North West Adelaide Health Study

Musculoskeletal Conditions

Hip pain

Stage 2

Epidemiological Series Report # 2007-13

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University of South Australia

THE UNIVERSITY OF ADELAIDE AUSTRALIA

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Introduction

The following overview presents the prevalence of hip pain among the participants of the North West Adelaide Health Study, and the demographic and risk factors associated with hip pain. Stage 1 (baseline examination) of the study was undertaken between 2000 and 2003, with Stage 2 (second examination) conducted from 2004 to 2006.

Measurement of hip pain

Information relating to hip pain was only collected in Stage 2 and was obtained from the telephone interview. Respondents were asked whether they have had a hip injury, a hip joint replacement, hip pain at rest or when moving on most days of the week for at least a month, hip stiffness when getting out of bed on most days for at least a month and whether the stiffness last for at least 15 minutes.

Prevalence of hip joint damage – Stage 2 (self report)

The self reported prevalence of hip joint damage (serious joint strain or sprain lasting two or more weeks, a fracture or a dislocation) is shown in Table 1. Overall, in Stage 2, **4.1%** (95% CI 3.5-4.8) of study participants reported that they had previously had hip joint damage. Of those with hip joint damage, **13.1%** (95% CI 8.5-19.6) stated that they had been treated by an operation.

The prevalence of hip joint damage in Stage 2 was 4.1%.

Table 1: Prevalence of self reported hip joint damage

	Stage 2	
	n	**%**
Hip joint damage	142	4.1
No hip joint damage	3350	95.9
Total	3493	100.0

Note: (Stage 2) 9 participants did not know and were excluded

Prevalence of hip joint replacement – Stage 2

Participants were asked if they had had a hip joint replacement. Overall, 1.3% (95% CI 1.0-1.8) of respondents had at least one hip joint replaced (Table 2).

The prevalence of having a total knee replacement was 1.3%.

Table 2: Prevalence of hip joint replacement

	Stage 2	
	n	**%**
Yes, left hip	12	0.4
Yes, right hip	24	0.7
Yes, both hips	11	0.3
No	3452	98.7
Total	3499	100.0

Note: (Stage 2) 3 participants did not provide a response and were excluded

Prevalence of hip pain and stiffness

Overall, 9.2% had hip pain and 7.7% had hip stiffness.

Respondents who had not had both hips replaced were asked whether they pain, aching or stiffness in their knees either at rest or moving, on most days for at least a month. Overall 9.2% (95% CI 8.3-10.3) reported that they had had pain in their hip (Table 3). Respondents were also asked if they had ever had stiffness in their hip joints or muscles when first getting out of bed on most days for at least a month. Overall 7.7% (95% CI 6.9-8.7) reported that they had hip stiffness. Of those with hip stiffness, 63.9% (95% CI 58.0-69.4) reported that the stiffness lasted at least 15 minutes. Finally, respondents were asked if their hip pain or stiffness was only as a result of a sprain, strain, fracture or dislocation. Overall, 15.7% (95% CI 12.4-19.7) of respondents with hip pain or stiffness reported that this was the case.

Table 3: Prevalence of hip pain and hip stiffness

	Hip pain		Hip stiffness	
	n	**%**	**n**	**%**
No	3160	90.8	3211	92.3
Yes	322	9.2	269	7.7
Total	3482	100.0	3480	100.0

Note: (Stage 2) 9 and 12 participants respectively did not provide a response and were excluded

Demographic profile of respondents with hip pain/stiffness not due to injury

Those with hip pain or stiffness were more likely to be:
- *Female;*
- *aged 50 years and over; or*
- *.undertaking home duties, retired or a student.*

Overall, 9.5% (95% CI 8.6-10.5) of respondents reported hip pain or stiffness not only due to injury. Table 4 presents the demographic profile of these respondents. The prevalence of hip pain and/or stiffness was statistically significantly higher among females, those aged 50 years and over, or those undertaking home duties, retired or a student. Respondents with a bachelor degree level of education were significantly less likely to state they had hip pain/stiffness (Table 4).

Table 4: Univariate Odds Ratios for demographic variables associated with self reported hip pain

Variable	**n**	**%**	**OR**	**(95% CI)**	**p value**
Sex					
Male	116/1684	6.9	1.00		
Female	209/1734	12.1	1.86	(1.47-2.36)	**< 0.001**
Age group					
20 to 49 years	104/2005	5.2	1.00		
50 to 59 years	83/566	14.6	3.12	(2.30-4.24)	**< 0.001**
60 years and over	138/847	16.2	3.54	(2.71-4.63)	**< 0.001**
Highest education level obtained*					
Secondary	144/1373	10.5	1.00		
Trade/apprenticeship/cert/diploma	112/1154	9.7	0.92	(0.71-1.20)	0.55
Bachelor degree or higher	28/554	5.1	0.46	(0.31-0.70)	**< 0.001**
Marital status*					
Married or living with partner	198/2107	9.4	1.00		
Separated/divorced	30/263	11.4	1.24	(0.83-1.86)	0.30
Widowed	25/190	13.3	1.47	(0.94-2.29)	0.09
Never married	38/561	6.8	0.71	(0.49-1.01)	0.06
Work status*					
Full time employed	85/1442	5.9	1.00		
Part time/casual employed	44/527	8.3	1.44	(0.99-2.11)	0.06
Unemployed	7/75	9.2	1.62	(0.72-3.66)	0.25
Home duties/retired	140/923	15.2	2.87	(2.16-3.81)	**< 0.001**
Student/other	17/150	11.6	2.09	(1.21-3.62)	**0.008**

*Not stated category not reported

Chronic condition and risk factor profile of hip pain and/or stiffness

Participants with hip pain or stiffness were statistically significantly more likely to have arthritis, be classified as obese, have a high waist to hip ratio or a high waist circumference

Hip pain and/or stiffness was statistically significantly more likely among those who reported that they had arthritis, those who were classified as obese, had a high waist hip ratio or a high waist circumference than in those without these factors. Hip pain or stiffness was statistically significantly less likely in those who were undertook some exercise (Table 4).

Table 4: Univariate Odds Ratios for selected chronic condition and risk factor variables associated with hip pain and/or stiffness (not only due to injury)

Variable	n	%	OR	(95% CI)	p value
Arthritis*					
No	156/2684	5.8	1.00		
Yes	166/712	23.2	4.92	(3.88-6.23)	**< 0.001**
Physical activity					
Sedentary	102/818	12.5	1.00		
Undertakes exercise	162/2037	7.9	0.61	(0.47-0.79)	**< 0.001**
BMI					
Underweight/Normal (<25.0)	80/1021	7.8	1.00		
Overweight (25.0 to 29.9)	86/1161	7.4	0.95	(0.69-1.30)	0.73
Obese (30 and over)	122/908	13.4	1.82	(1.35-2.45)	**< 0.001**
Waist/hip ratio (>1.0 men, >0.85 women)*					
Normal	165/2360	7.0	1.00		
High	121/704	17.2	2.77	(2.15-3.56)	**< 0.001**
Waist Circumference(>95cm men, >80cm women)*					
Normal	60/1107	5.4	1.00		
High	226/1957	11.5	2.26	(1.69-3.04)	**< 0.001**

*Not stated category not reported

Quality of Life profile of participants with hip pain and/or stiffness

Participants with hip pain/stiffness scored statistically significantly lower on all dimensions of the SF36

Figure 1 shows the mean scores of the SF-36 subscales for those with and without hip pain and/or stiffness. People with hip pain or stiffness scored statistically significantly lower in all domains of the SF-36 compared to those without.

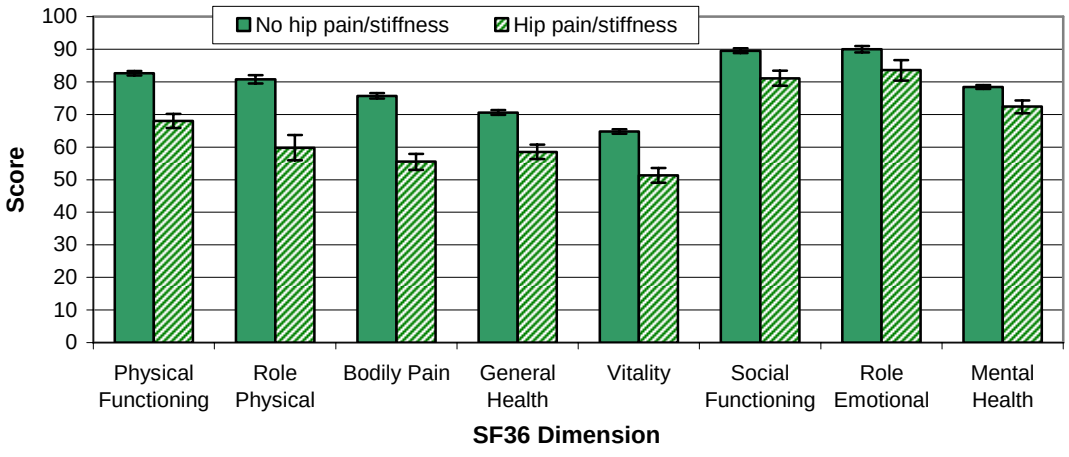

Figure 1: SF-36 mean scores for participants with and without hip pain/stiffness

This document is one of a series of reports concerning Stage 2 of the North West Adelaide Health Study. Please see website for other reports in the series - http://www.health.sa.gov.au/pros

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