

**Abstract N°: 4574**

**Characterizing the Impact of Axial Spondyloarthritis on Daily Life: Gender and Patient-reported Outcomes associated with Functional Limitation in Canada. Results from the IMAS survey**

**Proton Rahman\*<sup>1</sup>, Marco Garrido-Cumbrera<sup>2</sup>, Sherry Rohekar<sup>3</sup>, Michael Mallinson<sup>4</sup>, Gerald Major<sup>5</sup>, Algis Jovaisas<sup>6</sup>, Nigil Haroon<sup>7</sup>, Wendy Gerhart<sup>8</sup>, Artur J. Debrum Fernandes<sup>9</sup>, Martin Cohen<sup>10</sup>, Jon Chan<sup>11</sup>, Patrick Leclerc<sup>12</sup>, Julie Schneiderman<sup>12</sup>, Robert Inman<sup>7</sup>**

*<sup>1</sup>Memorial U., St. John's, Canada, <sup>2</sup>U. de Sevilla, Sevilla, Spain, <sup>3</sup>Western U., London, Canada, <sup>4</sup>Patent, Toronto, Canada, <sup>5</sup>CSA, Toronto, Canada, <sup>6</sup>U. of Ottawa, Ottawa, Canada, <sup>7</sup>TWH, Toronto, Canada, <sup>8</sup>CSA, Phelpston, Canada, <sup>9</sup>U. de Sherbrooke, Sherbrooke, Canada, <sup>10</sup>MUHC, Montreal, Canada, <sup>11</sup>UBC, Vancouver, Canada, <sup>12</sup>Novartis, Montreal, Canada*

**Background:**

Understanding the most limiting daily activities reported by patients is important for a holistic healthcare approach.

**Objectives:**

To evaluate the degree of functional limitation on daily activities and its association with PROs in Canada.

**Methods:**

The International Map of Axial Spondyloarthritis (IMAS) is a cross-sectional online survey of non-selected patients with self-reported axSpA conducted in 22 countries and endorsed by the Axial Spondyloarthritis International Federation. IMAS captures the patients' perspective of the burden of axSpA. The Canadian adaptation included a review of the survey by an advisory board of axSpA patients and a national steering committee composed of the Canadian Spondylitis Association, rheumatologists and axSpA patients. Canadian participants were recruited from 2018 to 2019. Socio-demographics variables, BASDAI and mental health (GHQ-12) data were collected. Degree of functional limitation in 18 daily activities was evaluated using a 3-point Likert scale. Bivariate analysis was performed to assess activities associated with poorer BASDAI and mental health status.

**Results:**

542 axSpA patients participated. Mean age was 44.3±13.9 years and 63% were female. Mean BASDAI was 5.3±2.1, mean GHQ-12 score was 4.0±3.8 and 50% were on biologics. 94% reported ≥1 limitation in daily activities, of which physical exercise (30%), house cleaning (22%), intimacy (21%) and stair climbing (21%) were most commonly severely impacted (high limitation). Women reported significantly higher limitations in house cleaning, stair climbing, driving, moving around the house and caring for young children ( $p < .05$  for all activities vs men). Compared with low limitation, medium–high limitation in most activities was significantly associated with higher disease activity and worsened mental health for the overall population (Table 1).

Table 1. BASDAI and mental health (GHQ-12)- impact on daily activities (N = 542)

	BASDAI Mean ± SD			GHQ-12 Mean ± SD		
	Low limitation	Medium + High Limitation	p-value	Low limitation	Medium + High Limitation	p-value
Dressing / undressing	5.5 ± 2.0	6.4 ± 4.4	<.001*	4.4 ± 3.8	5.7 ± 4.0	.007*
Washing / personal grooming	5.6 ± 2.0	6.3 ± 2.0	.002*	4.7 ± 4.1	5.6 ± 4.1	.099
Taking a bath / shower	5.6 ± 2.0	6.6 ± 1.8	<.001*	4.2 ± 4.0	5.9 ± 4.0	.002*
Tying shoe laces	5.4 ± 2.0	6.1 ± 2.0	.005*	4.3 ± 3.8	5.2 ± 4.1	.044*
Walking / getting around the house	5.5 ± 2.0	6.4 ± 1.9	<.001*	4.2 ± 3.9	5.6 ± 4.1	.005*
Stair climbing	5.1 ± 1.9	6.3 ± 1.8	<.001*	3.4 ± 3.4	5.4 ± 4.0	<.001*
Lying down / getting up from bed	5.2 ± 2.0	6.3 ± 1.9	<.001*	3.6 ± 3.6	5.5 ± 4.1	<.001*
Going to the toilet	5.4 ± 2.0	6.7 ± 1.9	<.001*	4.3 ± 4.2	5.6 ± 3.9	.024*
Shopping	5.6 ± 1.8	6.2 ± 1.9	.003*	4.1 ± 3.7	5.3 ± 4.1	.025*
Cooking	5.6 ± 1.9	6.3 ± 1.8	.008*	3.7 ± 3.6	5.8 ± 4.2	<.001*
Eating	5.9 ± 2.1	6.9 ± 1.9	.024*	5.0 ± 4.4	5.8 ± 3.9	.282
Housework / cleaning	4.9 ± 2.0	6.0 ± 1.8	<.001*	3.7 ± 3.6	4.8 ± 4.0	.021*
Walking down the street	5.4 ± 1.9	6.1 ± 2.0	.005*	4.4 ± 3.8	5.1 ± 4.1	.228
Using public transportation	5.6 ± 1.9	6.1 ± 1.9	.180	4.4 ± 4.0	5.3 ± 4.0	.155
Driving	5.5 ± 2.0	6.1 ± 2.1	.021*	4.2 ± 3.9	5.3 ± 4.2	.050
Doing physical exercise	4.7 ± 2.1	5.8 ± 1.9	<.001*	3.4 ± 3.7	4.7 ± 4.0	.002*
Engaging in intimate relations	5.2 ± 1.9	6.0 ± 1.9	<.001	4.0 ± 3.8	5.1 ± 4.0	.015*
Caring for children / grandchildren	5.2 ± 1.9	6.0 ± 2.0	.003	3.7 ± 3.8	5.2 ± 4.1	.005

\* p≤.05

### Conclusion:

Canadian axSpA patients, particularly women, are limited in daily life activities beyond those captured by other validated scales. Strong association between functional limitation, disease activity and mental health emphasizes the need for holistic evaluation of axSpA patients.

### Acknowledgments:

**Disclosure of interest:** Proton Rahman Grant/research support from: Janssen and Novartis, Consultant of: Abbott, AbbVie, Amgen, BMS, Celgene, Lilly, Janssen, Novartis, and Pfizer., Speakers bureau: Abbott, AbbVie, Amgen, BMS, Celgene, Lilly, Janssen, Novartis, Pfizer, Marco Garrido-Cumbrera: None declared, Sherry Rohekar: None declared, Michael Mallinson: None declared, Gerald Major: None declared, Algis Jovaisas: None declared, Nigil Haroon: None declared, Wendy Gerhart: None declared, Artur J. deBrum Fernandes: None declared, Martin Cohen: None declared, Jon Chan: None declared, Patrick Leclerc Employee of: Novartis, Julie Schneiderman Employee of: Novartis, Robert Inman: None declared