

Outcome Assessment In Patients with Back Pain



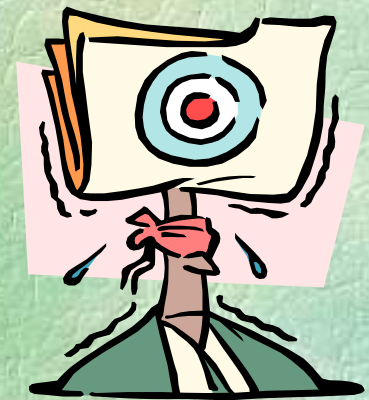
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Aim

- To establish normative functional disability and pain scores
- To assess change during the 3 month follow-up





Survey Instruments

- Roland Morris Questionnaire
- Roland M & Morris R (1983)
- Sensitivity, Reliability, Valid
- Wiesinger et al (1999)
- Reliable, Valid
- Brief Pain Inventory
- Dante et al (1983)
- Reliable, Valid

Roland-Morris Questionnaire



N	Statements
1	I stay at home most of the time because of my back
2	I change positions frequently to try and get my back comfortable
3	I walk more slowly than usual because of my back
4	Because of my back, I am not doing any of the jobs that I usually do around the house
5	Because of my back, I use a handrail to get upstairs
6	Because of my back, I lie down to rest more often
7	Because of my back, I have to hold on to something to get out of an easy chair
8	Because of my back, I try to get other people to do things for me
9	I get dressed more slowly than usual because of my back
10	I only stand up for short periods of time because of my back
11	Because of my back, I try not to bend or kneel down
12	I find it difficult to get out of a chair because of my back
13	My back is painful almost all the time
14	I find it difficult to turn over in bed because of my back
15	My appetite is not very good because of my back pain
16	I have trouble putting on my socks (or stockings) because of the pain in my back
17	I only walk short distances because of my back
18	I sleep less well because of my back
19	Because of my back pain, I get dressed with help from someone else
20	I sit down for most of the day because of my back
21	I avoid heavy jobs around the house because of my back
22	Because of my back pain, I am more irritable and bad tempered with people than usual
23	Because of my back pain, I go upstairs more slowly than usual
24	I stay in bed most of the time because of my back

Brief Pain Inventory



- 1) Pain at its **WORST**
- 2) Pain at its **LEAST**
- 3) Pain on the **AVERAGE**
- 4) Pain you have **RIGHT NOW.**

0 1 2 3 4 5 6 7 8 9 10

No pain

Pain as bad as
you can imagine

- 5) How much **RELIEF** have pain treatments or medications provided?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No relief

Complete relief

Brief Pain Inventory



6) PAIN HAS INTERFERED with your:

- General Activity:
- Mood
- Walking ability
- Normal work
- Relations with other people
- Sleep
- Enjoyment of life

0 1 2 3 4 5 6 7 8 9 10

Does not interfere

Completely interfere

Methodology



- Spine Clinic at Medical Centre/ Suite B1A from August 2000 to January 2001
- 304 patients, 119 patients were reassessed
- Referred from polyclinics, Emergency Department, general practitioners, SAF, other hospitals and inter-departmental referral.





Methodology

- Roland- Morris questionnaire and the Brief Pain Inventory form before seeing the spine specialist.
- Electronic data base was utilised



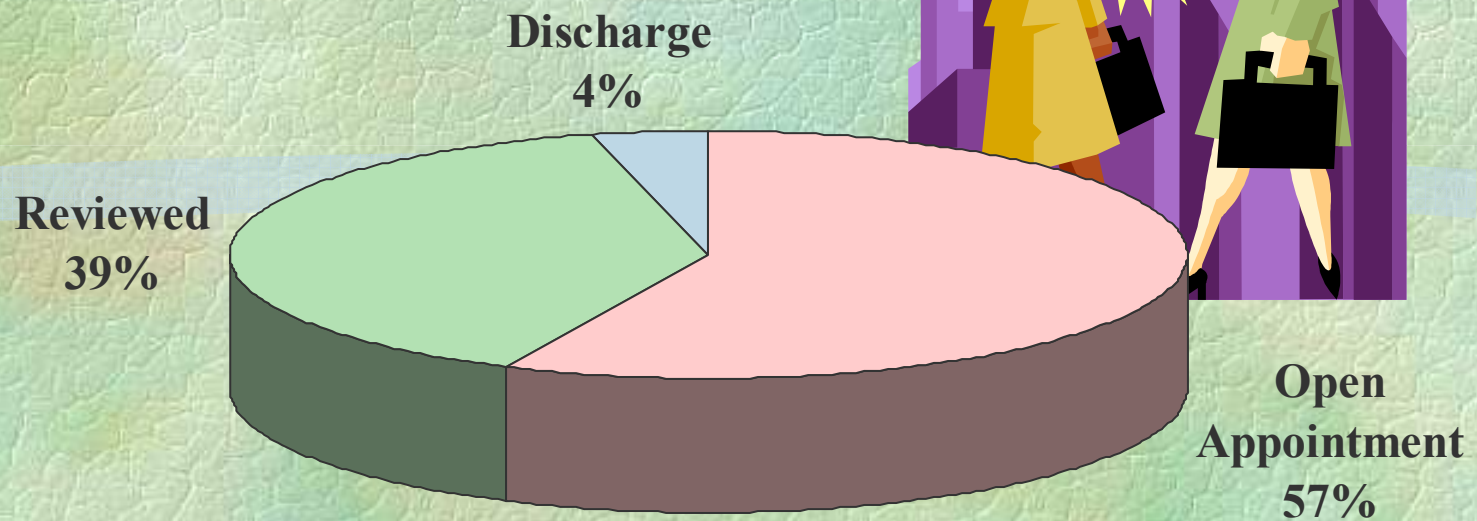


Statistical Analysis

- SPSS V9.0³.
- McNemar Test.
- Wilcoxon Signed Ranks Test.
- Spearman's Rho
- No missing values.
- Conducted at alpha = 0.05 significance level.



Response Rate



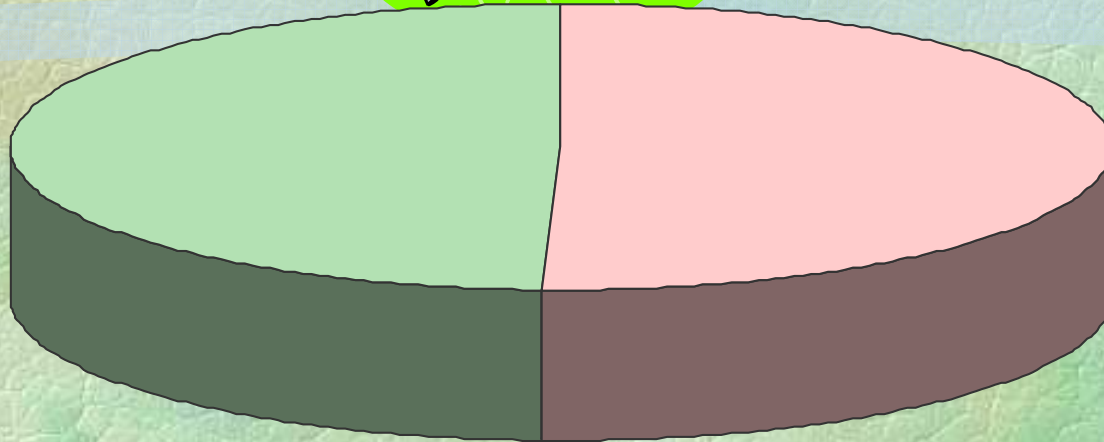
Base: 304

Gender



There was an equal split
in terms of the
respondents' gender

Female
50%

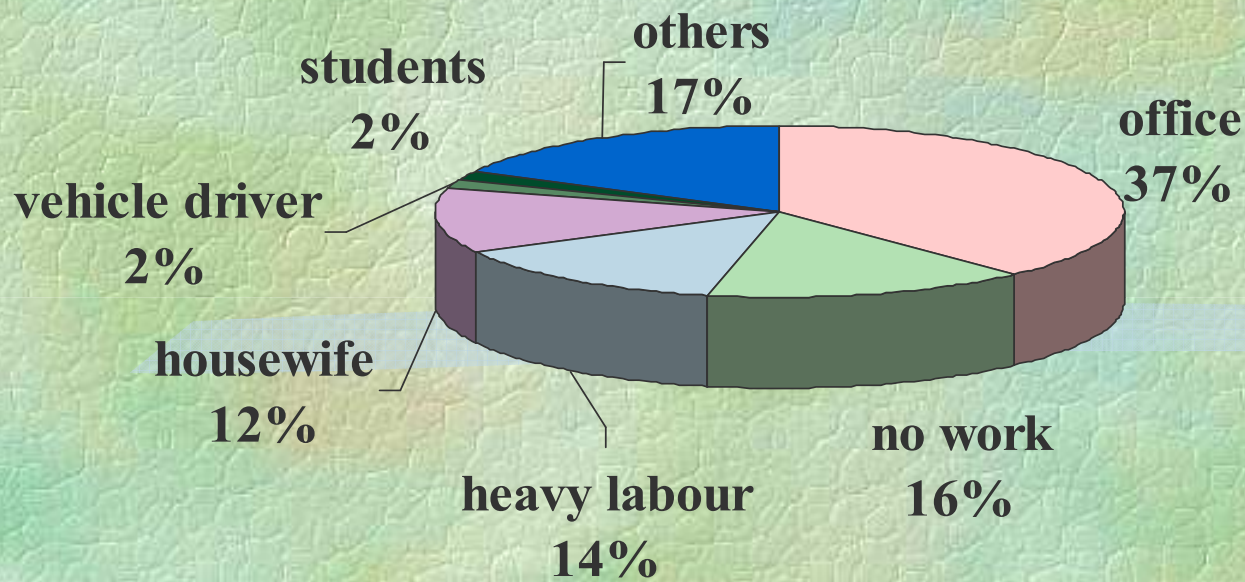


Male
50%

Base: 119



Occupation profile



The majority of the respondents were office workers (37%)

Result : Roland-Morris



N	Statements	Baseline		3 Month Follow-up		p-value*
		n	%	n	%	
1	I stay at home most of the time because of my back	46	38.7%	22	18.5%	<0.001
2	I change positions frequently to try and get my back comfortable	78	65.5%	37	31.1%	<0.001
3	I walk more slowly than usual because of my back	75	63.0%	47	39.5%	<0.001
4	Because of my back, I am not doing any of the jobs that I usually do around the house	44	37.0%	36	30.3%	0.229
5	Because of my back, I use a handrail to get upstairs	25	21.0%	18	15.1%	0.23
6	Because of my back, I lie down to rest more often	62	52.1%	38	31.9%	0.001
7	Because of my back, I have to hold on to something to get out of an easy chair	44	37.0%	21	17.6%	<0.001
8	Because of my back, I try to get other people to do things for me	27	22.7%	18	15.1%	0.049
9	I get dressed more slowly than usual because of my back	33	27.7%	10	8.4%	<0.001
10	I only stand up for short periods of time because of my back	52	43.7%	34	28.6%	0.004
11	Because of my back, I try not to bend or kneel down	75	63.0%	64	53.8%	0.061
12	I find it difficult to get out of a chair because of my back	40	33.6%	14	11.8%	<0.001
13	My back is painful almost all the time	52	43.7%	20	16.8%	<0.001
14	I find it difficult to turn over in bed because of my back	45	37.8%	18	15.1%	<0.001
15	My appetite is not very good because of my back pain	7	5.9%	3	2.5%	0.219
16	I have trouble putting on my socks (or stockings) because of the pain in my back	37	31.1%	19	16.0%	0.001
17	I only walk short distances because of my back	50	42.0%	32	26.9%	0.003
18	I sleep less well because of my back	51	42.9%	24	20.2%	<0.001
19	Because of my back pain, I get dressed with help from someone else	2	1.7%	2	1.7%	1
20	I sit down for most of the day because of my back	18	15.1%	12	10.1%	0.263
21	I avoid heavy jobs around the house because of my back	83	69.7%	74	62.2%	0.108
22	Because of my back pain, I am more irritable and bad tempered with people than usual	29	24.4%	16	13.4%	0.003
23	Because of my back pain, I go upstairs more slowly than usual	48	40.3%	30	25.2%	0.001
24	I stay in bed most of the time because of my back	16	13.4%	7	5.9%	0.078

* Note: p-values from McNemar Test

* Base: n=119



Brief Pain Inventory

Pain Rating	Worse		Least		Average		Right Now	
	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup
Mean	6.00	4.09	4.37	2.91	5.04	3.34	4.93	3.24
Median	7	5	5	3	5	4	5	3
Std. Deviation	2.65	2.66	2.59	2.30	2.40	2.36	2.75	2.63
Minimum	0	0	0	0	0	0	0	0
Maximum	10	9	10	9	10	9	10	9
p-value*	<0.001		<0.001		<0.001		<0.001	

* All p-values are from the Wilcoxon Signed Ranks Test

Brief Pain



Pain Interference	Relief		General Activity		Mood		Walking Ability	
	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup
Mean	22.94	46.22	4.75	3.06	3.24	2.46	4.17	2.82
Median	0	50	5	3	3	1	5	3
Std. Deviation	28.65	33.65	3.15	2.73	3.22	2.79	3.19	2.62
Minimum	0	0	0	0	0	0	0	0
Maximum	100	100	10	10	10	10	10	8
p-value*	<0.001		<0.001		<0.001		<0.001	

Pain Interference	Normal Work		Relations with Others		Sleep		Enjoyment of Life	
	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup	Baseline	3 Mth Followup
Mean	4.61	3.25	2.09	1.96	3.85	2.34	3.14	2.40
Median	5	3	0	0	4	1	2	1
Std. Deviation	3.22	2.98	2.74	2.55	3.37	2.86	3.31	2.84
Minimum	0	0	0	0	0	0	0	0
Maximum	10	10	10	10	10	10	10	10
p-value*	<0.001		0.321		<0.001		<0.001	

* All p-values are from the Wilcoxon Signed Ranks Test



Correlation between total disability scores and pain scores



Pain Scores	Total Disability Score
Pain at Worst	0.591
Pain at Least	0.393
Pain on Average	0.493
Pain at Right Now	0.518

Note: Figures reflected are Spearman's Correlation Coefficient and all are significant at the 0.001 level.



Correlation Between Total Disability Score and Pain Interference



Pain Interference	Total Disability Score
General Activity	0.515
Mood	0.447
Walking Ability	0.54
Normal Work	0.584
Relations with Others	0.496
Sleep	0.549
Enjoyment of Life	0.461

Note: Figures reflected are Spearman's Correlation Coefficient and all are significant at the 0.001 level.

Conclusion



- Improve at 3 months follow up
- Further investigation, more beneficial.



Thank you

