

## Maladaptive Daydreaming: Pathways to an Unrecognized Dissociative Condition Eli Somer, PhD 1.5 CPD Hours



# MALADAPTIVE DAYDREAMING

### PATHWAYS TO AN UNRECOGNIZED DISSOCIATIVE CONDITION

Eli Somer, Ph.D., University of Haifa, Israel





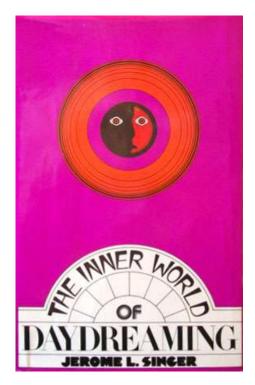
The International Consortium for Maladaptive Daydreaming Research



## DAYDREAMING

96% of presumably normal, fairly well educated, American adults engaged in some form of daydreaming daily

(Singer, 1966)

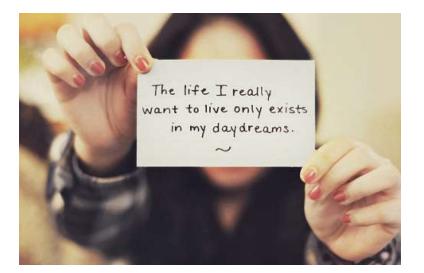


## DAYDREAMING

- Singer (1966) determined that episodes of daydreaming develop as an internalized form of play.
- Klinger (1971) also proposed that the decline of fantasying in public towards puberty and emergent interest in private fantasying indicates that daydreaming essentially replaces play.
- Daydreaming has an adaptive role in the realm of plan preparation and rehearsal; emotional regulation; motivation; and learning from success and failure (Meuller & Dyer, 1985, 1990; Morley, 1988; Person, 1996).

## **MALADAPTIVE DAYDREAMING (MD)**

Extensive, immersive, fanciful, volitional fantasy activity that is frequently accompanied by repetitive physical movement and is often enacted while listening to evocative music. MD is experienced as extremely rewarding and is experienced by many as a compulsion or an addiction. It creates distress and/or interferes with completion of daily chores, academic, interpersonal or vocational functioning. The MD scale is highly correlated with the DES, particularly with the absorption factor. MD is highly comorbid with ADHD-A, OCD, depression and anxiety.





## **A BRIEF HISTORY OF MD**

### The emergence of a new mental dosorder

## **THE ORIGINAL 2002 STUDY**

Journal of Contemporary Psychotherapy, Vol. 32, Nos. 2/3, Fall 2002 (© 2002)

#### Maladaptive Daydreaming: A Qualitative Inquiry

Eli Somer, Ph.D.

Maladaptive daydreaming (MD) is extensive fantasy activity that replaces human interaction and/or interferes with academic, interpersonal, or vocational functioning. This qualitative inquiry explored the nature and experience of MD. Six patients in a trauma practice were identified as displaying MD. Four participants were diagnosed as suffering from a dissociative disorder; two were given the diagnosis of narcissistic personality disorder. Cross-sectional analysis of respondents' verbatim transcripts yielded nine themes clustered into three categories (Functions,

## **THE ORIGINAL 2002 STUDY**

## Described a clinical sample of respondents with a history of childhood abuse

Biographic and clinical assessment data of participants in the MD study

Case	Ser	Age	Marital Status	Months in therapy	DSM-IV-R Diagnosis	History of aversive childhood experiences	Onset age of MD	Maximum total daily MD /hrs \	DES (Intake)	(Current)
1	M	26	S	18	Narcissist Pers.Dis. Mixed Pers.Dis. (Current)	Moderate ( <u>Psy.</u> )	16	5	15.3	25.4
2	M	29	S	25	DDNOS (Current)	Severe (Phy., Psy.)	10	4	25.3	37.3
3	F	24	S	24	DDNOS (Current)	Severe (Sex., Psy.)	8	8	20.1	35.8
4	F	53	S	64 (Finished)	DID (Past)	Moderate (Sex.)	8	5 (Past)	30.6	11.6
5	M	31	S	20	Narcissist Pers.Dis. (Current)	Moderate (Psy.)	5	7	10.3	43.4
6	F	35	S	39	DID (Current)	Severe (Sex., Psy.)	5	8	35.2	45.1

Somer, E. (2002). Maladaptive daydreaming: A qualitative inquiry. Journal of Contemporary Psychotherapy 32(2), 195-210



The 2002 paper seemed to have no significant impact on the scientific community but individuals struggling with MD found the paper online and the term has been adopted by the MD community.



## A BOTTOM-UP CAMPAIGN FOR THE MEDICALIZATION OF MD

Described in:

Bershtling, O., & Somer, E. (2018). The micro-politics of a new mental condition: Legitimization in maladaptive daydreamers' discourse. *The Qualitative Report, 23*(8), 1983-2002. Retrieved from https://nsuworks.nova.edu/tqr/vol23/iss8/14

*maladaptive daydreaming	g*			Q
All Images News	Videos Maps	More	Settings	Tools
About 391,000 results (0.60 seco	onds)			
Maladaptive daydreaming dissociative absorption ass			MALADAPTIVE DAYDREAMIN -KNOWN PSYCHOLOGICAL C	
excessive fantasy activity t elaborate and fanciful scer researchers of <b>maladaptiv</b> person who coined the terr Professor Eli Somer.	hat often involves harios One of t ve daydreaming	s the lead and the	WHICH ONE DAYDREAMS EXC THE POINT WHERE SUCH AN A DECOME HARMEN www.change.org	CESSIVELY, TO ACTIVITY CAP



Home	Conditions	Quizzes Ask	Drugs B	logs News Rese	arc
	Forums	Blogs	Chat	Ratings	

Forums at Psych Central > Mental Health Support > OCD and Trichotillomania

Maladaptive Daydreaming...PLEASE HELP! warning: disturbing

Members List

#### Register FAQ/Help

alcome to the Forums at Psych Central!

u are currently viewing our boards as a guest which gives you limited acc cess to post topics, communicate privately with other members (PM), resi d absolutely free so please, join our community today!

you have any problems with the registration process or your account logir

Maladaptive Daydreaming Italia

### INTERNET COMMUNITIES WERE **CREATED**

Maladaptive Daydreaming (MDD) Disturbo da Fantasia Compulsiva

#### dd Reply

-26-2013, 09:04 PM	
aredandconfused	Maladaptive DaydreamingPLEASE HELP! warning: disturb
/ Member	I registered here so I can type out what I'm struggling w
	I daydream. I've been daydreaming since about 15 years favourite way is by rocking back and forth on a couch or

http://maladaptive-daydreaming-community.e-monsite.com/

### Maladaptive daydreaming community

Community for daydreamers

Page d'accueil | Livre d'or | Maladaptive daydreaming community vient d'ouvrir! | Contact | Forums de discussion

#### Menu

MD qu'est-ce que c'est? Comment mieux vivre avec? Témoignages (french)

Espace membre

#### Bienvenue sur Maladaptive daydreaming community



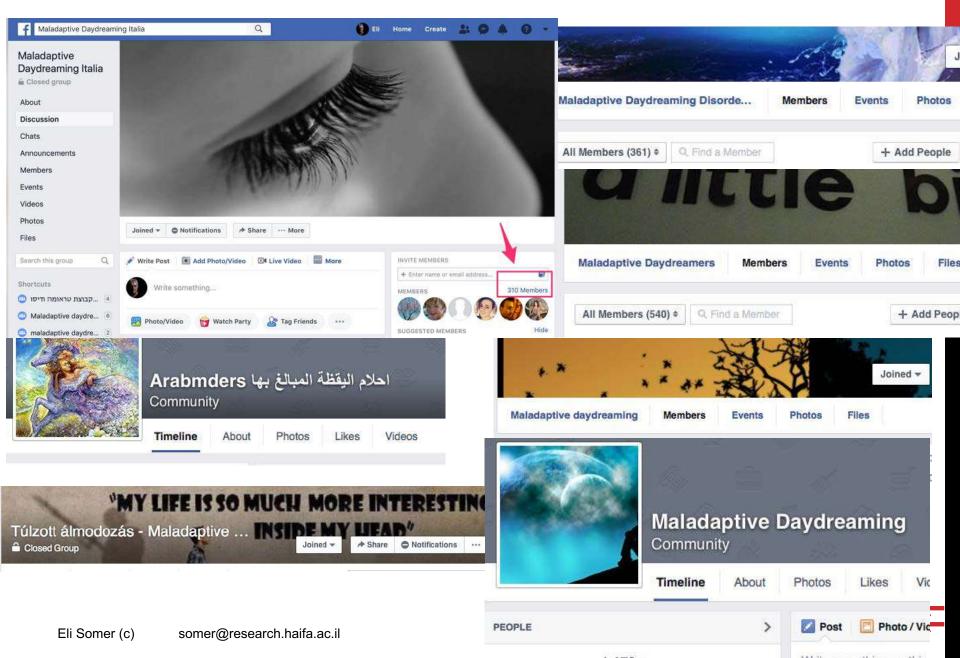
Maladaptive daydreaming community est un sit daydreaming disorder), phénomène se caractérisant par l'inver

imaginaires. Ce site vise à vous informer sur la nature de ce phénomème et à permettre à cet échanger leurs vécus avec ceux qui en souffrent pour leur permettre de mieux vivre avec cette أحلام اليقظة المبالغ بها

مفهوم نفسمي وضع لأول مرة من قبل إلى زومر لوصف نشاط ا المستوى الدراسي ،أو العلاقات الشخصية ، أو الجانب المهنى المعاملة التى تشجع الضحايا على الانفصال من عالمهم المخيف

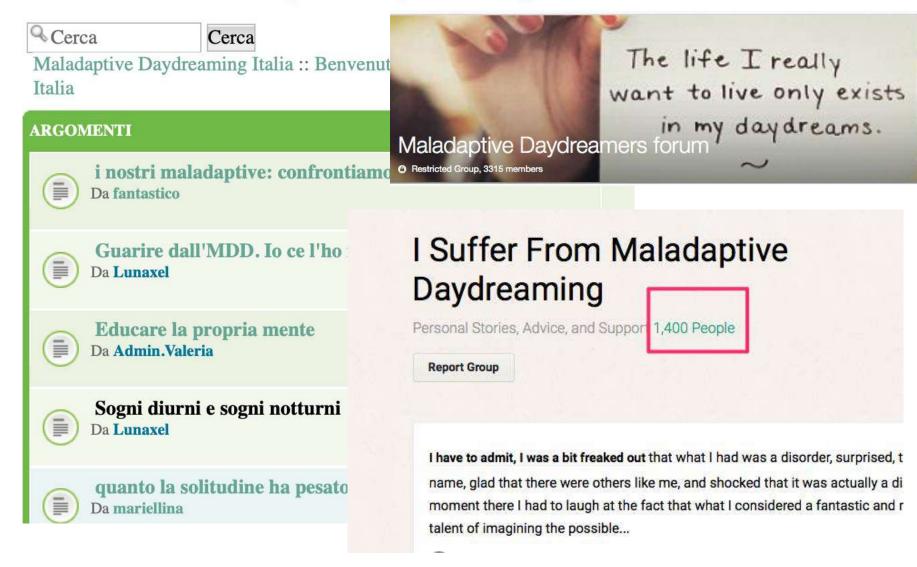


### **FACEBOOK GROUPS WERE ESTABLISHED**



### LISTSERVS AND SUPPORT GROUPS WERE FORMED

### Benvenuti in Maladaptive Daydreaming Italia



## YOUTUBE TESTIMONIES WERE UPLOADED



Maladaptive Daydreaming: My Experience

You Tube

GUIDE



Maladaptive Daydreaming vlog

You Tube





#### Elaborate Fantasy life - Maladaptive daydreaming







#### Maladaptive Daydreaming

Q

### 2002-2009 WAS MARKED BY A CASCADING FLOW OF CONSUMER INQUIRIES THAT SPARKED OUR RESEARCH EFFORT

To: Eli Somer

Hide Details

Lifelong Maladaptive Daydreamer

Hello, my name is **constraints**, and i have had this disorder for as long as I can remember. Up until a year ago, I thought I was the only person that excessively daydreamed. I have read about you, and your research about this, and I saw a video of you on the wild minds web site. If you still are interested in interviewing people about Maladaptive Daydreaming, I think I could be very helpful. From what i've read, I seem to have a much different way of experiencing this disorder, so there is still a part of me that feels very alone, but i'm hoping with more research, more questions will be answered about this.

To: Eli Somer <somer@research.halfa.a HELP

Dear Professor Eli Sommer,

Initially, I would like to apologize about my terrible English.

My name is the Sharehoust and the state of t

Looking on the internet, I found your research that discovered the Maladaptative Disorder. And I deffinitly have this disorder. So, I'm asking to be a part on this research.

I've always been a "daydreamer". I remember that, since I was a child, I've "daydreamed" a lot.

Without effort, I have made to enter in Brazil's best law college institution. When I was 23, I started to have panic attacks when going to work. I've consulted a specialist, who initially prescribed me with *Escitalopram*. When I started to get better, he changed the medication to Venlafaxine and Bupropion

Hello sir,

I am, from India. I read in an article that you are doing research about daydreaming. Sir i really need a solution for this. I am 24. I am preparing for Judicial services. This is my most precious time for study. But i am wasting it in useless dreams. I could not concentrate more than 5 minutes. I was a brilliant student but suddenly it is happening or may be i have realized it now. I will wait for your reply. I will appreciate your help.

hey i am maladaptive daydreamer.

i wanted to tell you that i have been struggling with daydreaming for quite long time(since childhood),couple of months ago i took medicine (fluvoxamine),for couple of days, i stopped my daydreaming for just a few days, in that period i was extremely happy and confident i became more social, in a way i established myself in reality but then i realized that maladaptive daydreaming was not gone it was still with me, at the same time i realized that socializing helped me cope with maladaptive daydreaming, now this disorder is not as tempting as it used to be. When i get stressed i daydream now i dont know that this is because i want to or because of daydreaming. I used to feel mental lethargy after daydreaming before taking medicine and socializing, but not any more i am feel more in control though my mind still wanders.

Waiting for your reply if you want to know anything else, i filled your survey twice and you would notice its difference even though questions were same.

### The construct has also drawn considerable international media attention



### Our website provides access to the major news stories on MD

Digital and Printed Press

Top media outlets reported on Maladapative Daydreaming

Atlantic	BBC	Wall Street Journal	British Psychological Society	Insider	
ABC (Australia)	Scientific American	NY Magazine	US News & World Report	Lone Wolf Mag	
Forbes Africa	Fox News	CNN	Broadly (Radio New Zealand)	Frontiers	
CBS NY	Medical Daily	Medical Daily	The Wireless (Radio New Zealand)	Jerusalem Post	
MAG The Weekly	Health Guidance	Business Insider	BuzzFeed	Her	
Health Line	Medical News	Ha'aretz הארץ	News 1 מחלקה ראשונה	Bizportal ניזפורטל	
Makor Rishon אשון	מקור רא Do	ctorsOnly בעברית	Gehirn & Geist (Brain & Min	nd, in German)	
Daily Hawke	r Fro	om the Grapevine	The Daily Star (Pakistan)	Focus (in German)	
DocCheck (in Ge	rman) Sosy	vallnsan (in Turkish)	Deutschlandfunk (German Public	Radio, in German)	
The Mighty	The Swaddle (India)	Siakap Leli (In Malay)	Mindtoolbox.ir (in Farsi) Solopo	os.com (in Indonesian	
Svenska Dagbladet (	(in Swedish)	ime35 (in Turkish)	ental Health Today ED Times (India	a) Medium	
Big Think	Ultima Voce (in Italian)	Baidu.com (in Chir	nese) Psychoatry Advisor	The Hindu	

6

## RESEARCH IS NOW BOOMING

#### \* Under review (authored by ICMDR researchers)

Wen, H., Soffer-Dudek, N. & Somer, E. (Under review). Daily Feelings and the Affective Valence of Daydreams in Maladaptive Daydreaming: A Longitudinal Analysis.

Salomon-Small, G., Somer, E., Harel, M. & Soffer-Dudek, N. (Under Review). Maladaptive Daydreaming and Obsessive-Compulsive Symptoms: A confirmatory and exploratory investigation of shared mechanisms

Theodor-Katz, N., Somer, E., Maaravi Hesseg, R., & Soffer-Dudek, N. (Under review). Could immersive daydreaming underlie a deficit in attention? The prevalence and characteristics of Maladaptive Daydreaming in individuals with Attention-Deficit/Hyperactivity Disorder

Musetti, A., Franceschini, C., Pingani, L., Freda, M., Saita, E., Vegni, E., Zenesini, C., Quattropani, M., C., Lenzo, V., Margherita, G., Lemmo, D., Corsano, P., Borghi, L., Cattivelli, R., Plazzi, G., Castelnuovo, G., Somer, E., Schimmenti, A. (Under review). Maladaptive daydreaming in adult Italian population during the COVID-19 lockdown. International Journal of Psychology.

#### \* Published (authored by ICMDR researchers, by year of publication)

Soffer-Dudek, N., Somer, E., Abu-Rayya, H. M., Metin, B., & Schimmenti, A. (2020). Different cultures, similar daydream addiction? An examination of the cross-cultural measurement equivalence of the Maladaptive Daydreaming Scale, Journal of Behavioral Addictions JBA. Retrieved Nov 7, 2020, from https://akjournals.com/view/journals/2006/aop/article-10.1556-2006.2020.00080/article-10.1556-2006.2020.00080.xml

Somer, E., Abu-Rayya, H.M., Schimmenti, A., Metin, B., Brenner, R. Ferrante, E., Göçmen, B., and Marino, A. (2020). Intensified maladaptive daydreaming is associated with COVID-19 social distancing, pre-existing psychiatric diagnoses, and worsening of psychological dysfunction indices in a large multi-country sample. Frontiers in Psychiatry, 11, 587455, doi: 10.3389/fpsyt.2020.587455

Ferrante, E., Marino, A., Guglielmucci, F., & Schimmenti, A. (2020). The Mediating Role of Dissociation and Shame in the Relationship Between Emotional Trauma and Maladaptive Daydreaming. Psychology of Consciousness: Theory, Research, and Practice. Advance online publication. http://dx.doi.org/10.1037/cns0000253

Sándor, A., Münnich, Á., & Molnár, J. (2020). Psychometric properties of the Maladaptive Daydreaming Scale in a sample of Hungarian daydreaming-prone individuals, Journal of Behavioral Addictions JBA\_ Retrieved Oct 7, 2020, from https://akjournals.com/view/journals/2006/aop/article-10.1556-2006.2020.00050/article-10.1556-2006.2020.00050.xml

Ross, C.A., Ridgway, J., & George, N. (2020). Maladaptive Daydreaming, Dissociation, and the Dissociative Disorders. Psychiatric Research & Clinical Practice. Published Online: 5 Oct 2020. https://doi.org/10.1176/appi.prcp.20190050

Somer, E., Abu-Rayya, H.M., & Brenner, R. (2020): Childhood Trauma and Maladaptive Daydreaming: Fantasy Functions and Themes In A Multi-Country Sample, Journal of Trauma & Dissociation, DOI: 10.1080/15299732.2020.1809599

Greene, T., West, M. & Somer, E. (2020). Maladaptive daydreaming and emotional regulation difficulties: A Network Analysis. Psychiatric Research, 285. doi: https://doi.org/10.1016/j.psychres.2020.112799 --- Greene, West & Somer (2020). Supplementary materials.



Gervasi, S., Santoro, G. & Schimmenti, A. (2019). Maladaptive daydreaming: teoria, ricerca e implicazioni cliniche del disturbo da sogni a occhi aperti. Psichiatria & Psicoterapia, 38(4), 237-249. (Maladaptive daydreaming: theory, research, and clinical implications of daydreaming, In Italian).

Marcusson-Clavertz, D., West, M., Kjell, Somer, E. (2019) A daily diary study on maladaptive daydreaming, mind wandering, and sleep disturbances: Examining within-person and between-persons relations. PLoS ONE 14(11): e0225529. https://doi.org/10.1371/journal. pone.0225529

Schimmenti, A., Somer, E. & Regis, M. (2019). Maladaptive daydreaming: Towards a nosological definition. Annales Medico-Psychologiques, 177, 865-874. https://doi.org/10.1016/j.amp.2019.08.014

Ross, C.A., West, M., & Somer, E. (2019). Self-Reported Medication And Recreational Drug Effectiveness In Maladaptive Daydreaming. Journal of Nervous and Mental Disease, 208(1), 77-80. DOI: 10.1097/NMD.000000000001091

West, M. & Somer, E. (2020). Empathy, emotion regulation and creativity in immersive daydreaming. Imagination, Cognition and Personality, 39(4), 358-373. DOI: 10.1177/0276236619864277

Abu-Rayya, H.M., Somer, E. & Knane, H. (2020). Maladaptive daydreaming is associated with intensified psychosocial problems experienced by female survivors of childhood sexual abuse. Violence Against Women, 26(8), 825-837. https://doi.org/10.1177/1077801219845532

Abu-Rayya, H. M., Somer, E., & Meari-Amir, S. (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(2), 171-183. http://dx.doi.org/10.1037/cns0000183

Somer, E., Abu-Rayya, H.M. & Nsairy Samaan, Z. (2019). Maladaptive daydreaming among recovering substance use disorder patients: its prevalence and mediation of the relationship between childhood trauma and dissociation. International Journal of Mental Health and Addiction. International Journal of Mental Health and Addictions, 17(2), 206-216, https://doi.org/10.1007/s11469-018-0011-9

Schimmenti, A. Sideli, L. La Marca, L., Gori, A. & Terrone, G. (2019): Reliability, Validity, and Factor Structure of the Maladaptive Daydreaming Scale (MDS–16) in an Italian Sample. Journal of Personality Assessment 102(5), 689-701. Published online: 23 Apr 2019. Doi: https://doi.org/10.1080/00223891.2019.1594240

Somer, E., Somer, L. & Halpern, N. (2019). Representations of maladaptive daydreaming and the self: A qualitative analysis of drawings, The Arts in Psychotherapy. 63, 102-110. https://doi.org/10.1016/j.aip.2018.12.004

Somer, E. (2019). On dissociative identity disorder and maladaptive daydreaming. Frontiers in the Psychotherapy of Trauma and Dissociation, 3(1):14–18. https://doi.org/10.XXXX/ftpd.2019.0020

Pietkiewicz, I.J., Nęcki, S., Bańbura, A, & Tomalski, R. (2018). Maladaptive daydreaming as a new form of behavioral addiction. Journal of Behavioural Addictions, 7(3), 838-843. DOI: 10.1556/2006.7.2018.95

Jopp, D. S., Dupuis, M., Somer, E., Hagani, N., & Herscu, O. (2018). Validation of the Hebrew Version of the Maladaptive Daydrearning Scale (MDS-H): Evidence for a Generalizable Measure of Pathological Daydrearning. Psychology of Consciousness: Theory, Research, and Practice, 6(3), 242-261. http://dx.doi.org/10.1037/cns0000162

Bershtling, O., & Somer, E. (2018). The micro-politics of a new mental condition: Legitimization in maladaptive daydreamers' discourse. The Qualitative Report, 23(8), 1983-2002. Retrieved from https://nsuworks.nova.edu/tgr/vol23/iss8/14

Ross, C.A. (2018).The Potential Relevance of Maladaptive Daydreaming in Treatment of Dissociative Identity Disorder in Persons With Ritual Abuse and Complex Inner Worlds. Frontiers in the Psychotherapy of Trauma and Dissociation, 1(2), 149-162. doi: https://doi.org/10.XXXX/ftpd.2017.0010

Soffer-Dudek, N. & Somer, E. (2018) Trapped in a Daydream: Daily Elevations in Maladaptive Daydreaming Are Associated With Daily Psychopathological Symptoms. Frontiers in Psychiatry 9(194). doi: 10.3389/fpsyt.2018.00194 Somer, E. (2018). Maladaptive daydreaming: Ontological analysis, treatment rationale and a pilot case report. Frontiers in the Psychotherapy of Trauma and Dissociation, 1(2), 1-22.

Somer, E. & Herscu, O. (2017). Childhood trauma, social anxiety, absorption and fantasy dependence: Two potential mediated pathways to maladaptive daydreaming. Journal of Addictive Behaviors, Therapy & Rehabilitation, 6(3) (open access) DOI: 10.4172/2324-9005.1000170.

Somer, E., Soffer-Dudek, N., & Ross, C. A. (2017). The comorbidity of daydreaming disorder (Maladaptive Daydreaming). Journal of Nervous and Mental Disease. 205(7), 525-530. DOI: http://dx.doi.org/10.1097/NMD.0000000000685

Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017). Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. Psychology of Consciousness: Theory, Research, and Practice, 4(2), 176-189. DOI: http://dx.doi.org/10.1037/cns0000114

Somer, E. Somer, L. & Jopp, S.D. (2016). Childhood Antecedents and Maintaining Factors in Maladaptive Daydreaming. Journal of Nervous and Mental Disease, 204(6), 471-478. DOI: http://dx.doi.org/10.1097/NMD.00000000000507

Somer, E. Somer, L. & Jopp, S.D. (2016). Parallel Lives: A Phenomenological Study of the Lived Experience of Maladaptive Daydreaming. Journal of Trauma and Dissociation, 17(5), 561-576. DOI: http://dx.doi.org/10.1080/15299732.2016.1160463

Somer, E., Lehrfeld J., Jopp, D.S., & Bigelsen, J. (2016). Development and Validation of the Maladaptive Daydreaming Scale (MDS). Consciousness and Cognition, 39, 77-91. DOI: http://dx.doi.org/10.1016/j.concog.2015.12.001

Bigelsen, J., Lehrfeld, J.M., Jopp, D.S. & Somer, E. (2016). Maladaptive daydreaming: Evidence for an under-researched mental health disorder. Consciousness and Cognition, 42, 254-266. DOI: http://dx.doi.org/10.1016/j.concog.2016.03.017

Bigelsen, J., & Schupak, C. (2011). Compulsive fantasy: Proposed evidence of an under-reported syndrome through a systematic study of 90 self-identified non-normative fantasizers. Consciousness and Cognition: An International Journal, 20, 1634-1648. DOI: http://dx.doi.org/10.1016/j.concog.2011.08.013

Somer, E. (2002). Maladaptive daydreaming: A qualitative inquiry. Journal of Contemporary Psychotherapy 32(2), 195-210. DOI: https://doi.org/10.1023/A:1020597026919

Somer, E. (2002). Maladaptive Daydreaming: Um Inquérito Qualitativo. Journal of Contemporary Psychotherapy 32(2), 195-210. A Portuguese translation retrieved from: https://cdn-cms.fstatic.com/uploads/436421/normal\_59c54b7c8cdef.pdf

#### \*Published (by non-ICMDR authors)

Alenizi, M.M., Alenazi, S.D., Almushir, S., et al. (October 03, 2020) Impact of Maladaptive Daydreaming on Grade Point Average (GPA) and the Association Between Maladaptive Daydreaming and Generalized Anxiety Disorder (GAD). Cureus 12(10): e10776. doi:10.7759/cureus.10776

Adeniz, E. (2020). Daydreaming Overdose: Maladaptive Daydreaming. PsiNossa, 60, 29-31 (In Turkish)

Dujić, G., Antičević, V. & Mišetić, I. (2020). Contribution of Maladaptive Daydreaming to the Level of Psychological Distress and Coping Strategies. Socijalna psihijatrija (Social Psychiatry), 48 (1), 3-19. https://doi.org/10.24869/spsih.2020.3 (In Serbian)

Vally, Z., Moussa, D., Khalil, E., Al Fahel, A., Al Azry, N., & Jafar, N. (2020). 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. DOI: http://dx.doi.org/10.1037/ppm0000276

Wang, Q., Dong, X., & Li, X. (2019). rTMS as an add-on treatment for maladaptive daydreaming over 10 years in patients with schizophrenia: A case report. Asian journal of psychiatry, 43, 208–209. https://doi.org/10.1016/j.ajp.2017.10.025 Zsila, Á., Urbán, R., McCutheon, L.E. & Demetrovics, Z. (Advance online publication, 2019). A path analytic review of the association between psychiatric symptoms and celebrity worship: The mediating role of maladaptive daydreaming and desire for fame. Personally and Individual Differences, 151, https://doi.org/10.1016/j.paid.2019.109511

Rebello, P., Johnson, K., D'Souza, P., Rao, P.R., & Malamarthi, S. (2019). A case report on maladaptive daydreaming. Galore International Journal of Health Science and Research, 4(1), 33-36.

Wei, L. (2018). 非适应性白日梦: 概念、测评及共病情况 (Maladaptive daydreaming: concept, assessment and comorbidity). Journal of Nervous Diseases and Mental Health, 18 (1), 61-65 (In Chinese).

Zsila, Á., McCutcheon, L.E., & Demetrovics, Z. (2018). The association of celebrity worship with problematic Internet use, maladaptive daydreaming, and desire for fame. Journal of Behavioral Addictions. Retrieved from https://akademiai.com/doi/pdf/10.1556/2006.7.2018.76. DOI: 10.1556/2006.7.2018.76.

Anwar, M., Aqeel, M., & Shuja, K.M. (2018). Linking Social Support, Social Anxiety and Maladaptive Daydreaming: Evidence from University Students of Pakistan. Foundation University Journal of Psychology, 2(2), 139-179.

Schupak, C. & Rosenthal, J. (2009). Excessive daydreaming: A case history and discussion of mind wandering and high fantasy proneness. Consciousness and Cognition: An International Journal, 18, 290-292. DOI: http://dx.doi.org/10.1016/j.concog.2008.10.002

#### **Other Scientific Publications**

#### \* Book chapters (authored by ICMDR researchers)

Sándor, A., Molnár, J. (2018). Maladaptív álmodozás. In: Kuritárné, Sz. I., Molnár, J., Nagy, A. (Eds). Trauma-eredet**ű** disszociáció. Budapest: Oriold és Társai, 285-302.

#### \* Papers presented in conferences (by ICMDR researchers, sample)

West, M., Somer, E., & Eigsti, I. M. (June 2020) The association between autism traits and maladaptive daydreaming. Poster presented at the International Society for Autism Research 2020 Virtual Meeting.

Ross, C, Somer, E., Schimmenti, A., Sandor, A., Pietkiewicz, I. & Somer, L. (October 2019). Maladaptive Daydreaming: an Overview of a Proposed Disorder. Symposium presented at the 7th Biennial Conference of the European Society for Trauma and Dissociation, Rome, Italy.

Bershtling, O. & Somer, E. (2019, June). The micro-politics behind the discovery of a new "mental disorder": Legitimisation in the discourse of individuals suffering from maladaptive daydreaming. Paper presented at The Annual Conference of The Israeli Society for the History and Philosophy of Science. Van Leer Institute, Jerusalem, Israel.

Breshtling, O. & Somer, E. (2019, May). The micro-politics behind the discovery of a new 'mental disorder': Legitimisation in the discourse of individuals suffering from maladaptive daydreaming. Paper presented at the 47th conference of the Israeli Anthropological Society: "Anthropology and Technology", Beer Sheva, Israel.

Jopp, D.S. (2018, June). Maladaptive Daydreaming - Rêverie hors contrôle. Presentation Musée de la Main, Série de conference "La conscience sous contrôle", Lausanne, Switzerland (in French).

Breshtling, O. & Somer, E. (2018, September). The micro-politics of a new mental condition: Legitimization in the discourse of individuals with 'maladaptive daydreaming. Paper presented at Qualitative Research in Mental Health Conference, Berlin, Germany.

Somer, E. (July, 2018). Maladaptive daydreaming (Daydreaming disorder): The ontological question of a newly discovered clinical construct. Invited colloquium presented at Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.

Somer, E (2018, June). Maladaptive Daydreaming: a disorder of dissociative absorption and its relation to childhood emotional neglect. Paper presented at a round table international workshop titled "An Interdisciplinary Perspective on Trauma Research: Between Brain and Behavior", Shefayim, Israel.

Herscu, O. (2018, June). Treatment of maladaptive daydreaming: The development and assessment of an online self-help computerized intervention. Paper presented at the departmental colloquium, School of Social Work, University of Haifa, Israel (Hebrew abstract).

Somer, E. (2018, March). Pathological daydreaming: New evidence for a dissociative absorption disorder. Pre-conference workshop presented at the yearly conference of the German Speaking Society for Psychotrumatology. Dresden, Germany.

Somer, E. (2017, November) Maladaptive daydreaming: New evidence for a dissociative absorption disorder. Paper presented at the Annual Conference of the European Society for Trauma and Dissociation. Bern, Switzerland.

Somer, E. (2017, March). Maladaptive daydreaming – Evidence for a pathological form of absorption. Paper presented at the 34th annual conference of the International Society for the Study of Trauma and Dissociation. Washington, DC, USA.

Wen, H., Haliczer, L.A. & Dixon-Gordon, L.K. (2017, September). Maladaptive dreamers: The association between personality disorder symptoms and maladaptive daydreaming. Poster presented at the XV Congress of the International Society for the Study of Personality Disorders, Heidelberg, Germany.

#### \* Papers presented in conferences (by non-ICMDR researchers)

None

#### \* Non-peer reviewed publications

Escudero, M. (2020). Ensoñación inadaptada: un diagnóstico controvertido (maladaptive daydreaming: A controversial diagnosis). Retrieved on Oct. 12, 2020 from https://mepsicologo.com/blog/ensonacioninadaptada/ (in Spanish)

Witkin, M. (2019). Maladaptive daydrearning: Is it a "real thing"? The Brown University Child and Adolescent Behaviour Letter, 35(2), https://doi.org/10.1002/cbl.30353

Surdacki, M. (2018, Niepublikowany manuskrypt). Nadmierne fantazjowanie dzieci w kontradaptacyjnym fantazjowaniu: przyczyny i symptomy. Uniwersytet Medyczny we Wrocławiu (in Polish).

Surdacki, M. (2018, Unpublished translation). Children's excessive daydreaming in Maladaptive daydreaming: causes and symptoms. Wroclaw Medical University, Poland.

Sándor, A. (2017). *Examination of maladaptive daydreaming in the general population*. English abstract of a thesis submitted to the Department of Health Psychology, University of Debrecen, Hungary (in Hungarian). A presentation of data from this thesis won the 2nd national prize for outstanding research, 2017 Conference of the Scientific Student Association, Hungary. Supervisor: Dr. Judit Molnár.

ດ

Sándor, A. (2017). A maladaptív nappali álmodozás vizsgálata átlagpopulációban. Disszertáció összefoglaló, Debreceni Egyetem (in Hungarian).

### Published theses and dissertations



#### Academic Research Papers (theses)

#### \* By ICMDR students

Theodor-Katz, N. (2019). A daydream or an attention deficit? The relationship between Maladaptive Daydreaming and Attention-Deficit/ Hyperactivity disorder among individuals with Attention-Deficit/ Hyperactivity Disorder (Thesis submitted to the Faculty of Social Welfare and Health Sciences, University of Haifa, Israel) (in Hebrew - English Abstract).

Knane, H. (2018). Maladaptive daydreaming exacerbates psycho-social problems experienced by female victims of intrafamilial childhood sexual abuse. (Thesis submitted to the Faculty of Social Welfare and Health Sciences, University of Haifa, Israel) (in Hebrew - English Abstract):

Meari-Amer, S. (2018). Do family support and religiosity moderate the interconnections between maladaptive daydreaming and childhood trauma, emotional distress and social problems? (Thesis submitted to the Faculty of Social Welfare and Health Sciences, University of Haifa, Israel) (in Hebrew - English Abstract).

Sándor, A. (2017). Examination of maladaptive daydreaming in the general population (Thesis submitted to the Faculty of General Medicine, University of Debrecen, Hungaryi (in Hungarian - English abstract). A presentation of data from this thesis won the 2nd national prize for outstanding research, 2017 Conference of the Scientific Student Association, Hungary. Supervisor: Dr. Judit Molnár.

Nsairy-Simaan, Z. (2017). The relationship between childhood trauma; dissociation and maladaptive daydreaming among recovering substance use disorder patients. (Thesis submitted to the Faculty of Social Welfare and Health Sciences, University of Haifa, Israel) (in Hebrew - English Abstract).

Herscu, O. (2015). When Life Becomes a Dream: The Relationship between Maladaptive Daydreaming, Childhood Trauma, Absorption, Social Anxiety, and Addiction to Daydreaming in a non-clinical student sample. (Thesis submitted to the Faculty of Social Welfare and Health Sciences, University of Haifa, Israel) (in Hebrew - English Abstract).

#### \* By non-ICMDR students

Churchland, M. (2020). The tower, a Master's thesis in creative writing about the experience of maladaptive daydreaming. University of British Columbia, Canada. Retrieved from https://open.library.ubc.ca/collections/ubctheses/24/items/1.0394112University of British Columbia. Retrieved from https://open.library.ubc.ca/collections/ubctheses/24/items/1.0394112.

Patison, K.D. (2020). Daydreamed: A creative representation of maladaptive daydreaming (An Undergraduate Research Scholars thesis, Texas A&M University, College Station, TX, USA). Retrieved from Retrieved from https://okatrust.liber.yt.tamu.edu/handle/1969.11/88459

Huth, J. & Scramm, M. (2020). Mehr Realität? Eine qualitative Interviewstudie mit maladaptiven Tagträumenden (More reality? A qualitative interview study with maladaptive daydreamers). A Master's thesis presented to Magdeburg-Stendal University of Applied Sciences, Germany (in German).

Balestra, R. (2019). Réveries compulsives : Validation de la version francophone du Maladaptive Daydreaming Scale (MDS-F) (Maladaptive daydreaming: validation of the French version of the Maladaptive Datdreaming Scale (MDS-F). Master's thesis submitted to the Faculté des sciences sociales et politiques, Université de Lausanne, Suisse (in French), [English abstract.

Castiglia, D. (2019). Maladaptive daydreaming : traumatismes et prédisposition à la rêverie comme facteurs de risque (Maladaptive daydreaming: trauma and predisposition to daydreaming as risk factors). Thesis submitted to Université de Lausanne, Faculté des sciences sociales et politiques, Université de Lausanne, Suisse (in French). English abstract,

De La Vega, P. (2018). Maladaptive daydreaming : une histoire pour survive (Maladaptive daydreaming: A story to survive). Thesis submitted to Università de Lausanne, Faculté des sciences sociales et politiques, Université de Lausanne, Suisse (in French). <u>English abstract.</u>

Thomson, C.A. (2018). Understanding Self-Identified Use of Maladaptive Daydreaming in Relation to Developmental Trauma: An Interpretative Phenomenological Analysis of Blogs. A thesis submitted to the University of Chester, UK for the Degree of Master of Science (Psychological Trauma) in partial fulfillment of the Modular Programme in Psychological Trauma.

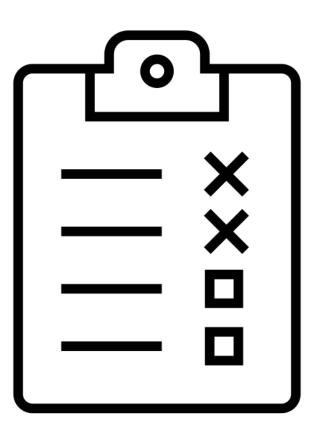
Gorana, D. (2018). The contribution of daily maladaptive daydreaming to the level of psychological distress and coping with stress of health studies students. Master's thesis submitted to the Department of Health Studies, University of Split, Croatia (in Croatian).

Yilmaz, H. (2018). The relationship between maladaptive daydreaming, attention deficit-hyperativity, psychological well-being and academic performance, An undergraduate thesis submitted to the Department of Psychology, Faculty of Humanities and Social Sciences, T.C. Maltepe University, Turkey

Cook, Mary, \*Thin Places\* (2018). English Honors Theses. 10. https://creativematter.skidmore.edu/cgi/viewcontent.cgi?article=1009&context=eng\_stu\_schol

Uslu, H. (2015). Understanding the relationship between media use and maladaptive daydreaming. A thesis submitted to the Faculty of the Graduate School of Arts and Sciences of Georgetown University, Washington, DC, USA.

## **MEASUREMENT**



### THE 16-ITEM MALADAPTIVE DAYDREAMING SCALE

#### The 16-item Maladaptive Daydreaming Scale (MDS-16) Eli Somer, Jayne Bigelsen, Jonathan Lehrfeld & Daniela Jopp

In answering the following questions, please refer to your daydreaming activities in the last month, if not otherwise specified. Choose the option that best fits your experience. For example: Some people get so caught up in their daydreaming that they forget where they are. How often do you forget where you are when you daydream? In this example, 20% is chosen.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Never										Extremely

1. Some people notice that certain music can trigger their daydreaming. To what extent does music activate your daydreaming?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Never										Very often

2. Some people feel a need to continue a daydream that was interrupted by a real world event at a later point. When a real world event has interrupted one of your daydreams, how strong was your need or urge to return to that daydream as soon as possible?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No urge at all						9		p		Extreme urge

3. How often are your current daydreams accompanied by vocal noises or facial expressions (e.g. laughing, talking or mouthing the words)?



4. If you go through a period of time when you are not able to daydream as much as usual due to real world obligations, how distressed are you by your inability to find time to daydream?



Bigelsen, J., Lehrfeld, J.M., Jopp. D.S., & Somer, E. (2016). Consciousness and Cognition, 42, 254-266.

### MD Measures

### The MDS-16 is available in 37 languages

#### The 16-item Maladaptive Daydreaming Scale (MDS-16)



## **VALIDATION OF THE MDS-16**

### Arabic

Abu-Rayya, H. M., Somer, E., & Meari-Amir, S. (2019, February 4). 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. Advance online publication. http://dx.doi.org/10.1037/cns0000183

### French

Balestra, R. (2019). Rêveries compulsives : Validation de la version francophone du Maladaptive Daydreaming Scale (MDS-F) (Maladaptive daydreaming: validation of the French version of the Maladaptive Datdreaming Scale (MDS-F). Master's thesis submitted to the Faculté des sciences sociales et politiques, Université de Lausanne, Suisse.

### English

• Somer, E., Lehrfeld J., Jopp, D.S., & Bigelsen, J. (2016). Development and Validation of the Maladaptive Daydreaming Scale (MDS). Consciousness and Cognition, 39, 77-91. DOI: http://dx.doi.org/10.1016/j.concog.2015.12.001

• Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017). Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. Psychology of Consciousness: Theory, Research, and Practice, 4(2), 176-189. DOI: http://dx.doi.org/10.1037/cns0000114

### Hebrew

Jopp, D. S., Dupuis, M., Somer, E., Hagani, N., & Herscu, O. (2018). 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, Advance online publication

Psychology of Consciousness: Theory, Research, and Practice. Advance online publication.

http://dx.doi.org/10.1037/cns0000162

### Hungarian

Sándor, A., Münnich, Á., & Molnár, J. (2020). Psychometric properties of the Maladaptive Daydreaming Scale in a sample of Hungarian daydreaming-prone individuals, Journal of Behavioral Addictions

JBA. Retrieved Oct 7, 2020, from

https://akjournals.com/view/journals/2006/aop/article-10.1556-2006.2020.00050/article-10.1556-2006.2020.00050.xml

### Italian

Schimmenti, A. Sideli, L. La Marca, L., Gori, A. & Terrone, G. (2019): Reliability, Validity, and Factor Structure of the Maladaptive Daydreaming Scale (MDS–16) in an Italian Sample, Journal of Personality Assessment. Published online: 23 Apr 2019. Doi: https://doi.org/10.1080/00223891.2019.1594240

## **MDS-16 ACROSS CULTURES**

The urge to be absorbed in and the fantasies' comforting and addictive properties may have different meanings across countries, but the interference of MD to one's daily life and its obstruction of long-term goals may be the central defining factor of MD with equivalence found in American, British, Italian and Turkish samples.

Soffer-Dudek, N., Somer, E., Abu-Rayya, H. M., Metin, B., & Schimmenti, A. (2020). Different cultures, similar daydream addiction? An examination of the cross-cultural measurement equivalence of the Maladaptive Daydreaming Scale, Journal of Behavioral Addictions JBA. Retrieved Nov 7, 2020, from <a href="https://akjournals.com/view/journals/2006/aop/article-10.1556-2006.2020.00080/article-10.1556-2006.2020.00080.xml">https://akjournals.com/view/journals/2006/aop/article-10.1556-2006.2020.00080/article-10.1556-2006.2020.00080.xml</a>

## **SUGGESTED DIAGNOSTIC CRITERIA**

SOMER, SOFFER-DUDEK, ROSS, AND HALPERN

Table 1

Proposed Diagnostic Criteria for Daydreaming Disorder (Maladaptive Daydreaming)

Criteria	Description
Α.	Persistent and recurrent fantasy activity that is vivid and fanciful, as indicated by the individual exhibiting two (or more) of the following in a 6-month period; at least one of these should be Criterion 1
1	While daydreaming, experiences an intense sense of absorption/immersion that includes visual, auditory, or affective properties
2 3	Daydreaming is triggered, maintained, or enhanced with exposure to music
3	Daydreaming is triggered, maintained, or enhanced with exposure to stereotypical movement (e.g., pacing, rocking, hand movements)
4	Often daydreams when feels distressed or bored
4 5	Daydreaming length or intensity intensifies in the absence of others (e.g., daydreams more when alone)
6	Is annoyed when unable to daydream or when daydreaming is interrupted or curbed
7 8	Would rather daydream than engage in daily chores, social, academic, or professional activities
8	Has made repeated unsuccessful efforts to control, cut back, or stop daydreaming
В.	The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
C.	The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., dementia) and is not better explained by autism spectrum disorders, attention-deficit/hyperactivity disorder, schizophrenia spectrum disorders, bipolar I disorder, obsessive-compulsive and related disorders, dissociative identity disorder, substance-related and addictive disorders, an organic disorder, or a medical condition

Note. Current severity defined as follows: Mild = experiences mainly distress, no obvious functional impairment; moderate = one area of functioning is affected (e.g., work); severe = more than area of functioning is affected (e.g., work, school or social life).

Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017).

Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. *Psychology of Consciousness: Theory, Research, and Practice, 4*(2), 176-189

<sup>180</sup> 

### STRUCTURED CLINICAL INTERVIEW FOR MALADAPTIVE DAYDREAMING (SCIMD)

### Interrater Agreement for Maladaptive Daydreaming

In the DSM-5 field trials (Regier et al., 2013), Cohen's kappa values were generated for 15 adult diagnoses and eight child and adolescent diagnoses: Five had kappa values of .60-.79, nine had values of .40-.59; six had values of .20-.39, and three had values of less than .20. These field trials yielded kappa values of .28 for major depressive episode and .46 for schizophrenia. Cohen's kappa for MD in the present study were .63-.84. Based on the standards adopted for the DSM-5 field trials (Regier et al., 2013), the SCIMD can diagnose MD with very good reliability. Similarly, we found that the self-report measure for MD, the MDS-16 succeeded in differentiating individuals with MD from controls with excellent sensitivity and specificity, with the optimal cutoff score for the MDS-16 equal to 50.

Somer, E., Soffer-Dudek, N., Ross, C. A., & Halpern, N. (2017). Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. *Psychology of Consciousness: Theory, Research, and Practice, 4*(2), 176-189

## **MD MEASURES UNDER DEVELOPMENT**

Child Maladaptive Daydreaming Checklist (CMDC)

Childhood Maladaptive Daydreaming Scale (C-MDS)

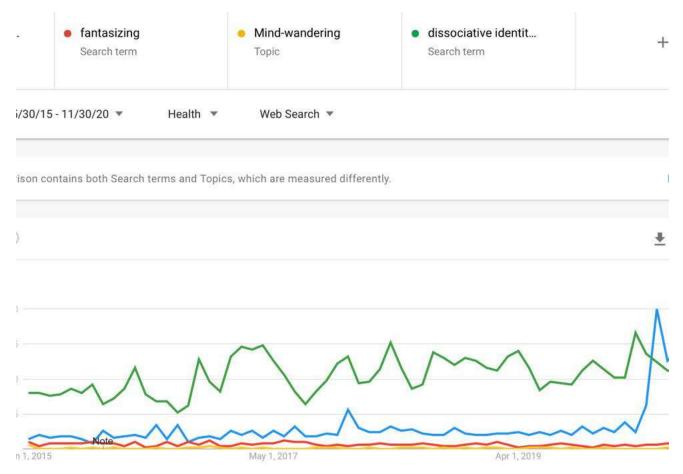
Immersive Daydreaming Content Checklist (IDCC)

Daydreaming Contents and Functions Checklist (DCFC)

#### <u>Reference</u>

Somer, E., Abu-Rayya, H.M., & Brenner, R. (2020): Childhood trauma and maladaptive daydreaming: fantasy functions and themes In a multi-country sample, *Journal of Trauma & Dissociation*, DOI: 10.1080/15299732.2020.1809599

### COMPARISON OF GOOGLE SEARCH TRENDS: MALADAPTIVE DAYDREAMING, FANTASIZING, MIND WANDERING, AND DID 2018-2020





## **RELATED CONSTRUCTS**

### The ontology of maladaptive daydreaming

## FANTASY-PRONE PERSONALITY

- The closest construct
- Well adjusted individuals
- Tend to live in a world of imagery, imagination, and fantasy, hypnotizable, encouraged to fantasize as a child, mystical/paranormal experiences, believe they have healing powers, measured with the *Inventory of Childhood Imaginings* (Wilson & Barber, 1981, p. 31).
- Up to 6% of the population (Rauscenberger & Lynn, 1995)
- We used the *Inventory of Childhood Imaginings* as external validation criterion for our Maladaptive daydreaming (MD) measure.

## **MIND WANDERING**

- Mentation decoupled from external tasks and immediate sensory perceptions (Stawarczyk *et al*, 2011).
- A ubiquitous psychological baseline from which people venture when attention is demanded and which they come back to when tasks require no more mindful management (Smallwood & Schooler, 2006).
- The motley of reminiscence; brief reflection; and anticipation of future moments likely to occur whenever interesting elements in the external world pale.
- An attentional failure (Stawarczyk *et al,* 2014), or periodic breakdown of attentional control (McVay and Kane, 2010)
- Autobiographical memory (Smallwood, 2013); the simulation of plausible alternatives (Gilbert and Wilson, 2007); planning for the future (Stawarczyk *et al*, 2011b), and enhancements in creative process (Baird *et al* 2012).

## THE ONTOLOGICAL QUANDARY?

### How is MD related to Mind wandering?

Mind-wandering (sometimes referred to as task-negative network) is the experience of thoughts not remaining on a single topic for a long period of time. The default mode network is thought to be involved in mind-wandering and internally directed thought.

However, is MD task-negative?

Paul Seli and colleagues have shown that spontaneous mind-wandering is associated with increased fidgeting; by contrast, interest, attention and visual engagement lead to Non-Instrumental Movement Inhibition.

MD, characterized by interest, attention and internal visual engagement - is associated with purposeful stereotypical movement and is not task-negative

## **THE ONTOLOGICAL QUANDARY?**

### How is MD related to Mind wandering? Here is a recent email:

To: eli.somer@me.com

Today at 2:56 AM

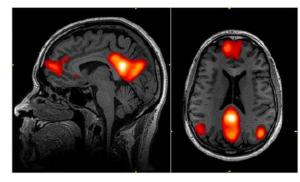


Dear Professor Somer,

I am writing to you as you are the authority in the research field of maladaptive daydreaming. I have read a number of your articles as well as the forums of wild minds network. I will try be concise about this. I have suffered from MD since age 2 and in many aspects my story is similar to many others. I have been struggling all my life with a variety of conditions ranging from OCD to reward deficiency type symptoms and its not allowing me to live a normal life despite me having been able to obtain a degree , masters along with other achievements. I have seen countless professionals about my problems and my diagnosis is still blurry. I strongly believe MD is central to every issue i am struggling with however none of the professional had knowledge of it or took it into account seriously, which is why I am looking to ask you. Reading the Wild Minds forum many people share a number of problems that i also have however I did not find anyone mentioning anything related to the particular issue that i have Everyone seems to be concerned that they can't stop daydreaming and how many hours it takes up, i also experience the craving and the compulsion however i find that MD requires a huge amount if mental energy which I dont have. As I feel a compulsion to daydreaming I feel that I am missing the fuel for it and i immediately have some sort of dysphoric crash with extreme irritability apathy and anhedonia. I began smoking a number of years ago and I came around to realising that was a way for me to provide that fuel. I was also on SSRis for years which did reduce the daydreaming to 0 by depleting all my energy. The compulsion wad still there but the energy was so low it couldn't start off, that came with advantages but at the same time i was living in a permanent blunt and anhedonic state in which i could barely function. I believe my daydreaming is an attempt to self stimulate an underaroused mind, and it has both to do with dopamine and serotonin in some way and I am just looking for a solution or any kind of advice or guidance. Sorry for the long message but its far from a simple issue as i am sure you know

## **DEFAULT MODE NETWORK**

• Thought sampling and brain imaging procedures have demonstrated that mind wandering is associated with activity in cortical regions called default network (or default mode network, DMN) that are active when the brain is "at rest." (Raichle, MacLeod, Snyder, Powers, Gusnard, et al., 2001).



Functional magnetic resonance (FMRI) image showing activity in the DMN

- Remembering the past, visualizing future events, and considering the viewpoints of other people also trigger DMN activity (Buckner & Carroll, 2007).
- Volitional forms of fanciful daydreaming <u>might not</u> be as associated with DMN activation as mind wandering

# THE ONTOLOGICAL QUANDARY?

### How is MD related to Default Mode Network?

The default mode network is most commonly shown to be active when a person is not focused on the outside world and the brain is at wakeful rest, such as during daydreaming and mind-wandering.

The DMN has been shown to be negatively correlated with other networks in the brain such as attention networks.

However, MD requires active, purposeful mental activity.

# **SLUGGISH COGNITIVE TEMPO**

Two symptom dimensions:

1. Daydreaming - typical to off-task mentation such as, staring, appearing spacey, mind is elsewhere/daydreaming, being lost in thoughts

and also

1. A distinctive set of symptoms associated with sluggishness that include physical and mental lethargy, slowness in completing tasks, trouble staying awake/alert, drowsy/sleepy appearance, impaired initiative and cognitive dysfunction such as feeling mentally foggy/easily confused, or difficulty in accurately processing questions or explanations (Barkley, 2013; Garner, Marceaux, Mrug, Patterson, & Hodgens, 2010).

# THE ONTOLOGICAL QUANDARY?

### How is MD related to Sluggish cognitive tempo (SCT)?

SCT is the term for a syndrome that may comprise a novel and distinct attention disorder from ADHD. Symptoms of it include dreaminess, mental fogginess, hypoactivity, sluggishness, staring frequently, inconsistent alertness and a slow working speed.

Unlike SCT, MD does not involve physical or mental lethargy.

## STEREOTYPICAL MOVEMENT DISORDER (SMD)

- Based on MDers' testimonials about their early, seemingly innate, abilities to fantasize vividly, we posit that the capacity for intense engrossment in fantasy with a powerful sense of presence is a predisposing trait necessary for the development of MD.
- MD precursors may have been hidden in plain sight
- The DSM-5 (American Psychiatric Association, 2013) describes stereotypic movement disorder (SMD) as a motor disorder with onset in childhood involving repetitive, nonfunctional motor behavior (e.g., hand waving or head banging), that markedly interferes with normal activities.
- Children (but not their parents) liked their movements, which were usually associated with excitement or imaginative play (Freeman, Soltanifar & Baer, 2010).

### Stereotypic movement disorder: easily missed

#### ROGER D FREEMAN<sup>1</sup> | ATEFEH SOLTANIFAR<sup>2</sup> | SUSAN BAER<sup>3</sup>

1 Departments of Psychiatry and Pediatrics, University of British Columbia, Vancouver, British Columbia, Canada. 2 Department of Psychiatry, Mashhad University of Medical Sciences, Iran. 3 Department of Psychiatry, University of British Columbia, Vancouver, British Columbia, Canada.

Correspondence to Dr Roger Freeman, Neuropsychiatry Clinic, Box 141, BC Children's Hospital, Vancouver, BC V6H 3N1, Canada. E-mail rfreeman@cw.bc.ca.

#### **PUBLICATION DATA**

Accepted for publication 23rd December 2009. Published online 24th February 2010.

#### LIST OF ABBREVIATIONS

- ASD Autistic spectrum disorder
- DCD Developmental coordination disorder
- OCB Obsessive-compulsive behavior
- OCD Obsessive-compulsive disorder
- SMD Stereotypic movement disorder

**AIM** To expand the understanding of stereotypic movement disorder (SMD) and its differentiation from tics and autistic stereotypies.

**METHOD** Forty-two children (31 males, mean age 6y 3mo, SD 2y 8mo; 11 females, mean age 6y 7mo, SD 1y 9mo) consecutively diagnosed with SMD, without-self-injurious behavior, intellectual disability, sensory impairment, or an autistic spectrum disorder (ASD), were assessed in a neuropsychiatry clinic. A list of probe questions on the nature of the stereotypy was administered to parents (and to children if developmentally ready). Questionnaires administered included the Stereotypy Severity Scale, Short Sensory Profile, Strengths and Difficulties Questionnaire, Repetitive Behavior Scale – Revised, and the Developmental Coordination Disorder Questionnaire. The stereotyped movement patterns were directly observed and in some cases further documented by video recordings made by parents. The probe questions were used again on follow-up at a mean age of 10 years 7 months (SD 4y 4mo).

**RESULTS** Mean age at onset was 17 months. Males exceeded females by 3:1. Family history of a pattern of SMD was reported in 13 and neuropsychiatric comorbidity in 30 (attention-deficit-hyperactivity disorder in 16, tics in 18, and developmental coordination disorder in 16). Obsessive-compulsive disorder occurred in only two. The Short Sensory Profile correlated with comorbidity (p<0.001), the Stereotypy Severity Scale (p=0.009), and the Repetitive Behavior Scale (p<0.001); the last correlated with the Stereotypy Severity Scale (p=0.001). Children (but not their parents) liked their movements, which were usually associated with excitement or imaginative play. Mean

length of follow-up was 4 years 8 months (SD 2y 10mo). Of the 39 children followed for longer than 6 months, the behavior stopped or was gradually shaped so as to occur primarily privately in 25. Misdiagnosis was common: 26 were initially referred as tics, 10 as ASD, five as compulsions, and one as epilepsy. Co-occurring facial grimacing in 15 children and vocalization in 22 contributed to diagnostic confusion.

**INTERPRETATION** SMD occurs in children without ASD or intellectual disability. The generally favorable clinical course is largely due to a gradual increase in private expression of the movements. Severity of the stereotypy is associated with sensory differences and psychopathology. Differentiation of SMD from tics and ASD is important to avoid misdiagnosis and unnecessary treatment.

# **INTENSE IMAGERY MOVEMENTS (IIM)**

- An apparently identical syndrome to SMD, termed intense imagery movements (IIM,) described episodes of stereotyped paroxysmal complex movements in the context of intense enjoyable daydreaming typically featuring themes inspired by computer games, cartoons or movies (Robinson, Woods, Cardona, Baglioni & Hedderly, 2014).
- IIM seemed to interfere with daily functioning and wellbeing.

#### ORIGINAL ARTICLE

### Intense imagery movements: a common and distinct paediatric subgroup of motor stereotypies

SALLY ROBINSON<sup>1</sup> | MARTIN WOODS<sup>1</sup> | FRANCESCO CARDONA<sup>2</sup> | VALENTINA BAGLIONI<sup>2</sup> | TAMMY HEDDERLY<sup>1</sup>

1 Tic and Neurodevelopmental Movements (TANDeM), Children's Neurosciences Centre, Evelina London Children's Hospital, Guy's and St Thomas' NHS Foundation Trust, London, UK; 2 Department of Paediatrics and Child Neuropsychiatry, University La Sapienza of Rome, Rome, Italy.

Correspondence to Tammy Hedderly at, TANDeM, Children's Neurosciences Centre, St Thomas' Hospital, Westminster Bridge Road, London, SE1 7EH, UK. E-mail: tammy hedderly@gstt.hbs.uk

This article is commented on by Freeman. To view this paper visit http://dx.doi.org/10.1111/dmcn.12538.

#### PUBLICATION DATA

Accepted for publication 24th April 2014. Published online

#### ABBREVIATIONS

ASD Autism spectrum disorder IIM Intense imagery movements OCB Obsessive-compulsive behaviour AIM The aim of this article is to describe a subgroup of children who presented with stereotyped movements in the context of episodes of intense imagery. This is of relevance to current discussions regarding the clinical usefulness of diagnosing motor stereotypies during development.

METHOD The sample consisted of 10 children (nine males, one female; mean age 8y 6mo [SD 2y 5mo], range 6–15y). Referrals were from acute paediatricians, neurologists, and tertiary epilepsy services. Children were assessed by multidisciplinary teams with expertise in paediatric movement disorders.

**RESULTS** Stereotypies presented as paroxysmal complex movements involving upper and lower limbs. Imagery themes typically included computer games (60%), cartoons/films (40%), and fantasy scenes (30%). Comorbid developmental difficulties were reported for 80% of children. Brain imaging and electrophysiological investigations had been conducted for 50% of the children before referral to the clinic.

**INTERPRETATION** The descriptive term 'intense imagery movements' (IIM) was applied if (after interview) the children reported engaging in acts of imagery while performing stereotyped movements. We believe these children may form a common and discrete stereotypy subgroup, with the concept of IIM being clinically useful to ensure the accurate diagnosis and clinical management of this paediatric movement disorder.

Movement disorders are typically classified by clinical descriptions of physical signs, with the term stereotypy referring to a wide range of movements, behaviours and/or vocalizations that are repetitive, seemingly driven, and lack clear function (for review see Barry et al.<sup>4</sup> or Goldman et al.<sup>2</sup>). There are on-going discussions regarding the clini-

with expensive and intrusive tests such as brain magnetic resonance imaging (MRI) and electroencephalography (EEG) including video telemetry, but the phenomena can be identified with careful history taking and specific questioning of the child. This phenomena has not yet been reported in the literature, however, we believe this movement disorEUROPEAN JOURNAL OF PAEDIATRIC NEUROLOGY XXX (2015) 1-8



**Original article** 

### Intense Imagery Movements (IIM): More to motor stereotypies than meets the eye

### Sally Robinson <sup>a,\*</sup>, Martin Woods <sup>a</sup>, Francesco Cardona <sup>b</sup>, Tammy Hedderly <sup>a</sup>

<sup>a</sup> Tic and Neurodevelopmental Movements (TANDeM), Children's Neurosciences Centre, Evelina London Children's Hospital, Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom
<sup>b</sup> Department of Pediatrics and Child Neuropsychiatry, University La Sapienza of Rome, Rome, Italy

#### ARTICLE INFO

Article history: Received 21 August 2015 Received in revised form 9 October 2015 Accepted 12 October 2015

Keywords: Tics Stereotypic movement disorder Daydreaming Imagination Fatasizing

#### ABSTRACT

Aim: A subgroup of children who present with motor stereotypies in the context of episodes of intense imagery have recently been described in the literature,<sup>1</sup> termed Intense Imagery Movements (IIM). All children report conscious engagement in acts of imagery or imagination, with stereotyped movements occurring simultaneously with limited conscious awareness. This article reports preliminary cognitive data to inform clinical management and guide future research.

Method: Intellectual functioning was assessed for ten children with IIM (7 boys, 3 girls; mean age = 10,01, age range = 6,06 to 14,09). In-depth neuropsychological assessments were conducted for four of these cases (3 boys, 1 girls; mean age = 9,05), with standardised questionnaires completed to assess mood, behaviour, attention/concentration, sensory functioning, motor functioning and stereotyped movements.

Results: All children exhibited discrepant intellectual profiles, especially on perceptual reasoning tasks, with significant impairments in processing speed. In-depth neuropsychological assessments indicated impaired performance on tests of attention and inhibition, but strengths in memory or oral expression. Three of the four children had sensory processing impairments, two had features of developmental co-ordination disorder and one had poor general well-being. None of the children had emotional or behavioural problems.

Interpretation: Children with IIM exhibit uneven intellectual and cognitive profiles, with particular discrepancies in perceptual reasoning skills. The case studies suggest that weaker attention, inhibition and processing speed skills may contribute to engagement in IIM, with good memory and/or language skills potentially contributing to the complexity of imagery abilities. Implications for the identification and management of these children in clinical practice, and future research ideas, are discussed.

© 2015 European Paediatric Neurology Society. Published by Elsevier Ltd. All rights reserved.

## **SMD/IIM**

SMD is a motor disorder with onset in childhood involving repetitive, nonfunctional motor behavior



This boy reports he is daydreaming while moving

# THE ONTOLOGICAL QUANDARY?

# How is MD related to Stereotypical movement disorder (SMD) or Intense Imagery Movements (IIM)?

SMD and IIM are considered motor disorders with onset in childhood involving repetitive, nonfunctional motor behavior (e.g., hand waving or head banging), that markedly interferes with normal activities or results in bodily injury and that is associated in some children with fantasy activity.

Could IIM be one etiological pathway leading to MD? Is IIM be a subtype of SMD? Is IIM a precursor of MD?

## **IMAGINARY FRIENDS**

Imaginary friends (also known as pretend friends or invisible friends) are a psychological and social phenomenon where a friendship or other interpersonal relationship takes place in the imagination rather than external physical reality. Although they may seem very real to their creators, children usually understand that their imaginary friends are not real.

# PARACOSMS



WIKIPEDIA The Free Encyclopedia

Main page Contents Featured content Current events Random article Donate to Wikipedia Wikipedia store

Interaction

Help About Wikipedia Community portal



INULIUL

### Paracosm

From Wikipedia, the free encyclopedia

This article is about imagination. For the album by Washed Out, see Paracosm (album).

A **paracosm** is a detailed imaginary world. Paracosms are thought generally to originate in childhood and to have one or numerous creators. The creator of a paracosm has a complex and deeply felt relationship with this subjective universe, which may incorporate real-world or imaginary characters and conventions. Commonly having its own geography, history, and language, it is an experience that is often developed during childhood and continues over a long period of time, months or even years, as a sophisticated reality that can last into adulthood <sup>[1]</sup>

### **ATTENTION DEFICIT/HYPERACTIVITY DISORDER**

### Inattentiveness

\* having a short attention span and being easily distracted

- \* making careless mistakes
- \* appearing forgetful or losing things
- \* being unable to stick to tasks that are tedious or timeconsuming
- \* appearing to be unable to listen to or carry out instructions
- \* constantly changing activity or task
- \* having difficulty organising tasks

## **OBSESSIVE COMPULSIVE DISORDER (OCD)**

OCD is a mental disorder in which a person feels the need to perform certain routines repeatedly (called "compulsions") or has certain thoughts repeatedly (called "obsessions"). The person is unable to control either the thoughts or activities for more than a short period of time.

### IS MD AN OCD-SPECTRUM DISORDER?

- Many MDers describe a need to repeat their fantasy, some explain it as a need to perfect it.
- We found that daily increases in MD were strongly related to concurrent increases in several psychiatric symptoms and negative emotion, and to decreased positive emotion. Obsessivecompulsive symptoms, dissociation, and negative emotion also temporally followed MD. Obsessive-compulsive symptoms were the only consistent temporal antecedent of MD.
- MD and obsessive-compulsive symptoms coincided in what seems to be a vicious cycle; understanding possible shared mechanisms between these symptoms may inform our understanding of the etiology of MD. For example, Serotonin levels may possibly be involved in the development or maintenance of this condition.

Soffer-Dudek N and Somer E (2018)

Trapped in a Daydream: Daily Elevations in Maladaptive Daydreaming Are Associated With Daily Psychopathological Symptoms. Front. Psychiatry 9:194. doi: 10.3389/fpsyt.2018.00194

# OCD WAS ALSO IMPLICATED IN THE ONLY MEDS (CASE) STUDY ON MD



Contents lists available at ScienceDirect

**Consciousness and Cognition** 

journal homepage: www.elsevier.com/locate/concog

Short Communication

Excessive daydreaming: A case history and discussion of mind wandering and high fantasy proneness

Cynthia Schupak\*, Jesse Rosenthal

Beth Israel Medical Center, Biological Psychiatry, New York, NY 10003, USA

"This case study described a patient presenting with a long history of excessive daydreaming which has caused her distress but is not incident to any other apparent clinical psychiatric disorders. We have treated this patient for over 10 years, and she has responded favorably to fluvoxamine therapy, stating that it helps to control her daydreaming."

## **A SIDENOTE ON MD AND MEDICATION**

Abstract: Maladaptive daydreaming is a proposed disorder characterized by excessive daydreaming that causes subjective distress and/or interferes with function. The daydreaming involves complex inner worlds, characters, and plots that are understood by the person as fantasy, and the daydreaming may occupy many hours per day. The disorder has good reliability and validity in studies using a structured interview and a self-report measure developed for it. To date, no information on the responses of maladaptive daydreamers to either recreational or prescription drugs has been available. The authors obtained survey data from 202 participants who completed the Maladaptive Daydreaming Scale-16. The results indicated that this population has tried many different recreational drugs and has been prescribed many different psychotropic medications. Most of the participants reported little to no effect of drugs or medications on daydreaming, although tentative recommendations can be made in favor of prescribing antidepressants and against the use of marijuana for individuals with maladaptive daydreaming.

Ross, C.A., West, M., & Somer, E. (2019). Self-Reported Medication And Recreational Drug Effectiveness In Maladaptive Daydreaming. Journal of Nervous and Mental Disease, 208(1), 77-80. DOI: 10.1097/NMD.0000000000001091

### MANY SUFFERERS DESCRIBE MD AS A BEHAVIORAL ADDICTION

Example: from an MDer blog



### Maladaptive Daydreaming: An Addiction Of The Mind

The addiction to extreme fantasizing is just as real as any alcohol, drug, or technology addiction, and may help us understand addiction better as a whole.

The average person spends approximately half of their waking hours daydreaming -and in some cases, it goes much farther than that. In 2002, Eli Somer, an Israeli professor, published a paper on a psychological phenomenon he dubbed "Maladaptive Daydreaming" (MD).

#### What is Maladaptive Daydreaming?

Maladaptive Daydreaming is a condition in which an individual is addicted to daydreaming or extreme fantasizing; so much so that the habit distracts the afflicted from their real-life, sometimes causing them trouble in carrying out daily tasks.



📩 At Purdue University

#### **Popular Right Now**



44 Lyrics For When You Need Instagram Caption

# **MD-OCD TESTIMONY**





## **DISSOCIATIVE IDENTITY DISORDER (DID)**

DID is characterized by at least two distinct and relatively enduring personality states. This is accompanied by memory gaps, beyond what would be explained by ordinary forgetfulness.

## **Distancing from painful childhood adversities**

"I grew up with some physical but mostly emotional abusive people. I was always the scapegoat ...there were fights between the parents and they would blame their problems on me... screaming on the top of their lungs at me for hours and hours every night." (MN)

"When I was younger my mother who had many problems, left me alone and rarely engaged with me. I was left in the care of baby-sitters who neglected and abused me." (JK).

## Fantasized alternative family

"My imagined perfect family is a lot different from my family in reality. It's like actually having a family life...of how I want it to be, setting up this perfect little world inside my head. Over time it changed: I am married, I have like 11 children, 12 grandkids, I live a very comfortable life with my family, we all go on holidays, everything is just really good." (BC)

"I would daydream about family, mainly a brother and a sister about 17 years of age, very beautiful and successful and they were each other's' best friends and felt deep love for each other, something I never had in reality." (FG)

Somer, E., Somer, L. & Jopp, D.S. (2016a). Parallel lives: A phenomenological study of people struggling with maladaptive daydreaming. *Journal of Trauma and Dissociation.* DOI:10.1080/15299732.2016.1160463

## Childhood emotional sustenance

*"It has served its purpose in getting me through my childhood"* (JK)

*"I hated every aspect of my life and needed to get as far away from that as possible. As a teenager, I started daydreaming about my life, I imagined myself having a different life..."* (NO).

Somer, E., Somer, L. & Jopp, D.S. (In press). Childhood antecedents and maintaining factors in maladaptive daydreaming. *Journal of Mental and Nervous Disease.* 

# AN ILLUSTRATIVE RECENT POST AND EMAIL



published any of them. I am in my

× Q

0

Hello Dr. Somer! My name is **1 and** I'm **2** and from **Parenta**, **264**. First off, I want to thank you for bringing maladaptive daydreaming into at least a small part of the public eye. I assumed I couldn't be alone in my tendencies, but until stumbling upon the term, I had never met or heard of anyone else who would actually pace in circles for over an hour and daydream. It's compulsory, and everyone I tried to explain it to just didn't understand, so I just tried to hide it from as many people as possible to try and remain normal in the public eye.

That being said, my family and I have never been able to afford any kind of therapy. I haven't been officially diagnosed with anything, although for my entire life I struggled with what I believe to be depression, anxiety, and loneliness. I had few friends if any growing up (and even today), so I turned to daydreaming to fill the gap. Approaching people in person or on the phone, even for things as simple as ordering food causes me an unreasonable amount of anxiety. I feel like this might be a result of refusing social interaction as a child in favor of daydreaming. I am convinced that I developed MD as a coping mechanism. I feel like I function outside of my mind at the minimum to achieve my goals. (I'm a nursing student and doing well enough in school, but in a class of 74 two semesters in I have yet to make a friend. I sit in the back and I struggle to pay attention during lectures after about an hour and begin to daydream. When others are socializing, I'm distracting myself from my social shortcomings. I don't even know how to bridge the gap from acquaintance to friend.)

I would love for my experiences to be turned into constructive research! Your research makes me feel represented, and I want to contribute because of that. Even if my perspective isn't needed, I wanted to thank you, sincerely, for your work. I love psychology and I feel like you contributed to a step in self understanding of myself. Thank you!

58

### **Compensatory fantasies of success**

"Most of the time my daydreams have a good ending for me, often I become rich. I'll dream that I'm getting some power like a payback to everybody who told me that I would be an unsuccessful person...I stand tall and say: I did it, I got what I wanted in life. Mom should be proud." (RS)

"I love to picture myself as a musician of some sorts, with awesome musician friends. People I know suddenly realize that I am an awesome musician, that I went on tour when I was younger and no one knew this secret and then all of a sudden they find out and they also suddenly realize that I am also gorgeous and that I have a sense of humor...I get addicted to that because I can't replicate that in real life" (UV)

Somer, E., Somer, L. & Jopp, D.S. (2016a). Parallel lives: A phenomenological study of people struggling with maladaptive daydreaming. *Journal of Trauma and Dissociation.* DOI:10.1080/15299732.2016.1160463

## **TO WHAT EXTENT IS MD DISSOCIATIVE?**

1	(1)	(2)	(3)	(4)	(15)	(16)	(17)	(18)
1, MDS Total	1.0							
2. MDS Behavioral Qualities	.88	1.0						
3. MDS Affective Qualities	.96	.80	1.0					
4. MDS Impaired Functioning	.92	.70	.81	1.0				
15, DES Total	.55	.50	.55	.46	1.0			
16, DES Absorption	.62	.57	.62	.52	.95	1.0		
17. DES Amnesia	.24	.21	.26	.20	.71	.57	1.0	
18. DES Depersonalization	.38	.34	.39	.32	.81	.67	.49	1.0

Performance of diagnosed MDers (n = 335) and non-MDers (n = 117) on the DES

Scale	MDer		Non-MDer		Independent-Samples t-Tests			
	М	SD	М	SD	t	df	р	d
DES Total	29.90	17.25	10.33	10.92	14.14	317.92	<.001	1.23
Absorption	45.80	21.80	16.11	15.11	16.13	288.74	<.001	1.46
Amnesia	9.83	13.82	3.02	7.81	6.50	355.60	<.001	0.54
Depersonalization	1.98	2.25	0.46	1.10	9.50	400.96	<.001	0.75
Other	2.13	1.77	0.86	1.10	9.05	324.47	<.001	0.78

As expected, MD is more similar to intense absorption (showing the highest DES sub-scale effect size) than to the DES factors of amnesia or depersonalization, the latter being dissociative experiences that are more related to pathological dissociation.

### For Cohen's *d* an effect size 0.8 to infinity is a "large" effect

## **TO WHAT EXTENT IS MD DISSOCIATIVE?**

# **Distancing from a painful <u>present</u>**

#### Table 1

Tabled summary of major commonalities and other correlates of compulsive fantasizing as reported by enrolled study participants.

Age of onset of fantasizing	Age-of-onset of fantasizing; modal ranges reported: age 2-3; age 6-7; and age 11-12					
Proportion of daily time spent fantasizing	12.5–99% ( $m = 56\%$ ) – representing averages reported due to high day-to-day variability; These proportions do not include time spent in other types of off-task thought					
Distress and/or Impairment due to fantasy	88% of participants report distress and/or impairment due to fantasizing					
Trauma and/or abuse present in history	27% of participants report early trauma and/or abuse: sexual, physical, verbal, or emotional					
Sought consultation/therapy	23% of participants report seeking consultation or therapy for fantasizing					
Kinesthetic elements	79% of participants report some kinesthetic elements to be present during fantasizing					
Social behavior and interactions	(24%) of participants report problems in social functioning: avoidance or social phobia					
Secrecy	82% keep fantasy hidden from most everyone					
Reality testing	98% of participants state that they do not confuse fantasy and reality					
Creativity	71% of participants perceive themselves as creative/artistic					

Bigelsen, J., & Schupak, C. (2011). Compulsive fantasy: Proposed evidence of an under-reported syndrome through a systematic study of 90 self-identified non-normative fantasizers. *Consciousness and Cognition: An International Journal, 20*(4), 1634-1648.

# **SO, LIKE DISSOCIATIVE DISORDERS, MD PRODUCES ONLY** LIMITED RELIEF **(ON THE SHORT RUN)** AND **IS ACTUALLY DETRIMENTAL TO** MENTAL HEALTH (ON THE LONG RUN)



Here is some evidence for that

Eli Somer (c) somer@research.haifa.ac.il

### Heightened Levels of Maladaptive Daydreaming Are Associated With COVID-19 Lockdown, Preexisting Psychiatric Diagnoses, and Intensified Psychological Dysfunctions: A Multi-country Study

📓 Eli Somer<sup>1\*</sup>, 🔄 Hisham M. Abu-Rayya<sup>1,2</sup>, 🙀 Adriano Schimmenti<sup>3</sup>, 🔄 Bariş Metin<sup>4</sup>, 🚰 Reut Brenner<sup>1</sup>, 🋐 Erika Ferrante<sup>3</sup>, 🔄 Buse Göçmen<sup>4</sup> and 🥦 Alessia Marino<sup>3</sup>

<sup>1</sup>School of Social Work, University of Haifa, Haifa, Israel
 <sup>2</sup>School of Psychology and Public Health, La Trobe University, Melbourne, VIC, Australia
 <sup>3</sup>Faculty of Human and Social Sciences, Kore University of Enna, Enna, Italy
 <sup>4</sup>Psychology Department, Üsküdar University, Istanbul, Turkey

The COVID-19 pandemic has been spreading globally since December 2019, bringing with it anxieties, mortal risk, and agonizing psychological suffering. This study aimed to explore the relationship between maladaptive daydreaming (MD)-an addictive mental behavior to vivid fantasy associated with distress and functional impairment-and forced COVID-19 pandemic-related self-isolation and quarantine. Previous literature indicated that individuals employ MD for the regulation of distress and boredom, wish fulfillment, and entertainment experiences. The literature on the impact of the COVID-19 pandemic on mental health identifies a flareup in psychological difficulties in the general population. In this study we explored the associations between the pandemic threat and mental health indices among individuals with MD. We surveyed 1,565 adults from over 70 countries who responded to calls for participants posted in online MD communities and other general social media sites. Probable MD was determined based on an empirically derived cut-off score on a pertinent measure. After controlling for sociodemographic variables, a series of MANCOVAs, followed by post-hoc ANCOVAs, revealed that individuals with probable MD who were observing lockdown restrictions reported having spent more time in fantasy, experienced more intense and vivid daydreaming, and had a stronger urge to daydream than other participants. Similar statistical procedures indicated that, individuals with probable MD who reported pre-existing anxiety and depression disorders described a greater urge to daydream due to the pandemic and greater difficulty to control this addictive behavior. Compared to individuals with likely normal daydreaming, individuals with suspected MD reported more pandemic-attributed deterioration on a wide array of psychological distress indices. Our data show that the current worldwide pandemic threat is connected with an elevated intensity of this addictive form of mental activity, and that MD is associated with the exacerbation of psychological distress and dysfunction rather than with beneficial regulation of the experienced stressor.

### **MD DURING COVID LOCKDOWN**

Somer, E., Abu-Rayya, H.M., Schimmenti, A., Metin, B., Brenner, R. Ferrante, E., Göçmen, B., and Marino, A. (2020). Intensified maladaptive daydreaming is associated with COVID-19 social distancing, pre-existing psychiatric diagnoses, and worsening of psychological dysfunction indices in a large multi-country sample. Frontiers in Psychiatry, 11, 587455. doi: 10.3389/fpsyt.2020.587455

## MD IS ASSOCIATED WITH WORSENED PSYCHOSOCIAL PROBLEMS AMONG SURVIVORS OF CHILDHOOD SEXUAL ABUSE

Compared to non-abused controls

- SCSA scored lower on self-esteem and quality of social relations, and reported higher levels of social phobia, social isolation, depression, anxiety, and stress symptoms
- SCSA scored higher on MD

Furthermore:

 SCSA with probable MD scored higher on social phobia, social isolation, depression, anxiety, and stress symptoms, compared to SCSA without suspected MD, implying that MD exacerbates psychosocial problems linked with CSA

Abu-Rayya, H.M., Somer, E. & Knane, H. (2020). Maladaptive daydreaming is associated with intensified psychosocial problems experienced by female survivors of childhood sexual abuse. Violence Against Women, 26(8), 825-837. https://doi.org/10.1177/1077801219845532



A PAINFUL PRESENT REQUIRING SOME EMOTIONAL REGULATION COULD BE ALSO BE RELATED TO MD'S COMORBIDITY WITH OTHER PSYCHIATRIC DISORDERS

# THE ONTOLOGICAL QUANDARY?

### So what is it?

- A stress-related disorder?
- A disorder of dissociative absorption?
- A non-substance use behavioral addiction, like gambling disorder or internet addiction?
- An OCD-spectrum disorder?
- An attention-deficit disorder?
- A combination of the above?

# THE ONTOLOGICAL QUANDARY?

The study of consciousness, in general, and the ontology of MD, in particular can be illuminated by the strategy of **triangulation**, **whereby self-report**, **behavioral measures**, **and neurocognitive measures are used together** to make inferences about underlying mental states (Schooler & Schreiber 2004, Varela & Thompson 2003).

Clearly, brain imaging studies are necessary to shed further light on the ontological question. Open brain imaging questions include:

- Is the DMN activated during MD?
- Does the MD brain behave like a concentrating or an off-task brain?
- To what extent are visual/auditory brain areas implicated in MD?
- What brain differences characterize MDers compared to normal and immersive DDers?
- Are reward pathways implicated in MD?

### YOUTUBE TESTIMONY (6:50)





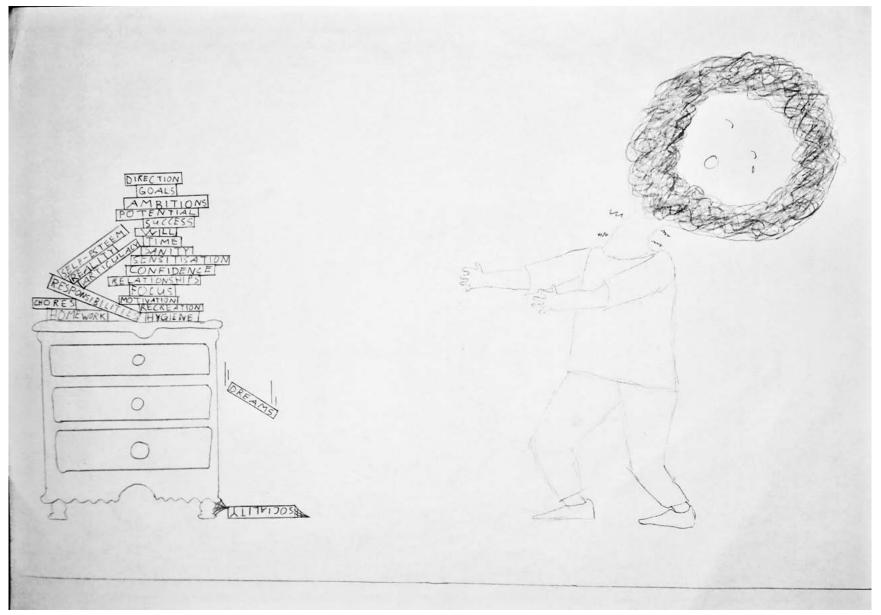
## **MD AS A DISSOCIATIVE DISORDER**

with features of a behavioral addiction

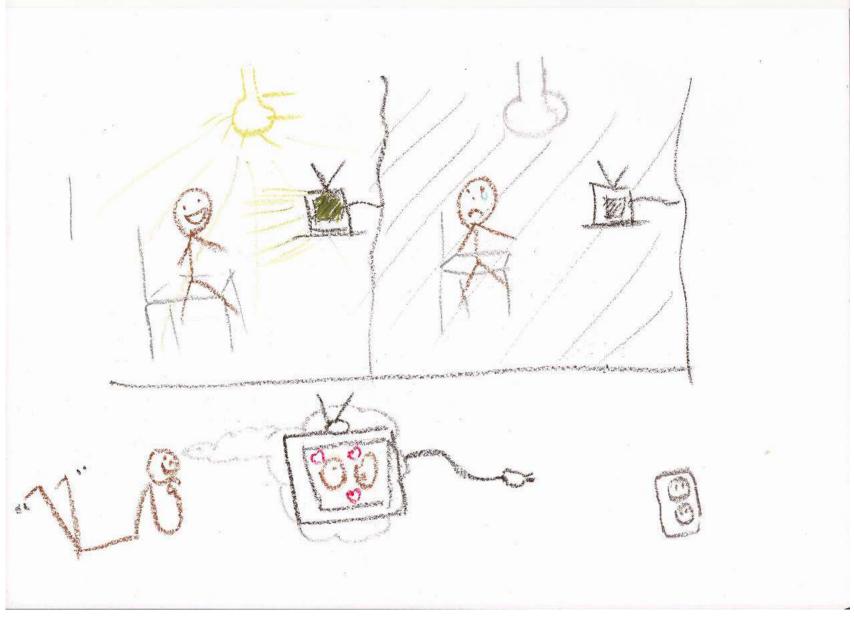
## ARTISTIC EXPRESSIONS OF MD



## **ARTISTIC EXPRESSIONS OF MD**



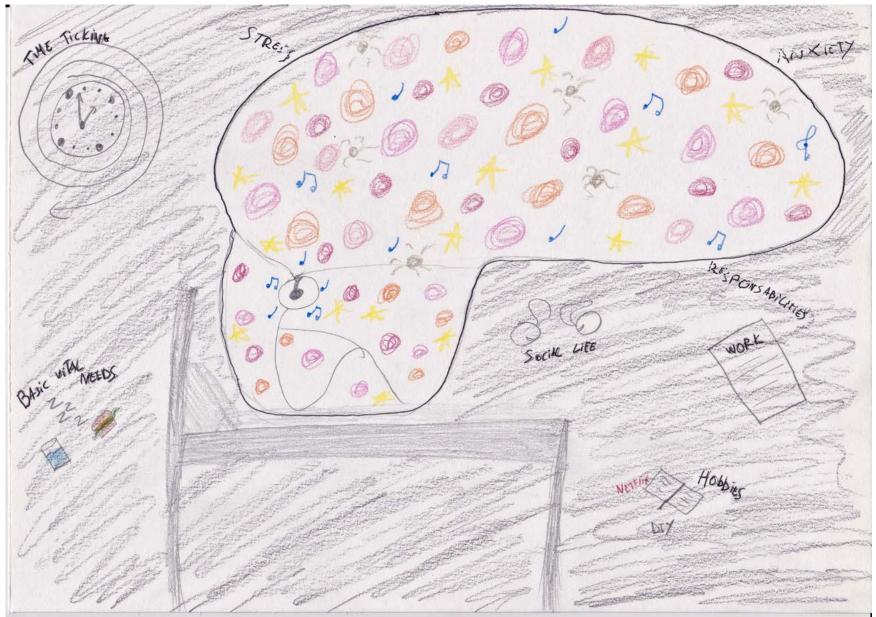
# **ARTISTIC EXPRESSIONS OF MD**



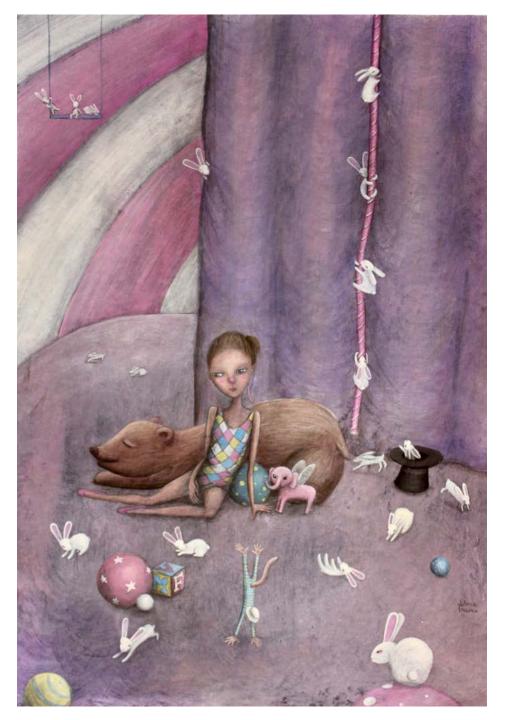
# **ARTISTIC EXPRESSIONS OF MD**



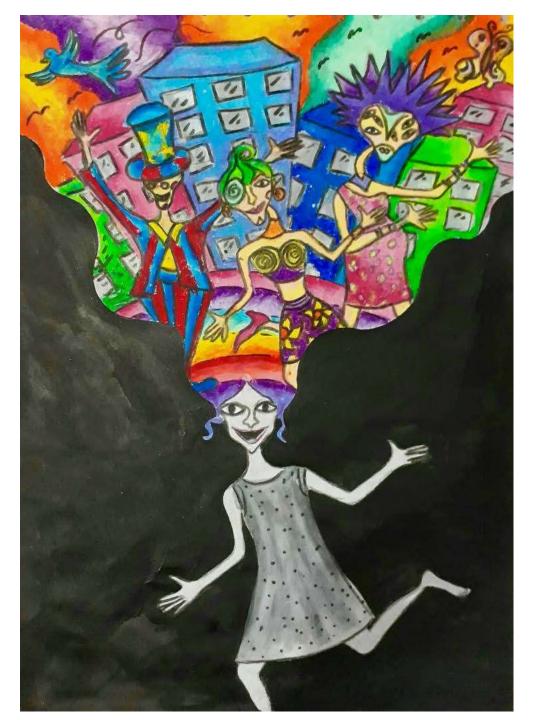
# **ARTISTIC EXPRESSIONS OF MD**



## ARTISTIC EXPRESSION S OF MD



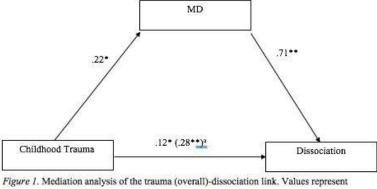
## ARTISTIC EXPRESSIONS OF MD



77

Eli Somer (c) somer@research.haifa.ac.il

### MD MEDIATES THE RELATIONSHIP BETWEEN TRAUMA AND DISSOCIATION



standardised coefficients ( $r_s$ ). <u>• The</u> number is parenthesis refers to the association between dissociation and childhood trauma before the inclusion of MD in the model. \*p < .03. \*\*p < .01.

Somer, E., Abu-Rayya, H.M. & Nsairy Samaan, Z. (In press). Maladaptive daydreaming among recovering substance use disorder patients: its prevalence and mediation of the relationship between childhood trauma and dissociation. *International Journal of Mental Health and Addiction.* 

### MORE SPECIFICALLY: MD MEDIATES THE RELATIONSHIP BETWEEN EMOTIONAL NEGLECT AND DISSOCIATION

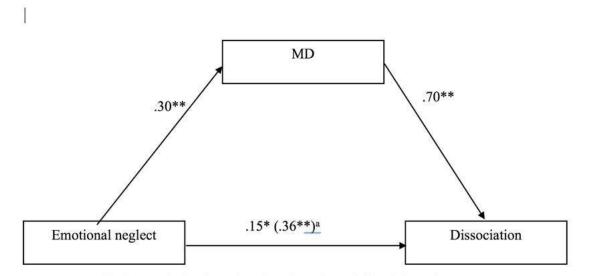


Figure 2. Mediation analysis of emotional neglect-dissociation link. Values represent standardized coefficients ( $r_s$ ). <sup>a</sup> The number in parenthesis refers to the association between dissociation and emotional neglect before the inclusion of MD-16 in the model. \*p < .03. \*\*p < .01.



Survivors of child sexual abuse are more than twice as likely to score above the clinical cut-off score of the MDS-16 (suggesting a possible MD diagnosis) compared to a control group

 $(c_{(1)}^2=4.62, p<.032, OR=2.05).$ 

Abu-Rayya, H.M., Somer, E. & Knane, H. (2020). Maladaptive daydreaming is associated with intensified psychosocial problems experienced by female survivors of childhood sexual abuse. Violence Against Women, 26(8), 825-837. https://doi.org/10.1177/1077801219845532.



### **NEW DATA**

#### **MD PREVALENT AMONG HIGHLY TRAUMATIZED DISSOCIATIVE INPATIENTS**

# Maladaptive Daydreaming, Dissociation, and the Dissociative Disorders



Colin A. Ross, M.D., Jane Ridgway, M.A., Nevita George, B.S.

**Objective:** Studies on maladaptive daydreaming have shown that it has a number of comorbidities including dissociative disorders, yet no studies have examined the reciprocal relationship. The aim of this study was to determine the frequency of maladaptive daydreaming in a sample of psychiatric inpatients with high levels of dissociation.

**Methods:** The Dissociative Experiences Scale (DES), Self-Report Dissociative Disorders Interview Schedule, Maladaptive Daydreaming Scale-16 (MDS-16), Structured Clinical Interview for Maladaptive Daydreaming, and the Obsessive Compulsive Inventory were administered to a sample of 100 inpatients in a psychiatric hospital program specializing in dissociative disorders.

**Results:** Of the 100 participants, 93 reported childhood physical and/or sexual abuse, 33 met criteria for

dissociative identity disorder; 56 met criteria for other specified dissociative disorder, 49 met criteria for maladaptive daydreaming disorder, and 23 met criteria for unspecified maladaptive daydreaming. The average score on the DES was 39.1 and the average score on the MDS-16 was 33.9. Individuals with maladaptive daydreaming disorder scored significantly higher than those without on many different symptom clusters.

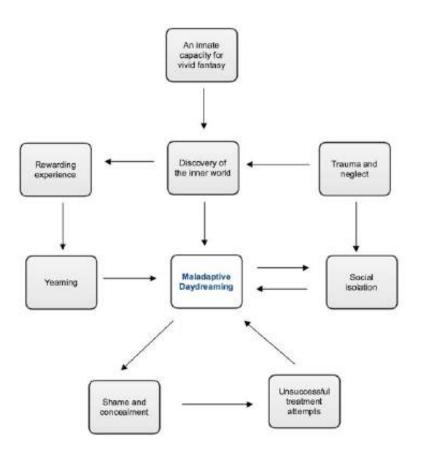
**Conclusions:** This sample of 100 highly traumatized and dissociative inpatients reported high levels of maladaptive daydreaming along with many other forms of comorbidity. Maladaptive daydreaming is a previously under-recognized aspect of complex dissociative disorders and requires further attention in both research and clinical practice.

Psych Res Clin Pract. 2020; xx:1–9; doi: 10.1176/appi. prcp.20190050

Ross, C.A., Ridgway, J., & George, N. (2020). Maladaptive Daydreaming, Dissociation, and the Dissociative Disorders. <u>Psychiatric Research & Clinical Practice.</u> Published Online: 5 Oct 2020. https://doi.org/10.1176/appi.prcp.20190050

 $\tilde{\mathbf{o}}$ 

Figure 1: Childhood antecedents and current stressors in maladaptive daydreaming



## **SUGGESTED ETIOLOGICAL MODEL**

Somer, E. Somer, L. & Jopp, S.D. (2016). Childhood Antecedents and Maintaining Factors in Maladaptive Daydreaming. Journal of Nervous and Mental Disease, 204(6), 471-478. DOI: http://dx.doi.org/10.1097/NMD.00000000000000507

### **IMMERSIVE DAYDREAMING AND MD**

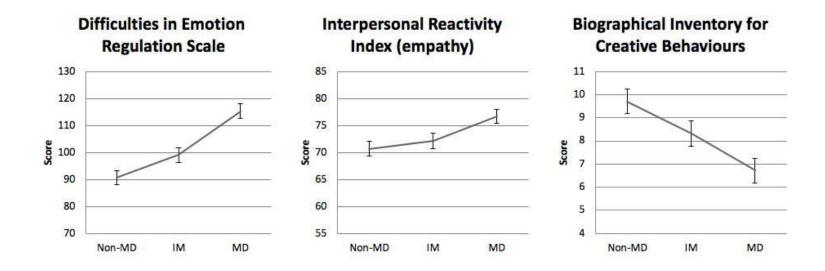


Figure 1. Mean scores (and stnd. Error) on the Difficulties in Emotion Regulation Scale (DERS), Interpersonal Reactivity Index (IRI), and the Biographical Inventory for Creative Behaviours (BICB) for the maladaptive daydreaming (MD), immersive daydreaming (IM), and non-immersive daydreaming (non-IM) groups, controlling for age, gender, and mental health status.

West, M. & Somer, E. (2020). Empathy, emotion regulation and creativity in immersive daydreaming. Imagination, Cognition and Personality, 39(4), 358-373. DOI: 10.1177/0276236619864277

# COMORBIDITY OF MALADAPTIVE DAYDREAMING\*

Diagnostic category	Diagnosis	Frequency *	Percent †
Neurodevelopmental Disorders		30	76.92%
	Attention-Deficit/Hyperactivity Disorder ( <i>n</i> =27 predominantly inattentive type; <i>n</i> =1 predominantly hyperactive / impulsive type; <i>n</i> =2 mixed presentation)	30	76.92%
Anxiety Disorders		28	71.79%
	Social Anxiety Disorder	17	43.59%
	Generalized Anxiety Disorder	11	28.21%
	Specific Phobia <sup>b</sup>	7	17.95%
	Panic Disorder	7	17.95%
	Agoraphobia	2	5.13%
	Separation Anxiety Disorder	1	2.56%
Depressive Disorders		26	66.67%
	Major Depressive Disorder a	22	56.41%
	Premenstrual Dysphoric Disorder	11	28.21%
	Persistent Depressive Disorder	6	15.38%
Obsessive-Compulsive and Related Disorders		21	53.85%
	Excoriation Disorder	11	28.21%
	Obsessive-Compulsive Disorder	10	25.64%
	Trichotillomania	4	10.26%
	Body Dysmorphic Disorder	1	2.56%

\* Partial data

Somer, E., Soffer-Dudek, N., & Ross, C. A. (2017). The comorbidity of daydreaming disorder (Maladaptive Daydreaming). Journal of Nervous and Mental Disease, 205(7), 525-530.

### TRAUMA IS NOT A NECESSARY CONDITION FOR MD

#### Results from a non-clinical sample of MDers

#### Table 1

Tabled summary of major commonalities and other correlates of compulsive fantasizing as reported by enrolled study participants.

Age of onset of fantasizing	Age-of-onset of fantasizing; modal ranges reported: age 2-3; age 6-7; and age 11-12	
Proportion of daily time spent fantasizing Distress and/or Impairment due to fantasy	include time spent in other types of off-task thought	
Trauma and/or abuse present in history	27% of participants report early trauma and/or abuse: sexual, physical, verbal, or emotional	
Sought consultation/therapy	23% of participants report seeking consultation or therapy for fantasizing	
Kinesthetic elements	79% of participants report some kinesthetic elements to be present during fantasizing	
Social behavior and interactions	24% of participants report problems in social functioning: avoidance or social phobia	
Secrecy	82% keep fantasy hidden from most everyone	
Reality testing	98% of participants state that they do not confuse fantasy and reality	
Creativity	71% of participants perceive themselves as creative/artistic	

Bigelsen, J., & Schupak, C. (2011). Compulsive fantasy: Proposed evidence of an under-reported syndrome through a systematic study of 90 self-identified non-normative fantasizers. *Consciousness and Cognition: An International Journal, 20*(4), 1634-1648.

## TRAUMA IS NOT A NECESSARY CONDITION FOR MD

A rewarding (addictive?) source of emotional regulation

It's just enjoyable. The characters are familiar to me. They are like friends ... it's entertaining, comforting and sometimes it is just an escape when I want to be in a different world other than the one I'm in...It's a comforting, enjoyable pastime. It would be upsetting for me I couldn't access it" (IJ)

"I prefer daydreaming because my life is boring. As soon as my husband leaves for work I turn my imagination on and sometimes I am in my own world for the entire morning...it sure beats cleaning and cooking" (QR).

Somer, E., Somer, L. & Jopp, D.S. (2016). Childhood antecedents and maintaining factors in maladaptive daydreaming. *Journal of Mental and Nervous Disease*, 204(6), 471-478. DOI: http://dx.doi.org/10.1097/NMD.0000000000000507



Frontiers in the Psychotherapy of Trauma and Dissociation, 1(2):1–22, 2018 Copyright © Int. Society for the Study of Trauma and Dissociation ISSN: 2523-5125 print / 2523-5125 online DOI: https://doi.org/10.XXXX/ftpd.2017.0006



### ARTICLE

### Maladaptive Daydreaming: Ontological Analysis, Treatment Rationale; a Pilot Case Report

### ELI SOMER, Ph.D.<sup>1</sup>

University of Haifa, Israel

# **TREATMENT ELEMENTS USED**

### Motivational interviewing (MI)

- By using techniques such as open ended questions, reflective listening, affirmation, and summarization that help Pt. express concerns about change
- MI allowed Pt. to become more aware of the impending complications, consequences and jeopardies resulting from his escapist absorption.
- he was able to visualize a better future, contemplate what might be gained through change, and become increasingly motivated to commit himself to the hard work involved in controlling his MD

# **TREATMENT ELEMENTS USED**

### **Cognitive behavioral Therapy**

- Pt. monitored his target behaviors and maintained a diary in which he noted the circumstances surrounding his MD and Internet use as well as his associated thoughts and feelings.
- prepared a detailed schedule for the next day's activities in which he designated a single, late evening hour for recreational Internet use.
- read the day's plan in the mornings and reread a printed copy of the schedule several times a day.
- To suppress the reinforcing pleasure of his MD, Pt. strove to intercept his developing MD plots as early as possible and to terminate these plots with negative or aversive endings (e.g., a distressful twist to the fantasized plot, a reminder from his MI that daydreaming is a detestable, self-destructive act).

# **TREATMENT ELEMENTS USED**

### **Cognitive behavioral Therapy**

- instructed to reinforce himself with self-praise for successful interceptions of MD.
- maintained accountability by texting reports of self-monitored MD/Internet time and coping measures. Intermittent feedback was provided in the form of encouraging text messages or brief phone coaching sessions to remind him of the skills and resources available to him (e.g., calling his girlfriend).
- Employed a number of coping statements he found very convincing and helpful: "Daydreaming is detrimental to me—it is a harmful addiction"; "I will mindfully deal with my distress in the present rather than escape into a future fantasy"

# TREATMENT

### **Mindfulness training**

• Ben became an enthusiastic mindfulness disciple. He had practiced as a morning routine and as a versatile mode of coping with a variety of challenges.

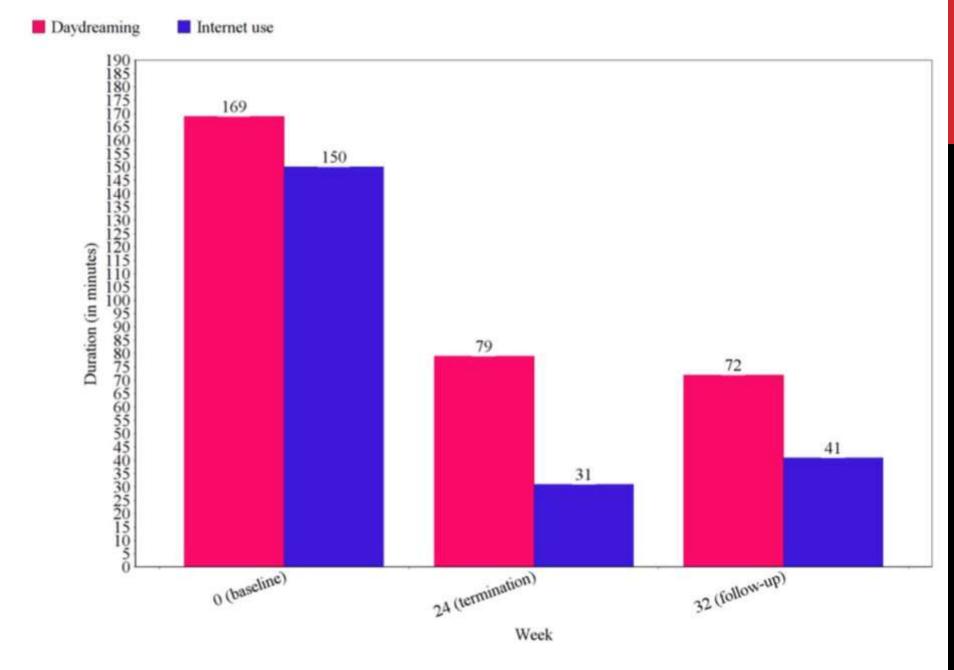
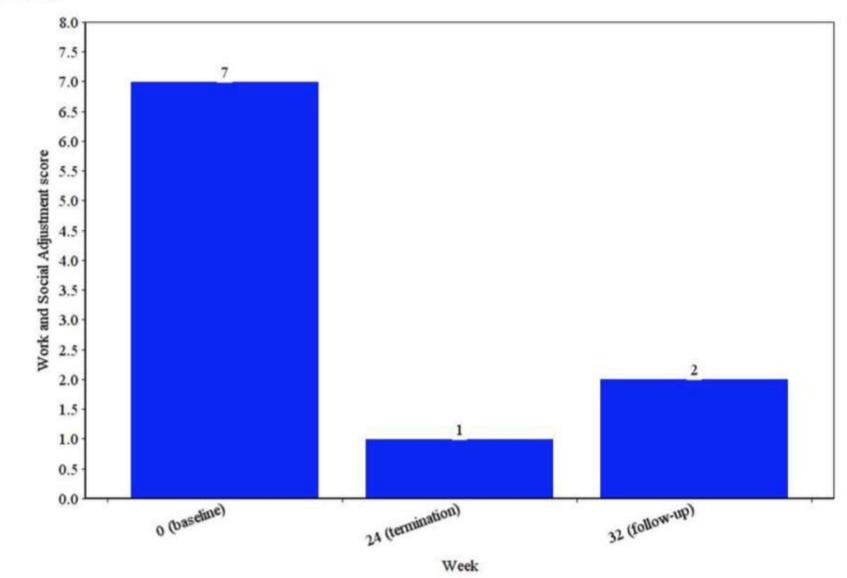


FIGURE 1 Average daily duration of daydreaming and Internet use (in minutes)





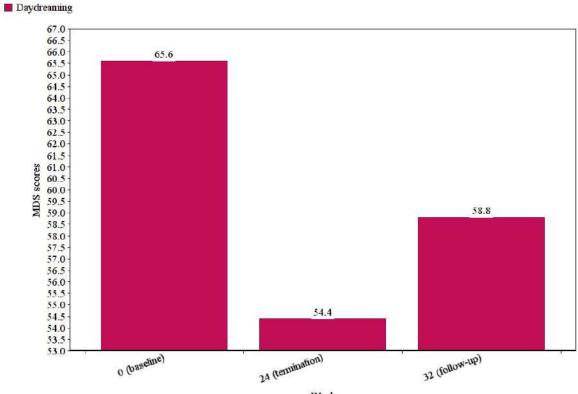
#### FIGURE 2 Work and Social Adjustment Scale (WASAS) scores\*

Note. \*Lower scores reflect better adjustment

97

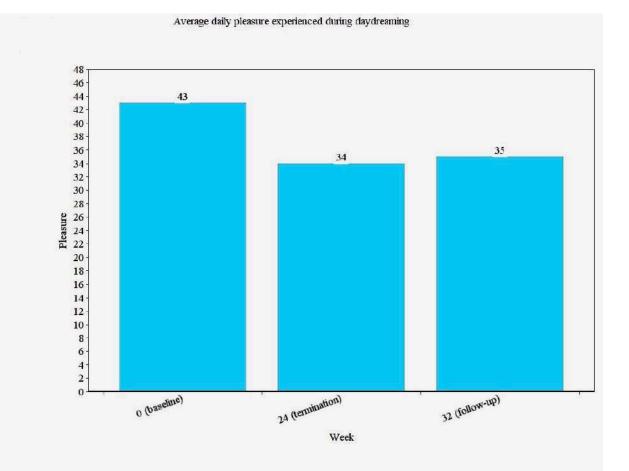
# **CASE STUDY**

Mean Maladaptive Daydreaming Scale (MDS) scores



Week

# **CASE STUDY**



# WHAT WE KNOW THUS FAR

- MD is a psychopathological form of dissociative absorption
- MD can be reliably measured (MDS-16 data in English, Arabic and Hebrew)
- MD can be reliably diagnosed (SCIMD)
- Strong relationship with DES dissociative absorption
- MD is soothing, highly rewarding and potentially addictive
- 27% of MDers are survivors of CA; emotional neglect has the strongest relationship to MD
- MD experiences were more prevalent among SCSA than controls
- MD exacerbates the psychosocial problems linked with CSA.
- MD mediates the relationship between trauma and dissociation
- MD is more prevalent among recovering SUD
- 54% of MDers have comorbid obsessive-compulsive disorders
- 62% have comorbid depressive disorders
- 72% have comorbid anxiety disorders
- 77% have comorbid inattentive ADHD (!)
- OCD symptoms interact in a vicious temporal cycle with MD
- Preliminary evidence suggests that MD can be treated as a behavioral addiction

# **OPEN QUESTIONS**

- What are the developmental pathways to MD?
- Are there MD Subtypes: OCD-spectrum vs. Dissociativespectrum?
- What is MD prevalence in the general population?
- Immersive but not maladaptive daydreaming? Is there a normal variant representing high excessive daydreaming but low distress or dysfunction?
- ♦ Is MD related to hypnotizability?
- What is the meaning/function of movement and music in MD?
- ◆ How is MD related to mind-wandering, DMN, SCT, SMD?
- How different is brain function in MD compared to normal daydreaming. mind-wandering, DMN, SCT. SMD?
- How should we treat MD? medication?, stimulus-control therapy?, addiction therapy (12-step)?, mindfulness-based techniques?, treatment of underlying causes/contributors (e.g., social anxiety)?, social skills building?, trauma work (when applicable)?

#### The International Consortium for Maladaptive Daydreaming Research

Publications Measures Media Treatment



#### Welcome to the International Consortium for Maladaptive Daydreaming Research

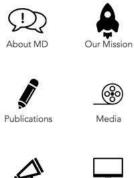
The International Consortium for Maladaptive Daydreaming Research (ICMDR)

Our main mission is to promote evidence-based knowledge on maladaptive daydreaming (MD), an extensive form of dissociative absorption, by encouraging research on the etiology, phenomenology, psychopathology and treatment of MD. We also wish to advance the understanding of the trait associated with immersive but adaptive daydreaming and its relationship to creativity and wellbeing. Our hope is that our work will help improve the recognition of this phenomenon among mental health professionals because the pursuit of these goals could help the many who suffer from MD and are wishing for help.

#### We invite you to explore our website.

Whether you would like to join our team, collaborate with us, take an interest in our research activities, offer your suggestion or ask any question, you are welcome to contact us, or join our mailing list.

The ICMDR Team



News





Treatment







#### Email: somer@research.haifa.ac.il

Google: maladaptive daydreaming research https://daydreamresearch.wixsite.com/md-research

Contact Us