

Kenneth M. Peters^{1,2}, Conor Chow², Jackson Stachelek¹, Collin Schlosser¹, Bernadette M.M. Zwaans^{1,2}
¹Corewell Health William Beaumont University Hospital, Royal Oak, MI; ²Oakland University William Beaumont School of Medicine, Rochester, MI

Introduction

- Post-drug syndrome (PDS) results from persistent side effects after withdrawing a medication
- Various drugs including antidepressants (SSRI, SNRI, TCA), isotretinoin, and finasteride are associated with PDS
- Despite these drugs being different drug classes, they present with similar symptoms

Objective

This study aims to characterize and compare the sexual and psychological symptoms of individuals reporting PDS following withdraw from different drug classes through a cross-sectional questionnaire-based analysis.

Methods

Anonymous Qualtrics survey was distributed via online support forums and social media platforms (e.g. who X, Reddit, Facebook) targeting individuals over the age of 18 who reported PDS following withdraw from antidepressants (AntiD), isotretinoin, or finasteride.

Results

- 827 respondents** that met eligibility criteria, 78.1% male, 21.9% female
- Those taking **finasteride** were best informed of sexual dysfunction (SD) **side effects** (38.3%) compared to AntiD (12.9%) and isotretinoin (5.3%).
- Post-withdraw **SD was present** in 96.3% AntiD, 94.4% finasteride, and 65.8% isotretinoin respondents.
- Suicidal ideation was present in greater than 50% of respondents for all drug classes.

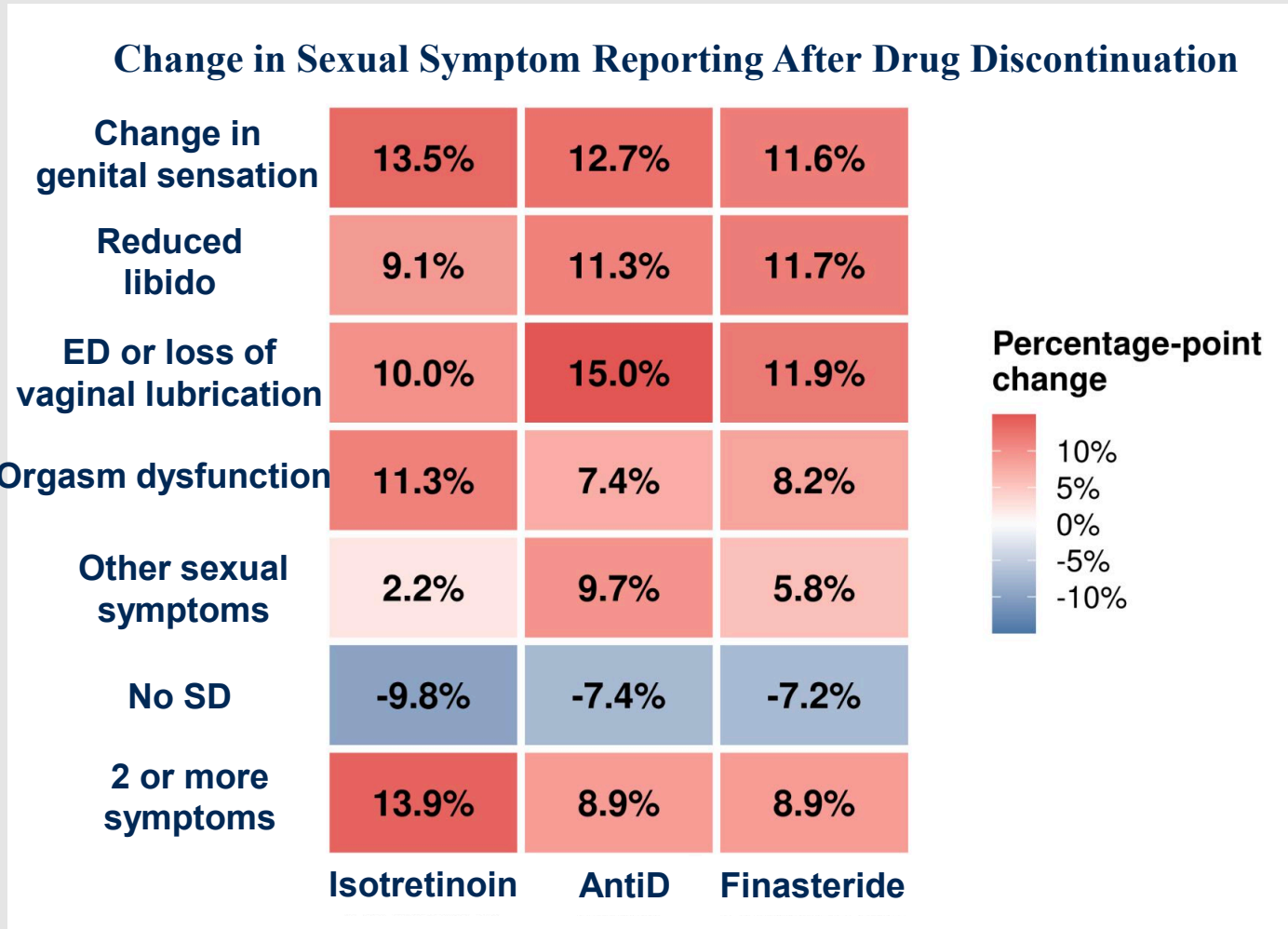


Figure 1: Sexual side effects increased following discontinuation of all drug classes.

Study participants were asked if they experienced any side effects related to sexual dysfunction, and what type of sexual dysfunction either during drug therapy or after discontinuation of drug therapy. Positive values indicate increased reporting following discontinuation of medication.

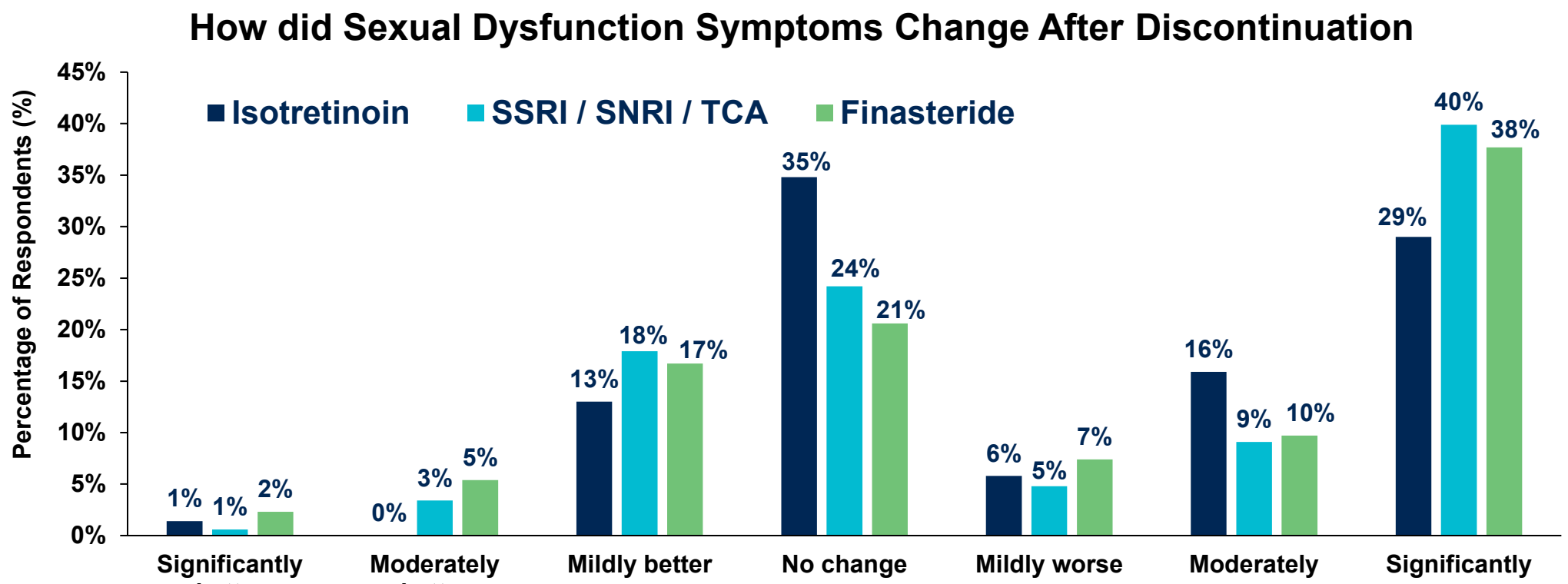


Figure 3: Following discontinuation of AntiD, isotretinoin, or finasteride therapy, majority of respondents experienced no change or a worsening of their symptoms.

Study participants who had sexual dysfunction symptoms while on the respective medication were asked how their sexual symptoms changed during the therapy and after discontinuation.

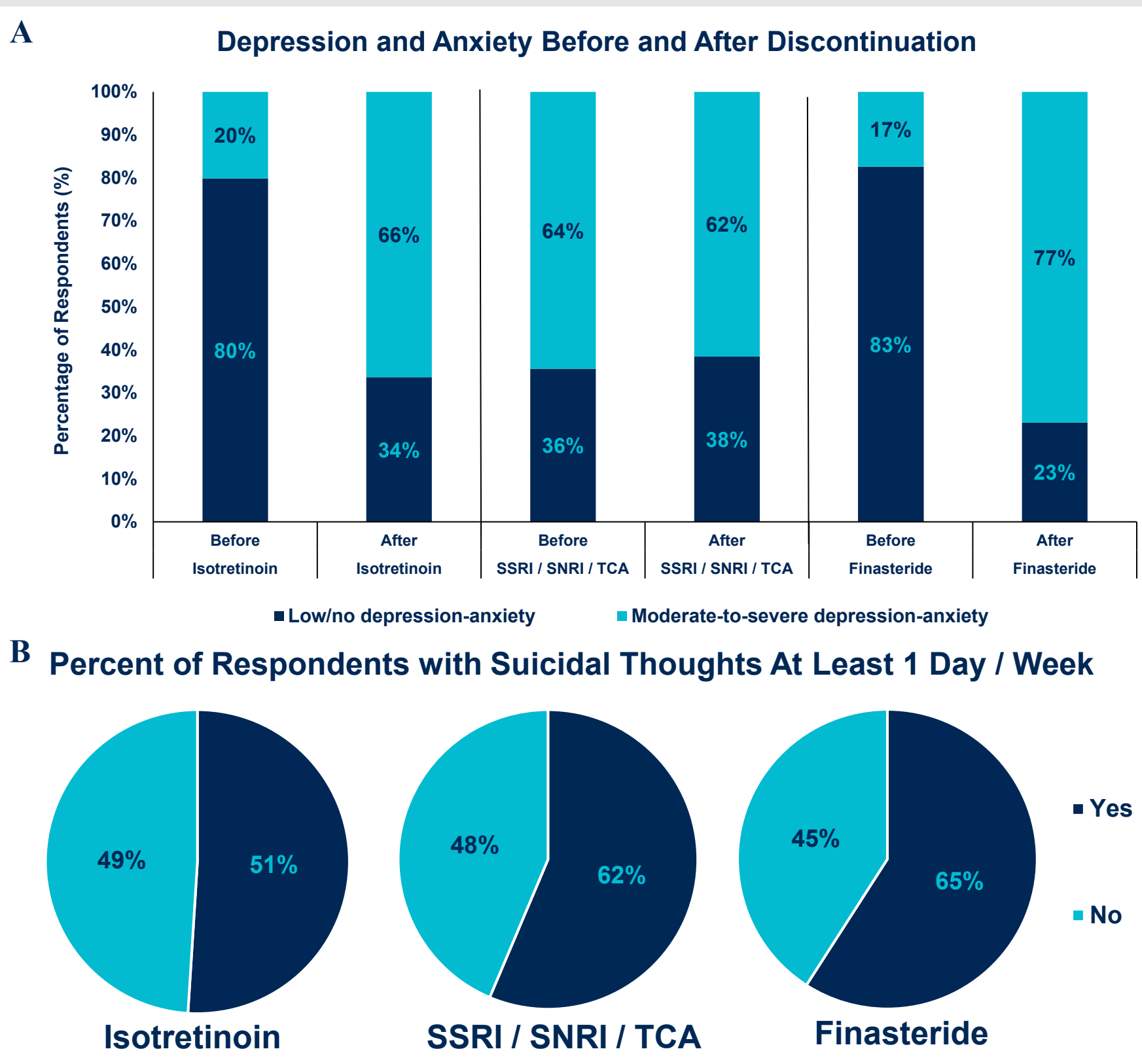
Non-sexual symptoms	Isotretinoin (n=114)	SSRI / SNRI / TCA (n=380)	Finasteride (n=269)
Cognitive impairment	64 (61.5%)	270 (71.1%)	204 (75.8%)
Mood changes	59 (56.7%)	206 (54.2%)	205 (76.2%)
Skin changes	51 (49.0%)	129 (33.9%)	138 (51.3%)
Joint pain	48 (46.2%)	81 (21.3%)	94 (34.9%)
Loss of/reduction in previous hobbies/interests	43 (41.4%)	261 (68.4%)	189 (70.3%)
Bladder changes	19 (18.3%)	119 (31.3%)	101 (37.5%)
Bowel changes	40 (38.5%)	129 (33.9%)	128 (47.6%)
Visual changes	44 (42.3%)	134 (35.3%)	103 (38.3%)
Difficulty getting pregnant or fertility issues	7 (6.7%)	19 (5.0%)	21 (7.8%)
Other symptoms*	30 (28.8%)	158 (41.6%)	117 (43.5%)

Table 1: Study participants reported non-sexual symptoms believed to be related to AntiD, Isotretinoin, or Finasteride

*Other symptoms included: hair changes (loss, dry more body hair), dry mouth/eyes/lips, rapid aging, fatigue, headaches, muscle pain/weakness, pain, voice changes, osteoporosis, food/alcohol intolerance, hearing issues, and neuropathy.

Figure 2: Anxiety and depression both increased following Isotretinoin and Finasteride but decreased in AntiD

Study participants were asked to rank their mental health before and after discontinuing drug therapy. (A) Respondents were also asked if and how often they have thoughts of suicide or harming themselves (B).



Conclusion

Despite isotretinoin, finasteride, and AntiD having different modalities, the withdrawal of each of these drugs can result in PDS with high symptom similarity. Further research is needed to identify the underlying mechanism behind the development of PDS.