



Worse Outcomes in Females with Inflammatory Arthritis following Prolonged Social Isolation due to the COVID-19 Pandemic

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Background:

The prolonged period of social isolation as a direct result of the COVID-19 global pandemic has caused an abrupt change in daily activities and been a source of considerable stress for many people. Stress can manifest in many ways and if left undetected can impact negatively on general health. It is essential to understand the impact the of these conditions on patients with inflammatory arthritis (IA) especially axial spondyloarthritis (axSpA), in order to address their needs and concerns in the months to come. The aim of this study is to capture the level of psychological stress for patients with IA, and the effect on disease activity and general health.

Method:

A survey was sent out to patients attending the Rheumatology Department of St James' Hospital with a confirmed diagnosis of IA. This captured changes in sleep, mood, disease activity, employment and general health since the beginning of the social isolation period. A PHQ-4 (Patient Health Questionnaire) was included to determine level of psychological distress. Patients were analyzed on the basis of gender. Differences between the two groups was tested for statistical significance using a two tailed t-test for continuous variables and a chi-squared test of independence for categorical variables.

Objective:

The aim of this study is to capture the level of psychological distress in patients with inflammatory arthritis during this period of social isolation, and understand how this is affecting their disease and general health.

Results:

Females with IA reported significantly higher rates of decline in general health (40% vs 16%, p=0.01), mood disturbance (43.4% vs 26%, p=0.03) and increased disease activity (50% vs 16%, p=0.01) compared to males. Evaluating the mean PHQ-4 scores no significant difference was noted between genders (4.80 vs 3.44, p=0.10). However, females demonstrated a non-significant trend toward increased rates of moderate to severe psychological distress (40% vs 30%, p=0.13). Sub-analysis of axSpA patients found females to have higher rates of decline in general health(50% vs 17.1%, p=0.02) and increased disease activity (50% vs 17%, p=0.04) compared to axSpA males. AxSpA females also had higher rates of severe psychological distress (16.7% vs 9.7%, p=0.08) which did not reach significance.

Table 1: Overall Outcomes by Gender

	Males	Females	p-value
n	62.5% (50)	37.5% (30)	
Age	50.1	50.5	0.91
General Health			0.01
Improved	20% (10)	30% (9)	
No change	64% (32)	30% (9)	
Worsened	16% (8)	40% (12)	
Sleep Quality			0.2
Improved	12% (6)	10% (3)	
No change	68% (34)	43.4% (13)	
Worsened	20% (10)	43.4% (13)	
Mood			0.03
Improved	8% (4)	26.7% (8)	
No change	64% (32)	30% (9)	
Worsened	26% (13)	43.4% (13)	
Disease Activity			0.01
Improved	10% (5)	20% (6)	
No change	70% (35)	30% (9)	
Worsened	16% (8)	50% (15)	
Weekly Exercise			0.26
Increased	26% (13)	43.4% (13)	
No change	44% (22)	33.3% (10)	
Decreased	30% (15)	23.3% (7)	
Self Isolation Companions			0.16
Alone	22% (11)	10% (3)	
Family or Partner	76% (38)	90% (27)	
Currently Employed			0.55
Yes	42% (21)	53.3% (16)	
No	58% (29)	46.7% (14)	
Unemployed due to COVID-19	22% (11)	16.7% (5)	0.49
Work Location			0.54
Home	16% (8)	33.3% (10)	
On site	20% (10)	13.3% (4)	
Other	4% (2)	6.7% (2)	
Engagement with patient support group	4% (2)	3.3% (1)	0.25

Figure 1: PHQ-4 Outcomes by Gender

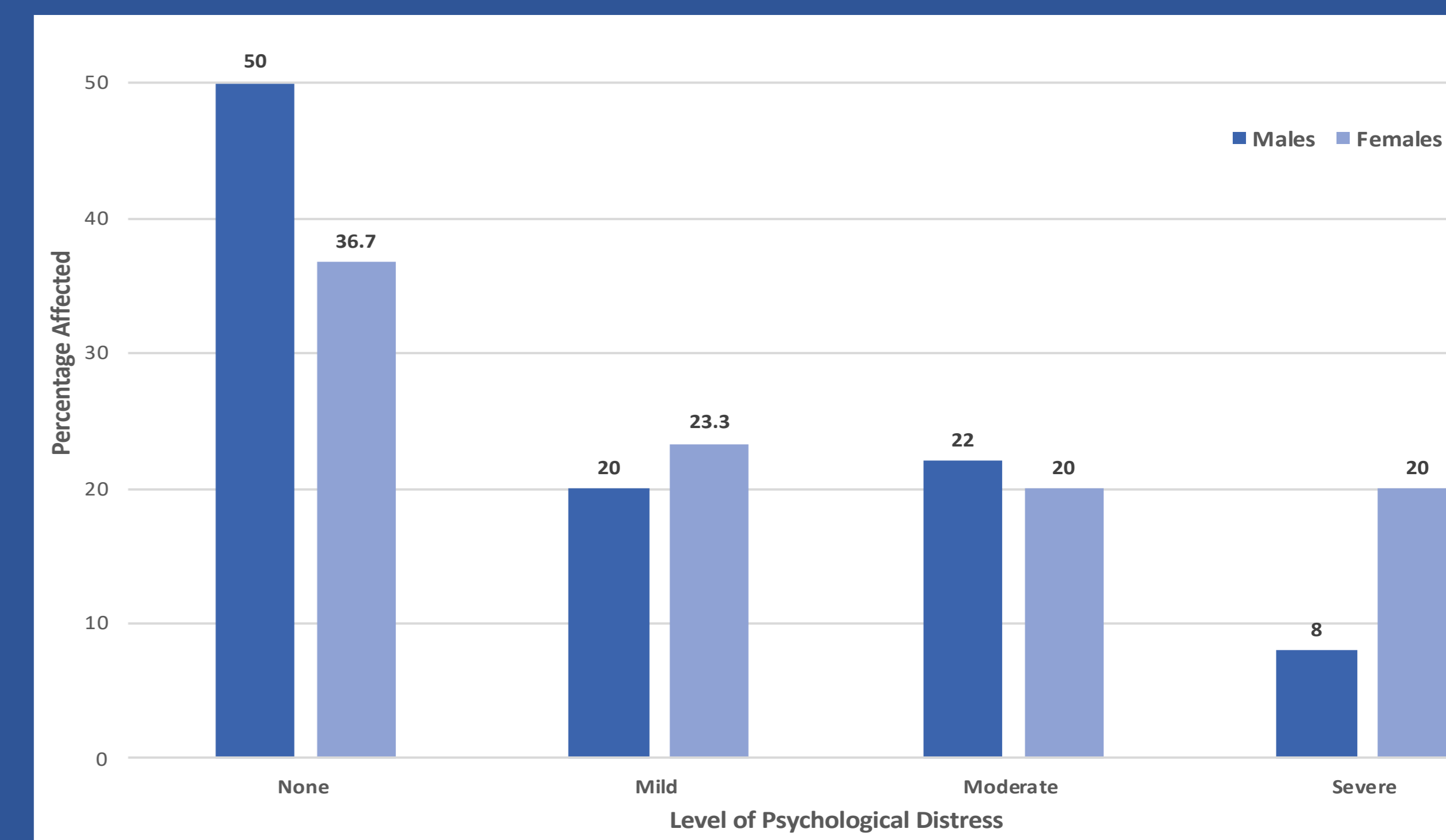
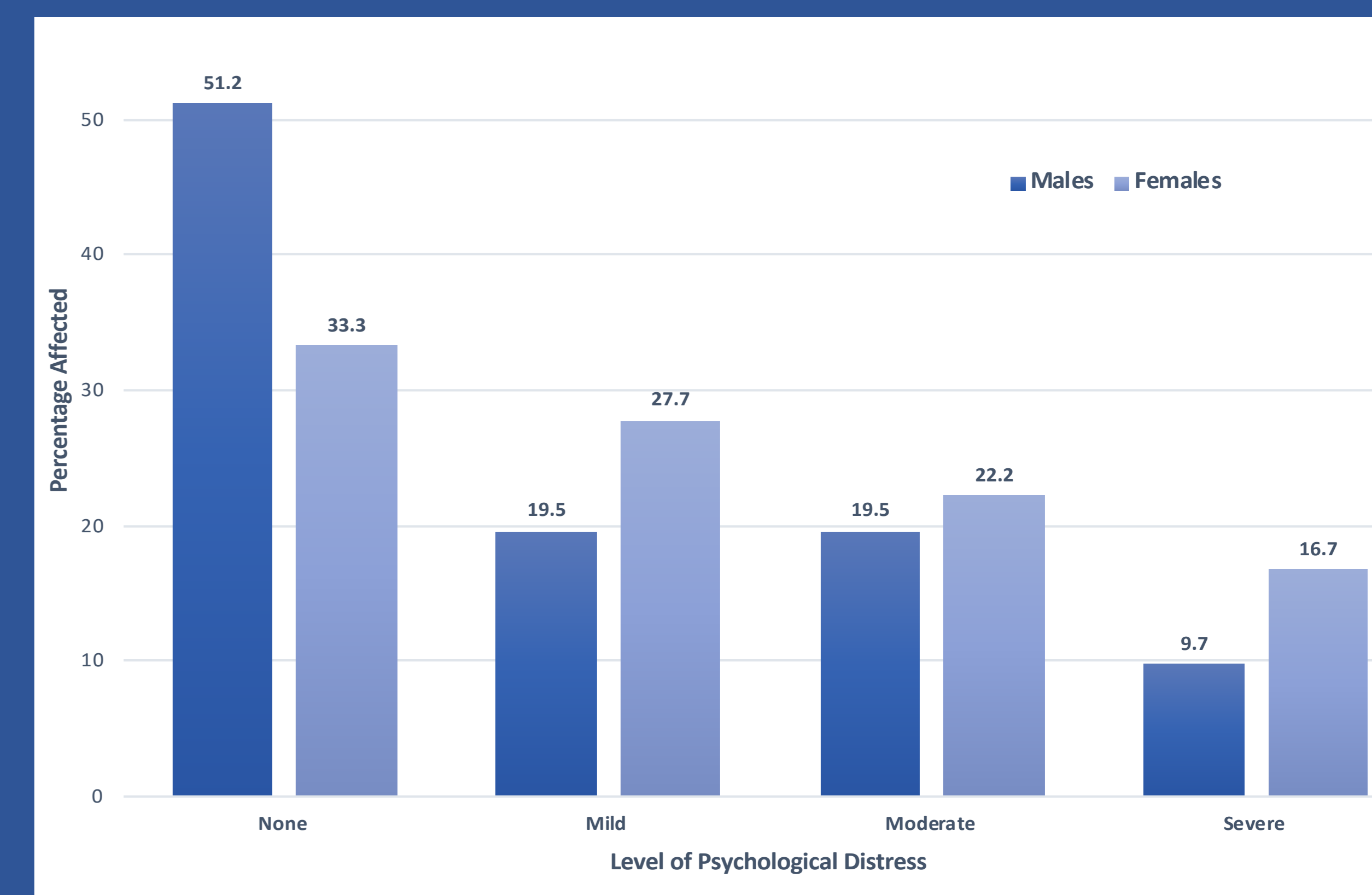


Figure 2: PHQ-4 Outcomes in AxSpA by Gender



Conclusion:

Females with IA reported significantly higher rates of decline in general health, mood disturbance, and increased disease activity during the period of social isolation. This was reflected in a trend towards greater levels of psychological distress.