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COMPREHENSIVE REVIEW

What Is Known About Maladaptive Daydreaming? A Scoping Review

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ABSTRACT

Maladaptive daydreaming (MD) is a dysfunctional coping mechanism that involves excessive, uncontrollable daydreaming. MD accounts for severe impairment in life functioning and is comorbid with several psychopathological disorders, sharing common maladaptive features such as compulsion and emotional dysregulation. We conducted a scoping review of the research on MD. We aimed to clarify the definition of MD, its underlying psychological mechanisms, and characteristics of the published research. We searched MEDLINE, PsycINFO, SCOPUS, Web of Science Core Collection, and secondary sources for MD-focused empirical studies published in English until March 2024. Two independent screeners performed abstract and full-text screening and data extraction. This review included 89 studies, of which 87 were published and two were unpublished studies. MD research showed an increasing trend of studies since 2002 with geographical diversity. Most studies presented online cross-sectional data with younger female participants and explored prevalence, associated psychological correlates, and comorbidity with mental disorders. A total of 66 studies were conducted in the general population, MDers, and student samples. Among clinical studies ($n = 23$), eight focused on specific diagnoses, seven included mixed clinical groups, and eight were case studies. Our review innovately reported the diverse methodologies used in MD research, especially involving clinical populations, and suggests future studies focus on heterogeneous samples, namely, in diverse clinical groups to explore differences in MD levels across these groups, longitudinal study designs, and the effectiveness of treatment strategies that will aid policymaking and the creation of valid resources for mental health professionals to diminish the negative impact of MD.

1 | Introduction

Maladaptive daydreaming (MD) is an understudied dysfunctional coping mechanism that involves excessive daydreaming. MD is characterized by an intense yearning to engage continuously in emotionally rewarding daydreaming, which commonly arises from coping with stressful life events and/or childhood trauma (Greene et al. 2020). MD becomes uncontrollable, leading to psychological distress and severe impairment in academic, occupational, and interpersonal settings (Musetti

Summary

- Maladaptive daydreaming impairs several life areas, such as interpersonal relationships and academic and professional performance.
- Empirical research links MD to heightened psychological distress, emotional dysregulation, and social isolation.
- Future research is needed to explore MD levels across diverse clinical groups.
- Preliminary findings suggest that psychotherapy may reduce MD symptoms and related distress, thus emphasizing the need to develop and formalize evidence-based interventions on MD for mental health professionals.
- Future research should verify potential multidevelopmental pathways for MD and explore factors that may contribute to its development and maintenance.

et al. 2021; Somer et al. 2020). While the rapidly growing research field recognizes the clinical relevance of MD, the need for its official recognition as a clinical condition remains (Bershtling and Somer 2018).

While Somer introduced MD (Somer 2002), the expansion of MD research was facilitated by online communities seeking further insight into their experience and online support for the detrimental effects of MD on their mental health and daily functioning, thus contacting researchers and participating in research (Bigelsen et al. 2016; Soffer-Dudek and Theodor-Katz 2022). There is a need to establish a ground for policymaking that ensures accurate assessment and strategies to alleviate MD-associated suffering in various settings and to create clinical practice guidelines for mental health professionals in clinical contexts (Somer, Lehrfeld, et al. 2016; Somer, Soffer-Dudek, Ross, and Halpern 2017). A comprehensive synthesis of the evidence would stimulate appropriate directions for future research endeavors and effectively address this urgency.

Advancements in the field have led to the adaptation of assessment instruments to identify clinically significant levels of MD. The 16-item Maladaptive Daydreaming Scale (MDS-16; Somer, Lehrfeld, et al. 2016) has been translated and adapted to several languages and contexts (e.g., Abu-Rayya et al. 2019; Ahmadi et al. 2022; Pietkiewicz et al. 2023b). Observational studies examining the incidence of MD within general and student populations emphasize its clinical relevance (Alenizi et al. 2020; Bashir 2021; Musetti et al. 2021; Kammad et al. 2021) and highlight the urgency to understand the psychological mechanisms underlying MD. However, the empirical research remains limited and scattered across different populations and contexts, which may hinder researchers' attempts to conduct groundbreaking research in the field.

Recognition of MD as a clinical condition and the overall impact of MD research is hindered from a theoretical standpoint. Overlapping constructs including "self-generated mental activity" (e.g., mind wandering, normative daydreaming, fantasy proneness, imagination), which may be functionally adaptive or maladaptive (Callard et al. 2013; Schimmenti et al. 2019), decrease the willingness to perceive MD as a distinct phenomenon. Moreover, we observe related self-generated mental activities in other psychopathologies (e.g., attention deficit/hyperactivity disorder; Theodor-Katz et al. 2022).

A recent meta-analysis (Somer et al. 2025) addressed the relationship between MD, mental distress, and psychopathology, revealing meaningful statistical associations between MD and depression, anxiety, dissociation, obsessive–compulsive disorder, attention-deficit/hyperactivity disorder, general psychopathology, psychotic symptoms, autism spectrum disorder, and traumatic experiences, with some effects moderated by age and gender. In line with this, studies involving clinical samples showed that MD levels varied across different clinical groups. Specifically, people with narcissistic personality disorder had higher MD scores compared to mixed clinical and nonclinical groups (Pietkiewicz et al. 2023a). In individuals with autism spectrum disorder diagnosis, autism spectrum disorder traits and attention-deficit/hyperactivity symptoms significantly predicted MD (West et al. 2023b). Furthermore, MD levels also varied in general community samples with no formal diagnoses. West et al. (2023b) additionally found that autism spectrum disorder traits in MD communities similarly positively predicted MD. In a Brazilian general community sample, Catelan et al. (2023) found significant positive moderate ($r = 0.45$) associations between MD and attention-deficit/hyperactivity symptoms.

Nevertheless, research highlights unique features in MD. For example, previous studies involving MDers detected unique characteristics such as kinesthetic behaviors (Bigelsen et al. 2016), the ability to distinguish between fantasy and reality (Somer, Somer, and Jopp 2016a), and complex fantasy-based daydreaming content (Marcusson-Clavertz et al. 2019; Schimmenti et al. 2019; Somer 2023), which differed from daydreaming activities in clinical manifestations of other psychopathologies, such as immersive daydreaming in autism spectrum disorder (West et al. 2023a). Aligned with Somer et al. (2025), these findings highlight an under-researched phenomenon warranting further qualitative and quantitative research to map MD's clinical manifestation and underlying psychopathological mechanisms. Soffer-Dudek and Somer (2022) have proposed a theoretical model representing MD as a pathological condition placed on a continuum of dissociative states, which precedes the more extreme dissociative identity disorder. They suggested that MD is contingent upon a predisposition to dissociative absorption, which is the tendency to become fully immersed in internal or external stimuli (Soffer-Dudek et al. 2015). We can, therefore, state that dissociation and related processes like dissociative absorption are theoretically distinct constructs from MD (Soffer-Dudek and Somer 2022). It is crucial to consider research explicitly exploring MD to clarify conceptual boundaries and facilitate consolidating knowledge specific to this field.

While the extent of MD research is still limited and composed of a heterogeneous group of studies, previous attempts to review the literature include nonsystematic literature reviews

providing extensive conceptual overviews of MD (Rana and Vyas 2022; Vyas et al. 2023), and a narrative review mainly focusing on MD and its relation to motor stereotypy—a common behavioral component of autism spectrum disorder (Nauman 2023). A systematic literature review conducted by Lucas (2021) focused on assessing the living experience of maladaptive daydreamers (MDers), and Thorburn (2022) presented another literature review to explore whether there was sufficient ground evidence to classify MD as an official disorder. These attempts to review and provide a theoretical understanding of the concept of MD did not aim to systematically map the empirical research in the field. Moreover, the meta-analysis (Somer et al. 2025) provided an essential contribution in establishing the relevance of MD as a clinical feature in different mental conditions and evaluating the quality of the included studies. However, it did not focus on thorough assessment of clinical related procedures used in the studies, such as recruitment and clinical assessment methods, addressing other clinically relevant factors (e.g., attachment) associated with MD, and integrating qualitative research insights, which are essential to give a better account of the status of knowledge in the field and better understand the determinants for the development of pathological daydreaming activity as a coping mechanism.

A broader approach through a scoping review contributes to the field by offering an overview of the existing empirical research and its characteristics in the field (Peters et al. 2020), while also mapping existing qualitative and quantitative evidence of clinically relevant factors associated with MD. A scoping review may be imperative to identify existing evidence, gaps, and priorities for future research in advancing knowledge to clarify the current stand on MD as a distinct clinical disorder and inform future clinical interventions for MDers experiencing distress (Rana and Vyas 2022; Theodor-Katz et al. 2022).

1.1 | Research Questions and Objectives

We raised the central question, "What is known from the literature about Maladaptive Daydreaming in all age frames and contexts?", developed using the PCC framework—"Patient", "Concept", and "Context"—which is commonly used to ensure scoping review questions are adequate and comprehensive (Peters et al. 2020). We aimed to provide a comprehensive overview of the empirical evidence and suggest further directions for researchers in the field of MD. Our specific objectives were to (1) explore how MD has been defined and conceptualized within the existing literature, (2) report on MD research distribution and study characteristics, and (3) map common characteristics and psychological processes of individuals with MD.

Several subquestions were created based on the following specific objectives:

- What key elements are used in the literature to define and conceptualize MD?
- What are the main characteristics and distribution of the published studies?
- Which methodological approaches (e.g., qualitative, quantitative, cross-sectional, longitudinal) have been used to investigate MD?
- What are the sociodemographic characteristics (e.g., age, sex) of the study participants?
- What are the primary study outcomes and underlying themes of MD research?
- What are the key elements and patterns identified concerning the clinical manifestation of MD?

2 | Method

The scoping review was conducted according to Arksey and O'Malley's Framework for Scoping Reviews updated by Joanna Briggs Institute group (Peters et al. 2020), and the extended checklist of Preferred Reporting Items for Systematic reviews and Meta-Analyses for scoping review reporting (PRISMA-ScR; Tricco et al. 2018). A protocol for this review was registered on the Open Science Framework (Mansuklal et al. 2023).

2.1 | Predefined Eligibility Criteria

We included studies with original empirical data that focused primarily on MD, as defined by Somer (2002). Given the field's novelty and the need to assess a broadened scope of evidence, we did not limit the year of publication or peer reviewing. In this sense, we included dissertations, proceeding papers with original data while excluding books, book chapters, and editorials with original data. We excluded studies that only addressed constructs that theoretically overlap with MD but are nevertheless distinct, such as mind wandering, dissociative absorption, and fantasy proneness (Schimmenti et al. 2019). We excluded studies that were not available in English for accessibility reasons.

2.2 | Information Sources

We retrieved relevant records from electronic databases in September 2023 and conducted an additional search in March 2024 to find more recent publications. We searched MEDLINE, APA PsycINFO, SCOPUS, and Web of Science Core Collection, as well as secondary sources such as Google Scholar, Networked Digital Library of Theses and Dissertations (NDLTD), Open Access Thesis and Dissertations (OATD), and online sites of relevant journals. Additionally, we searched the International Consortium of Maladaptive Daydreaming (ICMDR) website, which lists MD publications.

2.3 | Search Strategy

2.3.1 | Primary Search Strategy

We constructed a search strategy using the Araújo (2020) strategy and conducted a literature review on MD to identify relevant keywords and possible variations. Based on the initial search, we pinpointed the following keywords:

1. daydream*
2. maladaptive

2.3.2 | Secondary Search Strategy

We conducted additional secondary searches to ensure we included all relevant studies in the screening. Specifically, reference lists of included studies, manual searches of relevant journals, contact with authors, and a broader secondary search using the original main search equation with additional keywords were considered pertinent to consider possible alternative terms to MD:

1. fantas*
2. excessive
3. compulsive
4. impulsive
5. dysfunctional

2.4 | Study Selection Process

We imported the search results from each database into EndNote X10 and removed duplicate records before screening. After importing the remaining records into Rayyan, two team reviewers (SAM and IBC) performed duplicate title and abstract screening based on the eligibility criteria, followed by a full-text screening in October 2023. We repeated this procedure for the results of the search conducted in March 2024. Overall, the percentage of agreement between reviewers calculated with 54% (1151 decisions) of the title and abstract screening was 99.2%. We resolved disagreements in the section of studies by discussion between the two reviewers and, if necessary, by another reviewer (PMP).

2.5 | Data Charting and Synthesis

Two reviewers (SAM and IBC) independently extracted data in October 2023 and March 2024. Our team had previously codesigned a data charting tool in Excel with a predefined list of data items based on the subquestions of our review as follows: article characteristics (e.g., year of publication, country of origin), contextual factors (sample size and sociodemographic information of participants such as age, sex and presence of MD), definition of MD, main objectives and hypothesis, methodological approach, assessment measures used to evaluate MD, primary outcomes and key elements of the clinical manifestation of MD, and the presence of co-occurring conditions. Following this, we coded and analyzed extracted data through quantitative (descriptive statistical analysis) and qualitative (content analysis; Bardin 2011) methods in Excel to inform on (1) the conceptual definition of MD, (2) the study characteristics, and (3) psychological processes of MD.

Following reporting the results on the definitions and study characteristics in this review, we organized studies based on two main sample types, that is, studies with general populations, MDers, and student populations and studies with clinical populations. We defined clinical studies as those involving either a formal diagnosis through standardized procedures or instruments, or a self-reported diagnosis in clinical populations. The inclusion of self-reported diagnoses, mixed clinical and general community sample studies, and individual clinical cases was justified by the limited number of studies involving formally diagnosed samples and high heterogeneity in study design and sample types, leading to a broader categorization.

3 | Results

Our search in electronic databases yielded 3441 initial records. After removing 1316 duplicates, we reviewed 2125 titles and abstracts and excluded 2054 records. Upon screening the full-text articles, 57 studies remained. We added 32 relevant studies from our secondary searches. In total, we included 89 studies in our review. The search process is illustrated in Figure 1.

3.1 | Definitions of MD

Most studies ($n = 68$) defined MD by presenting Somer's (2002) definition. While exploring the cultural invariance of the MDS-16, Soffer-Dudek et al. (2020) concluded that the meaning of daydreaming and yearning to daydream may vary across cultures; however, the maladaptive features were consistent. The remaining studies either used the term MD but did not mention Somers' definition ($n = 20$) or did not refer to the term MD entirely despite exploring a maladaptive form of daydreaming activity ($n = 7$). In the latter, studies used varied terms, specifically, "excessive daydreaming" (e.g., Conte et al. 2023; Schupak and Rosenthal 2009), "dysfunctional daydreaming" (e.g., Shafiq et al. 2023; Shafiq and Zafar 2022), and "compulsive fantasizing" (e.g., Bigelsen and Schupak 2011). They were considered in the methodology and maintained in this review due to their descriptions of the phenomenon that aligned with the concept of MD (Bigelsen and Schupak 2011; Schupak and Rosenthal 2009). Two studies explored the construct of "violent daydreaming", which they presented as a sub-theme of MD (Chu et al. 2017; Selby et al. 2007).

3.2 | Study Characteristics

3.2.1 | Temporal and Geographic Distribution of Published Studies

The included studies were published between 2002 and 2024, revealing a notable increase in the number of studies per year (Figure 2).

Geographically, the included studies with single-country author affiliations ($n = 67$) were conducted in regions of Western Asia ($n = 22$), Southern Asia ($n = 13$), Eastern Europe ($n = 11$), North America ($n = 9$), Southern Europe ($n = 8$), Northern Europe ($n = 1$), Northern Africa ($n = 1$), Australia ($n = 1$), and Eastern Asia ($n = 1$). The highest number of studies was conducted

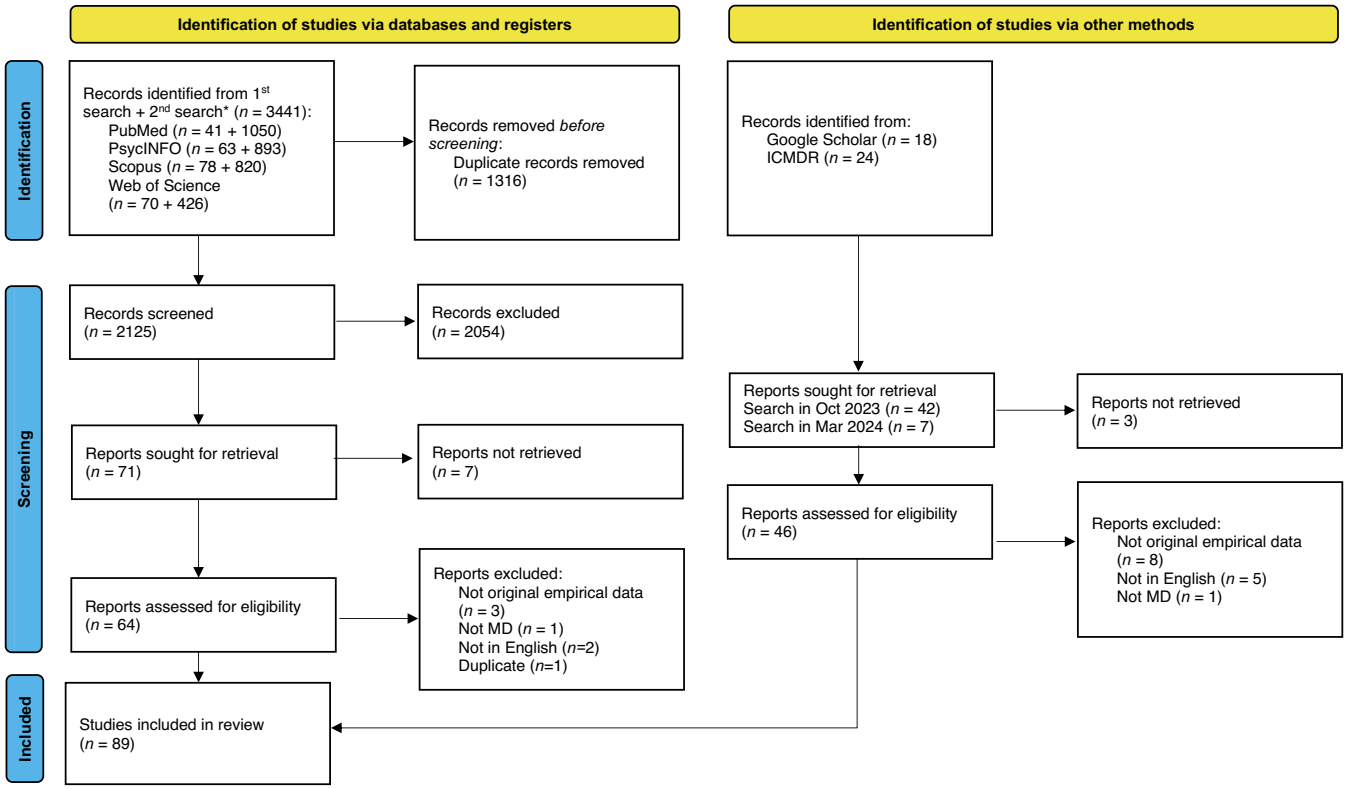

FIGURE 1 | Flow diagram of the study selection process.

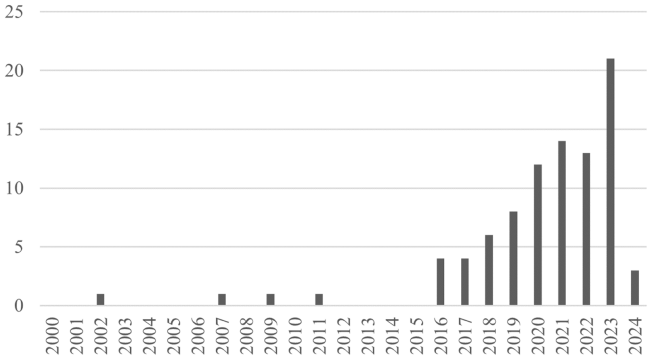

FIGURE 2 | Number of studies per year (until March 2024, included).

in Israel ($n = 18$), USA ($n = 9$), India ($n = 9$), Italy ($n = 7$), and Hungary ($n = 7$). The remaining studies ($n = 22$) involved multicountry author affiliations (e.g., West and Somer 2020), although not all multicountry studies included multicountry samples (e.g., Catelan et al. 2023). Israel presented the most collaborative investigations in total ($n = 19$) and more frequently with the USA ($n = 7$) and Australia ($n = 5$).

3.2.2 | Publication Type, Methodological Approach, and Study Design

Among the included studies, 87 were published scientific articles, and two were academic dissertations or theses. Most studies ($n = 67$) employed quantitative methods, 17 utilized qualitative methods, and five used a mixed methods approach. Quantitative studies adopted a cross-sectional design ($n = 63$), a longitudinal design ($n = 3$), or a randomized controlled trial ($n = 1$). Among nine studies employing qualitative research frameworks, four used interpretative phenomenological analysis (Lucas 2021; Somer 2002; Somer, Somer, and Jopp 2016b; Somer, Somer, and Halpern 2019), three reported inductive thematic analysis using email interviewing (Somer 2024; Somer 2023; Somer and Otgaar 2024), one study used grounded methodology (Somer, Somer, and Jopp 2016a), and one study used critical discord analysis (Bershtling and Somer 2018). The remaining eight qualitative studies were case studies (Pietkiewicz et al. 2018; Somer 2018; Rebello et al. 2019), reports (Roneena and Anandarani 2022; Sharma and Mahapatra 2021b; Wang et al. 2019), and series (Sharma and Mahapatra 2021a; Schupak and Rosenthal 2009) with no specific data analysis methods.

3.2.3 | Assessment Measures for MD or Aspects of Daydreaming

Included studies used varied assessment measures of MD, namely, the MDS-16 ($n = 62$), the earlier 14-item version (MDS; $n = 8$), the Structured Clinical Interview for MD (SCIMD; $n = 10$), a short 5-item Polish version of the MDS ($n = 1$), and the Dysfunctional Daydreaming Scale (DDS; $n = 2$). The MDS-16 was validated in several languages ($n = 7$), and the original factor structure of the scale was consistent (Soffer-Dudek et al. 2020). Two shorter versions of the MDS-16 were developed; however, the authors used different methodologies to select items for the scale (MDS-SFS; Soffer-Dudek and Oh 2024; PMDS-5; Pietkiewicz et al. 2023b). While the field presents nine validation studies of the MDS-16, two were published in other languages, therefore not aligning with our eligibility criteria, and

were excluded from our review. Other self-report scales evaluating aspects of daydreaming or related constructs were the Daydreaming Frequency Scale (DDFS/DDFS-12; $n = 3$), Sense of Presence in Daydreaming (SPD; $n = 2$), Creative Experiences Questionnaire (CEQ; $n = 3$), and the Maladaptive Daydreaming Content Checklist ($n = 1$).

A few studies reported structured questions to assess the presence of MD or daydreaming-related aspects (e.g., Somer 2018; West et al. 2023a), including criterion questions (e.g., Abu-Rayya et al. 2020; Bigelsen et al. 2016), sense of presence (e.g., Bigelsen et al. 2016; West et al. 2023b), excessive daydreaming (Bigelsen and Schupak 2011; Somer et al. 2021), and daydreaming content and functions (e.g., Brenner et al. 2022). Qualitative studies utilized general interviewing questions and the majority ($n = 9$) screened individuals using the MDS-16 in nonclinical and clinical samples. Two studies constructed open-ended interview questions (Somer, Somer, and Jopp 2016a, 2016b) to assess daydreaming experience, and one used the Trauma and Dissociation Symptoms Interview (TADS-I; Pietkiewicz et al. 2018).

3.3 | Sample Characterization

Overall, 66 studies explored MD in general community, student, or self-identified MDers samples, while 23 involved clinical and mixed clinical samples with diverse mental health conditions. A detailed presentation of the included studies is provided in Tables S1 and S2 in the Supporting Information. In Table S1, we presented information on studies developed with community samples, student samples, and self-identified MDers, namely, "Authors (year) Country"; "Study Design" (e.g., qualitative, cross-sectional, online); "Sample type" (e.g., student sample, general community); "Sample Size"; "Gender" (number of participants per gender); "Age" (mean age and/or range); "MD Assessment/Measures" (procedures and measures used to assess MD and respective cutoff score); and "Assessed Dimensions" (as described in the methods section of each study). In Table S2, we presented similar information for studies with diverse clinical conditions and added "Sample Type" (i.e., clinical sample; mixed clinical sample: clinical and community sample), "Clinical assessment and procedures used" (procedures and measures used to support clinical diagnosis), and "Clinical Diagnosis" (number and/or percentage of participants for each clinical diagnosis).

3.3.1 | MD in General Community, Student Samples, and Self-Identified MDers

A total of 38, 468 participants took part in studies involving general community, student, and self-identified MDers samples; however, we lack the precise number of unique participants since strategic recruitment within MD communities may have resulted in individuals participating in multiple studies. Studies included between 14 and 4592 female participants and between two and 1685 male participants. Seven studies were identified between 2 and 44 transgender participants, and three studies included between 8 and 153 participants were identified as "other". Mean ages ranged between 16 and 43 years. Two studies involved age-restricted samples of adolescents (Conte et al. 2023; Shafiq and Zafar 2022).

Most studies ($n = 47$) reported online participant recruitment and/or data collection through online self-report questionnaires. While the studies with student samples ($n = 11$) explicitly reported participants' student status, studies with general community ($n = 26$) and studies with MDers samples ($n = 16$) were identified through recruitment methods and eligibility criteria. For example, general community samples were mostly recruited from online advertisement in general mental health forums and social networks (e.g., Catelan et al. 2023). MDers samples were mainly recruited through online MD communities and forums, and included if they self-confirmed MD or detrimental daydreaming and/or underwent MD assessment to verify eligibility for study (e.g., Somer and Otgaar 2024).

MD was assessed in these studies using a screening question for MD ($n = 6$), researcher-developed questions ($n = 4$), or self-report measures assessing MD ($n = 53$). Of those using self-reported MD measures, 46 studies used different versions of the MDS-16, and seven used the MDS with 14 items, which encompassed validated cultural adaptations (e.g., Sharma and Jain 2023; Chirico et al. 2022) or translations by the authors themselves (e.g., Rawat and Malik 2023; Metin et al. 2022). Moreover, the cutoff scores for the same MD measures varied between studies. For example, cutoff scores used in studies for the English MDS-16 varied between 40 (e.g., Salomon-Small et al. 2021) and 50 (e.g., Brenner et al. 2022; Wen et al. 2022). Four studies additionally conducted SCIMD interviews to establish clinically significant MD.

One epidemiological study was conducted, that examined the prevalence rate of MD, and showed a 2.5%-point prevalence in the Israeli-Jewish population (Soffer-Dudek and Theodor-Katz 2022) with a higher percentage of MD among younger adults aged 18–30 years. Student samples in this study had higher MD rates averaging 7.32% (Soffer-Dudek and Theodor-Katz 2022). In other studies with student samples, MD rates were 18.4% out of 76 (Kammad et al. 2021), 34.3% out of 323 (Bashir 2021) and 70% out of 306 students (Alenizi et al. 2020).

3.3.2 | MD in Clinical Populations

A total of 4561 participants were involved in MD studies with clinical populations. Moreover, between 1 and 518 participants were identified as female and between 1 and 191 were identified as male. Four studies included between 3 and 58 transgender participants, and one of these also included 1 participant identified as "Other". Reports of participants mean ages were between 16 and 43 years. Sample types were determined through the clinical groups within the studies. Studies with clinical samples ($n = 8$) exclusively presented a certain mental health diagnosis, and studies with mixed clinical samples ($n = 6$) included people with various clinical diagnoses. One other study included both a specific clinical group and a mixed clinical group. The remaining studies were explicitly classified as case studies, reports, and series ($n = 8$) and one study as a randomized controlled trial involved a mixed clinical MDers sample (Herscu et al. 2023).

Samples with specific clinical conditions and/or mixed clinical groups were mainly recruited from hospitals (e.g., Horváth-Labancz et al. 2023), specialized treatment centers for specific mental health disorders (e.g., Pietkiewicz et al. 2023a; Ross,

Ridgway, and George 2020), or rehabilitation centers (e.g., Abu-Rayya et al. 2020; Somer, Abu-Rayya, and Simaan 2019). Seven studies recruited participants in online communities dedicated to mental health topics (e.g., Pyszkowska et al. 2023; Theodor-Katz et al. 2022).

Participants' clinical status was established differently across these studies resulting in samples with formal or self-reported mental health diagnoses. To determine formal diagnoses, studies conducted clinician-administered structured interviews (e.g., SCID-IV, SCID-5, SCID-Dissociative Disorders) for established DSM- or ICD-based diagnoses (Somer 2002; Somer, Abu-Rayya, and Simaan 2019; Somer, Soffer-Dudek, and Ross 2017), confirmed diagnoses or referred to study by clinicians (Pietkiewicz et al. 2023a; Shafiq et al. 2023), and retrieved medical records containing diagnoses (Horváth-Labancz et al. 2023). Studies relying on self-report methods used self-report versions of structured clinical interviews (e.g., Dissociative Disorders Interview Schedule, Self-Report Version; Ross, Ridgway, and George 2020), validated self-report instruments for hypothetical diagnosis based on DSM-5 (e.g., Adult Attention Hyperactivity/Attention Deficit Disorder Screening Scale; Theodor-Katz et al. 2022), participant self-report of mental health status with verification of proof of diagnosis (e.g., West et al. 2023a), or only questionnaire responses (e.g., Pyszkowska et al. 2023; Ross, West, and Somer 2020).

We found that six clinical studies included samples with more than one psychopathological condition (for detailed information on clinical diagnoses, see Table S2). Studies conducted in samples with certain formally diagnosed psychopathological conditions mainly presented the following: narcissistic personality disorder (Pietkiewicz et al. 2023a; Somer 2002), attention deficit/hyperactivity disorder (Theodor-Katz et al. 2022), dissociative disorders (Somer 2002), depressive and anxiety disorders (Shafiq et al. 2023), and substance use disorder (Somer, Abu-Rayya, and Simaan 2019). Studies with specific self-reported clinical diagnoses covered bipolar personality disorder (Pyszkowska et al. 2023) and autism spectrum disorder (West et al. 2023a, 2023b).

For clinical case studies, clinical assessment reporting varied from case descriptions (e.g., Roneena and Anandarani 2022), unspecified clinical procedures (e.g., Schupak and Rosenthal 2009) to detailed psychiatric assessment procedures (e.g., Sharma and Mahapatra 2021a, 2021b) and measures used (e.g., Trauma and Dissociation Symptoms Interview—TADS-I; Pietkiewicz et al. 2018). Among these cases, co-occurring psychopathological conditions such as disorganized attachment style (Roneena and Anandarani 2022), internet disorder (Sharma and Mahapatra 2021b; Pietkiewicz et al. 2018), social anxiety disorder (Rebello et al. 2019), and schizophrenia (Wang et al. 2019) were identified.

High levels of comorbidity between MD and various psychopathologies were reported in studies involving clinical populations. Studies with mixed clinical populations consistently reported high MD prevalence; namely, 17.5% of a formally diagnosed mixed clinical sample (sample size of 239; Horváth-Labancz et al. 2023) and 49% of individuals with dissociative disorders (sample size of 100; Ross, Ridgway, and George 2020) met clinical cutoff for MD. Higher MD rates were found in self-reported mixed clinical samples, namely, 40% (in a sample of 176; Pietkiewicz et al. 2023b) and 82% (out of 202 participants; Ross, West and Somer 2020). In single-diagnosis clinical groups, 45.91% of adults diagnosed with attention deficit/hyperactivity disorder (sample size of 83; Theodor-Katz et al. 2022) scored above MDS-16 cutoff, and 68.6% of individuals formally diagnosed with narcissistic personality disorder (out of 52 participants; Pietkiewicz et al. 2023a) presented significantly high MD levels. Similar levels were observed for self-reported borderline personality disorder (56 out of 102 participants) and depressive disorder (42 out of 86 participants; Pyszkowska et al. 2023) and self-reported samples of autism spectrum disorder (42% out of 223 participants; West et al. 2023a; 43% of 235 participants; West et al. 2023b). Other clinically relevant populations also showed relevant MD levels: 16% of 100 recovering substance-use disorder patients exceeded MDS-16 cutoff, and 33% of 99 childhood sexual abuse survivors also exceeded cutoff for MD. Overall, the high comorbidity patterns in MD research align with the findings of the recent meta-analysis (Somer et al. 2025), which systematically quantified the psychopathological correlates of MD across 40 MD studies.

Only one other study examined comorbidity between MD and psychopathology in a sample of 39 MDers by conducting formal clinical assessment (Somer, Soffer-Dudek, and Ross 2017). They found that 74.4% of the sample met DSM-5 diagnostic criteria for three or more additional disorders and 41.4% for four or more, and MDers most frequently met criteria for attention deficit/hyperactivity disorder ($n = 30$; 76.9%, $n = 27$; 99.2% for inattentive type), anxiety disorders ($n = 28$; 71.8%), depressive disorders ($n = 26$; 66.7%), and obsessive–compulsive related symptoms ($n = 21$; 53.9%).

3.4 | Quantitative Findings on Psychological Correlates Associated With MD

A total of 57 quantitative or mixed method studies with general community, student, and MDers samples and 14 studies with clinical populations examined psychosocial correlates related to the development and maintenance of MD. All assessed dimensions per study are listed in Tables S1 and S2 in the Supporting Information. We found two main areas of focus: (a) individual psychological dimensions as MD predictors (e.g., personality traits, adverse childhood experiences, emotional regulation, mental health correlates, and behavioral patterns) and (b) MD-specific characteristics (e.g., daydreaming frequency, sense of presence, functions, and themes/content).

3.5 | Main Domains of Psychosocial MD Correlates

3.5.1 | Personality Traits

Several studies examined personality traits as potential determinants of MD. In general community samples ($n = 4$), negative affectivity, antagonism (Schimmenti et al. 2020), emotional instability (Metin et al. 2021), and vulnerable narcissism (Ghinassi et al. 2023) were linked to higher MD severity, and daydream content/themes—typically compensating unmet needs—were

also linked with these traits (Brenner et al. 2022), suggesting that they may predispose individuals to use MD as a form of self-regulation. Similar patterns emerged in a mixed clinical sample, where MD was moderately associated with negative affectivity and antagonism (Horváth-Labancz et al. 2023). Significant MD levels were found in personality disorders, namely, people with clinically diagnosed narcissistic personality disorder (Pietkiewicz et al. 2023a) and people with self-reported borderline personality disorder who also showed high negative affect and self-suppression escapism (Pyszkowska et al. 2023). These findings suggest that individuals with maladaptive traits may present higher vulnerability and risk of developing MD as a self-regulation strategy.

Among specific personality traits, dissociative absorption—i.e., the innate tendency to be deeply immersed in external sensory or self-generated stimuli— emerged as a central predisposing factor in the development of MD. Eight studies with general community and MDers samples found significant but weak to moderate correlations between MD and dissociative experiences (e.g., $r = 0.38$; Catelan et al. 2023; $r = 0.42$; Ferrante et al. 2022). Some studies showed stronger associations for absorption ($r = 0.63$; Somer, Lehrfeld, et al. 2016; e.g., $r = 0.65$; Jopp et al. 2019) than other dissociation dimensions (e.g., depersonalization; $r = 0.39$; Somer, Lehrfeld, et al. 2016; $r = 0.42$; Jopp et al. 2019), highlighting that dissociative experiences are related but distinct from MD, especially through absorption. However, Catelan et al. (2023) was an exception with weaker associations for absorption possibly due to sample size differing from other studies. Three studies in general community samples ($n = 3$) demonstrated that absorption was strongly correlated with MD's immersive daydreaming features ($r = 0.52$) and moderately to its' dysfunction/impairment features (e.g., $r = 0.39$; Abu-Rayya et al. 2019; Sándor et al. 2023; Somer and Herscu 2017).

In clinical contexts, similar patterns for dissociative absorption were found in subgroups of inpatients with dissociative disorders (Ross, Ridgway, and George 2020), patients recovering from substance use (Somer, Abu-Rayya, and Simaan 2019), and people with autism spectrum disorder (20%–30% out of 253 participants; West et al. 2023b). In the latter, those with MD presented significant imaginative abilities compared to the clinical sub-group without MD (West et al. 2023b). These findings support dissociative absorption as a central predisposing trait underlying the clinical expression of MD, which is mainly characterized by vivid, immersive fantasizing activity.

3.5.2 | Early Life Experiences

Several studies identified adverse childhood experiences as a significant psychosocial correlate of MD, building on a trauma-dependent etiopathological framework. In general community samples, six studies reported significant small to moderate associations between MD and adverse childhood experiences (Moment 2023; Salomon-Small et al. 2021; Sándor et al. 2023; Somer and Herscu 2017; Somer et al. 2021), particularly occurring within the first 12 years of age (Sándor et al. 2020). The types of childhood trauma most consistently linked with MD included physical and emotional neglect, emotional abuse (Somer et al. 2021), and sexual abuse (Sándor et al. 2020). Individuals with adverse childhood experiences often reported using daydreaming to deal with painful feelings (48.9%), unpleasant reality (65.9%), and painful memories (27.6%; Wen et al. 2022). Clinical studies with sexual abuse survivors (Abu-Rayya et al. 2020) and substance use recovering patients (Somer, Abu-Rayya, and Simaan 2019) also found clinically significant levels of MD, as well as co-occurring psychological difficulties, including distress, social isolation, and high unemployment, which indicates heightened functional impairment. However, some studies found that childhood trauma only explained 1.2%–3.2% of MD variance (Somer et al. 2021), and a subgroup of MDers do not report trauma history (Bigelsen et al. 2016). This evidence points to childhood trauma serving as an important developmental risk factor for some MDers and also supporting potential alternative nontrauma dependent etiological pathways.

Building on trauma-related developmental risk factors for MD, narcissistic traits were examined since fantasizing typically serves as a self-regulatory function in maintaining a grandiose self-concept. Research showed that grandiose and vulnerable narcissism traits were positively associated with MD, and vulnerable narcissism—characterized by emotional instability, hypersensitivity, and self-inadequacy—was the strongest MD predictor in general community samples (Ghinassi et al. 2023) and individuals diagnosed with narcissistic personality disorder (Pietkiewicz et al. 2023a). Vulnerable narcissists used MD as a compensatory strategy to deal with feelings of inadequacy and shame (Ghinassi et al. 2023; Brenner et al. 2022). Categorical shame—that is, feelings of inadequacy and self-doubt—was strongly correlated with MD (Schimmenti et al. 2020), serving as a mediating factor between MD and vulnerable narcissism (Ghinassi et al. 2023) and childhood trauma (Ferrante et al. 2022). These findings highlight shame as a central emotional mechanism contributing to MD development and maintenance in trauma-related etiopathology.

3.5.3 | Psychosocial Vulnerabilities

In general community samples, MD was linked to lower levels of self-esteem (Abu-Rayya et al. 2019), resilience (Pietkiewicz et al. 2018), social support (Anwar 2018), and loneliness (Rawat and Malik 2023; Soffer-Dudek and Oh 2024). Similar patterns emerged in clinical samples with diagnosed attention deficit/hyperactivity disorder (Theodor-Katz et al. 2022) and autism spectrum disorder (West et al. 2023b). These findings suggest that MD may serve as a strategy to compensate for negative self-perception, feelings about relationships, and underlying attachment needs (Mariani et al. 2021).

Insecure attachment styles were significantly linked with MD (Sándor et al. 2021), as well as other psychological vulnerabilities, such as pathological personality traits and categorical shame within vulnerable narcissists (Schimmenti et al. 2020). MDers with “fearful”, “preoccupied”, and “ambivert-fearful” styles experienced heightened sensitivity and attachment anxiety, ambivalent feelings towards relationships, insecurity about self, and low confidence (Costanzo et al. 2021; Sándor et al. 2021; Mariani et al. 2021), contributing to difficulties in forming relationships, emotional distress, loneliness, and self-isolation (Schimmenti et al. 2020). Moreover, MD significantly mediated

preoccupied and fearful attachment styles and problematic social media use, suggesting that it serve as a perpetuating factor for the development of behavioral problems to compensate for a negative view of self and low self-esteem (Costanzo et al. 2021).

Findings on social functioning in MDers were mixed. In general community and student populations, MD was linked to social anxiety (Shafiq and Zafar 2022; Soffer-Dudek and Somer 2018), social phobia, and poor quality of social relationships (Abu-Rayya et al. 2019), as well as socio-adaptive problems in adolescents (Conte et al. 2023), while Anwar (2018) found nonsignificant differences in social anxiety between MDers and controls. Sexual abuse survivors presented significantly lower quality of social relationships compared to controls; however, there were no significant differences between MDers and non-MD survivors (Abu-Rayya et al. 2020). These findings highlight the uncertainty about the role of social anxiety in MD. Notably, one study found that, unlike childhood trauma, social anxiety and MD were strongly mediated by fantasy addiction rather than absorption, suggesting that social anxiety may be important in nontrauma related etiological pathways (Somer and Herscu 2017).

3.5.4 | Mental Health Correlates

Among mental health correlates, studies consistently showed that MDers reported significant psychological distress across general community (Dujić et al. 2020; Musetti, Soffer-Dudek, et al. 2023; Zsila et al. 2019) and clinical populations (Abu-Rayya et al. 2020). General community, student, and MDers samples showed significant positive moderate associations between MD and depressive symptoms (e.g., $r = 0.58$; Shafiq and Zafar 2022; $r = 0.50$; Moment 2023; Metin et al. 2022) as well as anxiety symptoms (e.g., $r = 0.55$; Abu-Rayya et al. 2019; $r = 0.45$; Moment 2023; Musetti, Soffer-Dudek, et al. 2023; Alenizi et al. 2020). In adolescents aged 13 to 18, higher daydreaming frequency was also positively associated with psychopathological symptom severity (Conte et al. 2023). Longitudinally, MD predicted psychological distress while remaining significantly stable over 13 months (Musetti, Soffer-Dudek, et al. 2023), and higher depression levels predicted lower positive mood following daydreaming activity (Wen et al. 2022). Overall, these findings highlight MD as a clinically relevant construct.

Similarly, this pattern for MD, psychological distress, and psychopathological symptoms, that is, depression, anxiety, and stress, was found in stressful and fear-inducing contexts—COVID-19 (Margherita et al. 2022; Musetti et al. 2021; Musetti, Soffer-Dudek, et al. 2023; Sharma and Jain 2023)—representing potential for environmental stressors to exacerbate MD in MDers. However, findings from studies ($n = 5$) examining stress were mixed: While MD was positively associated with general stress (Abu-Rayya et al. 2019; Musetti et al. 2021) or perceived stress (Metin et al. 2021; Chaudhary et al. 2022), longitudinally, MD did not predict negative stress (Musetti, Soffer-Dudek, et al. 2023), which indicates uncertainty about the causal relationship between MD and stress.

Less frequently, studies addressed other mental health outcomes, indicating that MD was linked with lower life satisfaction, lower quality of life (Abu-Rayya et al. 2019; Chaudhary et al. 2022; Pietkiewicz et al. 2023b), and mishappening in life (Rawat and Malik 2023). However, mixed evidence also suggested nonsignificant associations (e.g., for life satisfaction; Tudino et al. 2020). Suicidal ideation was high among MDers in general populations (Chu et al. 2017; Sándor et al. 2023), and 25% out of 39 MDers in a psychiatric sample reported a suicide attempt (Somer, Soffer-Dudek, and Ross 2017).

Four studies found that MD was a significant predictor of problematic social media use and internet addiction (Chirico et al. 2022; Costanzo et al. 2021; Mishra and Kewalramani 2023; Zsila et al. 2018), proposing MD as a risk factor for the development of co-occurring maladaptive compensatory mechanisms and psychopathological symptoms, especially obsessive–compulsive symptoms (Chirico et al. 2022). MD also mediated problematic social media use and preoccupied and fearful attachment styles (Costanzo et al. 2021; Mishra and Kewalramani 2023), suggesting that MDers with other vulnerability factors are at higher risk for the development of online problematic behaviors. Additionally, four studies examined problematic celebrity worship, which is characterized by engagement in problematic online behaviors and fantasizing about relationships with celebrities, showing significant correlations between MD and problematic internet use (Mándli et al. 2022; Vally et al. 2021). MD and the desire for fame, that is, fantasizing about being famous, were significant mediators for celebrity worship and psychopathological symptoms (Sabzban and Safaei 2021; Zsila et al. 2019).

3.5.5 | Cognitive and Emotional Processes

Several studies examined shared altered cognitive processes with other psychopathologies. Among studies ($n = 6$) with general community, student, and MDers samples, MD was positively and moderately associated with attention deficit/hyperactivity symptoms (e.g., $r = 0.45$; Catelan et al. 2023; $r = 0.40$; Jopp et al. 2019), especially inattention (e.g., $r = 0.58$; Somer, Lehrfeld, et al. 2016), suggesting that MD activity is more related to attentional difficulties than hyperactive behavior. Moreover, attention deficit/hyperactivity symptom levels in MDers were significantly low (Bigelsen et al. 2016) and only 20–30% of a formally diagnosed attention deficit/hyperactivity disorder sample ($n = 235$; West et al. 2023b) presented MD, indicating shared mechanisms of attentional difficulties but distinct from attention deficit/hyperactivity disorder.

Five studies with general community and self-identified MDers samples also found significant positive weak to moderate associations between MD and obsessive–compulsive symptoms (e.g., $r = 0.48$; Jopp et al. 2019; $r = 0.29$; Salomon-Small et al. 2021; $r = 0.49$; Somer, Lehrfeld, et al. 2016), especially obsessions rather than compulsions (Jopp et al. 2019; Salomon-Small et al. 2021; Somer, Lehrfeld, et al. 2016; Bigelsen et al. 2016), which highlights mental obsessions rather than ritualistic behaviors as a shared mechanism between MD and obsessive–compulsive symptoms. Longitudinal findings advanced that only obsessive–compulsive symptoms both preceded and succeeded MD at a daily level compared to other psychopathological symptoms (Soffer-Dudek and Somer 2018). Furthermore, dissociation and

lack of control mediated MD and obsessive–compulsive symptoms rather than adverse childhood experiences (Salomon-Small et al. 2021), which suggests that, for some MDers, the relationship between obsessive–compulsive symptoms and MD potentially constitutes an alternative nontrauma-dependent pathway.

Regarding emotional processes, six studies with general community samples identified emotional dysregulation as a key perpetuating factor of MD (Chirico et al. 2022; Greene et al. 2020; Sándor et al. 2021; Thomson and Jaque 2023a, 2023b; West and Somer 2020). Emotional dysregulation was primarily characterized by poor use of adaptive strategies, low emotional clarity, and impaired impulse control (Greene et al. 2020; Thomson and Jaque 2023a, 2023b). MDers were more likely to use emotion-focused strategies in stressful situations (Dujić et al. 2020), expressive suppression (Chirico et al. 2022), and immature and neurotic defence mechanisms to manage negative self-perceptions and relationship difficulties (Musetti, Gori, et al. 2023). Similar patterns were found in clinical samples: individuals with self-reported borderline personality disorder and depression found significant associations between MD and emotional dysregulation, particularly through self-suppression escapism (Pyszkowska et al. 2023), and individuals with autism spectrum disorder who experienced emotional dysregulation and loneliness were more prone to develop MD (West et al. 2023b).

While fewer studies examined other emotional factors, they suggest that MD contributed to increased emotional difficulties. MD intensity and daydreaming time predicted higher daily negative emotions (Soffer-Dudek and Somer 2018; Wen et al. 2022). Furthermore, daydreaming enjoyment was negatively correlated with emotional clarity (Greene et al. 2020). MDers also exhibited higher affective empathy, specifically toward fictional characters (West and Somer 2020). MDers' self-efficacy in creativity was associated with creative anxiety and negatively predicted daydreaming (Thomson and Jaque 2023a).

3.5.6 | MD-Specific Characteristics

Several quantitative and mixed method studies measured key MD characteristics of daydreaming activity demonstrating that MD is distinct from similar mental processes, such as mind wandering and fantasy proneness. Two studies found that while MD and mind wandering were associated, they also presented differing sleep disturbance patterns (Marcusson-Clavertz et al. 2019; Salomon-Small et al. 2021). A similar relationship was found between MD and fantasy proneness (Jopp et al. 2019; Somer, Lehrfeld, et al. 2016), despite potentially only being limited to specific characteristics of fantasy proneness, such as enjoyment of fantasy and distinct from beliefs of the paranormal (Bigelsen et al. 2016).

Among MD-specific characteristics regarding daydreaming activity, sense of presence was a central MD feature with a significantly higher sense of presence in the MDers group than in controls, with statistically significant large effect sizes (e.g., $d = 1.38$; Bigelsen et al. 2016; $d = 1.94$; Somer, Lehrfeld, et al. 2016; Jopp et al. 2019). Moreover, sense of presence was associated with MD and restrictive/repetitive behaviors in a diagnosed autism spectrum disorder sample (West et al. 2023a), suggesting that kinesthesia for MDers may serve to increase sense of presence. In the general community, 79% of 90 MDers (Bigelsen and Schupak 2011) and 82% of 447 MDers (Bigelsen et al. 2016) engaged in kinesthetic behaviors and used music, suggesting that these behaviors are characteristic of daydreaming activity in MDers. These MD features are further explained in qualitative studies exploring MD experience.

Several quantitative and mixed method studies revealed patterns in the content/themes of MDers's daydreams. In general and MDers populations, daydreams generally presented fantasy themes (Yazhini 2021), namely, relationships with celebrities (37%); idealized self (34%); and romantic relationships (34%) involving fictional, original, historical, or media-based (e.g., TV show, book) characters, which differed from non-MDers who reported daydreaming more concrete wishful fulfilment or real-life/daily content (Bigelsen et al. 2016). Specific daydreaming themes were linked to positive and negative emotions, namely, MDers felt positive emotions after daydreaming about "Ideal Self", "Finding Love", "Achievement", "Success", "Being a Hero or Heroin", and "Building a Complex World", while negative emotions were linked with "Death", "Physical Violence as a Perpetrator", "Revenge, Being a Captor", "Being Rescued", and "Rewriting Past" (Wen et al. 2022). Two studies examined daydreaming about violence and thoughts of revenge, demonstrating significant positive correlations with depressive symptoms and suicidal ideation (Chu et al. 2017; Selby et al. 2007). These findings alert to negative-themed daydreams as a potential vulnerability risk factor for MDers.

3.6 | Qualitative Findings on MD Experience

We found eight qualitative studies with general community samples and another nine with clinical populations. One study demonstrated that MDers were highly motivated to aid the scientific community in raising awareness, achieving clinical recognition of MD, and enabling the development of valid interventions for MD (Bershtling and Somer 2018).

Qualitative reports of MD indicated excessive, uncontrollable daydreaming (Pietkiewicz et al. 2018; Sharma and Mahapatra 2021a). MDers reported their daydreaming as pleasurable/enjoyable (Pietkiewicz et al. 2018; Somer, Somer, and Jopp 2016a, 2016b), safe (Sharma and Mahapatra 2021a), and vivid compared to real-life events and obligations (Somer, Somer, and Halpern 2019). MDers used daydreaming as an emotional coping mechanism to enjoy 'controlling their story" through daydreams (Somer, Somer, and Halpern 2019). However, MD involved intense imaginative involvement in fantasy (Pietkiewicz et al. 2018; Sharma and Mahapatra 2021b; Somer, Somer, and Jopp 2016b) accompanied by difficulties in attention and concentration on external cognitive demands (Rebello et al. 2019; Schupak and Rosenthal 2009; Wang et al. 2019). Over time, MDers felt an intense yearning to daydream (Roneena and Anandarani 2022; Sharma and Mahapatra 2021b; Somer 2002; Somer, Somer, and Jopp 2016a, 2016b), increasing involuntary involvement and difficulty in controlling daydreaming (Pietkiewicz et al. 2018), revealing the compulsive nature of MD reported by MDers (Somer, Somer, and Halpern 2019).

MDers reported daydreaming excessively (6–8 hours daily; Rebello et al. 2019) and often experienced psychological distress due to a sense of lack of control over their daydreaming (Pietkiewicz et al. 2018) and difficulties in preventing potential interpersonal or academic issues (Sharma and Mahapatra 2021b; Sharma and Mahapatra 2021a). MD interfered with performance in several life situations, for example, interpersonal relationships, academic and occupational responsibilities (Rebello et al. 2019; Sharma and Mahapatra 2021b; Somer 2002), and daily life activities (e.g., neglecting daily hygiene, diet, and sleep; Rebello et al. 2019; Sharma and Mahapatra 2021a; Wang et al. 2019).

MDers reported feeling frustrated when their daydreaming was interrupted by interpersonal interactions and recurred to social isolation to avoid social situations (Roneena and Anandarani 2022; Pietkiewicz et al. 2018; Rebello et al. 2019; Somer, Somer, and Jopp 2016a, 2016b; Wang et al. 2019). MDers presented awareness of their body language during daydreaming from the perspective of others (Somer 2023) and similarly used social isolation to avoid feelings of shame associated with others observing their daydreaming behaviors (Lucas 2021; Pietkiewicz et al. 2018; Somer, Somer, and Jopp 2016a). Specifically, MDers reported that they involuntarily used kinesthetic behavior (i.e., repetitive physical movement such as rocking, pacing, running, jogging, swinging, spinning) or emotional expression (e.g., mouthing, pacing, laughing, crying) to immerse in their daydreams (Somer 2002, 2023).

For some MDers, daydreaming was triggered by media consumption (e.g., TV shows, movies, video games, music, books) which facilitated the creative process of reproducing fantasy-based content for daydreaming (Rebello et al. 2019; Pietkiewicz et al. 2018; Wang et al. 2019). Listening to music had a significant role in triggering MD, increasing immersion, avoiding external distractions (white noise), increasing creativity, or creating musically induced emotionally charged content for daydreams when MDers were not concentrating on the fantasy-based plot or dialogs in the daydreams (Somer 2024).

Despite varying daydreaming content (Somer 2023), MDers presented recurrent themes of daydreams related to recurring or past stressful life events (e.g., social rejection in school, cyberbullying; Pietkiewicz et al. 2018; Sharma and Mahapatra 2021b; Somer and Otgaar 2024). In Somer (2002), MDers with aversive childhood experiences, that is, violent parental conflicts, emotional neglect, psychological, physical, and/or sexual abuse, reported themes involving violence, power and control, captivity, rescue and escape, and sexual arousal. MDers who daydreamed about their traumatic experiences tended to daydream about corrected or positive versions of their memories (Somer and Otgaar 2024). For example, in Sharma and Mahapatra (2021b), an MDer re-enacted scenarios where he identified as a game character and punished his cyberbullies. Lucas (2021) concluded that MDers who recur to aversive fantasy seek safety, sense or meaning of self and others, and protect themselves from negative emotions.

MD acted as a highly rewarding (Somer 2023) form of wish fulfillment through fantasizing (Somer 2002), providing an escape from real-world challenges to a "parallel world" where MDers felt safe (Sharma and Mahapatra 2021a). For some MDers, daydreaming functions as a mood enhancement and a form of disengagement from loneliness and pain of stressful life experiences (Pietkiewicz et al. 2018; Somer 2002), although MDers also daydreamed on experiences involving aversive emotions to enjoy negative feelings (Somer 2023). Daydreaming was mainly used as a coping strategy to manage stressful situations or aversive childhood experiences (Somer, Somer, and Halpern 2019). MDers created fantasies where idealized versions of themselves played as protagonists in scenarios mirroring fictional experiences from media and/or real-life experiences from their own lives, typically involving relationships, family life, and social status (Somer 2023). MDers' idealized selves influenced their self-perception as they embodied characters in their daydreams with skills and features they felt lacking in real life (Pietkiewicz et al. 2018; Somer, Somer, and Halpern 2019).

3.7 | Intervention Studies on MD

Out of eight included case studies in total, four reported on both intervention rationale and intervention outcomes for patients with significant distress from excessive daydreaming (Rebello et al. 2019; Roneena and Anandarani 2022; Sharma and Mahapatra 2021b; Somer 2018). The remaining case studies exclusively described an intervention rationale (Sharma and Mahapatra 2021a), reported on long-term intervention experience (Schupak and Rosenthal 2009), or described an intervention for a comorbid diagnosis (Wang et al. 2019). One randomized controlled trial was conducted with a web-based intervention for MD (Herscu et al. 2023).

Two studies recurred to pharmacological interventions for MD, specifically *Escitalopram* for a patient with MD and social anxiety disorder (Rebello et al. 2019) and a selective serotonin reuptake inhibitor for the treatment of compulsive MD symptoms and reported a positive response (Schupak and Rosenthal 2009). To note, prescribed medication use was addressed in only one other included study: Ross, West, and Somer (2020) used a quantitative method to explore the effect of prescribed psychoactive and recreational drugs on MD and found an overall negligible effect, and pointed to potentially aggravating effects of marijuana on MD symptoms.

Three case studies implemented psychological interventions for MD, specifically based on cognitive-behavioral and mindfulness-based cognitive approaches, such as time and task management, self-reward, and mindfulness techniques (Somer 2018), time-restricted daydreaming, journaling, nonjudgment and acceptance practice towards daydreaming, meditation and breathing exercises, and coping with past traumas and present issues causing distress (Roneena and Anandarani 2022; Sharma and Mahapatra 2021b), with all studies reporting reduced MD and psychological distress.

To date, Herscu et al. (2023) conducted the only randomized controlled trial study on MD. This study included a general community sample, with one randomized group receiving web-based intervention focused on mindfulness, self-monitoring, psychoeducation, and motivation enhancement modules. Another

group received a partial intervention without self-monitoring instructions and a waiting list control group. The intervention yielded significant improvements (39%) with large effect sizes found in both intervention groups at posttreatment and 6-month follow-up.

4 | Discussion

In this review, we provide a comprehensive overview of the empirical literature on MD. Across 89 peer and non peer reviewed studies, we mapped key research areas including the following: definitions and conceptualization of MD, temporal and geographical distribution of research, methodological approaches, sample characteristics, psychosocial correlates, and patterns of clinical manifestation.

4.1 | Implications of Findings

Since 2002, MD has been increasingly investigated worldwide—mostly through quantitative cross-sectional study design methods—establishing psychosocial correlates and identifying overlapping constructs. However, the lack of longitudinal studies (e.g., Musetti, Soffer-Dudek, et al. 2023; Wen et al. 2022) highlights a knowledge gap of the causal relationship between MD and psychosocial variables as risk factors. Similarly, experimental study designs were scarce, which otherwise could provide deeper insight into cognitive processes like memory in MDers (Somer and Otgaar 2024) and subgroups of clinical samples with high MD levels (e.g., autism spectrum disorder; West et al. 2023a, 2023b).

Most studies were conducted in general populations and MDers samples with limited MD research within clinical populations. While community-based studies allow us to determine MD prevalence, they may underestimate the strength of associations with psychological variables (Jopp et al. 2019). Lack of focus on clinical groups also limits the generalisability of findings on MD severity and dysfunction to clinical populations. Across the clinical studies, few studies provided detailed information on clinical assessment and diagnostic procedures to identify how this process was controlled. We found considerable variability in the methods used to determine clinical status, ranging from formal diagnostic clinical-administered assessments (e.g., Somer 2002) to unverified self-reported diagnoses (e.g., Pyszkowska et al. 2023). Overall, this methodological disparity compromises the reliability of study findings, making it difficult to draw robust conclusions on MD comorbidity and observed associations on shared psychological mechanisms.

While MD assessment primarily involved self-report instruments—most frequently being the MDS-16—the state of validation of cultural adaptations varied. Studies used both validated or unvalidated translations and the original MDS, with varying MDS cutoff scores (e.g., mean scores of 35 to 50), which complicated overall comparisons between findings. Cultural variation may have also influenced the interpretation of MDS items across studies, considering that the meaning of daydreaming may vary across cultures (Soffer-Dudek and Theodor-Katz 2022). Very few studies used SCIMD, which could further aid in gaining a more nuanced understanding of different degrees of clinically significant MD, that is, unspecified, moderate, and severe MD.

In terms of participants' demographics, we found an overrepresentation of female participants and younger populations (e.g., Greene et al. 2020; Mariani et al. 2021; Soffer-Dudek and Theodor-Katz 2022) with limited representation of male participants and older populations. While disparity in gender representation is a common limitation in the fields of social sciences, this may affect the generalizability of findings in MD literature. Future research should explore MD experiences in the male gender and among other gender identities. Concerning age, there may be a potential sampling bias involving overinclusion of younger populations with higher internet presence (Bigelsen et al. 2016) since most studies conducted internet-based sampling and data collection procedures, especially within MD communities, and potentially leading to less participant recruitment and data collection from older populations and those without internet access. Similarly, few studies assessed MD in specific age groups, despite findings demonstrating MD onset in children between 2 and 11 years of age (Bigelsen and Schupak 2011) and associations with socio-adaptive problems in adolescents (Conte et al. 2023). Future research should address age-specific populations to gather knowledge on MD experiences in different life stages, which can inform early intervention strategies and aid in understanding MD etiology.

Studies with general community and MDers populations frequently found dissociative experiences, emotional dysregulation, and psychopathological symptoms as MD correlates, while less frequently exploring interpersonal factors (e.g., family and peer relationships in MD). Our findings on dissociative absorption suggest that MD may be a significant predisposing trait for MD development. This aligns with Soffer-Dudek and Somer's (2022) theoretical approach which delineates a dissociation-based model of MD linked with absorption and trauma, suggesting that MD may be a maladaptive form of dissociative absorption onset of mild childhood trauma and/or stressful life experiences. Although adverse childhood experiences were relevant for many MDers—suggesting it consists of a trauma-related etiological pathway for MD—not all reported experiencing childhood trauma (Bigelsen et al. 2016).

Other theoretical explanations are rooted in emotion or addiction-based approaches. Our findings suggest that individuals with vulnerable narcissism traits (Ghinassi et al. 2023) and emotional dysregulation (Greene et al. 2020) were also more likely to develop MD as an emotional self-regulation strategy. Additional research on obsessive–compulsive symptoms shows that MD is highly correlated with obsessions mediated by dissociation and sense of control (e.g., Salomon-Small et al. 2021). In turn, MD also predicted increased negative emotions (Soffer-Dudek and Somer 2018), psychopathological symptoms, and distress and functional impairment in several life areas (Musetti, Soffer-Dudek, et al. 2023) and was associated with feelings of shame (Ferrante et al. 2022; Schimmenti et al. 2020, suggesting a maladaptive reinforcement cycle which is characteristic of behavioral addictions. From

another theoretical perspective, our findings also corroborate MD as a maladaptive strategy to compensate negative affect and unmet needs, which leads to a cycle of addiction (Pietkiewicz et al. 2018; Somer 2018). Therefore, people who are predisposed to dissociative absorption, may struggle with functioning in life areas (e.g., vulnerable narcissists with insecure having difficulties with self in relationships; Ghinassi et al. 2023) and use MD as a self-regulation strategy.

Nonetheless, some inconsistencies were found for variables of stress and social anxiety (e.g., Musetti, Soffer-Dudek, et al. 2023), which are not explained by these theoretical approaches and warrant further research to determine conceptual models (Metin et al. 2021). While we found data on MD and stress to be inconsistent, social anxiety was correlated with MD but not with childhood trauma (Somer and Herscu 2017), and may highlight differing nontrauma-dependent etiological pathways for MD. Further research is needed to fully understand the relationship between MD and shared maladaptive mechanisms with psychological functioning across theoretical frameworks.

Some studies linked negative daydream content/themes to childhood trauma (Somer et al. 2021) and heightened suicide risk (Selby et al. 2007; Chu et al. 2017), supporting MD's clinical relevance. Qualitative research deepened our understanding of lived experiences: MDers experience vivid, complex, enjoyable, daydreams with fantasy-based scenarios based on idealized versions of themselves (Somer 2002; Somer et al. 2021) or corrected/positive versions of adverse childhood experiences (Somer 2002; Somer and Otgaar 2024). Some qualitative research showed reports of media consumption as an MD trigger (Rebello et al. 2019; Pietkiewicz et al. 2018), highlighting the role of contextual themes to maximize MD habits. Overall, qualitative findings aligned with quantitative data, framing MD as an emotional coping mechanism, which was demonstrated by MDers reports of daydreaming being enjoyable, functioning as a mood enhancement for painful life experiences and stress (Pietkiewicz et al. 2018), and also being excessive, distressing and functionally impairing (e.g., Rebello et al. 2019). Notably, qualitative reports showed that feelings of shame were explained through the fear of being seen by others during daydreaming, framing shame in a new light in MD literature. Future research should consider how shame is conceptualized and measured differently in MD research.

The patterns of MD correlates also emerged in diverse clinical groups. Attentional difficulties of attention deficit/hyperactivity disorder were found in MDers (e.g., Somer, Lehrfeld, et al. 2016), suggesting shared cognitive features between MD and altered cognitive processes across other psychopathologies. Similar patterns were found for obsessive thoughts characteristic of obsessive–compulsive symptomology (e.g., Salomon-Small et al. 2021). However, evidence also showed that only subgroups of clinical samples had clinically significant MD. Only 20%–30% of a sample of people with autism spectrum disorder presented MD, where participants with and without MD differed in imaginative abilities (West et al. 2023b). These findings prompt the discussion of MD's role as a transdiagnostic feature in diverse clinical populations or as a separate syndrome, thus warranting further research in clinical populations to clarify the diagnostic boundaries of MD (differential diagnosis) and identify differing features of clinical manifestation of MD within clinical contexts.

4.2 | Theoretical Reflection

Most research is grounded on Somer's (2002) seminal paper proposing MD as a pathological form of fantasizing with significant negative impact on daily functioning. This pathologization has aided the field in distinguishing MD from similar nonpathological mental processes (e.g., adaptive daydreaming and mind wandering; Schimmenti et al. 2019). However, sociocultural factors may shape how daydreaming is perceived, thus differing on what extent daydreaming may be considered excessive and maladaptive (Soffer-Dudek et al. 2020), which is not contemplated in previous research due to the overreliance on self-report instruments (Musetti, Gori, et al. 2023). Thus, the field may benefit from a more nuanced theoretical approach that considers sociocultural contexts.

In clinical populations, MD similarly differed from related daydreaming processes (e.g., immersive daydreaming in autism spectrum disorder; West et al. 2023a, 2023b); however, there is still a knowledge gap on how these processes are distinct among those with co-occurring MD and those without MD. Future research exploring daydreaming functions themes/content could clarify the conceptual boundaries of MD, further aid in identifying specific risk factors for people with MD within clinical populations, and determine MD's role as a transdiagnostic feature or separate clinical condition.

Our review has implications for the ongoing debate on the classification of MD. One theoretical framework classifies MD as part of a continuum of dissociative disorders—a pathological form of dissociative absorption—onset of dissociation, mild childhood trauma, or stressful life events (Soffer-Dudek and Somer 2022). Our findings connecting MD, dissociative absorption, and adverse childhood experiences corroborate this framework. However, our review also highlights study findings on other psychosocial variables potentially involving nontrauma etiological pathways. These may better align with conceptual frameworks that highlight MD as a behavioral addiction mechanism for self-regulation (Pietkiewicz et al. 2018), which overlaps with similar addictive behaviors (e.g., problematic social media use; Costanzo et al. 2021; Mishra and Kewalramani 2023). These theoretical models appear to explain distinct MD processes, that is, outcomes vs. onset of MD. Considering existing research, these nuances in theoretical approaches may be refined with future research addressing MD clusters among MDers (Horváth-Labancz et al. 2023) involving differing etiology, course, and potentially differing treatment responses.

4.3 | Implications for Practice and Policy

MD is not currently recognized as an official psychiatric disorder in diagnostic manuals (Somer, Soffer-Dudek, Ross, and Halpern 2017; Jopp et al. 2019), which hinders the development of established diagnostic criteria, assessment and intervention

guidelines, and specific clinical training for mental health professionals (Somer, Soffer-Dudek, Ross, and Halpern 2017). Due to the potential overlap with other psychopathologies for some MDers (e.g., ADHD; Theodor-Katz et al. 2022), it is essential for mental health professionals to consider MD's role during clinical assessment and intervention as a maintaining or aggravating factor in a subset of individuals with criteria for clinical disorders that are comorbid with MD (Salomon-Small et al. 2021) and with specific determinants identified in MD research.

Help-seeking MDers report persistent difficulties in therapy, such as dismissiveness of MD severity and misdiagnosis (Somer, Soffer-Dudek, Ross, and Halpern 2017). Shame may also prompt MDers to hide their MD during therapy (Ferrante et al. 2022; Ghinassi et al. 2023). Evidence also points to some MDers experiencing suicidal ideation, with the latter associated with negative daydream content/themes (Sándor et al. 2020; Selby et al. 2007; Chu et al. 2017). MD presence should be assessed in most likely co-occurring cases, for example, attention deficit/hyperactivity disorder (Theodor-Katz et al. 2022), autism spectrum disorder (West et al. 2023a, 2023b), or even behavioral addictions like problematic social media use (Sharma and Mahapatra 2021a).

In clinical practice, reliable self-report measures, such as the MDS-16—the most widely validated screening tool with strong discriminative power (Somer, Lehrfeld, et al. 2016)—can be useful for mental health professionals to screen for MD. To a lesser extent, the Structured Clinical Interview for MD (SCIMD) also proved valid and reliable and may aid professionals to gain a better understanding of the MD severity and degree of impairment (Somer, Soffer-Dudek, Ross, and Halpern 2017). Intervention studies to date have shown that pharmacological (e.g., Schupak and Rosenthal 2009) and psychological interventions based on the CBT approach and mindfulness techniques (e.g., Herscu et al. 2023; Sharma and Mahapatra 2021b) effectively enabled MDers to limit their daydreaming frequency, leading to improved general functioning. These techniques may be considered by mental health professionals; however, future studies should further replicate and validate MD interventions in diverse contexts.

4.4 | Limitations and Methodological Constraints

While scoping reviews offer a general understanding of a growing field, these tend to primarily screen the existing evidence (Peters et al. 2020) and do not allow further examination of established correlates. Unlike Somer et al. (2025)'s meta-analysis, we overlooked age and gender bias in included studies due to the extension and complexity of MD correlates approached in the review. It is important to caution that we have only discussed evidence available in English due to practical constraints, even if we did not limit our search to peer-reviewed studies. Consequently, we did not include the entirety of the research conducted on MD, which could have led to the omission of relevant findings. For example, seven of nine available studies on the validation of the MDS-16 were included in the review since the remainder were not available in English. Additionally, we did not assess the quality of the included studies, which is warranted for future reviews in this field.

4.4.1 | Recommendations for Future Research

Replication studies are needed to obtain more reliable and generalizable results. Longitudinal studies could also provide in-depth knowledge of causal relationships of MD correlates. Future studies should also employ alternative sampling techniques and conduct research with larger and more diverse samples to accurately represent MD prevalence in the general population. Other sociodemographic characteristics (e.g., religion, minority status, gender identity) that were less explored should also be considered. Research with younger age groups may improve early identification of MD in childhood and better explain its trajectory into adulthood (Hedderly et al. 2024).

Since the existing literature heavily relied on self-report measures, future research should prioritize collecting objective data to corroborate and extend these findings. Specifically, controlled studies employing neuroimaging techniques such as electroencephalography and functional magnetic resonance imaging could elucidate the neural correlates and brain activity patterns associated with MD. Such objective evidence would provide invaluable insights into the underlying neurobiological mechanisms of MD, complementing the subjective self-report data and strengthening the empirical understanding of this phenomenon.

Investigating alternative pathways, such as the pathway related to obsessive–compulsive symptoms (Salomon-Small et al. 2021), which is not yet fully understood, may clarify MDs' role as a potential maintaining factor of psychopathology or as a distinct clinical condition. Considering possible cultural differences in interpreting the meaning of excessive daydreaming will allow us to understand the influence of specific contexts and populations on MD presence and severity. In line with this, while functional impairment in life domains due to MD is heavily reported by MDers, life events that cause stress (e.g., unemployment, new job, moving countries, the first year of college, and death of a loved one) may play a role in exacerbating MD. We could also question what the role of the community is as a potential perpetuating factor of MD. Further research is needed to explore this relationship and identify the influence of contextual factors that may be potential risk factors for MD.

5 | Conclusions

MD represents a growing concern for its clinical relevance in mental health, namely psychopathology and well-being. This scoping review of the empirical research on MD provided growing quantitative and qualitative evidence of MD's psychopathological features, indicating significant prevalence in the population and high levels of comorbidity. Most studies reported relevant psychological factors and potential risk factors associated with MD, providing knowledge for mental health resources. However, intervention studies are scarce. More research is still needed to understand the etiology of MD and provide a cohesive conceptual framework. The growing field of research on MD is essential for a better understanding of this debilitating phenomenon in diverse contexts.

Author Contributions

Shivani Atul Mansuklal: conceptualization, formal analysis, investigation, methodology, visualization, writing – original draft; **Patrícia M. Pascoal:** conceptualization, methodology, project administration, writing – review and editing, supervision; **Eli Somer:** validation, writing – review and editing, supervision; **Ivanilda B. Costa:** formal analysis, investigation, writing – review and editing; **Gerhard Andersson:** conceptualization, methodology, project administration, writing – review and editing, supervision.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

All data supporting findings of this study are available within the article and its' supplementary material. Access to detailed information concerning our search strategy and data extraction charting table is available upon request through the corresponding author. The study protocol is registered and made available on Open Science Framework (10.17605/OSF.IO/S9VCD).

References

Abu-Rayya, H. M., E. Somer, and H. Knane. 2020. "Maladaptive Daydreaming Is Associated With Intensified Psychosocial Problems Experienced by Female Survivors of Childhood Sexual Abuse." *Violence Against Women* 26, no. 8: 825–837. https://doi.org/10.1177/1077801219845532.

Abu-Rayya, H. M., E. Somer, and S. Meari-Amir. 2019. "The Psychometric Properties of the Arabic 16-Item Maladaptive Daydreaming Scale (MDS-16-AR) in a Multicountry Arab Sample." *Psychology of Consciousness: Theory, Research and Practice* 6, no. 2: 171–183. https://doi.org/10.1037/cns0000183.

Ahmadi, F., M. A. Goodarzi, S. A. Kazemi Rezaei, and R. Yazdanimehr. 2022. "Daydreaming Scale (MDS-16) in an Iranian Sample." *Journal of Clinical Psychology* 14, no. 4: 53–63. https://doi.org/10.22075/jcp.2022.27056.2443.

Alenizi, M. M., S. D. Alenazi, S. Almushir, et al. 2020. "Impact of Maladaptive Daydreaming on Grade Point Average (GPA) and the Association Between Maladaptive Daydreaming and Generalized Anxiety Disorder (GAD)." *Cureus* 12, no. 10: e10776. https://doi.org/10.7759/cureus.10776.

Anwar, M. 2018. "Linking Social Support, Social Anxiety and Maladaptive Daydreaming: Evidence From University Students of Pakistan." *Foundation University Journal of Psychology* 2, no. 2: 141–181. https://doi.org/10.33897/fujp2.16.

Araújo, W. C. O. 2020. "Recuperação da Informação em Saúde: Construção, Modelos e Estratégias." *Convergências em Ciência da Informação* 3, no. 2: 100–134. https://doi.org/10.33467/conci.v3i2.13447.

Bardin, L. 2011. *Análise de Conteúdo*. Edições 70.

Bashir, M. M. I. 2021. "Prevalence of Maladaptive Daydreaming Among Medical Students at the University of Khartoum, Sudan, in 2020–2021." *Middle East Current Psychiatry* 28, no. 1: 41. https://doi.org/10.1186/s43045-021-00122-8.

Bershtling, O., and E. Somer. 2018. "The Micro-Politics of a New Mental Condition: Legitimization in Maladaptive Daydreamers' Discourse." *Qualitative Report*. https://doi.org/10.46743/2160-3715/2018.3466.

Bigelsen, J., J. M. Lehrfeld, D. S. Jopp, and E. Somer. 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., and C. Schupak. 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: 1634–1648.

Brenner, R., E. Somer, and H. M. Abu-Rayya. 2022. "Personality Traits and Maladaptive Daydreaming: Fantasy Functions and Themes in a Multi-Country Sample." *Personality and Individual Differences* 184: 1–6. https://doi.org/10.1016/j.paid.2021.111194.

Callard, F., J. Smallwood, J. Golchert, and D. S. Margulies. 2013. "The Era of the Wandering Mind? Twenty-First Century Research on Self-Generated Mental Activity." *Frontiers in Psychology* 4. https://doi.org/10.3389/fpsyg.2013.00891.

Catelan, R. F., Á. Zsila, I. J. Pietkiewicz, and A. E. Nardi. 2023. "Cross-Cultural Adaptation and Validation of the Brazilian Portuguese Version of the Maladaptive Daydreaming Scale (BMDS-16)." *Psychiatria i Psychologia Kliniczna* 23, no. 3: 129–140. https://doi.org/10.15557/PiPK.2023.0018.

Chaudhary, S., K. Jain, M. Agarwal, and V. Bajaj. 2022. "Maladaptive Daydreaming Among the Indian Youth: A Qualitative and Quantitative Analysis." *International Journal of Indian Psychology* 10, no. 1: 301–329. https://doi.org/10.25215/1001.027.

Chirico, I., E. Volpato, G. Landi, et al. 2022. "Maladaptive Daydreaming and Its Relationship With Psychopathological Symptoms, Emotion Regulation, and Problematic Social Networking Sites Uuse: A Network Analysis Approach." *International Journal of Mental Health and Addiction* 22: 1484–1500. https://doi.org/10.1007/s11469-022-00938-3.

Chu, C., M. L. Rogers, A. Gai, and T. E. Joiner. 2017. "Role of Thwarted Belongingness and Perceived Burdensomeness in the Relationship Between Violent Daydreaming and Suicidal Ideation in Two Adult Samples." *Journal of Aggression, Conflict and Peace Research* 10, no. 1: 11–23. https://doi.org/10.1108/JACPR-10-2016-0255.

Conte, G., E. Arigliani, M. Martinelli, S. Di Noia, F. Chiarotti, and F. Cardona. 2023. "Daydreaming and Psychopathology in Adolescence: An Exploratory Study." *Early Intervention in Psychiatry* 17, no. 3: 263–271. https://doi.org/10.1111/eip.13323.

Costanzo, A., G. Santoro, S. Russo, et al. 2021. "Attached to Virtual Dreams: The Mediating Role of Maladaptive Daydreaming in the Relationship Between Attachment Styles and Problematic Social Media Use." *Journal of Nervous and Mental Disease* 209, no. 9: 656–664. https://doi.org/10.1097/NMD.0000000000001356.

Dujić, G., V. Anticevic, and I. Misetic. 2020. "Contribution of Maladaptive Daydreaming to the Level of Psychological Distress and Coping Strategies." *Socijalna Psihijatrija* 48, no. 1: 3–19. https://doi.org/10.24869/spsih.2020.3.

Ferrante, E., A. Marino, F. Guglielmucci, and A. Schimmenti. 2022. "The Mediating Role of Dissociation and Shame in the Relationship Between Emotional Trauma and Maladaptive Daydreaming." *Psychology of Consciousness: Theory, Research and Practice* 9, no. 1: 27–39. https://doi.org/10.1037/cns0000253.

Ghinassi, S., G. Fioravanti, and S. Casale. 2023. "Is Shame Responsible for Maladaptive Daydreaming Among Grandiose and Vulnerable Narcissists? A General Population Study." *Personality and Individual Differences* 206: 112122. https://doi.org/10.1016/j.paid.2023.112122.

Greene, T., M. West, and E. Somer. 2020. "Maladaptive Daydreaming and Emotional Regulation Difficulties: A Network Analysis." *Psychiatry Research* 285: 1–4. https://doi.org/10.1016/j.psychres.2020.112799.

Hedderly, T., C. Eccles, O. Malik, et al. 2024. "Intense Imagery Movements May Lead to Maladaptive Daydreaming: A Case Series and Literature Review." *Movement Disorders Clinical Practice* 11, no. 6: 716–719. https://doi.org/10.1002/mdc3.14011.

Herscu, O., E. Somer, A. Federman, and N. Soffer-Dudek. 2023. "Mindfulness Meditation and Self-Monitoring Reduced Maladaptive Daydreaming Symptoms: A Randomized Controlled Trial of a Brief Self-Guided Web-Based Program." *Journal of Consulting and Clinical Psychology* 91, no. 5: 285–300. https://doi.org/10.1037/ccp0000790.

Horváth-Labancz, E., A. Sándor, K. Balázs, J. Molnár, and I. Kuritárné Szabó. 2023. "Pathological Personality Traits of Maladaptive Daydreamers Measured by the Personality Inventory for DSM-5 in a Psychiatric Sample." *Clinical Psychology & Psychotherapy* 30, no. 3: 536–547. https://doi.org/10.1002/cpp.2820.

Jopp, D. S., M. Dupuis, E. Somer, N. Hagani, and O. Herscu. 2019. "Validation of the Hebrew Version of the Maladaptive Daydreaming Scale (MDS-H): Evidence for a Generalizable Measure of Pathological Daydreaming." *Psychology of Consciousness: Theory, Research and Practice* 6, no. 3: 242–261. https://doi.org/10.1037/cns0000162.

Kammad, Z. A. H., D. A. I. Al-Sabbagh, and M. A. Hussain. 2021. "Prevalence of Proneness to Maladaptive Daydreaming Syndrome in Basra Medical Students." *Elementary Education Online* 20, no. 1: 2009–2013. https://doi.org/10.17051/ilkonline.2021.01.219.

Lucas, A. H. 2021. Understanding the Lived Experience of Maladaptive Daydreaming [Doctoral Thesis, Canterbury Christ Church University] https://repository.canterbury.ac.uk/item/8z39v/understanding-the-lived-experience-of-maladaptive-daydreaming.

Mándli, K., L. McCutcheon, and Á. Zsila. 2022. "Relationship Status and Celebrity Worship: Exploring Differences in Maladaptive Daydreaming, Engagement, and Body Appreciation Across Single and Partnered Women." *North American Journal of Psychology* 24, no. 2: 235–256.

Mansuklal, S. A., P. M. Pascoal, I. B. Costa, and G. Andersson. 2023. "What Is Known About Maladaptive Daydreaming? The Scoping Review Protocol." OSF Registries. https://doi.org/10.17605/OSF.IO/S9VCD.

Marcusson-Clavertz, D., M. West, O. N. E. Kjell, and E. Somer. 2019. "A Daily Diary Study on Maladaptive Daydreaming, Mind Wandering, and Sleep Disturbances: Examining Within-Person and Between-Persons Relations." *PLoS ONE* 14, no. 11: e0225529. https://doi.org/10.1371/journal.pone.0225529.

Margherita, G., A. Caffieri, R. Mariani, et al. 2022. "Dreaming or Daydreaming During COVID-19 Lockdown: A Comparison Between Maladaptive and Non-Maladaptive Daydreamers." *Psychology of Consciousness: Theory, Research and Practice* 10, no. 4: 331–345. https://doi.org/10.1037/cns0000333.

Mariani, R., A. Musetti, C. Di Monte, K. Danskin, C. Franceschini, and C. Christian. 2021. "Maladaptive Daydreaming in Relation to Linguistic Features and Attachment Style." *International Journal of Environmental Research and Public Health* 19, no. 1: 386. https://doi.org/10.3390/ijerph19010386.

Metin, B., E. Somer, H. M. Abu-Rayya, A. Schimmenti, and B. Göçmen. 2021. "Perceived Stress During the COVID-19 Pandemic Mediates the Association Between Self-Quarantine Factors and Psychological Characteristics and Elevated Maladaptive Daydreaming." *International Journal of Mental Health and Addiction* 1–13: 1–13. https://doi.org/10.1007/s11469-021-00678-w.

Metin, S., B. Gocmen, and B. Metin. 2022. "Turkish Validity and Reliability Study of Maladaptive Daydreaming Scale." *Psychiatry and Behavioral Sciences* 12, no. 1: 1. https://doi.org/10.5455/PBS.20210907111754.

Mishra, B., and S. Kewalramani. 2023. "Social Media Use Maladaptive Daydreaming and Imposter Phenomenon in Younger Adults." *Journal of Advance Research in Science and Social Science* 6, no. 1: 223–231. https://doi.org/10.46523/jarssc.06.01.20.

Moment, L. 2023. "Adverse Childhood Experiences and Maladaptive Daydreaming." *Research Square*. https://doi.org/10.21203/rs.3.rs-3380341/v1.

Musetti, A., C. Franceschini, L. Pingani, et al. 2021. "Maladaptive Daydreaming in an Adult Italian Population During the COVID-19 Lockdown." *Frontiers in Psychology* 12: 631979. https://doi.org/10.3389/fpsyg.2021.631979.

Musetti, A., A. Gori, G. Michelini, C. Di Monte, C. Franceschini, and R. Mariani. 2023. "Are Defense Styles Mediators Between Traumatic Experiences and Maladaptive Daydreaming?" *Current Psychology* 42, no. 30: 26683–26691. https://doi.org/10.1007/s12144-022-03708-5.

Musetti, A., N. Soffer-Dudek, C. Imperato, A. Schimmenti, and C. Franceschini. 2023. "Longitudinal Associations Between Maladaptive Daydreaming and Psychological Distress During the COVID-19 Health Crisis." *Journal of Behavioral Addictions* 12, no. 1: 288–294. https://doi.org/10.1556/2006.2023.00001.

Nauman, J. 2023. "Narrative Review of a Link Between Proposed Maladaptive Daydreaming (MD) and Reports of Motor Stereotypy in Autism Spectrum Disorder." *Review Journal of Autism and Developmental Disorders* 12: 1–7. https://doi.org/10.1007/s40489-023-00386-2.

Peters, M. D., C. Godfrey, P. McInerney, Z. Munn, A. C. Tricco, and H. Khalil. 2020. "Chapter 11: Scoping Reviews (2020 Version)." In *JBI Reviewer's Manual*. JBI.

Pietkiewicz, I. J., A. M. Hełka, M. Barłóg, and R. Tomalski. 2023a. "Maladaptive Daydreaming and Narcissism." 212: e112279. https://doi.org/10.1016/j.paid.2023.112279.

Pietkiewicz, I. J., A. M. Hełka, M. Barłóg, and R. Tomalski. 2023b. "Validity and Reliability of the Polish Maladaptive Daydreaming Scale (PMDS-16) and Its Short Form (PMDS-5)." *Clinical Psychology & Psychotherapy* 30, no. 4: 882–897. https://doi.org/10.1002/cpp.2844.

Pietkiewicz, I. J., S. Nęcki, A. Bańbura, and R. Tomalski. 2018. "Maladaptive Daydreaming as a New Form of Behavioral Addiction." *Journal of Behavioral Addictions* 7, no. 3: 838–843. https://doi.org/10.1556/2006.7.2018.95.

Pyszkowska, A., J. Celban, A. Nowacki, and I. Dubiel. 2023. "Maladaptive Daydreaming, Emotional Dysregulation, Affect and Internalized Stigma in Persons With Borderline Personality Disorder and Depression Disorder: A Network Analysis." *Clinical Psychology & Psychotherapy* 30, no. 6: 1246–1255. https://doi.org/10.1002/cpp.2923.

Rana, S., and M. Vyas. 2022. "Maladaptive Daydreaming: Overview." *IAHRW International Journal of Social Sciences Review* 10, no. 3: 370–375. https://iahrw.org/product/maladaptive-daydreaming-overview/.

Rawat, A. L., and H. Malik. 2023. "A Daydreaming: Vex or Delight?" *International Journal of Engineering Technology and Management Sciences* 7, no. 3: 682–688. https://doi.org/10.46647/ijetms.2023.v07i03.105.

Rebello, D. P., D. K. Johnson, D. P. D'Souza, D. P. P. Rao, and S. Malarmathi. 2019. "A Case Report on Maladaptive Daydreaming." *Galore International Journal of Health Sciences and Research* 4, no. 1: 33–36. https://www.gijhsr.com/GIJHSR_Vol.4_Issue.1_Jan2019/Abstract.07.html.

Roneena, A. J., and V. S. Anandarani. 2022. "Mindfulness-Based Cognitive Therapy (MBCT) for Maladaptive Daydreaming: A Case Report." *International Research Journal of Education and Technology* 4, no. 10: 62–72.

Ross, C., J. Ridgway, and N. George. 2020. "Maladaptive Daydreaming, Dissociation, and the Dissociative Disorders." *Psychiatric Research and Clinical Practice* 2: 53–61. https://doi.org/10.1176/appi.prcp.20190050.

Ross, C. A., M. West, and E. Somer. 2020. "Self-Reported Medication and Recreational Drug Effectiveness in Maladaptive Daydreaming." *Journal of Nervous and Mental Disease* 208, no. 1: 77–80. https://doi.org/10.1097/NMD.0000000000001091.

Sabzban, M., and I. Safaei. 2021. "Associating Psychological Symptoms and Worshipping National Taekwondo Champions as Celebrities: The Mediating Role of Maladaptive Daydreaming and Desire for Fame." *Sport Psychology Studies* 10, no. 37: 179–206.

Salomon-Small, G., E. Somer, M. Harel-Schwarzmann, and N. Soffer-Dudek. 2021. "Maladaptive Daydreaming and Obsessive-Compulsive Symptoms: A Confirmatory and Exploratory Investigation of Shared Mechanisms." *Journal of Psychiatric Research* 136: 343–350. https://doi.org/10.1016/j.jpsychires.2021.02.017.

Sándor, A., A. Bugán, A. Nagy, L. Bogdán, and J. Molnar. 2021. "Attachment Characteristics and Emotion Regulation Difficulties Among Maladaptive and Normal Daydreamers." *Current Psychology* 42: 1617–1634. https://doi.org/10.1007/s12144-021-01546-5.

Sándor, A., A. Bugán, A. Nagy, N. Nagy, K. Tóth-Merza, and J. Molnár. 2023. "Childhood Traumatization and Dissociative Experiences Among Maladaptive and Normal Daydreamers in a Hungarian Sample." *Current Psychology (New Brunswick, N.J.)* 42, no. 11: 9509–9525. https://doi.org/10.1007/s12144-021-02223-3.

Sándor, A., Á. Münnich, and J. Molnár. 2020. "Psychometric Properties of the Maladaptive Daydreaming Scale in a Sample of Hungarian Daydreaming-Prone Individuals." *Journal of Behavioral Addictions* 9, no. 3: 853–862. https://doi.org/10.1556/jba-9-853.

Schimmenti, A., L. Sideli, L. La Marca, A. Gori, and G. Terrone. 2020. "Reliability, Validity, and Factor Structure of the Maladaptive Daydreaming Scale (MDS–16) in an Italian Sample." *Journal of Personality Assessment* 102, no. 5: 689–701. https://doi.org/10.1080/00223891.2019.1594240.

Schimmenti, A., E. Somer, and M. Regis. 2019. "Maladaptive Daydreaming: Towards a Nosological Definition." *Annales Médico-Psychologiques, Revue Psychiatrique* 177, no. 9: 865–874. https://doi.org/10.1016/j.amp.2019.08.014.

Schupak, C., and J. Rosenthal. 2009. "Excessive Daydreaming: A Case History and Discussion of Mind Wandering and High Fantasy Proneness." *Consciousness and Cognition* 18, no. 1: 290–292. https://doi.org/10.1016/j.concog.2008.10.002.

Selby, E., M. Anestis, and T. Joiner. 2007. "Daydreaming About Death: Violent Daydreaming as a Form of Emotion Dysregulation in Suicidality." *Behavior Modification* 31: 867–879. https://doi.org/10.1177/0145445507300874.

Shafiq, S., and H. Zafar. 2022. "Social Anxiety as Predictor of Depression in Adolescents: Mediating Role of Dysfunctional Daydreaming." *Journal of Liaquat University of Medical & Health Sciences* 21, no. 4: 4.

Shafiq, S., H. Zafar, and N. Khalid. 2023. "Development and Validation of Dysfunctional Daydreaming Scale." *Journal of Postgraduate Medical Institute* 37, no. 1: 1. https://doi.org/10.54079/jpmi.37.1.3087.

Sharma, M., and V. Jain. 2023. "Fear of COVID-19 in Relation to Social Connectedness, Maladaptive Daydreaming, Depression and Anxiety: A Correlation Study." *Indian Journal of Health and Well-Being* 14, no. 4: 491–494.

Sharma, P., and A. Mahapatra. 2021a. "Phenomenological Analysis of Maladaptive Daydreaming as a New Form of Behavioral Addiction: A Case Series." *Indian Journal of Social Psychiatry* 37, no. 3: 280–282. https://doi.org/10.4103/ijsp.ijsp_227_21.

Sharma, P., and A. Mahapatra. 2021b. "Phenomenological Analysis of Maladaptive Daydreaming Associated With Internet Gaming Addiction: A Case Report." *General Psychiatry* 34, no. 2: e100419. https://doi.org/10.1136/gpsych-2020-100419.

Soffer-Dudek, N., D. Lassri, N. Soffer-Dudek, and G. Shahar. 2015. "Dissociative Absorption: An Empirically Unique, Clinically Relevant, Dissociative Factor." *Consciousness and Cognition* 36: 338–351. https://doi.org/10.1016/j.concog.2015.07.013.

Soffer-Dudek, N., and H. Oh. 2024. "Maladaptive Daydreaming: A Shortened Assessment Measure and Its Mental Health Correlates in a Large United States Sample." *Comprehensive Psychiatry* 129: 152441. https://doi.org/10.1016/j.comppsych.2023.152441.

Soffer-Dudek, N., and E. Somer. 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/fpsyt.2018.00194.

Soffer-Dudek, N., and E. Somer. 2022. "Maladaptive Daydreaming Is a Dissociative Disorder: Supporting Evidence and Theory." In *Dissociation and the Dissociative Disorders: Past, Present, Future*, edited by M. J. Dorahy, S. N. Gold, and J. A. O'Neil, 2nd ed., 547–563. Routledge.

Soffer-Dudek, N., E. Somer, H. M. Abu-Rayya, B. Metin, and A. Schimmenti. 2020. "Different Cultures, Similar Daydream Addiction? An Examination of the Cross-Cultural Measurement Equivalence of the Maladaptive Daydreaming Scale." *Journal of Behavioral Addictions* 9, no. 4: 1056–1067. https://doi.org/10.1556/2006.2020.00080.

Soffer-Dudek, N., and N. Theodor-Katz. 2022. "Maladaptive Daydreaming: Epidemiological Data on a Newly Identified Syndrome." *Frontiers in Psychiatry* 13. https://doi.org/10.3389/fpsyt.2022.871041.

Somer, E. 2002. "Maladaptive Daydreaming: A Qualitative Inquiry." *Journal of Contemporary Psychotherapy* 32, no. 2–3: 197–212.

Somer, E. 2018. "Maladaptive Daydreaming: Ontological Analysis, Treatment Rationale; A Pilot Case Report." *Frontiers in the Psychotherapy of Trauma and Dissociation* 1, no. 2: 1–22.

Somer, E. 2023. "Body Movements During Maladaptive Daydreaming: A Thematic Analysis of Asynchronous Email Interviews." *Journal of Anomalous Experience and Cognition* 3, no. 1: 267–299. https://doi.org/10.31156/jaex.25004.

Somer, E. 2024. "Calling the Tune in Maladaptive Daydreaming: The Impact of Music on the Experience of Compulsive Fantasizing." *Psychology of Music* 52: e03057356231222290. https://doi.org/10.1177/03057356231222290.

Somer, E., H. M. Abu-Rayya, and R. Brenner. 2021. "Childhood Trauma and Maladaptive Daydreaming: Fantasy Functions and Themes in a Multi-Country Sample." *Journal of Trauma & Dissociation* 22, no. 3: 288–303. https://doi.org/10.1080/15299732.2020.1809599.

Somer, E., H. M. Abu-Rayya, A. Schimmenti, et al. 2020. "Heightened Levels of Maladaptive Daydreaming Are Associated With COVID-19 Lockdown, Pre-Existing Psychiatric Diagnoses, and Intensified Psychological Dysfunctions: A Multi-Country Study." *Frontiers in Psychiatry* 11: 587455. https://doi.org/10.3389/fpsyt.2020.587455.

Somer, E., H. M. Abu-Rayya, and Z. N. Simaan. 2019. "Maladaptive Daydreaming Among Recovering Substance Use Disorder Patients: Prevalence and Mediation of the Relationship Between Childhood Trauma and Dissociation." *International Journal of Mental Health and Addiction* 17, no. 2: 206–216. https://doi.org/10.1007/s11469-018-0011-9.

Somer, E., and O. Herscu. 2017. "Childhood Trauma, Social Anxiety, Absorption and Fantasy Dependence: Two Potential Mediated Pathways to Maladaptive Daydreaming." *Journal of Addictive Behaviors, Therapy & Rehabilitation* 6: e3. https://doi.org/10.4172/2324-9005.1000170.

Somer, E., O. Herscu, M. Samara, and H. M. Abu-Rayya. 2025. "Maladaptive Daydreaming and Psychopathology: A Meta-Analysis." *International Journal of Psychology* 60, no. 2: e70027. https://doi.org/10.1002/ijop.70027.

Somer, E., J. Lehrfeld, J. Bigelsen, and D. S. Jopp. 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., and H. Otgaar. 2024. "Exploring the Nexus Between Childhood Adversities, Trauma-Related Fantasy and Memory in Maladaptive Daydreaming." *Acta Psychologica* 247: e104301. https://doi.org/10.1016/j.actpsy.2024.104301.

Somer, E., N. Soffer-Dudek, and C. Ross. 2017. "The Comorbidity of Daydreaming Disorder (Maladaptive Daydreaming)." *Journal of Nervous and Mental Disease* 205, no. 7: 525–530. https://doi.org/10.1097/NMD.0000000000000006.

Somer, E., N. Soffer-Dudek, C. Ross, and N. Halpern. 2017. "Maladaptive Daydreaming: Proposed Diagnostic Criteria and Their Assessment With a Structured Clinical Interview." *Psychology of Consciousness: Theory, Research and Practice* 4: 176–189. https://doi.org/10.1037/cns0000114.

Somer, E., L. Somer, and N. Halpern. 2019. "Representations of Maladaptive Daydreaming and the Self: A Qualitative Analysis of Drawings." *Arts in Psychotherapy* 63: 102–110. https://doi.org/10.1016/j.aip.2018.12.004.

Somer, E., L. Somer, and D. S. Jopp. 2016a. "Childhood Antecedents and Maintaining Factors in Maladaptive Daydreaming." *Journal of Nervous and Mental Disease* 204, no. 6: 471–478. https://doi.org/10.1097/NMD.0000000000000507.

Somer, E., L. Somer, and D. S. Jopp. 2016b. "Parallel Lives: A Phenomenological Study of the Lived Experience of Maladaptive Daydreaming." *Journal of Trauma & Dissociation* 17, no. 5: 561–576. https://doi.org/10.1080/15299732.2016.1160463.

Theodor-Katz, N., E. Somer, R. M. Hesseg, and N. Soffer-Dudek. 2022. "Could Immersive Daydreaming Underlie a Deficit in Attention? The Prevalence and Characteristics of Maladaptive Daydreaming in Individuals With Attention-Deficit/Hyperactivity Disorder." *Journal of Clinical Psychology* 78, no. 11: 2309–2328. https://doi.org/10.1002/jclp.23355.

Thomson, P., and S. V. Jaque. 2023a. "Creativity, Emotion Regulation, and Maladaptive Daydreaming." *Creativity Research Journal* 37, no. 1: 94–103. https://doi.org/10.1080/10400419.2023.2230022.

Thomson, P., and V. Jaque. 2023b. "Maladaptive Daydreaming, Overexcitability, and Emotion Regulation." *Roeper Review* 45, no. 3: 195–205. https://doi.org/10.1080/02783193.2023.2212634.

Thorburn, C. 2022. "'Maladaptive Daydreaming': An Introduction to a New Condition." *European Psychiatry* 65, no. S1: S178–S179. https://doi.org/10.1192/j.eurpsy.2022.473.

Tricco, A. C., E. Lillie, W. Zarin, et al. 2018. "PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation." *Annals of Internal Medicine* 169, no. 7: 467–473. https://doi.org/10.7326/M18-0850.

Tudino, R. F., N. L. Mowry, and W. A. Jellison. 2020. "Does Life Satisfaction Mediate the Relationship Between Mood and Daydreaming Frequency?" *Psi Chi Journal of Psychological Research* 25, no. 2: 90–97. https://doi.org/10.24839/2325-7342.JN25.2.90.

Vally, Z., D. Moussa, E. Khalil, A. Al-fahel, N. Azry, and N. Jafar. 2021. "Celebrity Worship in the United Arab Emirates: An Examination of Its Association With Problematic Internet Use, Maladaptive Daydreaming, and Desire for Fame." *Psychology of Popular Media* 10, no. 1: 124–134.

Vyas, M., M. Shaikh, S. Rana, and A. G. Pendyala. 2023. "Is This the Real Life? Or Just a Fantasy? A Closer Look at Maladaptive Daydreaming." *Mental Health and Social Inclusion* 28, no. 3: 252–260. https://doi.org/10.1108/MHSI-01-2023-0014.

Wang, Q., X. Dong, and X. Li. 2019. rTMS as an Add-On Treatment for Maladaptive Daydreaming Over 10 Years in Patients With Schizophrenia: A Case Report [Letter to Editor]. https://doi.org/10.1016/j.ajp.2017.10.025.

Wen, H., N. Soffer-Dudek, and E. Somer. 2022. "Daily Feelings and the Affective Valence of Daydreams in Maladaptive Daydreaming: A Longitudinal Analysis." *Psychology of Consciousness: Theory, Research and Practice*. https://doi.org/10.1037/cns0000293.

West, M. J., and E. Somer. 2020. "Empathy, Emotion Regulation, and Creativity in Immersive and Maladaptive Daydreaming." *Imagination, Cognition and Personality* 39, no. 4: 358–373. https://doi.org/10.1177/0276236619864277.

West, M. J., E. Somer, and I.-M. Eigsti. 2023a. "Immersive and Maladaptive Daydreaming and Divergent Thinking in Autism Spectrum Disorders." *Imagination, Cognition and Personality* 42, no. 4: 372–398. https://doi.org/10.1177/02762366221129819.

West, M. J., E. Somer, and I.-M. Eigsti. 2023b. "Shared Challenges and Cooccurrence of Maladaptive Daydreaming and Autism Spectrum Disorder." *Advances in Neurodevelopmental Disorders* 7, no. 1: 77–87. https://doi.org/10.1007/s41252-022-00279-1.

Yazhini, C. S. 2021. "Statistical Analysis of Impact on Daydreaming." *International Journal of Research and Analytical Reviews* 8, no. 3: 543–563.

Zsila, Á., L. E. McCutcheon, and Z. Demetrovics. 2018. "The Association of Celebrity Worship With Problematic Internet Use, Maladaptive Daydreaming, and Desire for Fame." *Journal of Behavioral Addictions* 7, no. 3: 654–664. https://doi.org/10.1556/2006.7.2018.76.

Zsila, Á., R. Urbán, L. E. McCutcheon, and Z. Demetrovics. 2019. "A Path Analytic Review of the Association Between Psychiatric Symptoms and Celebrity Worship: The Mediating Role of Maladaptive Daydreaming and Desire for Fame." *Personality and Individual Differences* 151: 1–8. https://doi.org/10.1016/j.paid.2019.109511.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.