

reviewed by Duarte et al. involve alterations in melatonin pathways.

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## Disclosure

The author reports no conflicts of interest.

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# Impairments of kleptomania: what are they?

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Kleptomania, also known as compulsive stealing, is a rare disorder that occurs in roughly 0.3-0.6% of the population.<sup>1</sup> It is characterized by repeated failures in resisting impulses to steal items that are not needed for their value or personal use. One of the key aspects of the definition of a psychiatric disorder is that it results in clinically significant harms and/or impairments to the individual or society.<sup>2</sup> Kleptomania has been associated with a lower quality of life<sup>3</sup> and high rates of comorbidity with other psychiatric disorders, including suicidality.<sup>4</sup> However, it is unknown whether specific domains of functioning are impaired in individuals with kleptomania, other than the legal ramifications associated with shoplifting. In this report, we describe the association between kleptomania severity and psychosocial impairments in individuals diagnosed with kleptomania.

The present research included 37 participants (seven men, 18.92%; 30 women, 81.08%) with a mean age of 35.84 years (standard deviation [SD] = 15.83) who voluntarily sought treatment for kleptomania at the Impulse Control Disorders Outpatient Unit (Ambulatório Integrado dos Transtornos do Impulso, PRO-AMITI) in São Paulo, Brazil, between 2005 and 2015. All patients seeking treatment at this clinic are asked whether they would be willing to participate in research studies. Importantly, they

are clearly informed that treatment will not be contingent upon research participation. Seven patients did not take part in the study. The sample consisted predominantly of Caucasians (n=26; 70.3%). Most of the sample reported being single (n=26; 70.3%). The mean educational attainment was 13.85 years (SD = 4.01) of formal schooling. Just under half of the sample (n=18; 48.6%) reported being employed, with 12 (32.4%) employed full-time and six (16.2%) employed part-time.

Informed consent was obtained from all participants, who were interviewed by a registered psychiatrist specializing in impulse control disorders using a semi-structured clinical interview to confirm a diagnosis of kleptomania. Participants then completed a measure of kleptomania severity using the Portuguese-adapted version of the self-report Kleptomania Symptom Assessment Scale (P-K-SAS).<sup>5</sup> Items are anchored from 0 to 4, with total scores ranging from 0 to 44. Higher scores indicate greater kleptomania problem severity. Potential harms were assessed with the Portuguese version of the Social Adjustment Scale – Self Report (P-SAS-SR).<sup>2</sup> The P-SAS-SR assesses seven domains of psychosocial functioning: work, social and leisure, extended family, marital, parental (i.e., children), family unit, and economic condition; the measure is anchored from 1 (normal) to 5 (severe maladjustment), with higher scores indicating greater impairment. Lastly, participants were asked to self-report whether they had incurred legal troubles from shoplifting.

The mean P-K-SAS score of the present sample was 29.97 (SD = 9.12), which is greater than the cutoff score for remission ( $\leq 11$ ),<sup>5</sup> suggesting that our sample consisted of severe cases. To test the association between kleptomania severity and psychosocial impairments, we first examined assumptions of normality using the Kolmogorov-Smirnov test on our variables of interest. The results suggested that impairments in work, leisure, parenting, and economic condition violated assumptions of normality. For variables that were normally distributed, we used Pearson's correlation. When normality was violated, we used Spearman's rho, a nonparametric test of correlation, instead. As shown in Table 1, the magnitude of positive correlations between kleptomania severity and the seven domains of psychosocial functioning ranged from small (0.16) to large (0.67). Statistical significance was reached for three areas of functioning, ranging from medium to large correlations. Specifically, kleptomania was associated with impairments in work ( $p_{[34]} = 0.43$ ,  $p = 0.012$ ), leisure ( $p_{[35]} = 0.53$ ,  $p = 0.001$ ), and parenting ( $p_{[14]} = 0.64$ ,  $p = 0.014$ ). No other psychosocial domain reached statistical significance. To test whether the results held when controlling for legal troubles, we conducted partial correlation analyses between P-K-SAS and P-SAS-SR, with legal troubles entered as a covariate. The pattern of results remained the same, suggesting that impairments in work, leisure, and parenting associated with kleptomania were independent of harms incurred from legal troubles.

In conclusion, our results provide preliminary support for the hypothesis that individuals with kleptomania may experience impairments other than legal ramifications. The lack of statistical significance in some of the examined

**Table 1** Correlations between kleptomania and impairments in specific areas of psychosocial functioning as measured by the Portuguese version of the Social Adjustment Scale – Self Report (P-SAS-SR)

Psychosocial functioning	Mean (SD)	Median (min/max)	<i>r</i>	P	Partial <i>r</i> *	<i>p</i>
Work	3.03 (1.47)	2.83 (1/5)	0.43 <sup>†</sup>	0.012 <sup>§</sup>	0.37	0.038 <sup>§</sup>
Social and leisure	2.90 (0.90)	3.09 (1.1/5)	0.53 <sup>‡</sup>	0.001 <sup>  </sup>	0.52	0.002 <sup>§</sup>
Extended family	2.46 (0.90)	2.5 (1/4)	0.16 <sup>‡</sup>	0.353	0.17	0.369
Marital	2.78 (1.10)	2.89 (1/4.44)	0.24 <sup>‡</sup>	0.356	0.24	0.392
Parental	1.82 (0.96)	1.54 (1/5)	0.64 <sup>†</sup>	0.014 <sup>§</sup>	0.67	0.012 <sup>§</sup>
Family unit	2.74 (1.12)	2.67 (1/4)	0.35 <sup>‡</sup>	0.152	0.35	0.163
Economic condition	2.55 (1.44)	2 (1/5)	0.18 <sup>†</sup>	0.310	0.20	0.293

The PSAS-SR is anchored from 1 (normal) to 5 (severe maladjustment).  
min/max = minimum/maximum; SD = standard deviation.

\* Results of correlation analyses controlling for legal troubles.

<sup>†</sup> Spearman's rho; <sup>‡</sup> Pearson's *r*.

<sup>§</sup> *p* < 0.05, <sup>||</sup> *p* < 0.01, *r* = correlation, *p* = probability value.

domains was likely due to the relatively small sample size. We caution that, given the relatively small number of participants, replication of our results in larger samples is needed. The findings of the present research suggest that it would behoove treatment providers to assess which areas of functioning are impaired in their patients with kleptomania. Indeed, understanding how kleptomania leads to distress may provide a target for treatment, and may also be used to increase motivation for change, ultimately improving quality of life in patients with kleptomania.

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## Disclosure

The authors report no conflicts of interest.

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