

Introduction

- Many personality disorders (PDs) are associated with maladaptive forms of emotion regulation (ER; Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006; Linehan, 1993).
- One potential maladaptive form of ER that has received little attention in the literature is maladaptive daydreaming. Maladaptive daydreaming (MD) is defined as “extensive fantasy activity that replaces human interaction and/or interferes with academic, interpersonal, or vocational functioning” (Somer, 2002, p. 199).
- Extant evidence suggests that MD may function as a strategy for coping with negative affect or psychological pain (Somer, 2002).
- MD is also theoretically linked to PDs, such as borderline PD (Somer, Somer, & Jopp, 2016) and has been empirically linked to narcissistic PD (Somer, 2002). Yet, there is scant research on MD and PD.
- Thus, the aim of this study was to extend research by examining the association between MD and (1) PD features and (2) other forms of maladaptive ER.

Hypotheses

- H1:** There would be a positive relationship between MD and PD features.
- H2:** There would be a positive relationship between MD and other maladaptive ER strategies and ER difficulties.
- H3:** There would be a positive relationship between MD and PD features, above and beyond other maladaptive ER strategies and ER difficulties.

Method

Participants

- Participants in this study were 139 Mechanical Turk workers (52.5% male).
- Participants were on average 34.38 years ($SD = 9.98$; $Min_{age} = 19$, $Max_{age} = 62$).
- Racial make-up of participants was as follows: 72.7% Caucasian, 5% African American, 17.3% Asian, 7.2% Hispanic, 5.8% Native American, and 1.4% other.
- 16.5% of participants reported currently taking medications for psychiatric disorders.

Measures

- Participants completed self-report measures of MD characteristics (Maladaptive Daydreaming Scale, MDS, Somer, Bigelsen, Lehrfeld & Jopp, 2016; items taken from Bigelsen, Lehrfeld, Jopp & Somer, 2016), containing impairment, yearning, and kinesthesia scales. Scores > 25 were considered clinically impairing, per past work.
- Participants completed self-report measures of PD features (Personality Assessment Inventory – Borderline Personality Disorder [BPD] scale, PAI-BOR, with affective instability, identity disturbance, negative relationships, and self-harm scales, Morey, 1991; DSM-5 Personality Disorder Inventory, PDI, Krueger, Derringer, Markon, Watson, & Skodol, 2012)
- Participants completed self-report measures of ER difficulties and strategy use (Difficulties in Emotion Regulation Scale, DERS, Gratz & Roemer, 2004; Emotion Regulation Questionnaire, ERQ, Gross & John, 2003).

Procedures

- After providing informed consent, participants completed the online questionnaires. 9 attention check items (3 bogus and 6 infrequency) were included throughout.
- Participants were compensated (\$1.00) for their participation.

Data Analysis

- A series of multiple regressions were run. For H1, we examined PD features (the PAI-BOR and PDI scales) as predictors of MDS scales, controlling for relevant demographic characteristics. For H2, we added ER predictors of MDS scales. For H3, both PD and ER were included in the models of MDS scales.

Figure 1. Frequency of Daydream Themes

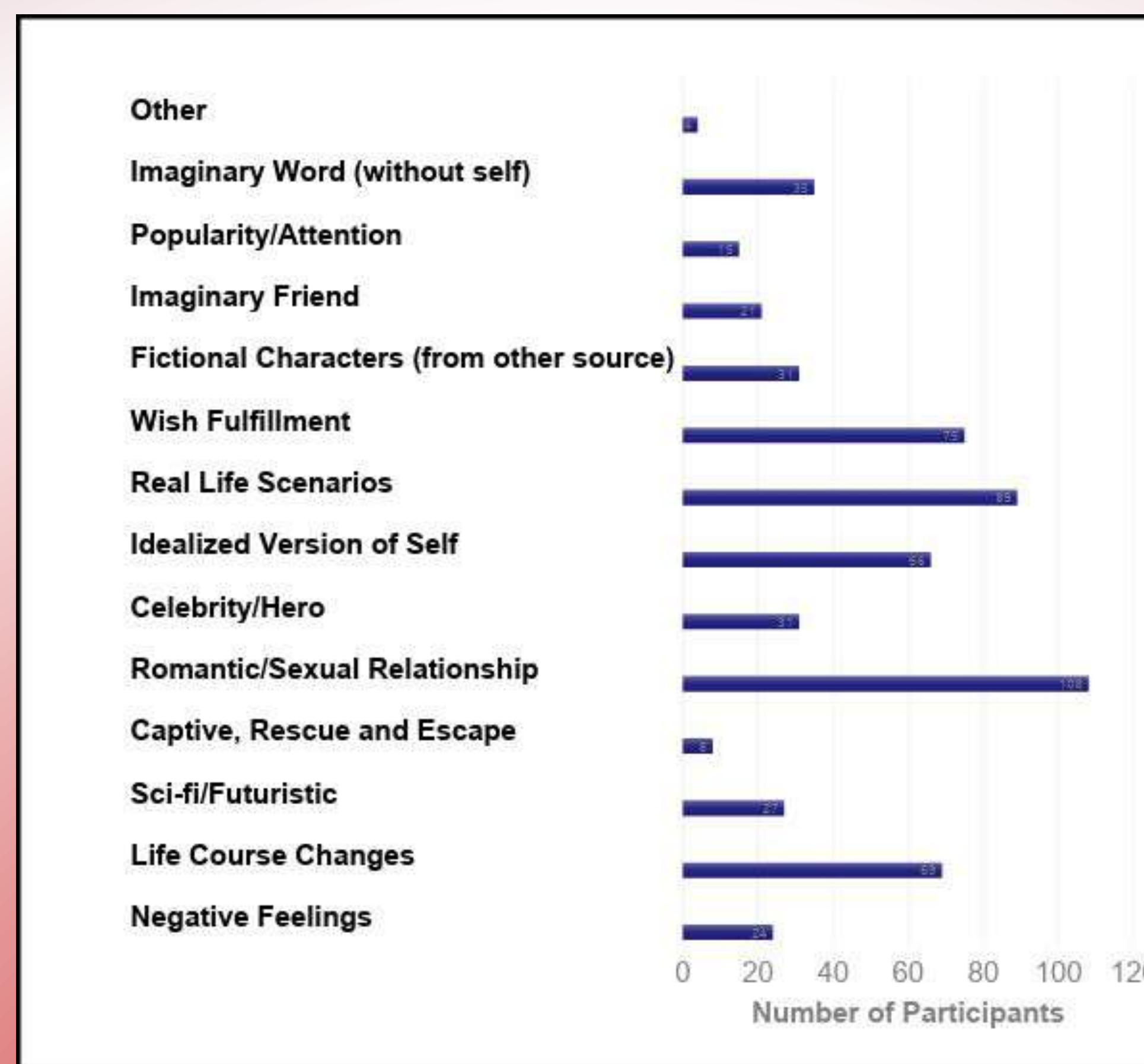


Table 1. Regressions of MD, PD Traits, and ER Difficulties

Independent Variables	Maladaptive Daydreaming		
	Impairment	Yearning	Kinesthesia
	B (SE)	B (SE)	B (SE)
PAI-BOR affective instability	.28 (.60)	.29 (.62)	.22 (.70)
PAI-BOR identity disturbance	.29 (.58)	.22 (.60)	.46 (.68)
PAI-BOR negative relationships	.63 (.58)	.97 (.60)	.82 (.68)
PAI-BOR self-harm	2.76*** (.49)	1.67** (.51)	1.75** (.57)
PDI negative affect	2.37 (2.90)	3.56 (2.99)	3.33 (3.39)
PDI detachment	-.80 (2.65)	-.55 (2.72)	-1.95 (3.08)
PDI antagonism	5.66 (3.13)	6.56* (3.21)	6.52 (3.63)
PDI disinhibition	7.16* (3.41)	4.39 (3.51)	2.95 (3.96)
PDI psychoticism	8.02* (3.25)	3.98 (3.34)	7.25 (3.77)
DERS nonacceptance	.43 (.36)	.21 (.38)	-.04 (.45)
DERS goal difficulty	.22 (.46)	-.15 (.50)	-.74 (.54)
DERS impulse	1.51*** (.45)	.56 (.48)	1.31* (.51)
DERS limited strategies	-.15 (.40)	.68 (.42)	.73 (.46)
DERS low awareness	-.42 (.39)	-.45 (.41)	-.86 (.44)
DERS low clarity	1.89*** (.55)	1.20* (.59)	1.64* (.63)
ERQ reappraisal	3.16* (1.50)	2.05 (1.44)	2.19 (1.60)
ERQ suppression	-2.21 (1.40)	-1.38 (1.34)	.07 (1.49)

* $p < .05$; ** $p < .01$; *** $p < .001$

Results

Data Screening: Participants who failed any bogus items or more than 1 infrequency item were removed from analyses. Age was included as a covariate, given its association with the MDS scales.

Maladaptive Daydreaming Characteristics:

- Participants reported spending an average of 24.47% ($SD = 21.32$) of their waking hours daydreaming in a typical week.
- Participants reported that MD interfered with their relationships with friends, family, coworkers and others an average of 17.78% ($SD = 22.71$) of the time.
- Participants reported that MD interfered with their ability to sleep an average of 21.86% ($SD = 25.21$) of the time.
- 39.9% of the sample exceeded the clinical cutoff score (25), suggesting clinically significant MD.

H1: Association between MD and PD features

- MD was associated with the PD traits of disinhibition ($B = 7.16$, $SE = 3.41$, $p = .038$), psychoticism ($B = 8.02$, $SE = 3.25$, $p = .015$), and BPD-related self-destructive symptoms ($B = 2.76$, $SE = .49$, $p = .001$), controlling for age.
- MD yearning was associated with the PD trait of antagonism ($B = 6.56$, $SE = 3.21$, $p = .043$), and BPD-related self-destructive symptoms ($B = 1.67$, $SE = .51$, $p = .001$), controlling for age.
- MD kinesthesia was associated with BPD-related self-destructive symptoms ($B = 1.75$, $SE = .57$, $p = .001$), controlling for age.

H2: Association between MD and ER difficulties and strategies

- MD “impairment” was associated with engagement in impulsive behaviors when distressed ($B = 1.51$, $SE = .45$, $p = .001$), low emotional clarity ($B = 1.89$, $SE = .55$, $p = .001$), and use of reappraisal ($B = 3.16$, $SE = 1.50$, $p = .037$), controlling for age.
- MD yearning was associated with low emotional clarity ($B = 1.20$, $SE = .59$, $p = .044$), controlling for age.
- MD kinesthesia was associated with engagement in impulsive behaviors when distressed ($B = 1.31$, $SE = .51$, $p = .011$) and low emotional clarity ($B = 1.64$, $SE = .63$, $p = .010$), controlling for age.

H3: Association between MD and PD features, controlling for ER

- MD impairment was associated with BPD-related self-destructive symptoms ($B = 1.75$, $SE = .55$, $p = .002$), controlling for other ER difficulties, maladaptive ER strategies, and age.

Discussion

Conclusions

- This study is among the first to examine associations of MD with maladaptive ER and PD features.
- Results show that there is positive association of MD problems with several PD traits (disinhibition, psychoticism, antagonism), and BPD-related self-destructive symptoms.
- Findings also demonstrate a positive association of MD problems with ER difficulties (engagement in impulsive behaviors when distressed and low emotional clarity), and use of reappraisal as an ER strategy.
- Finally, these data reveal a positive association of MD problems and BPD-related self-destructive symptoms above and beyond other maladaptive ER strategies and ER difficulties more broadly.

Limitations

- We relied solely on self-report data in a community sample. Thus, results cannot be generalized to clinical samples.

Implications and Future Directions

- Despite limitations, the current study is among the first to examine associations between MD and PD features, as well as the associations between MD and ER strategies and difficulties.
- Given associations between MD and PD features and ER difficulties, clinicians may want to assess for MD behaviors among their patients, and engage in interventions to target this life-interfering behavior (e.g., mindfulness, grounding techniques, distress tolerance skills).
- Further research with self-identified maladaptive daydreamers is needed to better understand this phenomenon, which clearly has important clinical implications.