Impact of Tardive Dyskinesia on Physical, Psychological, and Social Aspects of Patient Lives: A Survey of Patients and Caregivers in the United States

Rakesh Jain,¹ Rajeev Ayyagari,² Sarah King,² Georgia Grace Edwards,² Amanda Wilhelm,³ Sam Leo⁴

¹Texas Tech University School of Medicine-Permian Basin, Midland, TX, USA; ²Analysis Group, Inc., Boston, MA, USA; ³Teva Pharmaceutical Industries, North America Medical Affairs, Parsippany, NJ, USA (at the time of this research); ⁴Teva Pharmaceutical Industries, Global Health Economics and Outcomes Research, Parsippany, NJ, USA

Q Introduction

- Tardive dvskinesia (TD) is an jatrogenic, hyperkinetic movement disorder that has substantial impact on patients' lives
- · A recent expert consensus panel recommended that key domains for assessing the overall impact of TD should include social, physical, and psychological function as well as impact on the underlying condition treated with antipsychotic medications²
- Despite this, there is a lack of literature about the impact of TD within each of these domains

ത് Obiective

· To assess the impact of TD on social, physical, and psychological domains of patients' lives in the United States from the perspective of patients and caregivers of patients with TD, as well as the impact on treatment of the underlying condition

ිරි Methods

- A targeted literature review and interviews with patients, caregivers, and clinicians were conducted to develop 2 online English-language surveys to assess patient burden, 1 for patients with TD and 1 for caregivers providing unpaid care for patients with TD ≥3 months (there was no overlap between patient respondents and the patients for whom the caregivers were providing care)
- Patients and caregivers provided survey responses regarding impact of TD on physical (24 items). psychological (11 items), and social (31 items) domains of patients' lives rated from 1 (least impact) to 5 (most impact)
- Proportions of respondents reporting severe TD impact (impact score ≥ 4 on ≥ 1 item within each domain) and mean impact scores (sum of responses divided by number of items) were calculated and summarized descriptively
- In addition, patients were asked about how TD impacted treatment of their underlying condition (major depressive disorder, schizophrenia or schizoaffective disorder, bipolar disorder)
- Proportions of patients selecting each option were summarized descriptively

Results

- · Patients represented the diversity of race/ethnicities present in the United States; however, patients with higher education may have been overrepresented (Table 1)
- The patients for whom caregivers were providing care were older and more likely to be male than patients who completed the survey directly; patients were more likely than caregivers to report that TD symptoms were very severe and very bothersome (Table 1)

Presented at Psych Congress 2021; October 29-November 1, 2021; San Antonio, Texas.

Acknowledgments

Medical writing and editorial support were provided by Jennifer C. Jaworski, MS, BCMAS, and Jason Tuffree for Ashfield MedComms, an Ashfield Health company, and was funded by Teva Pharmaceutical Industries.

Disclosures

This study was supported by Teva Pharmaceutical Industries. Rakesh Jain has received consulting fees and personal fees from and has participated in data safety monitoring boards for Teva Pharmaceutical Industries. Rajeev Ayyagari, Sarah King, and Georgia Grace Edwards are employees of Analysis Group, Inc., which has received payments from Teva Pharmaceutical Industries in relation to this study. Amanda Wilhelm was an employee of Teva Pharmaceutical Industries at the time of this study. Sam Leo is an employee and shareholder of Teva Pharmaceutical Industries

Reference

1. Caroff SN, et al. J Clin Psychopharmacol. 2020;40(3):259-268. 2. Jackson R, et al. Neuropsychiatr Dis Treat. 2021;17:1589-1597.

Key Results

- Mean (SD) impact scores as reported by patients and caregivers were 3.1 (0.9) and 3.2 (0.7), respectively, for physical, 3.5 (1.0) and 3.5 (0.8) for psychological, and 3.2 (1.1) and 2.9 (0.7) for social domains, and increased with TD symptom severity (Figure 1)
 - For patients overall and patients with no, mild, or moderate TD symptoms, patients and caregivers rated impact fairly consistently on all 3 domains, with no obvious pattern between respondent groups; for severe or very severe TD symptoms, caregivers rated patient impact on all 3 domains lower than patients (Figure 1)
- Most patients and caregivers (75.1% and 82.7%, respectively) reported that TD has a severe impact (impact score ≥4 on ≥1 item within each domain), increasing from 61.5% and 75.2% for patients with no, mild, or moderate TD symptoms to 95.4% and 96.5% for patients with severe or very severe TD symptoms
 - Severe impact was reported by patients and caregivers with similar frequency for severe or very severe TD symptoms, but a greater proportion of caregivers reported severe impact for patients with no, mild, or moderate TD symptoms
- As reported by patients, the impact of TD was greatest for physical concerns about speaking, sleeping, and eating; psychological aspects of frustration and fear of being rejected; and social issues regarding comfort with appearing on camera in video conferences, taking public transportation, enjoying the things they do for fun, and reactions from family/friends, spouse/date, strangers, and employers (further results for individual survey items will be reported in separate publications)
- TD had a substantial impact on treatment of the underlying condition with >39% of patients skipping, stopping, or reducing their antipsychotic medication (Figure 2)

Figure 1. Patient Impact Overall and by TD Symptom Severity





Figure 2. Impact of TD on Treatment of Underlying Condition(s)



21.9%

TD = tardive dyskinesia

espondents could select more than one option; results are not mutually exclusive. *Response option was only presented to patients that had taken an antipsychotic agent at some point (either currently or in the past).

As Reported by Caregivers

Overall

Physical domain

Social domain

Physical domain

Social domain

Physical domain

Social domain

1.0

2.0

Psychological domain

Psychological domain

Psychological domain

No, mild, or moderate TD symptoms

Severe or very severe TD symptoms

Severity of patient's TD symptoms in

above

→ 3.2

⊣ 3.3

⊢ 3.6

⊣ 3.2

4.0

-137

5.0

- 3.0

12.7

3.0

Impact Score, mean (SD)

Greater Impact

Extent to which patient was bothered by TD symptoms in previous 7 days, n (%)

previous 7 days, n (%)

Age, years, mean (SD)

Race/ethnicity.ª n (%)

Education, n (%)

Employment, n (%)

Duration of TD diagnosis

Duration of TD symptom

Male, n (%)

Underlying condition,⁴ n (%)

TD = tardive dyskinesia "Respondents could select more than one option: results are not mutually exclusive Duration of TD diagnosis is calculated only for patients (n=258) and caregivers (n=153) who reported year of TD diagnosis. The duration of TD diagnosis is approximated, as only the year of diagnosis was reported Duration of TD symptoms is calculated only for patients (n=257) and caregivers (n=144) who reported year of TD symptom onset. The duration of TD symptoms is approximated, as only the year of symptom on set was reported

Conclusions

- - assessing TD movements

TD = tardive dvskinesia





Table 1. Key Patient Characteristics

	Reported by Patients N=269	Reported by Caregivers N=162
	40.6 (9.9)	62.6 (15.4)
	162 (60.2)	87 (53.7)
White or Caucasian	211 (78.4)	126 (77.8)
Black or African American	38 (14.1)	16 (9.9)
Latino, Hispanic, or Chicano	27 (10.0)	30 (18.5)
Other	19 (7.1)	11 (6.8)
High school diploma (or equivalent) or less	47 (17.5)	35 (21.6)
Some college, no degree	39 (14.5)	23 (14.2)
Associate degree	28 (10.4)	19 (11.7)
Bachelor's degree	77 (28.6)	64 (39.5)
Graduate degree	78 (29.0)	21 (13.0)
Working full-time	161 (59.9)	3 (1.9)
Short-/long-term disability from work	35 (13.0)	39 (24.1)
Working part-time	31 (11.5)	5 (3.1)
Not employed (not looking for work), retired, or homemaker	31 (11.5)	27 (16.7)
Self-employed or other	13 (4.8)	0
Not employed (looking for work)	9 (3.3)	4 (2.5)
Student	5 (1.9)	1 (0.6)
; ^{, b} years, mean (SD)	5.4 (5.1)	5.5 (6.3)
s, ^c years, mean (SD)	5.8 (5.5)	5.3 (6.0)
None	5 (1.9)	2 (1.2)
Mild	36 (13.4)	9 (5.6)
Moderate	120 (44.6)	94 (58.0)
Severe	61 (22.7)	47 (29.0)
Very severe	47 (17.5)	10 (6.2)
Not at all	8 (3.0)	1 (0.6)
A little bit	25 (9.3)	12 (7.4)
Somewhat	70 (26.0)	36 (22.2)
Quite a bit	86 (32.0)	83 (51.2)
Very much	80 (29.7)	30 (18.5)
Bipolar disorder	134 (49.8)	67 (41.4)
Major depressive disorder	61 (22.7)	48 (29.6)
Schizophrenia or schizoalfective disorder	74 (27.5)	47 (29.0)

 TD imposes a substantial burden on patients' physical functioning, mental well-being, and social activities, even in patients with self-assessed mild-to-moderate TD symptoms

 TD also impacts how patients manage the underlying condition, suggesting that better TD symptom control may reduce patient burden by reducing antipsychotic treatment disruptions and nonadherence

These results reinforce the need for health care providers to assess impact to patients when