

I don't even have words for some of the emotions that I see... You feel their pain, you feel like it's happening to you. (Kyan)

This could render it difficult at times to follow whether participants were talking about their characters or themselves. Olivia could be seen to slip in and out of role when describing a character she incorporated from a video-game and subsequently fell in love with. This was following a real-life experience where she felt pressured to date before she was ready.

There was a point where he had to cross to finally meet me on the same ground, I guess, in a sense. But I guess I was sort of tied up in things... I'd gone through

the torture and... sexual assault... I had to go back and I guess, kill [him]... I guess what caused me to do some of the things- I guess I just kind of felt angry at most of the things of my life. (Olivia)

This created another layer of disorientation, with participants feeling unsure of their identity. Some, like Joe, described embodying characters only to be confronted with bruising realisations.

... if you've got a fantasy where you're like the dictator of the whole world and everyone loves you and... you start walking around like 'Bobby Big Bollocks' and to all your friends and they're like 'who is this guy? We know who you are you fucking idiot' [laughs]. (Joe)

This gave the impression of experiencing life in two places at once, with an ever-present angst about where one belonged, who one really was, and where one might end up.

Kyan's description of his image (Figure 6) captured this.

When I saw that image, it reminded me of what it's like for me... you have Earth in the background and you're standing on the moon by yourself. And it's an environment where if you're not careful, you could die there... I'm so far from home when I'm there, but at the same time, home's right there. (Kyan)

Figure 6

Kyan's representation of aversive fantasy chosen from the internet

*Photograph of Man on the Moon*, <https://eastsidefm.org/arts-wednesday-16-january-2019/time-100-influential-photos-neil-armstrong-nasa-man-moon-641/>

Attempts to stop daydreaming and remain present in one world were generally unsuccessful, as participants felt consumed by their universes. Sarah was the only participant who reported successfully stopping. The measures required felt extreme however, severing important elements of her life. The mundanity of limited-self and reality drove her to proactively seek her universe again.

It was lonely, it was boring, it was frustrating, and it was just anxiety-inducing... well, screw it. I'm just going to daydream. And then I couldn't. And that was when that sense of panic was like... if I can't get this back, my life is over... I cannot function the way that things have been going... (Sarah)

She used the word “flatlined” to describe the manner in which her daydreams stopped, arousing connotations of death. This perhaps underlined Emma’s feelings, whose daydreaming was both her saviour and destroyer.

I was driven to suicide attempt after that, because I was like 'well no-one is getting, you know, what I'm saying. No one's listening. No-one knows what this is or how to stop it or what', you know... 'how can I possibly get better?'. (Emma)

## **Discussion**

### **Summary**

This study begins a tentative step in understanding the experience of MD for people who engage in aversive fantasy. These findings support existing literature, capturing a sense of loneliness for participants as they embarked on indescribable adventures. Daydream worlds felt difficult to translate, and an intrinsic part of self that went unseen. Inclination for vivid imagination in childhood appeared to shift into a maladaptive form

of retreat during early-adolescence. A feeling of safety was sought in daydream worlds, with latent themes alluding to self-insights and compartmentalisation of self-experience. Fantasies appeared to help participants make sense of themselves and the world around them, and protect themselves from overwhelming and/or destructive negative emotion. The final theme illustrated a battle between the real world and daydream world, as each attempted to dominate the other. Despite apparent fusion with characters and a feeling of mastery over content, storylines and characters could feel autonomous in their existence and evolution. Participants were left feeling torn between two worlds, confused about their identity, and unable to function in their real lives. A couple of areas were newly highlighted however, with respect to aversive fantasy specifically; the most prominent being the nature of immersion in negative emotion. Furthermore, secrecy and fear of judgement was compounded by internal shame, worry, and/or confusion about the reason for desired immersion in aversive fantasy. Due to the specific and salient nature of problematic emotion for this group, not yet documented in the wider field, this theme will be discussed in more detail.

### **Emotion Regulation**

Emotion regulation is a widely-reported function of MD, coinciding with high levels of difficulty managing challenging emotions (West & Somer, 2020). Distress reduction is predominantly achieved in escaping stressful life circumstances (Soffer-dudek & Somer, 2018), transformation of negative states into positive ones through imaginative wish-fulfilment (Somer, 2002), and overall mood enhancement in the form of calmness, confidence, and excitement (Bigelsen & Schupak, 2011; West & Somer, 2020). Somer et al., (2019) report control over fantasy worlds, and removal and avoidance of aversive stimuli, to be key in the reward of self-controlled emotion regulation. This “protection

from grim external and internal realities” (p. 108) however, is expectedly puzzling to present findings. While emotion regulation was a central feature, participants reported actively seeking aversive stimuli in their fantasy worlds.

Present findings highlighted a desire to evoke and absorb oneself in negative emotion, through aversive storylines and turmoil of characters. Similar to Somer et al. (2021), this could also involve immersion in familiarity of one’s own troubling or even traumatic experiences. While seeming to serve catharsis and desensitisation of immediate distress, continuous inducement and intensification of negative feeling appeared to be the ultimate goal (as with hedonic reversal; Rozin et al., 2013). This could be seen where participants reported seeking inspiration when emotional content ‘wore out’ or became dull. It was also indicated in “addiction” to negative affect, expressed both explicitly and in a passionate love-hate conflict for fantasy worlds. As per the seductive nature of MD, this revealed a sense of dependence on such process.

### **Expression and Safety**

One idea emerging from present findings was the suggestion that participants “filtered” negative emotions through fantasies, that seemed either impermissible or inaccessible in real life. Daydreams appeared to provide a space in which problematic feelings could be freely experienced and expressed, without fear of destructive repercussion or overwhelm (‘Dealing with Negative Emotion’). In that respect, aversive fantasy in MD may indicate a unique form of experiential avoidance; a phenomenon highly correlated with clinical patterns of distress (Hayes et al., 1996). This refers to unwillingness to remain in contact with select private experiences (including emotions), leading to

attempts to alter and/or avoid them. The association between fear of emotion and avoidance - particularly anger and sadness - is well-documented (Gilbert et al., 2014).

Furthermore, Freud recognised repression of thoughts and feelings that felt too painful or threatening to be held in conscious experience (Hayes et al., 1996). Psychoanalytic theory proposes that defence mechanisms may be employed to “protect the individual against anxiety and from the awareness of internal or external dangers or stressors” (Rice & Hoffman, 2014, p. 696). Particular focus has been given to anger, including fear that this may disturb relationships. While discussing evidence pertaining to the role of anger in depression, Busch (2009) identified several potential defence mechanisms. These included reaction formation, identification with the aggressor, projection, and denial. Arguably these mechanisms may all be seen at play in the use of aversive fantasy for participants (e.g. ‘A Life of Its Own’). Anger was particularly conspicuous for this group, and most commonly channelled and avoided in real life. At times, aversive fantasy could be perceived as self-directed aggression. For example, feeling that one was emotionally “traumatising” oneself, or “torturing” characters that appear to represent parts of oneself. Daydreams appeared most often however, to act as a container for other-directed aggression. Fantasy seemed predominantly a source of soothing and self-exploration (e.g. emotion-related communication to oneself). This is in line with literature suggesting that masochism manifests as a dissociative defence mechanism; particularly of rage and aggression in cases of posttraumatic stress (Howell, 1996).

## **Pleasure in Pain**

The paradoxical pleasure in – and yearning for - negative experiencing was a source of confusion and concern for participants ('Is There Something Wrong with Me?'). This coupled with a potential need for distance from emotion - perceived consciously or unconsciously to be threatening - may draw parallels to benign masochism. Rozin et al. (2013) found individuals reported preference for a level of intensity just below that which is not tolerable, when engaging in benignly masochistic activity. Menninghaus et al., (2017) drew on cognitive and perceptual processes to build upon hedonic principles. They proposed the Distancing-Embracing Model (DEM; Figure 7) of negative emotional response to temporal art (e.g. film, music). It posits that distancing can be achieved with awareness that danger or suffering is not real, and control over exposure. One is then more able to embrace negative emotions, which can be transformed into positive experiencing through enriching and rewarding mechanisms. These include an interplay of mixed emotional states, the effects of aesthetics on emotion-perception, and meaning-construction that may 'redeem' negative affect. These ideas speak to participants' assertions that positive and aversive content serve to enhance each other (Ineffability of Daydreaming), as well as involving creativity and control, and recurring thematic content (Managing the World). In other words, the rewarding aspect of fantasy for this group may be achieved through creative distancing from problematic emotion, that can be safely accessed and processed 'elsewhere'. This may give the effect of mastery over pain; equally manifested in cross-recurring content themes relating to characters' transformations of vulnerability into strength.

Figure 7

Distancing-Embracing Model of emotional response to art (Menninghaus et al., 2017)

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According to Menninghaus et al. (2017, p. 3), “psychological research suggests that negative emotions have distinct potential for high intensity... a powerful grip on attentional resources, and privileged storage in memory”. Furthermore, evidence suggests that when hedonic reversal occurs with repeated exposure, strong preferences can be developed over time for such activities (Rozin et al., 2013). If applicable, the DEM might also therefore infer a more intense, rewarding, and gripping experience than that involving exclusively positive content (‘Fantasy Battles Reality’). Whilst not specific to those with traumatic histories, findings support Somer et al.’s (2021) conjecture that deliberate immersion in aversive fantasy could signal attempts to process painful experiences, create a sense of mastery, and regulate emotional pain. This presents a slightly different picture to that currently understood about distress-management in MD however; alluding to possible differences in the emotional lives and difficulties of PwMD who experience aversive fantasy. This potentially important distinction may thus be better termed as subtype ‘MD with Aversive Fantasy’ (MD-AF) for clarity.

### **Future Research**

The present study provides a first step in understanding the experience of aversive fantasy in MD-AF. Studies expanding upon this area should consider particular attention to the role of anger, experiential avoidance, and emotion regulation. A useful starting point may be correlational or comparative studies featuring standardised

measures of difficulties in emotion regulation for people with MD-AF. Additionally, this study explored only immediate experiential aspects. Long-term efficacy of MD-AF as an emotion regulation strategy, and potentially harmful effects (e.g. perpetuation of negative affect, hindering of emotional tolerance) remain unclear. Exploration into the potential role of self-harm in aversive fantasy may also be warranted (Somer et al., 2021).

Future research may wish to consider the intersection of contextual variables in MD-AF, such as individual (e.g. temperament), historical (e.g. trauma), and cultural differences in emotional masochism (Menninghaus et al., 2017). It was beyond scope of this report to explore all avenues of related concept, theory, and evidence. Relevant literature may include areas pertaining to self-expression in artwork, enjoyment of media such as cinematic tragedy or violent video-games, night dreams, and imagination. Further research may also seek evidence within varying disciplines, such as neuroscientific and developmental perspectives. Mentalised affectivity for example, pertains to “the value in reflecting on one’s own affective experience”, and creating new meaning in or altering emotion that leads to changes in inward and outward expression (Jurist, 2006, p. 1330). Arousal-decline theories may also be relevant, such as changes in neural reactivity that can occur when engaging in aversive stimulation, and lead to feelings of euphoria and resilience (Kerr et al., 2019).

### **Practice Implications**

First and foremost, attention should be given to determining the presence and nature of aversive fantasy for PwMD in assessment and formulation. This may point to specific difficulties in emotion regulation and further identify key issues to address. Preliminary

suggestions for intervention may include that of Acceptance and Commitment Therapy, in which fear of emotion is a central premise (Gilbert et al., 2014). Psychodynamic therapy may also invite shifts in emotional defences, and integration of experience (Lemma, 2015). It is possible that such melange of positive and negative arousal could intensify its addictive lure and the challenge of recovery. This points to potential benefits in tailoring current attempts to reduce MD in line with behavioural addiction modalities (Somer, 2018; Pietkiewicz et al., 2018). Reducing shame for people with MD-AF may be of particular importance, where this was laced with worry and confusion about aversive fantasy content. Development of psychoeducational resources could promote better understanding, normalisation, and help-seeking where necessary. Future preventative measures may also seek to identify and address developing aversions to select emotions in childhood, for those who demonstrate dissociative fantasy tendencies.

In addition to the internal processes that may take place for people with MD-AF, given its nature as an isolative retreat, it may also be important to acknowledge social processes. Participants described a creative response to one's social, circumstantial, and even political environment (e.g. citing world events, news stories, and systems of power, as inspiration for fantasy content). The relational impact of this was increasing withdrawal from families and friends, negative impact on real-world interactions, loss of romantic relationships, and a preference for spending time with fantasy characters. Character relationships were both adored and envied, highlighting that which participants felt was missing or dysfunctional in their real lives. This further appeared to disrupt development of one's identity, which typically takes place within a social context (Mazalin & Moore, 2004). These findings support existing literature, in which

MD is associated with social anxiety, isolation, and a breakdown of relationships, while one often immerses in fantasies involving idealised families, romances, and social circles (Schimmenti et al., 2019). Practice implications may therefore be concerned not only with the individual but also external and social contexts. It could be useful for clinical intervention to consider the role of systemic and narrative approaches, perhaps involving family and/or partners in therapeutic work. One may also consider community-based models, such as the Power-Threat Meaning Framework (Johnstone & Boyle, 2018), which looks at the way power and oppression has operated in people's lives.

### **Limitations**

It should be noted that qualitative research presents findings of tentative, interpretative discovery for further exploration (Noon, 2018). Furthermore, whilst IPA was an appropriate method for learning about the experience of MD-AF, it is not designed to investigate causal explanations for aversive fantasy (Tuffour, 2017). Where findings allude to relevant ideas, these require expansion in future studies to ascertain their bearing and dimensions. Finally, due to sample size the researcher was forced to prioritise space for overall themes in the written report, at the expense of idiographic detail. This was particularly pronounced due to in-depth interplay between detailed fantasy content and reality that spanned lifetimes. Nonetheless, individual context was considered during analysis and thus captured at the core of findings. It should also be noted that due to online recruitment, younger individuals may have been more likely to access participation. According to the UK Office for National Statistics (2020), younger age-groups are more active on social media than older generations.

## Conclusion

This study contributed the first exploration into the experience of aversive fantasy for people with MD-AF (termed here for ease). Findings were consistent with existing literature; illustrating a battle between parallel worlds that left participants feeling torn, trapped, disorientated, and alone. Daydreams appeared to be both a core part of oneself and an extension-of-self; in which identity, experiences, and emotions could be explored and processed. In the case of MD-AF however, potential differences were observed in the experience of emotion regulation with respect to provocation of emotional pain. While self-soothing and transformation of mood states were present, fantasy appeared to provide a safe place to enact experiential avoidance of real-life emotions that perhaps felt impermissible. In other words, while positive daydreams may enable individuals to access feelings one does not have (e.g. joy, excitement, pride), negative daydreams may enable access to feelings one has but cannot not hold (e.g. anger, sadness, disgust). Secrecy was compounded due to concern and confusion regarding enjoyment of fantasising about suffering. This could be understood as a form of benign masochism, where safety from perceived threat creates a pleasurable experience. More research is needed to understand this unique phenomenon. Practical implications may begin with recognition of MD-AF as a subtype, for which potentially important distinctions in emotion regulation difficulties may need addressing.

## References

- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219-234.  
<https://doi.org/10.1177/1468794112468475>
- Bigelsen, J., Lehrfeld, J. M., Jopp, D. S., & Somer, E. (2016). Maladaptive daydreaming: Evidence for an under-researched mental health disorder. *Consciousness and Cognition*, 42, 254-266.  
<https://doi.org/10.1016/j.concog.2016.03.017>
- Bigelsen, J., & Schupak, C. (2011). Compulsive fantasy: Proposed evidence of an under-reported syndrome through a systematic study of 90 self-identified non-normative fantasizers. *Consciousness and Cognition*, 20(4), 1634-1648.  
<https://doi.org/10.1016/j.concog.2011.08.013>
- British Psychological Society. (2014). *BPS code of human research ethics* (2nd ed.).  
<https://www.bps.org.uk/news-and-policy/bps-code-human-research-ethics-2nd-edition-2014>
- Busch, F. N. (2009). Anger and depression. *Advances in Psychiatric Treatment*, 15(4), 271-278. <https://doi.org/10.1192/apt.bp.107.004937>
- De Wied, M., Zillmann, D., & Ordman, V. (1995). The role of empathic distress in the enjoyment of cinematic tragedy. *Poetics*, 23(1-2), 91-106.  
[https://doi.org/10.1016/0304-422X\(94\)00010-4](https://doi.org/10.1016/0304-422X(94)00010-4)
- Gilbert, P., McEwan, K., Catarino, F., & Baião, R. (2014). Fears of negative emotions in relation to fears of happiness, compassion, alexithymia and psychopathology in a depressed population: A preliminary study. *Journal of Depression and Anxiety*, 52(1), 2167-1044 doi: 10.4172/2167-1044.S2-004

- Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017). Visual methodologies in qualitative research: Autophotography and photo elicitation applied to mental health research. *International Journal of Qualitative Methods*, 16(1), 1-8  
<https://doi.org/10.1177/1609406917748215>
- Golden, L. (1975). Aristotle, Frye, and the theory of tragedy. *Comparative Literature*, 27(1), 47-58. <https://doi.org/10.2307/1769727>
- Greene, T., West, M., & Somer, E. (2020). Maladaptive daydreaming and emotional regulation difficulties: A network analysis. *Psychiatry Research*, 285, 112799.  
<https://doi.org/10.1016/j.psychres.2020.112799>
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64(6), 1152-1168. <https://doi.org/10.1037/0022-006X.64.6.1152>
- Howell, E. F. (1996). Dissociation in masochism and psychopathic sadism. *Contemporary Psychoanalysis*, 32(3), 427-453.  
<https://doi.org/10.1080/00107530.1996.10746961>
- Jurist, E. L. (2006). Art and emotion in psychoanalysis. *The International Journal of Psychoanalysis*, 87(5), 1315-1334. <https://doi.org/10.1516/D0EB-Y9HH-WY58-CNWL>
- Kacprzak, K. (2017). From bad through good to excellent Interpretative Phenomenological Analysis (IPA) studies—presenting set of criteria to evaluate IPA papers and to provide high-quality future research. *The Journal of Education, Culture, and Society*, 8(2), 53-68. doi: 10.15503/jecs20172.53.68

- Kerr, M., Siegle, G. J., & Orsini, J. (2019). Voluntary arousing negative experiences (VANE): Why we like to be scared. *Emotion, 19*(4), 682-698. <http://dx.doi.org/10.1037/emo0000470>
- Koole, S. L., & Rothermund, K. (2011). "I feel better but I don't know why": The psychology of implicit emotion regulation. *Cognition and Emotion, 25*(3), 389-399.
- Lemma, A. (2015). *Introduction to the practice of psychoanalytic psychotherapy*. John Wiley & Sons.
- Mazalin, D., & Moore, S. (2004). Internet use, identity development and social anxiety among young adults. *Behaviour Change, 21*(2), 90-102.
- Menninghaus, W., Wagner, V., Hanich, J., Wassiliwizky, E., Jacobsen, T., & Koelsch, S. (2017). The distancing-embracing model of the enjoyment of negative emotions in art reception. *Behavioral and Brain Sciences, 40*. <https://doi.org/10.1017/S0140525X17000309>
- Morrison, H. (2016). Writing and daydreaming. In *The restless compendium* (pp. 27-34). Palgrave Macmillan, Cham. DOI 10.1007/978-3-319-45264-7\_4
- National Health Service. (2021). *The NHS constitution for England*. <https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england>
- Noon, E. J. (2018). Interpretive phenomenological analysis: An appropriate methodology for educational research. *Journal of Perspectives in Applied Academic Practice, 6*(1), 75-83. Retrieved from [https://www.researchgate.net/profile/Edward-Noon-2/publication/324866327\\_Interpretive\\_Phenomenological\\_Analysis\\_An\\_Appropriate\\_Methodology\\_for\\_Educational\\_Research/links/5ae88c440f7e9b837d3](https://www.researchgate.net/profile/Edward-Noon-2/publication/324866327_Interpretive_Phenomenological_Analysis_An_Appropriate_Methodology_for_Educational_Research/links/5ae88c440f7e9b837d3)

ae8db/Interpretive-Phenomenological-Analysis-An-Appropriate-Methodology-for-Educational-Research.pdf

- Pietkiewicz, I. J., Nęcki, S., Bańbura, A., & Tomalski, R. (2018). Maladaptive daydreaming as a new form of behavioral addiction. *Journal of Behavioral Addictions*, 7(3), 838-843. <https://doi.org/10.1556/2006.7.2018.95>
- Regis, M. (2013). The major models of daydreaming. In *daydreams and the function of fantasy* (pp. 31-60). Palgrave Macmillan, London. [https://doi.org/10.1057/9781137300775\\_3](https://doi.org/10.1057/9781137300775_3)
- Rice, T. R., & Hoffman, L. (2014). Defense mechanisms and implicit emotion regulation: A comparison of a psychodynamic construct with one from contemporary neuroscience. *Journal of the American Psychoanalytic Association*, 62(4), 693-708. <https://doi.org/10.1177/0003065114546746>
- Ross, C. A., Ridgway, J., & George, N. (2020). Maladaptive daydreaming, dissociation, and the dissociative disorders. *Psychiatric Research and Clinical Practice*, 2(2), 53-61. <https://doi.org/10.1176/appi.prcp.20190050>
- Rozin, P., Guillot, L., Fincher, K., Rozin, A., & Tsukayama, E. (2013). Glad to be sad, and other examples of benign masochism. *Judgment and Decision Making*, 8(4), 439. Retrieved from [https://digitalcommons.wcupa.edu/cgi/viewcontent.cgi?article=1025&context=musichtc\\_facpub](https://digitalcommons.wcupa.edu/cgi/viewcontent.cgi?article=1025&context=musichtc_facpub)
- Sándor, A., Bugán, A., Nagy, A., Bogdán, L. S., & Molnár, J. (2021). Attachment characteristics and emotion regulation difficulties among maladaptive and normal daydreamers. *Current Psychology*, 1-18. <https://doi.org/10.1007/s12144-021-01546-5>

- Schimmenti, A., Sideli, L., La Marca, L., Gori, A., & Terrone, G. (2020). Reliability, validity, and factor structure of the maladaptive daydreaming scale (MDS-16) in an Italian sample. *Journal of Personality Assessment*, *102*(5), 689-701. <https://doi.org/10.1080/00223891.2019.1594240>
- Schimmenti, A., Somer, E., & Regis, M. (2019). Maladaptive daydreaming: Towards a nosological definition. *Annales Médico-psychologiques, revue psychiatrique. Elsevier Masson*, *177*(9), 865-874. <https://doi.org/10.1016/j.amp.2019.08.014>
- Singer, J. L. (1975). Navigating the stream of consciousness: Research in daydreaming and related inner experience. *American Psychologist*, *30*(7), 727-738. <https://doi.org/10.1037/h0076928>
- Smith, J., Larkin, M., & Flowers, P. (2009). *Interpretative phenomenological analysis: Theory, method, and research*. SAGE Publications.
- Soffer-Dudek, N., & Somer, E. (2018). Trapped in a daydream: Daily elevations in maladaptive daydreaming are associated with daily psychopathological symptoms. *Frontiers in Psychiatry*, *9*, 194. <https://doi.org/10.3389/fpsy.2018.00194>
- Soffer-Dudek, N., Somer, E., Abu-Rayya, H. M., Metin, B., & Schimmenti, A. (2021). Different cultures, similar daydream addiction? An examination of the cross-cultural measurement equivalence of the Maladaptive Daydreaming Scale. *Journal of Behavioral Addictions*, *9*(4), 1056-1067. <https://doi.org/10.1556/2006.2020.000.80>
- Somer, E. (2002). Maladaptive daydreaming: A qualitative inquiry. *Journal of Contemporary Psychotherapy*, *32*(2-3), 197-212. <https://doi.org/10.1023/A:1020597026919>

- Somer, E. (2018). Maladaptive daydreaming: Ontological analysis, treatment rationale; a pilot case report. *Frontiers in the Psychotherapy of Trauma and Dissociation*, 1(2), 1-22. <https://doi.org/10.XXXX/ftpd.2017.0006>
- Somer, E., Abu-Rayya, H. M., & Brenner, R. (2021) Childhood trauma and maladaptive daydreaming: Fantasy functions and themes in a multi-country sample. *Journal of Trauma & Dissociation*, 22(3), 288-303. DOI: 10.1080/15299732.2020.1809599
- Somer, E., & Herscu, O. (2017). Childhood trauma, social anxiety, absorption and fantasy dependence: Two potential mediated pathways to maladaptive daydreaming. *Journal of Addictive Behaviors, Therapy, and Rehabilitation*, 6(4). doi: 10.4172/2324-9005.1000170
- Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017). Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. *Psychology of Consciousness: Theory, Research, and Practice*, 4(2), 176-189. <https://doi.org/10.1037/cns0000114>
- Somer, E., Somer, L., & Halpern, N. (2019). Representations of maladaptive daydreaming and the self: A qualitative analysis of drawings. *The Arts in Psychotherapy*, 63, 102-110. <https://doi.org/10.1016/j.aip.2018.12.004>
- Somer, E., Somer, L., & Jopp, D. S. (2016a). Childhood antecedents and maintaining factors in maladaptive daydreaming. *The Journal of Nervous and Mental Disease*, 204(6), 471-478. doi: 10.1097/NMD.0000000000000507
- Somer, E., Somer, L., & Jopp, D. S. (2016b). Parallel lives: A phenomenological study of the lived experience of maladaptive daydreaming. *Journal of Trauma & Dissociation*, 17(5), 561-576. <https://doi.org/10.1080/15299732.2016.1160463>

- Tuffour, I. (2017). A critical overview of interpretative phenomenological analysis: A contemporary qualitative research approach. *Journal of Healthcare Communications, 2*(4), 52. DOI: 10.4172/2472-1654.100093
- UK Office for National Statistics. (2020). Internet access – households and individuals [Data].  
<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/datasets/internetaccesshouseholdsandindividualsreferencetables>
- University of Oxford. (2017). *A researcher's guide to patient and public involvement*.  
<https://oxfordbrc.nihr.ac.uk/wp-content/uploads/2017/03/A-Researchers-Guide-to-PPI.pdf>
- Wagstaff, C., Jeong, H., Nolan, M., Wilson, T., Tweedlie, J., Phillips, E., ... & Holland, F. G. (2014). The accordion and the deep bowl of spaghetti: Eight researchers' experiences of using IPA as a methodology. *The Qualitative Report, 19*(24), 1-15. <http://hdl.handle.net/10545/560949>
- West, M. J., & Somer, E. (2020). Empathy, emotion regulation, and creativity in immersive and maladaptive daydreaming. *Imagination, Cognition and Personality, 39*(4), 358-373. <https://doi.org/10.1177/0276236619864277>
- Willig, C. (2013). *Introducing qualitative research in psychology*. McGraw-Hill Education (UK).

**Section C: Appendices and Supporting Information**

## Appendix A: Critical Appraisal Tables

First Table of Three Articles Appraised Using the Critical Appraisal Skills Programme (CASP, 2018) Checklist for Qualitative Research

	<b>A1: Somer (2002)</b>	<b>A4: Somer et al. (2016b)</b>	<b>A5: Somer et al. (2016a)</b>
<b>1. Was there a clear statement of the aims of the research?</b>	YES	YES - Open exploration on non-clinical population important as only 2 mixed method studies since first publication in trauma practice	YES - The beginnings of substantive theory about development and experience of MD - important
<b>2. Is a qualitative methodology appropriate?</b>	YES - First ever study into MD	YES	YES
<b>3. Was the research design appropriate to address the aims of the research?</b>	YES - Thematic/conceptual deconstruction appropriate - least restrictive as possible	YES	YES
<b>4. Was the recruitment strategy appropriate to the aims of the research?</b>	YES - Recruited within the setting that author observed phenomenon (purposefully sampled) - though technically selection bias, no other way to recruit elsewhere due to unknown nature of phenomenon	YES - Online forums only way, proliferation of sufferers on there since MD termed, best random chance to participate, self-identifying appropriate as no MD measures yet. An adequate sample size for phenomenological research is 5 to 25. However findings may not be generalizable to	YES - Purposive sampling promises to improve the understanding of particular individuals' experiences and/or develop concepts. Adequate sample size but knowledge may not be generalizable

other PwMD.  
Culturally diverse

<b>5. Was the data collected in a way that addressed the research issue?</b>	YES- Based on the little theory/evidence available (fantasy-proneness questionnaire), open exploratory questions. Appropriate method for research in which pertinent variables are yet to be identified	YES - Transcriptions combined with field notes, participants emailed to resolve missing or unclear information	YES - Grand tour and mini-tour questions allow open exploration, participants emailed to resolve missing or unclear information
<b>6. Has the relationship between researcher and participants been adequately considered?</b>	NO - Author acknowledges his own trauma practice as the setting and all participants are his patients - benefit being their honesty about a shame-filled experience. Does not address possible biases, such as social desirability or demand characteristics (e.g. desire to be helpful, interesting, or shocking) within context of therapeutic relationship. No recorded reflexivity on own role in influencing outcomes (as therapist with existing participant relationships)	YES -Researchers are not personally acquainted with the respondents in most qualitative research interviews, however revealing very personal information and all fantasy contents during a single remote interview with a stranger may have influenced unknown limitations on findings.	NO - Authors do acknowledge parallel research efforts in this area, and declare no conflicts of interest
<b>7. Have ethical issues been taken into consideration?</b>	YES - Informed consent mentioned and ethical approval not mentioned. Considerations not addressed regarding influence of participation on care (e.g. right to decline will not affect treatment)	YES - Informed consent sought, ethical approval granted	YES - Informed consent obtained (including one parental consent), and ethical approval granted

<p><b>8. Was the data analysis sufficiently rigorous?</b></p>	<p>CAN'T TELL - 'Cross-case analysis' - Not clear how themes were derived (did not use formal TA), quotes do sufficiently support findings, Little interpretation offered - mostly observation and description (appropriate for this paper)</p>	<p>YES - Discrepancies between researchers were discussed until resolution. Reviewed interviews through comparative analysis with previous two levels of coding, thereby applying triangulation process that helped form new levels of conceptualization. Contacted some participants to verify accuracy.</p>	<p>YES - Transcription combined with field notes, during Initial Coding, asked selves set of theoretically-open questions, analysis until saturation, Researcher discrepancies were discussed until resolution, Reviewed interviews using comparative analysis with previous levels of coding – triangulation that helped new levels of conceptualization, contacted participants to ascertain accuracy. Triangulation is technique for accurately increasing fidelity of interpretation of data by using multiple methods of data collection. Cross-checked findings between co-authors</p>
<p><b>9. Is there a clear statement of findings?</b></p>	<p>YES - Adequate, thoughtful discussion of findings, detailed reporting, discussing arguments for and against relevance of existing theories in relation to complex picture of MD emerging</p>	<p>YES</p>	<p>YES - Model of MD presented, Themes presented as storyline. The storyline aids in the conceptualization of data (structure of presented findings)</p>

<b>10. How valuable is the research?</b>	Only preliminary - first venture into field, indicated need for further research	Consideration of implications for research and the mental health field	Important step in early journey of MD research
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Second Table of Three Articles Appraised Using the Critical Appraisal Skills Programme (CASP, 2018) Checklist for Qualitative Research

	<b>A7: Bershtling &amp; Somer (2018)</b>	<b>A8: Pietkiewicz et al. (2018)</b>	<b>A9: Somer et al. (2019)</b>
<b>1. Was there a clear statement of the aims of the research?</b>	YES - Plus tribute: "This paper is a tribute to countless of persistent sufferers who have added extra drive to my scientific motivation."	YES	YES - Adding projective data to ontological question of MD seems pertinent due to creative and potentially projective nature of the phenomenon itself
<b>2. Is a qualitative methodology appropriate?</b>	YES	YES - Case study	YES
<b>3. Was the research design appropriate to address the aims of the research?</b>	YES - Enhanced Critical Discourse Analysis with Livnat & Lewin (2016)'s micro-analysis, Authors attest the appropriateness of an analytic model initially constructed for analyzing political speeches	YES - IPA generates rich, detailed descriptions of how individuals experience phenomena and synthesizes concepts derived from phenomenology, hermeneutics, and idiography. Detailed exploration of how participants make meaning of their world is combined with researchers' attempts to make sense of meaning	YES

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<p><b>4. Was the recruitment strategy appropriate to the aims of the research?</b></p>	<p>YES</p>	<p>CAN'T TELL - Not clear why he was selected or how recruited, study was part of a project exploring alterations of consciousness but no reference to this</p>	<p>CAN'T TELL - Participants were invited (30 invitations sent out) based on prior research participation and one who had previously sent artwork. It is not clear why participants were selected for invitation, rather than an open call. The 9 participants in the study were compatible in terms of sample size with those in equivalent studies on pictorial artifacts. Purposeful sampling of rigorously assessed individuals (with assessor blindness).</p>
<p><b>5. Was the data collected in a way that addressed the research issue?</b></p>	<p>YES</p>	<p>CAN'T TELL - May have been more suitable to conduct a more open-ended exploratory interview regarding MD, rather than experiences considered only within the frame of a differential diagnostic trauma and dissociation interview, but this was due to data collection taking place in the context of a different project</p>	<p>YES - Allowed for both researcher and participant interpretation jointly</p>

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<p><b>6. Has the relationship between researcher and participants been adequately considered?</b></p>	<p>YES - Emails were those sent to the author directly, however this enhanced relevance of data as author is leading expert in the topic and research</p>	<p>NO - No mention of relationship or critical examination of researchers' own roles in potential bias or influence</p>	<p>NO – Credibility was achieved through the long-lasting engagement of the first author in the study of MD that included engagement in online MD communities, corresponding with hundreds of people who experience MD from diverse backgrounds, and conducting many dozens of hours of in-depth interviews with individuals with MD - however does not mention relationship with present study's participants (especially considering they took part in previous research and underwent assessments and interviews for that study).</p>
<p><b>7. Have ethical issues been taken into consideration?</b></p>	<p>YES - Ethics approval granted, acknowledges formal consent not obtained in line with research on existing datasets. Additionally: (1) The research involved no risk to the subjects, (2) Participants proactively consented to provide personal information for MD research, (3) Participant identifying detail was concealed or deleted, and (4) The</p>	<p>YES - Approval granted and informed consent obtained. Based on psychiatric assessment, Peter was told outcomes and recommendations for treatment</p>	<p>CAN'T TELL - Ethics not mentioned, e.g. approval or communications with participants about taking part in the research</p>

waiver would not adversely affect the rights and welfare of the subjects.

**8. Was the data analysis sufficiently rigorous?**

YES - Cross-level analysis (triangulation – e.g. 2 levels: content and form) enabled control of the range of interpretations to PwMD's texts and strengthened findings. Detailed analysis protocol outlined, including derived linguistic strategies and domains. Both researchers read all texts and analysed together – helping to verify results

YES - IPA steps thoroughly outlined, including separate analyses before merging consensus

YES - Credibility was also attained by a two-pronged triangulation. 1. Used different data sources and corroborated the themes emerging from the pictorial representations and from impressions of them with the respondents' own descriptions and comments. 2. Used multiple investigators: the themes presented demonstrate inter-rater agreement between 3 co-authors. Credibility was also accomplished by member check (feeding back data and its interpretations to members of the investigated sample to seek clarification and verification). Several methodologists of qualitative research recommend "prolonged engagement" between the investigator and the participants in order to gain an adequate understanding of a research target group and to establish a relationship of trust between the investigator and the participants.

Longstanding clinical and research experience has gained the first author sufficient familiarity with the MD experience to test for misinformation, but may also come with bias.

<b>9. Is there a clear statement of findings?</b>	YES	YES	YES
<b>10. How valuable is the research?</b>	Politically relevant in the field regarding the plight of unrecognised suffering	Discusses findings in context of research aim and expands on takeaway lessons	Pioneering contribution but findings preliminary. Findings ecologically and epistemologically suitable for initial conceptualization (properly diagnosed group & in line with other research findings)

Table of Articles Assessed Using the Joanna Briggs Institute (JBI, 2017) Checklist for Case Reports

	<b>A6: Somer (2018)</b>	<b>A10: Rebello et al. (2019)</b>	<b>A11: Witkin (2019)</b>
<b>1. Were patient's demographic characteristics clearly described?</b>	YES	NO - <i>No mention of race or nationality</i>	YES - Decided to use 'she' instead of preferred pronouns however for clarity, though did acknowledge this
<b>2. Was the patient's history</b>		NO - <i>Mental health history ruled out for</i>	YES - Detailed history in most

<b>clearly described and presented as a timeline?</b>	YES	<i>participant and family, but no other indications of personal history from biopsychosocial / spiritual perspective</i>	sense although little about her personal/familial experiences
<b>3. Was the current clinical condition of the patient on presentation clearly described?</b>	YES - <i>Differential diagnoses also considered</i>	YES	YES
<b>4. Were diagnostic tests or assessment methods and the results clearly described?</b>	YES	NO - <i>No indication of diagnostic tests or assessment methods, other than medical assessments acknowledged</i>	YES - <i>Contacted leading author/clinician in field for guidance and conducted child MD checklist. Did not report results of checklist although diagnosed Lee with MD.</i>
<b>5. Was the intervention(s) or treatment procedure(s) clearly described?</b>	YES - <i>Clear rationale for treatment offered, included Ben in individualising pilot Remote and Internet-based therapy has long been demonstrated to be as effective as face-to-face therapy</i>	UNCLEAR - <i>CBT techniques briefly listed and medication named, little detail</i>	YES - <i>Clear detail, including Lee's process at different phases of intervention</i>
<b>6. Was the post-intervention</b>		UNCLEAR - <i>Participant reported</i>	YES - <i>Detailed outcomes</i>

<b>clinical condition clearly described?</b>	YES - <i>Evaluated positive and negative outcomes</i>	<i>improvement in time spent daydreaming, but no more detail offered. No formal outcome measures utilized.</i>	described, inclusion of what did not improve and reflections
<b>7. Were adverse events (harms) or unanticipated events identified and described?</b>	YES - Lapses and barriers to successful outcomes were identified and Ben's feeling of risk of relapse	NO - <i>No reflections regarding experience of intervention for the participant</i>	YES
<b>8. Does the case report provide takeaway lessons?</b>	YES - Research and clinical implications are discussed, suggestions and observations made <i>In an embryonic field, case studies are essential as initial hypo-deductive processes that can help formulate early treatment ideas and as a reciprocal inductive theory-building process</i>	YES - <i>Illustrates clinical levels of distress associated with MD and positive outcomes for CBT with limited case studies done to date</i>	NO - Clinical lessons are implied through the work itself, but not discussed

<b>NOTES</b>	<p>May have seen placebo effects as Ben may have had hope invested in this 'only and first ever' attempt to treat MD</p> <p>Neither Ben nor therapist received monetary compensation for treatment</p> <p>Possible confounding variable of confirmation bias - the author, a leading researcher in the field of MD, took on role of both therapist and primary data collection and analysis</p> <p>Not clear why he was selected, contacted author to take part in a study but so did others</p>
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Table of Articles Appraised Using the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018)

**A2: Bigelsen & Schupak (2011)**

**A3: Bigelsen et al. (2016)**

**5.1. Is there an adequate rationale for using a mixed method design to address the research question?**

YES - to provide preliminary definition through systematic delineation of symptoms reported (within-group comparison of experiences)

YES - desire to offer comprehensive picture of little-understood phenomenon and to compare this with 'non-MDers' (first study to do this)

<b>5.2. Are the different components of the study effectively integrated to answer the research question?</b>	YES - descriptive statistics are woven throughout qualitative findings and tables provided where necessary	YES - with tables provided where necessary and explanation provided for process of analysis and integration
<b>5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?</b>	YES	YES
<b>5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?</b>	YES - complexities and discrepancies in findings are discussed and interpreted (e.g. controllability, social functioning). Technically mixed-methods, but quant analysis only looks at differences in trauma / seeking professional help (the rest is proportions)	NO - discrepancies identified between quant and qual results, but overall discrepancies are evaluated and contextualised
<b>5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?</b>	<p>YES - Self-report survey appropriate when investigating new population or phenomena with variables yet to be identified.</p> <p>Self-selected sample may not be representable of proposed population.</p> <p>Study via email reached people all over world and provided anonymity for very private experience.</p> <p>Unclear how they ensured age and absence of dissociative/delusional experiences.</p> <p>Higher number of respondents under 40 may be due to higher likelihood of this age group to spend</p>	<p>YES - Propensity score analysis is appropriate to use when comparing groups that are non-equivalent at the outset of the study</p> <p>Sample large and internationally diverse – though effect of size is questionable given number of tests run (particularly when only 2X% are ‘non-MDers’)</p> <p>Cross-checked findings between co-authors, specifying coders as “well-trained” and high inter-rater reliability (Kappa = .96)</p> <p>No other way to recruit large groups of PwMD (via internet) as is an unrecognized clinical phenomenon.</p>

time online; or being more forthcoming about sharing personal information.

Unclear whether guidance was given as to how participants may determine whether they should indicate early trauma/abuse/injury – making self-report potentially more unreliable.

Divided participants into 3 categories of distress/impairment severity, but do not report how many participants are in each category

Had to rely on self-report due to no current criterion or tool to objectively identify MD.

This met aim 1 however

PwMD were less educated than comparison group, due to more students and younger age.

Used propensity scores to statistically control for these differences, but found similar mean level differences across both groups, whether or not characteristics were controlled anyway.

Bonferoni helps probability when doing multiple tests (conservative adjustment to alpha)

Makes intuitive sense that they divided the tests into conceptually split camps of 38 and 17 items, though not clear without explanation why this was – seems to allow focused FWER for MD items and impact however

Multiple testing (55 t-tests) makes sense in line with aims for comprehensive picture, but raises questions about other potentially effective means (e.g. MANOVA).

Decision to employ multiple independent sample t-tests was in line with aims to provide a comprehensive investigation into areas of MD experience.

With adjusted alpha, differences between groups were consistent across all items except confusing

daydreams for reality (which 'MDers' and 'non-MDers' were equally compatible).

Therefore, no need for MANOVA. This may also have been inappropriate as items were rated on a Likert scale rendering non-normal distribution in DVs.

Explanation or more detail regarding rationale of analytic decisions may have been helpful as this is a somewhat complicated methodology.

**Appendix B: Maladaptive Daydreaming Scale (MDS-16)**

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**Appendix C: Structured Clinical Interview for Maladaptive Daydreaming  
(SCIMD; Somer et al., 2017)**

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## Appendix D: Social Media Advertisement

### Understanding the experience of 'maladaptive daydreaming': exploring emotion in dark fantasies

I would like to invite you to apply to take part in a research study. My name is Amy Lucas ([a.lucas596@canterbury.ac.uk](mailto:a.lucas596@canterbury.ac.uk)) and I am a Trainee Clinical Psychologist at Canterbury Christ Church University. My supervisors and co-researchers are Dr John McGowan of The Salomons Institute of Applied Psychology, Professor Nollaig Frost, Independent Academic with Affiliations, and Professor Eli Somer of The International Consortium of Maladaptive Daydreaming, University of Haifa.

#### What is the purpose of the study?

This research aims to explore the experience of daydreaming for people who consciously immerse themselves in 'dark' fantasies a lot of the time. For example, involving negative or tragic events such as death, abuse, or illness. This is to help develop an understanding about what the experience of this type of daydreaming is like for people and the role it has in their lives. This may help to improve awareness and understanding for individuals experiencing it as well as those who endeavour to develop support.

#### What does it involve?

If you are selected, you will be asked to take part in an interview with me in which I will ask questions relating to your experiences of the above topics. All information collected from or about you during the project (including the application stage) will be kept strictly confidential and anonymised.

#### I'm interested, how do I apply?

**Step 1** – Read the description of Maladaptive Daydreaming with dark fantasies on the next page and consider whether this relates to your experiences

**Step 2** – Read the participation criteria here and determine whether this research is the right fit for you:

##### **You must:**

- Be aged 18+
- Speak English as a first language
- Self-identify as currently experiencing 'Maladaptive Daydreaming' with dark fantasies

##### **It may not be possible to take part if you:**

- Have been diagnosed with a learning disability
- Are currently in treatment for mental health difficulties
- Have ever caused intentional harm in line with fantasies

**Step 3** – Click on this link to fill in a brief questionnaire (5-10 minutes):

[https://cccusocialsciences.az1.qualtrics.com/jfe/form/SV\\_0dDkzYruPCBZQDX](https://cccusocialsciences.az1.qualtrics.com/jfe/form/SV_0dDkzYruPCBZQDX)

#### What happens next?

Once you have filled in the online questionnaire, I will be in touch shortly to let you know whether or not we can proceed to the next stage. This involves arranging a short telephone call (15-20 minutes) to ask further questions and to give you an opportunity to talk with me too. If you are not selected on this occasion, please know that your experiences are valuable. You will be offered a summary of the final report should you wish to receive it.

### **Description: 'Maladaptive Daydreaming with dark fantasies'**

For the purposes of this study, maladaptive daydreaming (MD) can be described as excessive daydreaming (in terms of duration and/or frequency) that can be experienced as addictive, and/or interferes with daily living (e.g. social/interpersonal and academic/vocational functioning). It may also create emotional distress (e.g. guilt, shame, sadness, frustration).

**MD typically involves** fantastical mental images and visual stories/narratives that may or may not be part of your real life. Examples might be hanging out with a favourite celebrity, winning the Nobel Prize, telling off your boss after winning the lottery, having an affair with an attractive co-worker, living in a parallel fantasy world, engaging in heroic or rescue actions, etc. As well as any daydreams involving fictional characters or plots. Furthermore, in this study I wish to explore specifically the experience of those individuals who find themselves engaging in **fantasies that have 'dark' or 'negative' themes**. For example, involving tragic events, death and grief, abuse, captivity, illness, etc.

This study does not wish to include 'universal daydreaming', a human phenomenon that a majority of individuals engage in on a daily basis. E.g. reminiscing over past events, planning for future activities (such as a meeting with your boss), or thinking about your mental "to do" list. I also do not plan to include purely sexual fantasies in this study.



Take some time to think about whether you want to participate in this research and talk to others about it if you wish. You can also contact me if you have any questions: [a.lucas596@canterbury.ac.uk](mailto:a.lucas596@canterbury.ac.uk).

**Thank you for your interest**

## Appendix E: Semi-Structured Interview Schedule

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### START

*Thank you for agreeing to talk to me today. In this interview, I will be asking you questions about your experience of daydreaming.*

*Depending on how much you choose to share, this may stir up some difficult feelings as well as perhaps some positive ones. It's important that I can understand as much as possible about your experiences, but also that you know you can say as much or as little as you want to. I also want you to remember that there are no right or wrong answers.*

*We can return to questions later on if you think of more you want to say, and there is some opportunity at the end for you to share more if you think we have not covered everything. Most importantly, please take your time to answer the questions as fully as you can – we can take breaks at any time and even organise to finish the interview later if we feel that there is not enough space today to cover everything.*

*If you want to pause or stop for any reason then please let me know and we will do so.*

*Do you have any questions before we start?*

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### Demographics

Name:

Age:

Gender:

Ethnicity:

How long have you been experiencing 'maladaptive daydreaming'?

Have you been supported for any mental health difficulties?

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### Object (4 questions)

*Thank you for bringing along your chosen object/picture. We'll start by talking about that and then move on to some other questions. There are no rules or expectations about what you should say, this is a chance for me to understand more about your world and your daydreaming.*

1. Please can you tell me about [object/picture].
  - Can you tell me about why you chose to bring it today?
  - Were there others you might have brought instead?
2. In what ways does [object/picture] represent your MD?
  - How does it relate to your experience of darker fantasies?
  - Which elements feel most significant to you? Why?
3. What was it like to create/choose [object/picture]?
  - Can you tell me about the process of creating/choosing it?
  - How does it make you feel to look at/think about it?
4. In what ways – if at all – do you identify with [object/picture]?
  - If not, are there ways in which you do not identify with it?
5. Is there anything else you want to share with me about [object/picture]?

*Thank you for sharing all of that with me. I am going to move onto some other questions now, but please feel free return to [object/picture/name] at any time if it helps you to answer something or you want to for any reason.*

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#### Daydreaming (10 questions)

*I'm going to ask some questions about the daydreams you experience. It would be helpful to hear about the stories, characters and atmosphere. For this part, it would be really helpful to focus on your 'darker' fantasies.*

*I'm going to ask you to think about one daydream that we can explore together (previous or current). We can talk about multiple daydreams if others feel useful to share in your answers, but we will focus on one. Would you like a moment to think about which one feels most relevant?*

6. Please can you tell me about one of your 'dark' daydreams.
  - Can you talk me through what happens? How does the story unfold?
  - What are the characters like? How do they interact with one another?
  - Do you feature in the daydream? What is your role like?
  - How do you/the characters feel throughout the daydream? How do they express this?
  - What is the world like in your daydream? Can you describe the environment/atmosphere?
7. How much of your daydream is fictional and/or how much is based on real life?
  - Does your daydream ever spill into your real life? In what way? What is that like?

- Do you notice particular times or situations that this daydream occurs?
  - Are there particular things that inspire/d your daydream?
8. What sense do you make of this daydream?
- Are there any elements of the daydream that feel meaningful/symbolic to you?
  - What do the storylines/characters/emotions mean to you? How do they make you feel?
9. In what ways – if at all - has your daydream changed or evolved over time?
- Can you describe changes across times/places/people in your real life?
  - Are there themes/images/feelings/characters/etc. that you notice recurring in your daydream? Or that you no longer include?
  - What sense do you make of these changes?

*Some of the following questions are more about your general experience of daydreaming. Please feel free to share more about your fantasies as you answer them.*

10. How do you feel about your 'dark' fantasies?
- What feels particularly appealing/unappealing about them for you?
  - Do you ever laugh, cry, or express other emotion during a daydream?
11. Please could you tell me more about your experience of darker daydreaming.
- What is it like when you daydream?
  - Do you fantasise about 'light' as well as 'dark' daydreams?
  - If yes, in what ways does your experience of each feel similar/different?
  - In what ways (if at all) has daydreaming impacted you?
12. How has your daydreaming changed or stayed the same over time?
- When did you first begin to daydream a lot?
  - When did you start to have 'dark' daydreams?
13. What (if any) things influence your daydreaming experience?  
*E.g. Some people like to pace, listen to music, or act out their daydreams.*
- In what ways is this the same/different for 'light' and 'dark' fantasies?
  - When and where are you most likely to daydream?
14. Have you ever spoken to others about your daydreaming? (specify light/dark)
- What led you to talk about them?
  - What was it like to disclose? How did you feel about their reaction?
  - If no, why?

15. How would you describe your emotional world in real life?

- Do you often or rarely notice how you feel?
- Are there particular emotions that you experience more or less often/intensely?
- Has this changed over the course of your life or always been this way?

16. Is there anything else you want to share about your daydreaming that we haven't covered?

---

END

*Thank you for taking part and sharing your experiences with me. That is everything for now, but if you find things coming to mind that feel particularly relevant to add then please do feel free to share them with me via phone or email.*

(Check how participant is feeling / debrief and signpost to optional support)

**Appendix F: Abridged Bracketing Interview**

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## **Appendix G: Abridged Research Diary**

### **Entry 1**

I've been having vivid and gruesome dreams recently that relate to my participant's fantasies and real-life traumas. Sometimes the dreams feel more symbolic however, as a way to connect with their experiences. Last night I had a dream that I was swimming against the tide of a swarm of other creatures, until I eventually found a gaping hole in the universe. I was relieved to find it and pulled myself through to free-fall through space into another world. It was exhilarating, disorientating, and felt like it was exactly where I needed to be...

### **Entry 2**

Objectification of women – could draw on feminist literature to explore this. Makes me wonder about Charlotte's relationships with men and with sex/gender culture. She talks about feminist ideology giving her rationale (“now I have a rationalised anger”) in place for just feeling “bad bad bad” towards men. Which corroborates my idea that raw anger makes her feel like a bad person. Feminist ideology perhaps provided rationale for anger – much like her characters seek superior political intellect to assert their anger in fantasies.

Internal moral struggle (theme in Charlotte's daydreams) – ‘if I do bad things to seek vengeance I will be the bad things they say I am’ – does this speak to her own relationship with anger? How can I express anger without being a terrible person?

### **Entry 3**

Emma feels protective of her world just like others and it can only be truly seen if someone sees ALL of it. Reminds me when people are invited to someone's house for the first time and they offer a ‘grand tour’. People marvel over their choice of furnishing and colour and ambience. It is not sufficient for someone to enter a home and see only the kitchen. Daydreaming as an inherent part of self that holds someone, where they ultimately create, feel safe and comfortable, and live at heart, perhaps represents a home to them. It's very personal to enter someone's home, their inner world, and I feel overwhelmingly privileged to have been invited over the threshold of a door that has been locked for many years by my participants.

### **Entry 4**

When there's a deep/desperate need for light – light alone is not enough. Darkness is required.

I feel that many participants were having revelatory moments in talking to me, sometimes quite shocking and sometimes quite relieving. And that's how I feel engaging with the analysis – that I am having revelatory moments about my own experiences or about the topic in general.

**Entry 5**

Despite years of content evolution, themes remained same. Seems that the seeds of daydreaming itself do not only begin in childhood, but also the core needs and fears, etc. processed in the daydreams themselves. Childhood is a point to intervene not just behaviourally but to address the core issues within them as well.

**Entry 6**

Isabelle talks about characters and their universe as if they are truly existing with their own autonomy and beliefs, etc. Even privy to information she herself doesn't know (mad scientist may have recreated universe after war, p. 18). It's almost as if she planted the blade of grass in her daydream world as a way to connect to characters when they notice it – like a little bridge. Reminds me of 'signs from God', especially with her as observer of universe through all character's perspectives

**Entry 7**

*This has been removed from the electronic copy.*

**Entry 8**

As I was coding, I heard seagulls above and noticed my mind first wandering to a memory by the seaside and then very quickly into a daydream about an imagined future set by the seaside. I wonder if people whose memories feel overwhelming - or they are simply not practiced at sitting with real feelings (good or bad) – are more likely to develop MD; to slip into creating something distant from the self where they can channel emotions more easily. For some, perhaps drifting into memories is a dangerous thing, in case that leads one to places they don't want to be.

**Entry 9**

Megan described herself as an angry child during her sexual abuse, but her anger disappeared when the abuse stopped and started appearing in daydreams only. Perhaps she had a lot of unresolved anger to reconcile that felt unbearable to carry (as this would force her to confront her abuse when she no longer had to / she might fear that anger might destroy good parts of her/others/life?). It is like she disowned or cut off her anger and projected it instead to her characters to hold.

**Entry 10**

Olivia's fear that something is wrong with her makes me think about cultural ideas about what it means to grow up and 'stop being childish'. Children are often told they have 'overactive imaginations' which already implies that they are doing something wrong.

Her dark daydream she's describing coincides with her depression and seems to be both an expression of that, as well as what led her there – a window to the soul. If you want to understand her depression then perhaps look to her daydreams.

It makes me think about how interventions will have to be so careful. When 'taking MD away' one is taking not only someone's safety/coping strategy, but also taking a part of them. Integration seems potentially crucial before reduction.

**Appendix H: Ethical Approval**

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## **Appendix I: Information and Consent Form**

### **Understanding experiences of ‘maladaptive daydreaming’: exploring emotion in dark fantasies**

Lead researcher: Amy Lucas - [a.lucas596@canterbury.ac.uk](mailto:a.lucas596@canterbury.ac.uk)

Principal supervisor: Dr John McGowan

Secondary supervisor: Professor Nollaig Frost

Consultant: Professor Eli Somer

My name is Amy and I am a trainee clinical psychologist at Canterbury Christ Church University. I would like to invite you to take part in a research study. Before you decide whether to take part, it is important that you understand why the research is being done and what it would involve for you. Talk to others about the study if you wish.

#### **What is the purpose of the study?**

This research aims to explore the experience of daydreaming for people who consciously immerse themselves in ‘dark’ fantasies a lot of the time. For example, involving negative or tragic events such as death, abuse, or illness. This is to help develop an understanding about what the experience of this type of daydreaming is like for people and why. A better understanding may help to improve awareness and support for those who experience it.

#### **Why have I been invited?**

You have been invited to take part because you responded to an online advertisement looking for individuals who believe they experience ‘maladaptive daydreaming’ and have ‘dark fantasies’. You then filled in some questionnaires related to this and completed a brief telephone interview with me. This process determined that you meet the eligible criteria for the research and have valuable experience to offer if you would like to. There will be at least 8 people taking part in this research, and possibly more.

#### **Do I have to take part?**

Taking part in the study is voluntary. If you agree to take part, I will then ask you to sign a consent form. You are free to withdraw at any time until data transcription begins, without giving a reason.

#### **What will be expected of me if I take part?**

You will be asked to take part in an interview with me in which I will ask questions relating to your experiences of the above topics. This may take between 45-60 minutes depending on the amount you wish to share, and you will be able to take breaks whenever you wish. You will also be asked to bring a picture or object that you

feel relates to (or best represents) the darker daydreams you experience to inform part of the interview. The interview will be audio-recorded.

We will only need to meet once, unless you request to finish the interview at a later time than we start. I will offer a verbal and written debrief with you immediately following the interview. This is to think about your wellbeing after taking part. I will also contact you 1 week post-interview for an additional debrief follow-up.

I will analyse the interview discussion using a method that explores and interprets the inner-world and meaning of experience. I will then summarise the outcome of your interview.

### **Expenses and payments**

I can offer £10 to assist with travel costs. If you require more, there is a maximum additional offer of £10 (£20 total) that you can request. We can discuss this so that I can ascertain whether you meet the criteria for additional assistance.

### **What are the possible disadvantages and risks of taking part?**

You might experience some distress during or after the interview if discussions have stirred up any difficult feelings. I will check in with you to see how you are and if you need a break. You can also raise concerns with me (or stop) at any point during the interview.

### **What are the possible benefits of taking part?**

It is possible that you will benefit from having space to share and reflect on your experiences in an open and non-judgemental space. You may find that this provides an opportunity to gain some personal insight. Whilst I cannot promise the study will help you, your contribution may help to improve awareness and understanding for people who experience frequent daydreaming and those who endeavour to develop appropriate support.

### **What will happen if I do not want to carry on with the study?**

You can withdraw your data from the study at any time until data transcription begins, by telling me in person or via phone or email. This includes withdrawing your participation during the interview. You do not have to give a reason for your withdrawal. Once data analysis begins, data from all participants is anonymised and analysed together, making it difficult to remove your contribution specifically at that stage.

### **Will information from or about me be kept confidential?**

All information collected from or about you during the course of the research will be kept strictly confidential and anonymised (including quotes) in the report. The only

time I would be obliged to break confidentiality would be if you said something during the interview that raised concerns about risk of significant harm to yourself or others. In that case, I would need to talk to others to help ensure your safety and the safety of others, and would let you know about this beforehand where practically possible. You have the right to check the accuracy of the data held about you and correct unlikely errors. You can contact me to request access to your held information if you wish to do this.

The audio-recording of your interview will be transcribed (either by myself or a transcription specialist formally bound by confidentiality). All data will be stored electronically and encrypted with password protection – nobody will be able to access this apart from the research team listed above. Paper copies will be coded (summarised) and stored in a locked location. Electronic data will be kept in possession for 10 years, after which it will be destroyed securely. Printed data will be destroyed immediately after use. During its retention, data may be used for future studies.

### **What will happen to the results of the research study?**

The results of the study will be written about in a research report that will be submitted to the Salomons Institute for Applied Psychology as part of my doctoral training. The report may also be published in academic journals and will be published on the University's website. You will receive a summary (shortened version) of the final report upon publication by the Institute, and can request a copy of the full thesis at that time if you wish to. You will not be identified in the report or publication.

### **Concerns and complaints**

If you have a concern about any aspect of this study, you should ask to speak to me and I will do my best to address your concerns. You can contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for me (Amy Lucas) and I will get back to you as soon as possible. If you remain dissatisfied or wish to complain formally, you can do this by contacting Dr Fergal Jones, Clinical Psychology Programme Research Director, Salomons Institute for Applied Psychology: [fergal.jones@canterbury.ac.uk](mailto:fergal.jones@canterbury.ac.uk)

### **Who is sponsoring and funding the research?**

Canterbury Christ Church University is funding the research.

### **Who has reviewed the study?**

This study has been reviewed and awarded approval by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University.

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## Support

If you are based in the UK, NHS psychological therapies can be accessed via an appointment with your GP. If you are in another part of the world then you will need to follow the correct procedures for your area to seek support. You may want to take a copy of the research information sheet if you feel that this would be relevant. There are currently no evidence-based treatment modalities for Maladaptive Daydreaming specifically. However, this is something that existing forms of therapy may be able to support you with in the meantime.

Samaritans are a 24/7 charitable organisation that offer a free help-line and drop-in service (you can find your local branch online or via their helpline) with Listening Volunteers who are trained to talk to people in crisis or experiencing difficult or suicidal thoughts and feelings. You can contact their helpline at: 116 123 or via their website at: <https://www.samaritans.org/how-we-can-help/contactsamartan/>

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If you wish to contact me, or any of the research team, for further questions or discussion, you can do so using the contact details at the top of this information sheet.

**THANK YOU**

Lead researcher: Amy Lucas - [a.lucas596@canterbury.ac.uk](mailto:a.lucas596@canterbury.ac.uk)  
 Principal supervisor: Dr John McGowan  
 Secondary supervisor: Professor Nollaig Frost  
 Consultant: Professor Eli Somer

Initial each box and sign below:

1. I confirm that I have read and understand the information sheet dated 17.03.2020 for the above study. I have had the opportunity to consider the information and ask questions. These have been answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw my data until transcription begins, without giving any reason.
3. I understand that data collected during the study may be looked at by the research team (Dr John McGowan, Professor Nollaig Frost, Professor Eli Somer). I give permission for these individuals to have access to my data.
4. I agree that anonymous quotes from my interview and other anonymous data may be used in published reports of the study findings.
5. I agree for my anonymous data to be used in further research studies. This may involve other researchers than those listed here. The time my data will be stored will extend 5 years from the point of each project.
6. I understand that my participation will be audio-recorded, transcribed, and analysed, with possible use of verbatim quotation and consent for this to happen.
7. I understand that photographs (of my chosen picture or object) may be used in the published report and consent for this to happen. It will not identify me in the research to the best of my knowledge.
8. I have been informed of the possibility that some emotional discomfort may arise during participation and consent to participate in awareness of this.
9. I agree to take part in the above study.

Print name: \_\_\_\_\_ Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

Name of person taking consent: Amy Lucas Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

## Appendix J: Debrief Sheet

### Understanding experiences of 'maladaptive daydreaming': exploring emotion in dark fantasies

Lead researcher: Amy Lucas - [a.lucas596@canterbury.ac.uk](mailto:a.lucas596@canterbury.ac.uk)

Principal supervisor: Dr John McGowan

Secondary supervisor: Professor Nollaig Frost

Consultant: Professor Eli Somer

This research aims to explore the experience of daydreaming for people who consciously immerse themselves in 'dark' fantasies a lot of the time. For example, involving negative or tragic events such as death, abuse, or illness. This is to help develop an understanding about what the experience of this type of daydreaming is like for people and why. A better understanding may help to improve awareness and support for those who experience it. Your participation in this project is greatly appreciated, as sharing your perspective and personal experiences provides valuable insight and may help to improve the quality of understanding regarding this topic.

We hope it has been a positive experience, while acknowledging that it could also have been quite a challenging process. I will contact you in 1 week to think about your wellbeing and provide an opportunity to reflect on your experience of taking part. We do invite you however, to seek support from additional resources should you feel that you need to – details to some options can be found below.

You will be provided with a summary of the key research findings when the project is completed, submitted, and accepted. If you wish to receive a copy of the full report at that time then you can request this. Please note that final submission can take roughly 2 years from this point, so if you wish to receive this it is important that you let me know if your contact details have changed in that time.

If you have any further questions or would like to discuss anything then please do not hesitate to contact me or the research team using the details at the top of this sheet.

#### Support

NHS psychological therapies can be accessed via an **appointment with your GP**. You may want to take a copy of the research information sheet if you feel that this would be relevant. There are currently no evidence-based treatment modalities for Maladaptive Daydreaming specifically. However, this is something that existing forms of therapy may be able to support you with in the meantime.

Samaritans are a 24/7 charitable organisation that offer a free help-line and drop-in service (you can find your local branch online or via their helpline) with Listening Volunteers who are trained to talk to people in crisis or experiencing difficult or suicidal thoughts and feelings. You can contact their **helpline at: 116 123** or via their **website at: <https://www.samaritans.org/how-we-can-help/contact-samaritan/>**

**Thank You**

**Appendix K: One Coded Transcript**

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### Appendix L: Demonstration of Theme Progression

Thematic structures were created for each participant by grouping emerging themes (codes) into conceptual clusters. Table 1 shows an example of this process for Megan, including a brief ‘snapshot’ of emerging themes from her transcript for each group.

Table 1

Thematic Structure of IPA Analysis for Megan with Examples of Emerging Themes

<b>Superordinate Themes</b>	<b>Description</b>	<b>Subthemes</b>	<b>Emerging Themes (codes)</b>
Daydreams as an extension of self	Somewhere to disappear/escape from real world	Blurred self with characters – experiencing herself as one with characters (lost self)	Lost self-blurred with characters Self vs character Shared emotions with characters
	Self and characters living through one another (parts of self)		
	Enmeshment	Inherent part	Always had dark daydreams Daydreaming as default mode
	A safe place for emotional experience		
A place to process trauma	Anger as bad	Fantasies as a safe place - to process/hide/access difficult emotions and experiences	Anger only in daydreams Processing hidden feelings in daydreams Daydreaming to connect with emotional states Emotions as unjustified Desire to make characters as sad as possible Visceral emotional reaction Extreme expression of real experience in daydreams
	Daydreaming an inherent part of self/life		
		Characters with own existence – experiencing her characters as living beings	Characters as autonomous beings Parallel world Attachment to characters Daydream content evolved as she grew

Feeling alone (in the world/with experiences)	<p>Confusion about experiences</p> <p>Fearing self as bad, weird, or crazy</p> <p>Limiting self-expression in real world – reserved for daydreams</p> <p>Difficult to articulate/explain daydreaming (value of talking openly)</p>	Secrecy / Judgement / Hidden self	<p>MD as secret experience</p> <p>Fear of judgement</p> <p>Value of being understood</p> <p>Guilt over dark content</p> <p>Judges self for dark content</p> <p>Keeps inner world private (unseen/hidden self)</p> <p>Misperceived by others</p> <p>Expressing emotion only when alone</p>
		Difficult to translate / Complexity	<p>Intricate daydream detail</p> <p>Complexity of daydreaming</p> <p>Difficult to translate</p> <p>Uncertainty about why</p> <p>Revelatory insight</p>
		Justifying unexplainable content	<p>Desire for accurate representation</p> <p>Ownership of experiences</p> <p>Real world influence (making daydreams like reality)</p>
Fantasy Content	To be woven within other themes?	Idiographic content / Recurring fantasy themes	<p>Deprived</p> <p>Desolate</p> <p>Innocence of seeking love and support</p> <p>Fleeing maltreatment</p> <p>Unwanted and unseen</p> <p>Sexual/physical abuse and neglect</p> <p>Suffering in secret</p> <p>Violence</p> <p>Teenage drug addiction – helps character cope</p> <p>Parental death</p> <p>Sadness</p>

Participant structures were placed into a spreadsheet (Figure 1) to enable a clear overview for next stages.

Figure 1

Spreadsheet of Individual Participant Thematic Structures

Emma	Isabelle	Joe	Kyan
<b>Theme: An unrecognised burden – lonely suffering</b>	<b>Theme: Solitude</b>	<b>Theme: Sense of self</b>	<b>Theme: Seeking safety</b>
Difficulty explaining MD	Difficulty translating world	Sense of self	Emotional expression
Light and dark need each other	Feeling misunderstood	Judgement / Self-esteem	Resonant themes
Yearning to share / be understood (about MD)	Desire for shared validation		Childhood vs adulthood
Feeling alone with MD	Judging dark daydreaming / judging self	<b>Theme: Feeling alone</b>	Escape vs invited re-experiencing
Desire for rescue from MD		Feeling alone	Healing trauma to heal MD
Judging self/darkness	<b>Theme: Enmeshment</b>	Complexity / communication	Need to understand/judgement
	Daydreaming part of self		
<b>Theme: Daydreaming as an extension of self</b>	Blurred line between self and characters	<b>Theme: Emotional safety</b>	<b>Theme: Tragic aloneness</b>
Part of self	Growing up	Emotional safety	Connection / Feeling misunderstood
Extension of experiences and emotions	Lost self		Part of identity/existence
Unconscious / autonomous	Attachment to characters		Aspects of self
	Autonomy of world/characters		Other world
<b>Theme: Existential conflict</b>			
Battle of two worlds – both needed for existence	<b>Theme: Emotional function</b>		
Existential pain	Emotional function		

Megan	Olivia	Sarah	Charlotte
<b>Theme: Daydreams as an extension of self</b>	<b>Theme: Compartmentalising the self</b>	<b>Theme: Symbiotic worlds</b>	<b>Theme: Feeling alone</b>
Blurred self with characters	DD part of self	Complexity	Difficulty communicating experience
Inherent part	Hidden self	Need both worlds for existence	Conflict between two worlds
Fantasies as a safe place	Social connection	Muddling of both worlds	Feeling alone
Characters with own existence	Safe place to express / fear of darkness		Secrecy
	Battle between two worlds	<b>Theme: Daydreaming as an extension of self</b>	
<b>Theme: Feeling alone</b>		Inherent part of self	<b>Theme: Creative exploration</b>
Secrecy / Judgement / Hidden self	<b>Theme: Feeling alone with MD</b>	Identity and hidden self	Processing experiences
Difficult to translate/complexity	Feeling misunderstood	Attachment to characters	Channelling emotions
Justifying unexplainable content	Difficult to translate		Powerful anger
	Judgement	<b>Theme: Safe place for emotional darkness</b>	Enhancing/seeking emotive inspiration
		Safe place / Emotional processing	
		Darkness seductive	<b>Theme: Ego Strength (sense of self)</b>
		Unconscious	Poor ego-strength
			Splitting/control
		<b>Theme: Yearning for integration</b>	Making sense of growing up
		Judgement	
		Desire to be seen	

Once each structure was complete, emerging themes were colour-coded (Figure 2) and grouped across participants. This was an iterative process of returning to original structures and transcripts, while reviewing the developing overall structure. See screenshot example below in Figure 3.

Figure 2

Screenshot of Colour Code for Participants and Emerging Themes

## Overall Emerging Themes

Colour code:

Emma

Isabelle

Joe

Kyan

Megan

Olivia

Sarah

Charlotte

Figure 3

Screenshot of Example Grouping of Emerging Themes Across Participants

<p>Community engagement aided disclosure Value of increased resources to disclose Disclosure dismissal disappointing Feels misunderstood Difficulty translating daydreaming Desire to promote understanding Feeling misunderstood Integrating two worlds Feels unseen (alone) Feeling alone Feeling unseen Feeling alone Feeling alone Self-protection Complexity of daydreaming Complexity Complexity of daydreams Complexity</p> <p><b>Joe</b> Not sure why daydream Not sure how to make sense Difficult to translate Difficulty translating experience Complexity Complexity Difficult to make sense Difficult to make sense Power of shared experience Desire for help Desire to understand Desire to understand Desire for help Power of shared experience Power of sharing experience</p> <p><b>Kyan</b> Desire to share experiences Daydreaming hidden experience Feels misunderstood (daydreaming)</p>	<p>Hidden experience Desire to share understanding Hidden self/unseen DDs difficult to explain DD emotions ineffable Complexity of DDs Investment in research/learning for intricacy/authenticity Complexity Stories deeply complex DD difficult to translate Difficulty communicating inner world Complexity of DD world DD difficulty to translate: power of metaphors Complexity: multidimensional Desire to share DD stories Feeling alone and misunderstood Trapped alone inside and in DDs Tragedy of separateness Tragedy of separateness Feeling misunderstood Hidden self Misunderstood/unseen Pain of feeling alone/separate Hidden <u>self caused</u> more suffering Sharing DD openly as a healing experience Even good/funny DDs laced with dark themes Misunderstood</p> <p><b>Megan</b> Intricate daydream detail Complexity of daydreaming Difficult to translate Difficult to translate daydreaming Difficult to translate daydreaming Learning to develop content Uncertainty about why Uncertainty about why Uncertainty about why Uncertainty of emotional reasons Revelatory insight</p>
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**Appendix M: Author Guidelines for Prospective Journal**

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**Appendix N: End of Study Notification Letter**

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## Appendix O: Research Summary for Participants

### “This Darkness Inside”: Exploring Aversive Fantasy in Maladaptive Daydreaming

Dear [participant],

I am writing to provide a summary of the research project that you took part in during 2020.

You can request a full copy of the report using my contact details below if you would like to. I am also happy to receive any questions, thoughts, or feedback you might wish to write or discuss.

#### **Background:**

Maladaptive Daydreaming (MD) is a complex experience of absorption in mental fantasy, that can cause significant distress and disruption to life-functioning. While positive fantasy content is most often reported, many people with MD engage in aversive fantasy content. This raises questions about the pleasurable, compelling, and addictive nature of immersion in dark storylines and emotional pain. This study is the first to explore the experience of MD with aversive fantasy specifically, aiming to gain better understanding and provide suggestions for supportive practice and further investigation.

#### **Method:**

The research used a qualitative approach called Interpretative Phenomenological Analysis (IPA). This design enables an in-depth exploration of lived experience. Eight participants from the UK and USA were interviewed, who also created or chose an object or image to represent their aversive fantasy daydreaming experiences.

#### **Outcomes:**

Three main themes were found across the data, including seven subthemes. These are outlined in the table on the next page.

#### **Conclusions:**

Findings were consistent with existing literature; illustrating a battle between parallel worlds that left participants feeling torn, trapped, disorientated, and alone. Daydreams appeared to be both a core part of oneself and an extension of self; in which identity, experiences, and emotions could be explored and processed. In the case of aversive fantasy specifically however, potential differences were observed in the experience of emotion regulation. While self-soothing and transformation of mood-states were present, daydreams appeared to provide a safe place to embrace difficult emotional states which could perhaps then be distanced in real life. In other words, while positive

daydreams may enable individuals to access feelings one does not have (e.g. joy, excitement, pride), negative daydreams may enable access to feelings one has but cannot not hold (e.g. anger, sadness, disgust). This could be understood as a form of ‘benign masochism’, where safety from perceived threat creates an enjoyable experience. Secrecy could be compounded due to concern and confusion about the reason for immersion in dark themes. Practical implications may begin with recognition of ‘MD with Aversive Fantasy’ (MD-AF) as a subtype, for which potentially important distinctions in emotion regulation may be useful to address.

Table of Outcomes: Theme Headings

Main Themes	Subthemes
A Lonely Adventure	Ineffability of Daydreaming
	Intrinsic Part of Being
	Is There Something Wrong with Me?
Seeking Safety	Managing the World
	Dealing with Negative Emotion
Torn Between Worlds	A Life of Its Own
	Fantasy Battles Reality

I wish to thank you again for your participation in this research. I greatly valued the opportunity to connect with you and the privilege to learn from your experiences.

Please find my contact details below:

Amy Lucas  
 Trainee Clinical Psychologist  
 Salomons Institute for Applied Psychology  
 Canterbury Christ Church University, UK  
 Email: [al596@canterbury.ac.uk](mailto:al596@canterbury.ac.uk)

**Appendix P: Table of Participant Information**

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