

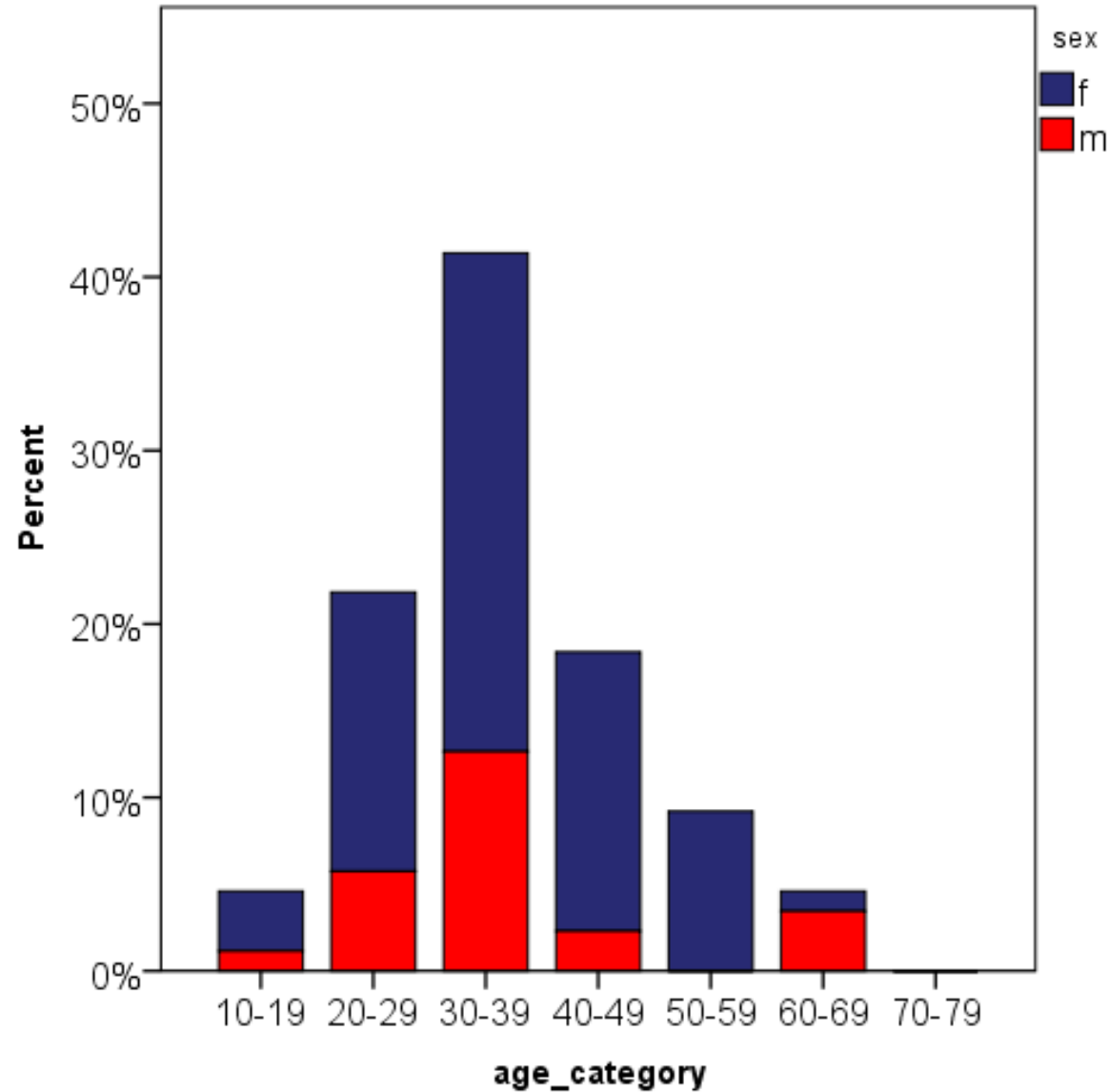
Coccyx Manipulation Statistics

The statistics from 87 consecutive coccyx and pelvic pain patients treated using manipulation and acupuncture by Dr Michael Durtnall at Sayer Clinic Kensington: London during early 2012

The patient cohort

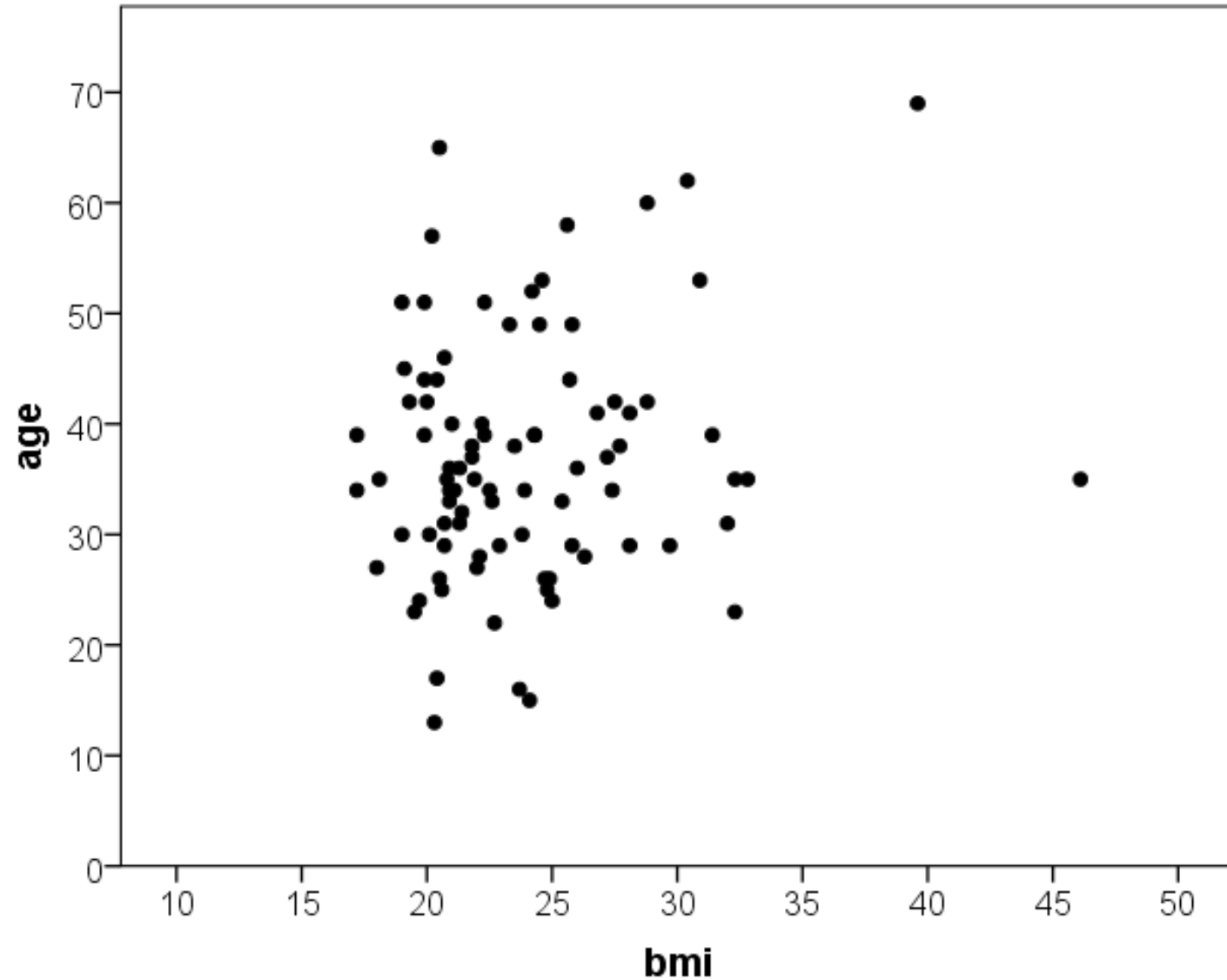
| | |
|---|--|
| Total (n=87) | |
| male | 25% (n=22) |
| age | 37 (+/-11) years <i>(Range: 13-69 years)</i> |
| BMI | 23.9 (+/- 4.8) <i>(Range: 17.2-46.1)</i> |
| Pain | 4 (+/- 1) <i>(scale: 1-5)</i> |
| Months since onset | 28 (+/-43) months <i>(Range: 1-288)</i> |
| Months to improvement | 3 (+/- 3) months <i>(Range: 0-16)</i> |
| Improvement | 72.8 (+/- 27.7) <i>(Range: 0-100)</i> |
| Treatment times to max improvement | 6.5 (+/- 3.8) <i>(Range: 0-20)</i> |

Age & gender distribution (overall cohort)



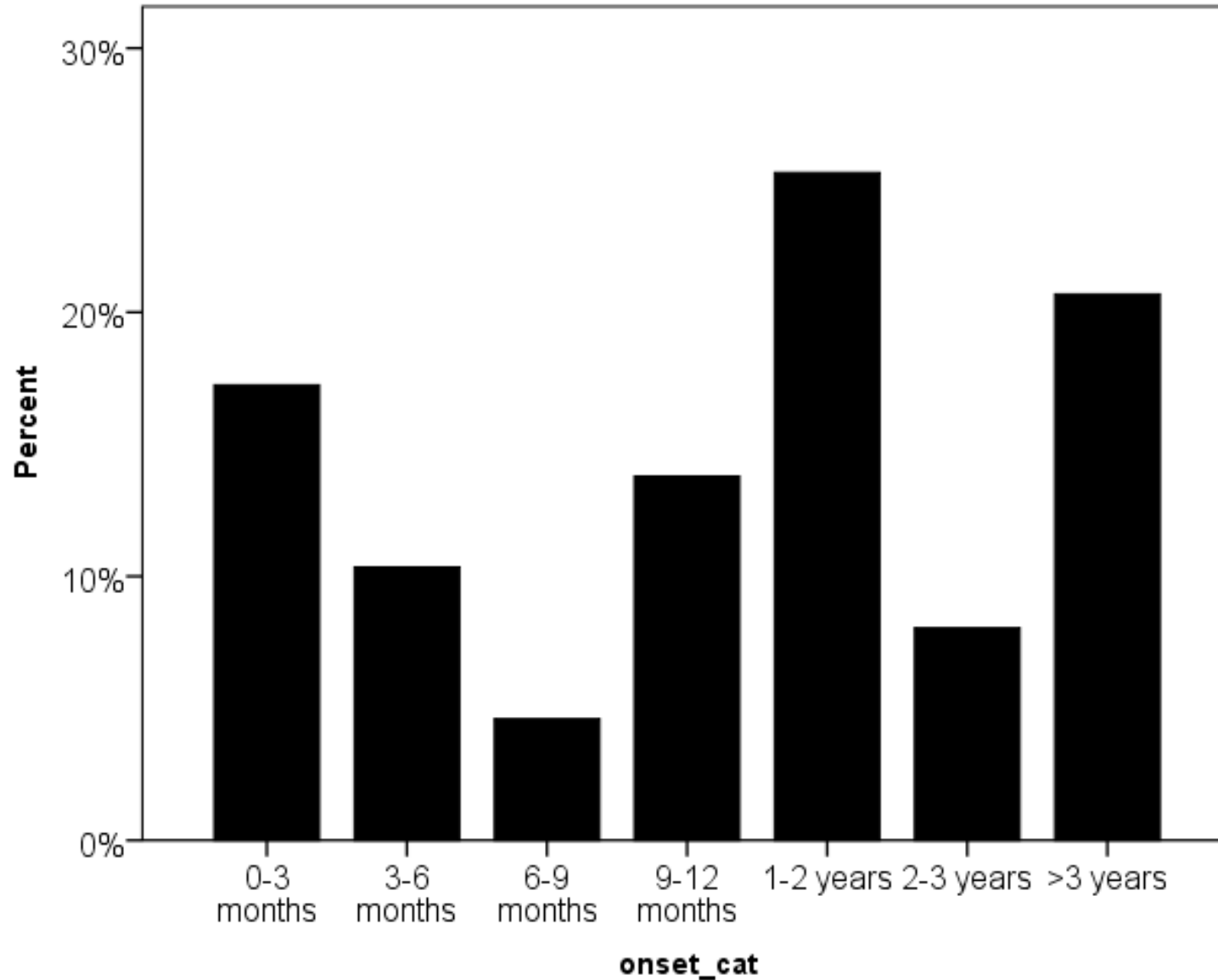
Average age: 37
75% female patients

Age & BMI (overall cohort)



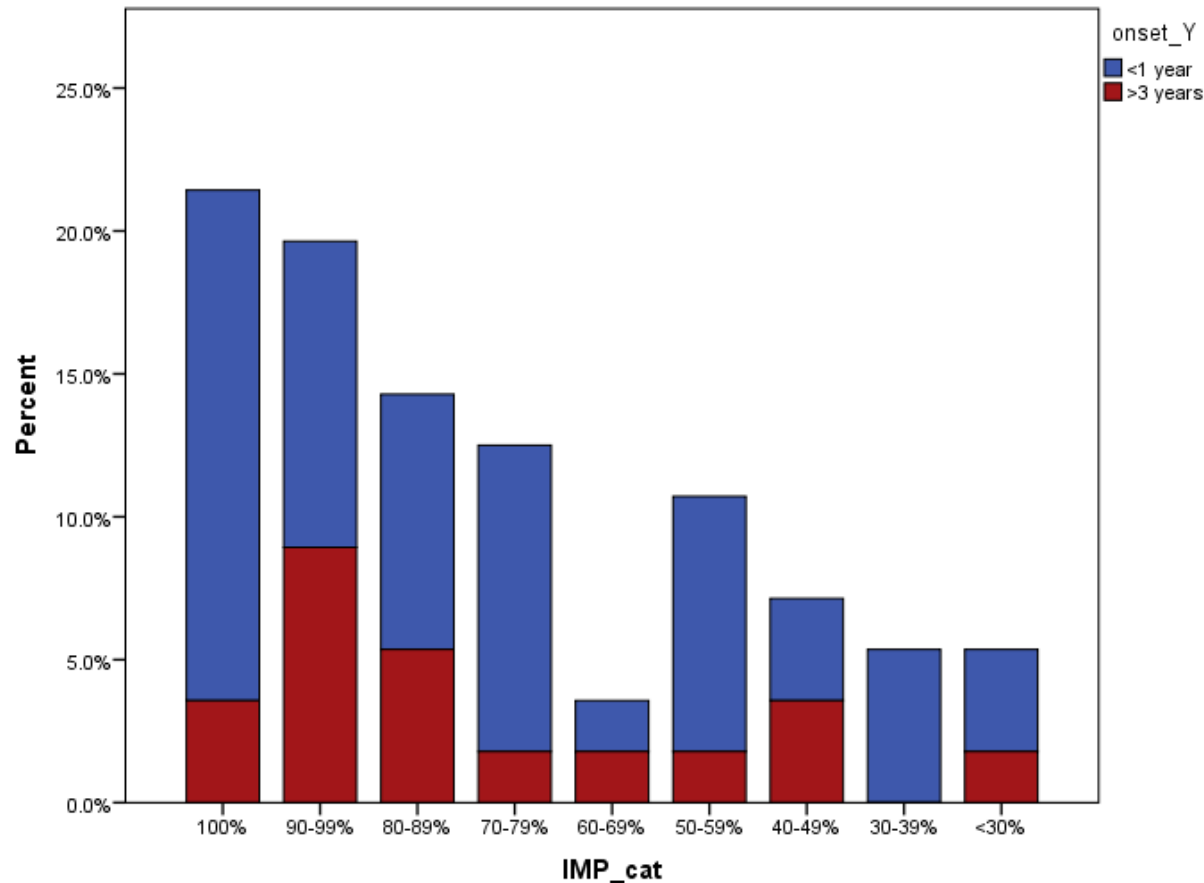
No significant correlation between age & BMI

Months since onset (overall cohort)



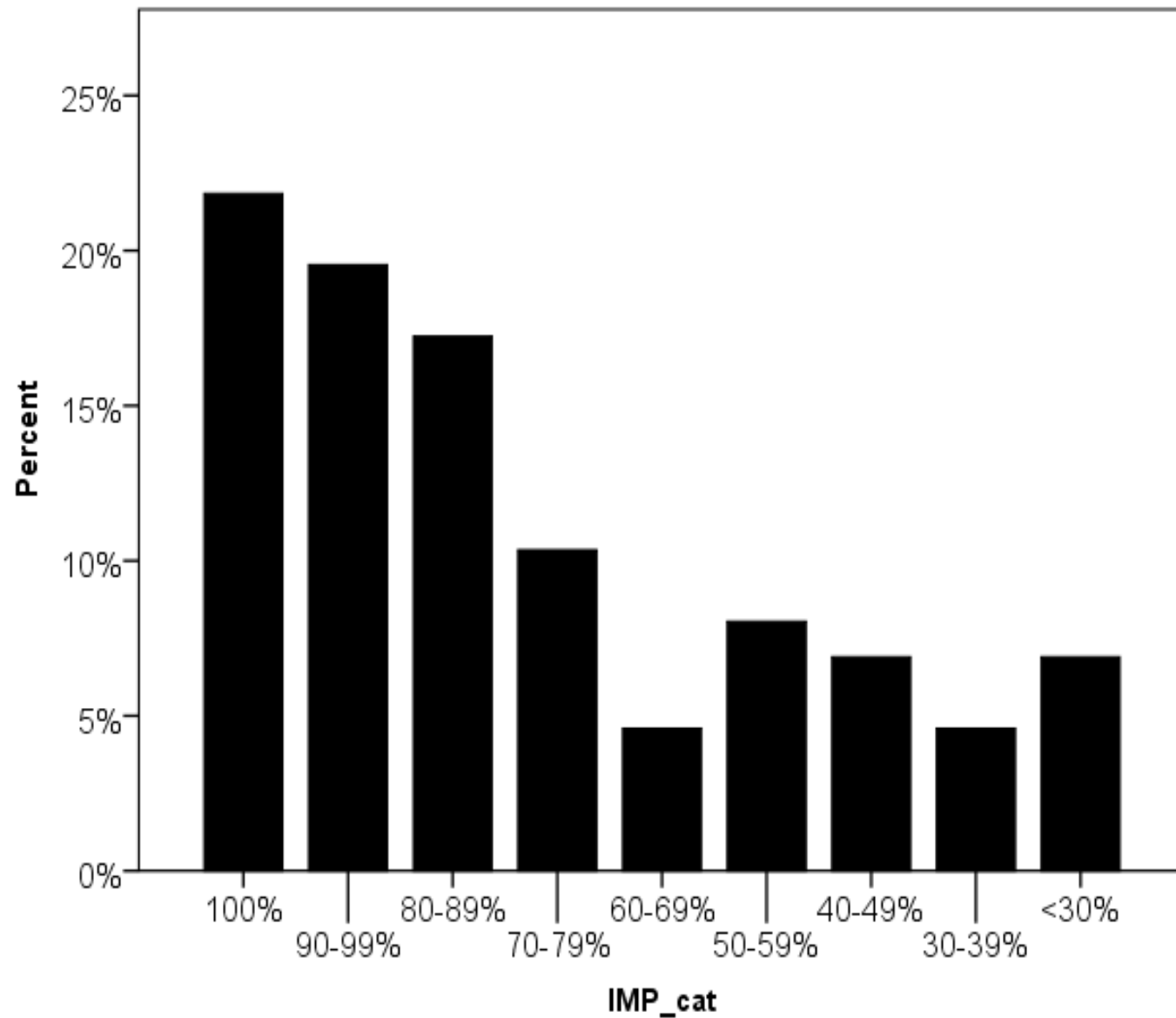
46% of patients come within a year of onset
18% of patients come after >3 years of onset

Comparing patients with onset <1 year vs >3 years



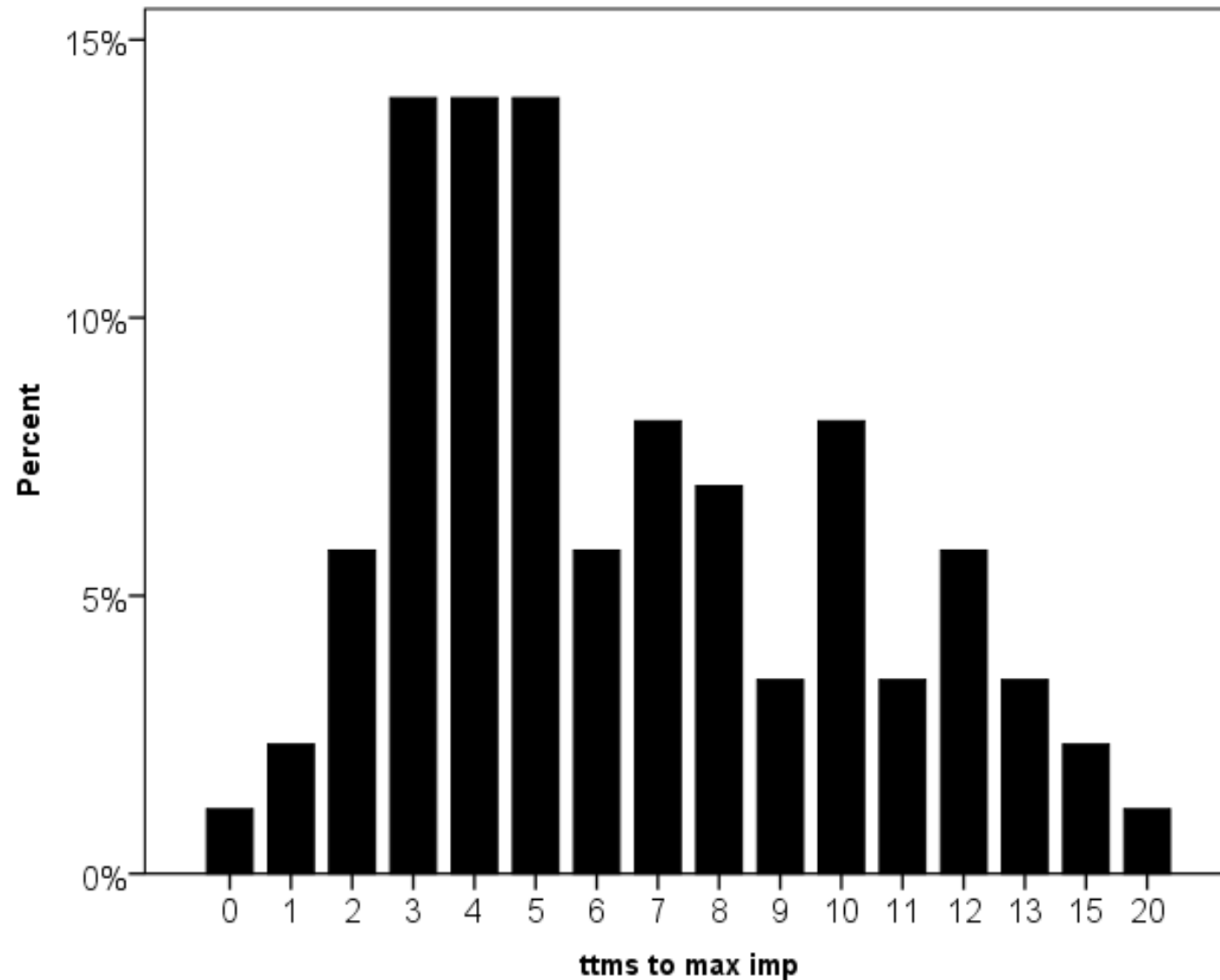
- No significant difference in % improvement of patients <1 year since onset when compared to patients >3 years since onset
- No significant difference in months to reach maximum improvement
- No significant difference in treatment times to reach maximum improvement

% Improvement (overall cohort)



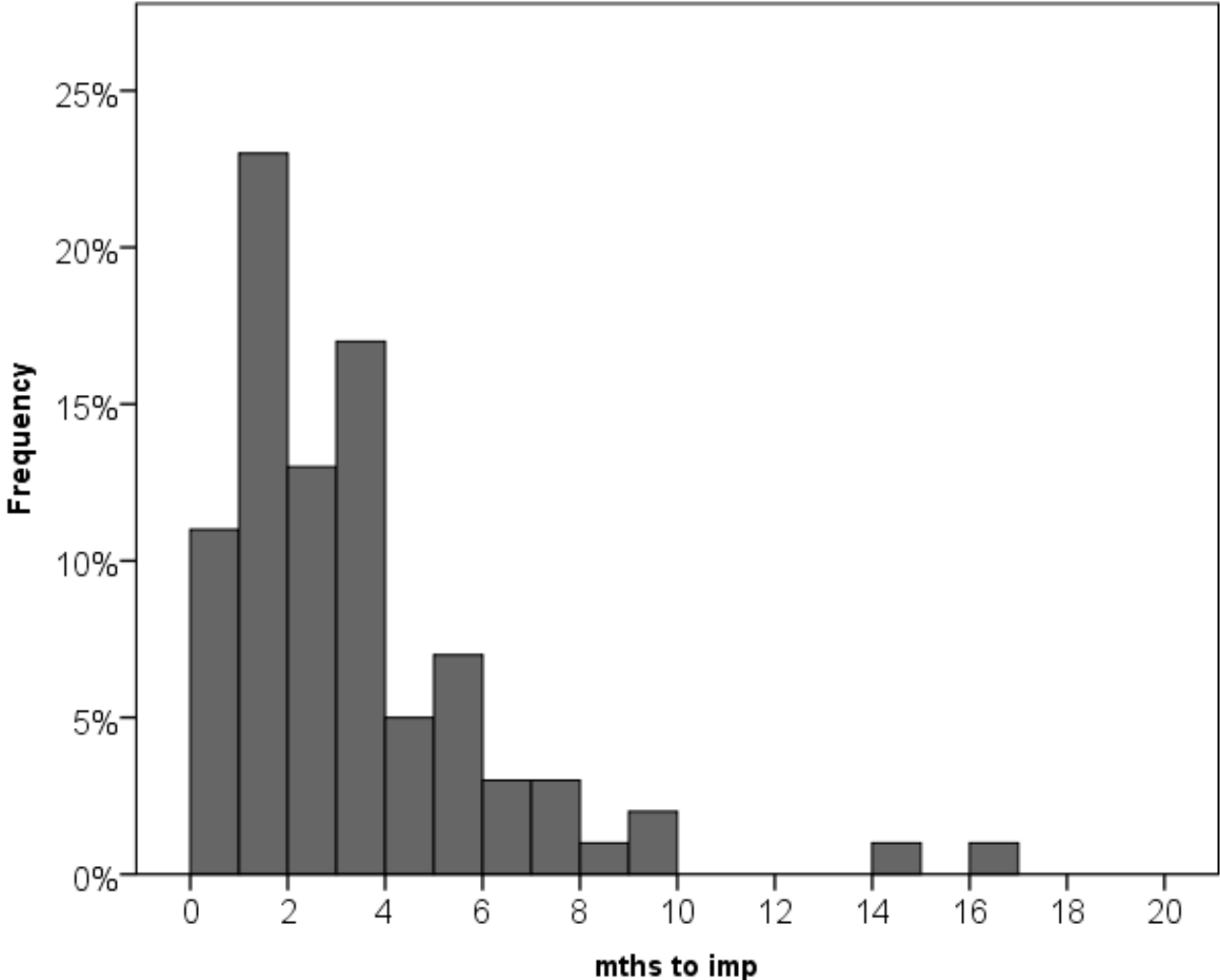
- Overall average improvement 73%
- While 69% improved more than 70%

Treatment times to maximum improvement

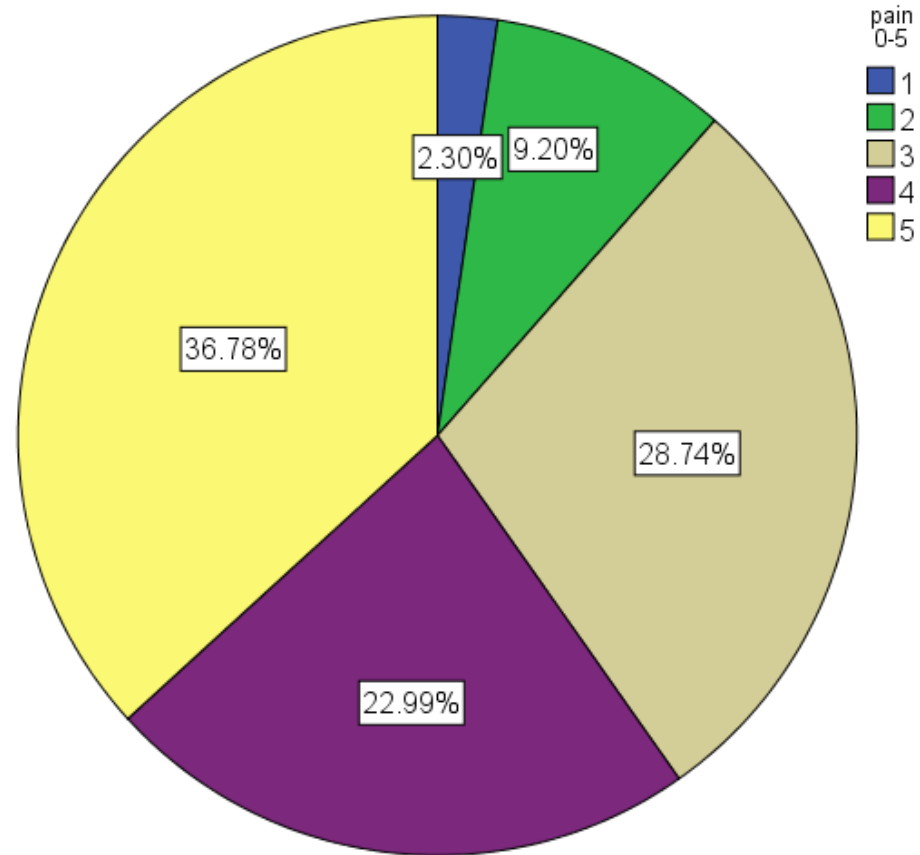


- A large proportion of patients (42%) needed 3-5 treatments to reach maximum improvement
- while the overall average was 7 treatments to maximum improvement

Months to Improvement (Overall cohort)

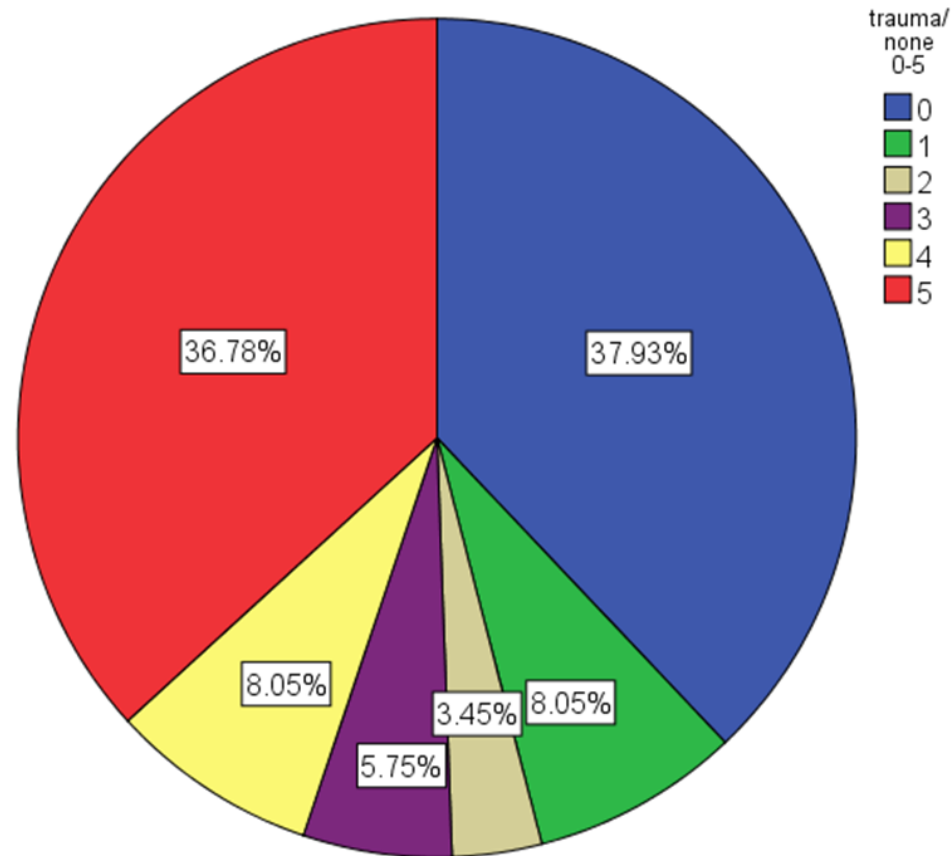


Pain (overall cohort)



69% of patients are in severe pain
(pain scale scores 4 & 5)

Trauma (overall cohort)



Clear distinction between a large fraction of patients with severe trauma (37%) and a large proportion of patients with no trauma (38%)

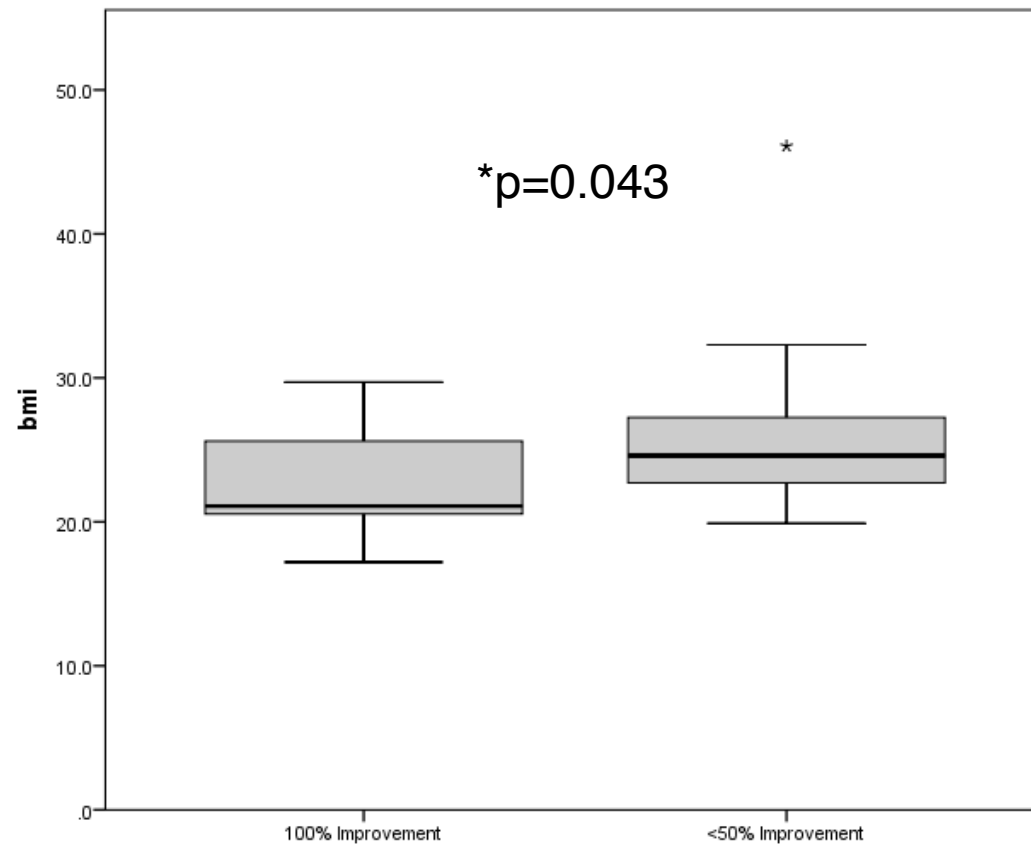
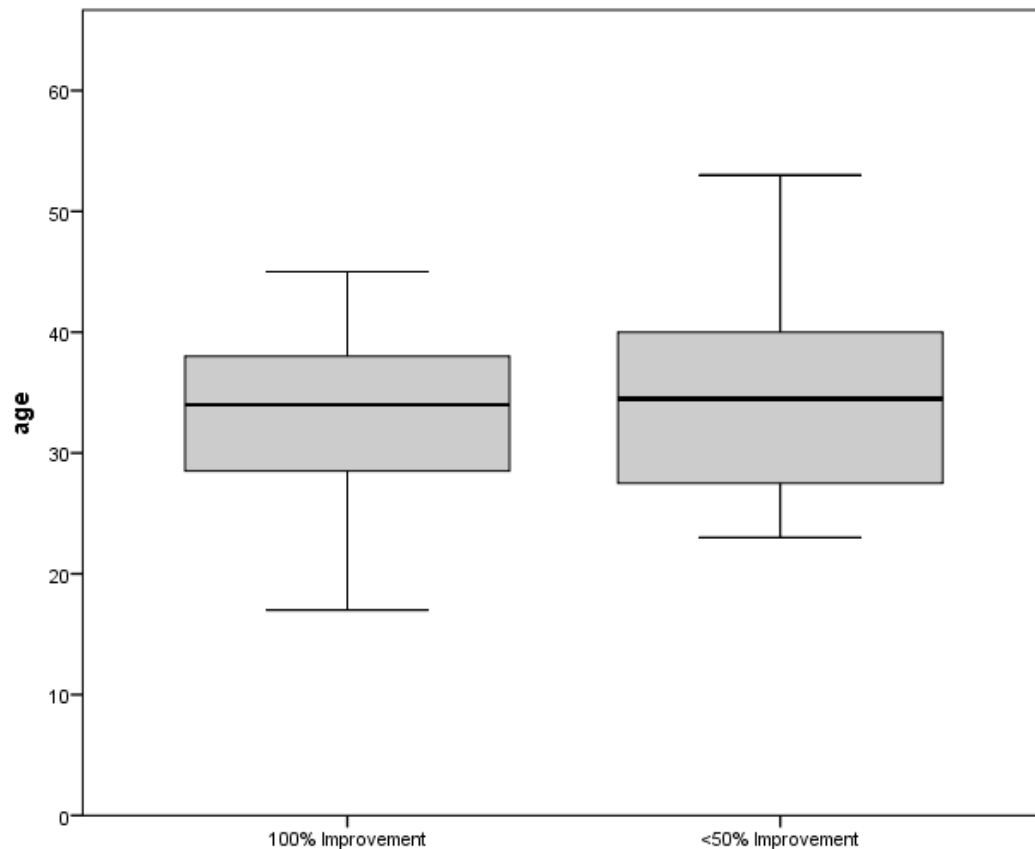
Conclusions

Comparing patients with low
vs high improvement

Descriptives of extreme improvement categories

| | 100% imp (n=19) | <50% imp (n=16) |
|---------------------------|--|--|
| Gender | 63% female (n=12) | 75% female (n=12) |
| Age | 33 (+/-7) years 17-45 years | 35 (+/- 9) years Range: 23-53 years |
| BMI | 22.7 (+/- 3.6) Range: 17.2-29.7 | 26.2 (+/- 6.3) Range: 19.9-46.1 |
| Pain | 3.79 (+/- 1.08) | 4.19 (+/-0.98) |
| Months since onset | 17 (+/- 21) months Range: 1-84 months | 28 (+/- 29) months Range: 5-96 months |
| Sedentary | 2 (+/- 2) Range: 0-5 | 4 (+/- 1) Range 1-5 |
| Education | 3.3 (+/- 1.2) Range (1-5) | 4.0 (+/- 1.2) Range: 2-5 |
| Patient motivation | 4.3 (+/- 1.2) Range: 1-5 | 2.1 (+/- 1.6) Range: 0-5 |
| TTMS to max imp | 8 (+/- 5) Range: 2-20 | 5 (+/- 3) Range: 0-13 |
| Trauma | 3.2 (+/- 2.1) Range: 0-5 | 2.4 (+/- 2.4) Range: 0-5 |
| Months to Imp | 3.8 (+/- 4.2) months Range: 0.5-16 | 2.1 (+/- 1.6) months Range: 0-7 |

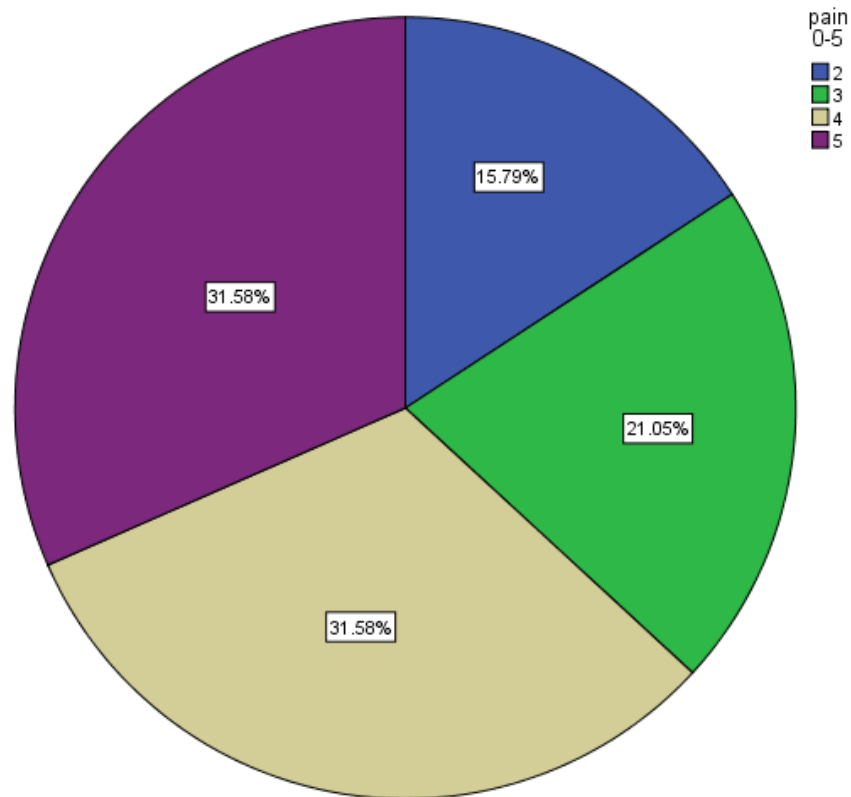
Age & BMI



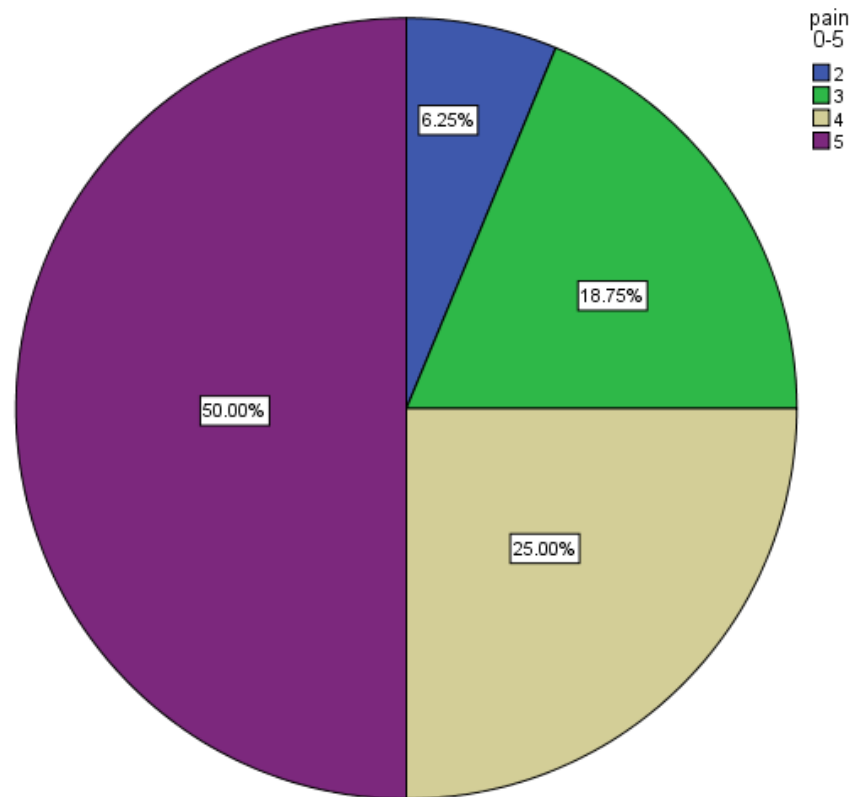
No significant difference in average age of high (100%) and low (<50%) improvers, BUT significant difference in BMI ($p=0.043$) of low improvers (average: 26.2) compared to high improvers (average: 22.7)

Pain

100% improvement



<50% improvement

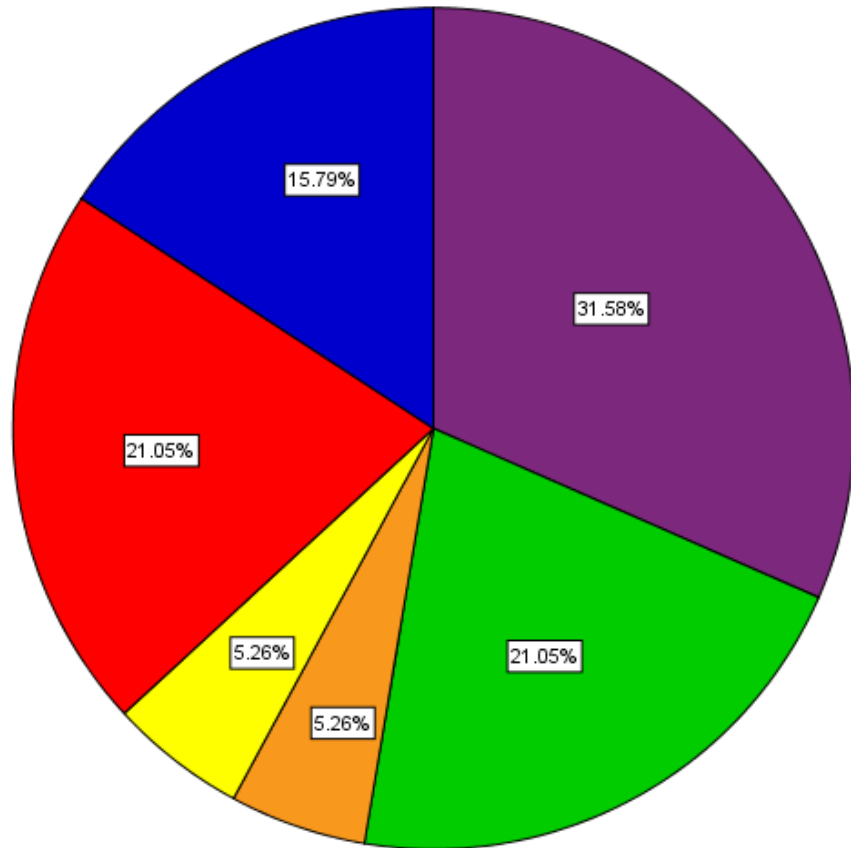


Trend to higher pain in low improvers (average: 4.2) vs slightly lower pain in high improvers (average: 3.8)

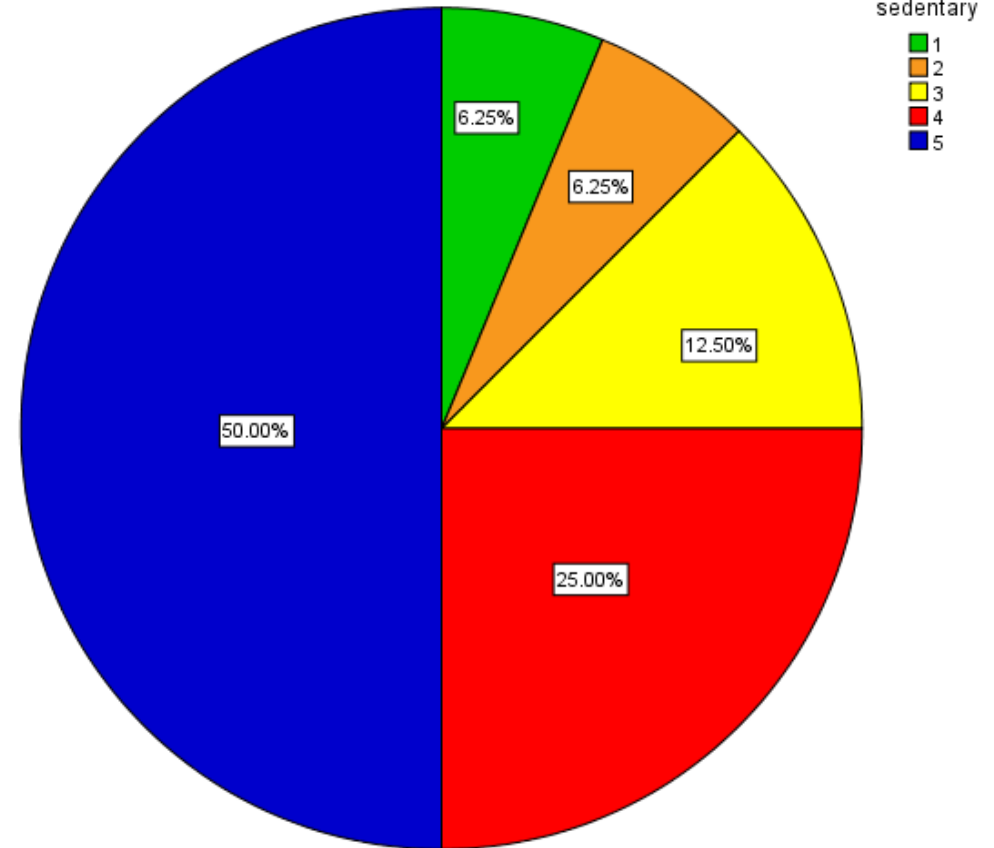
Sedentary

****p=0.001**

100% improvement



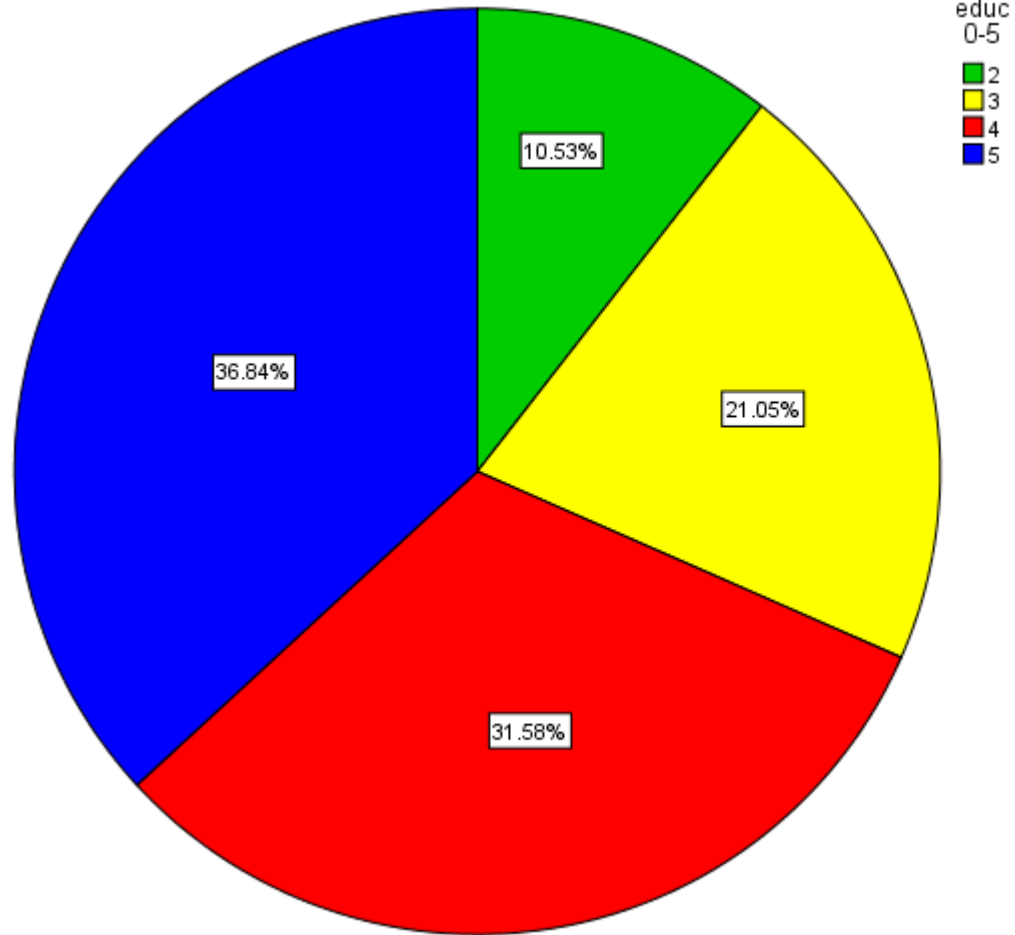
<50% improvement



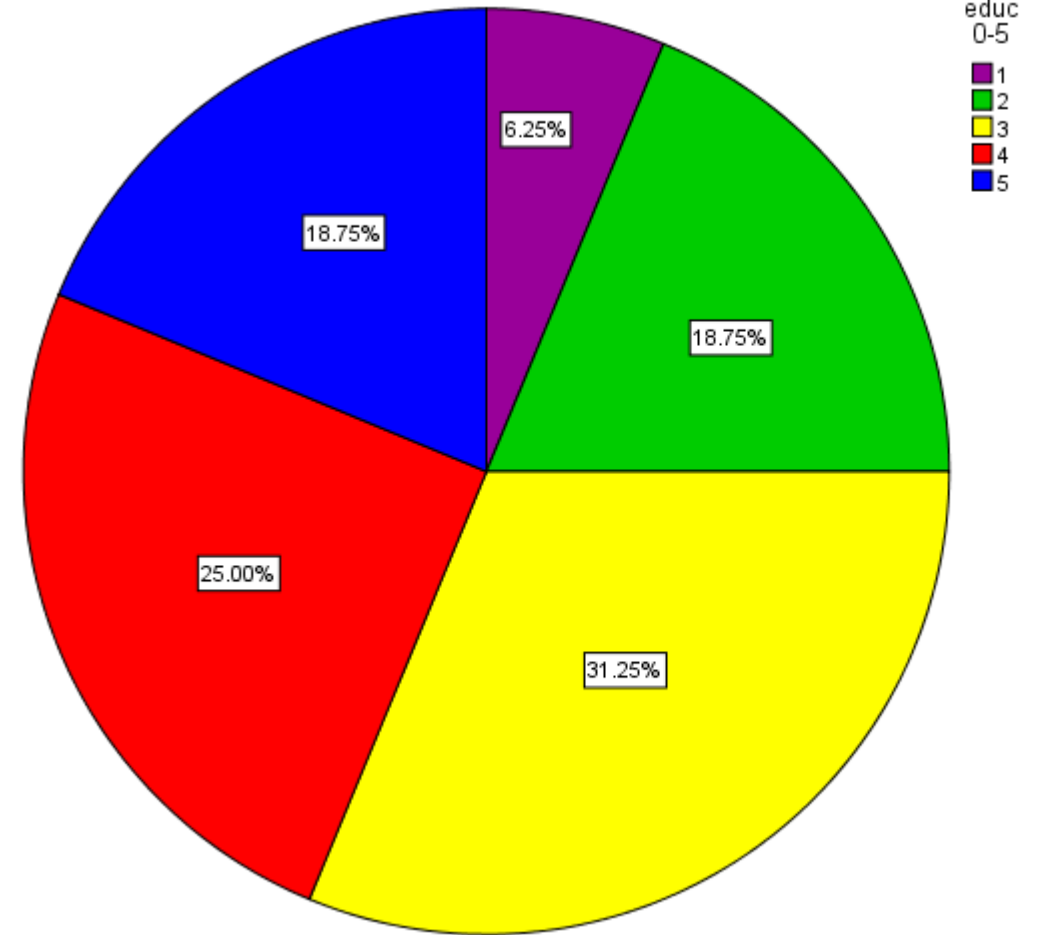
Strong significant difference ($p=0.001$) in sedentary level of high improvers (average: 2) compared to low improvers (average: 4)

Education

100% Improvement



<50% Improvement

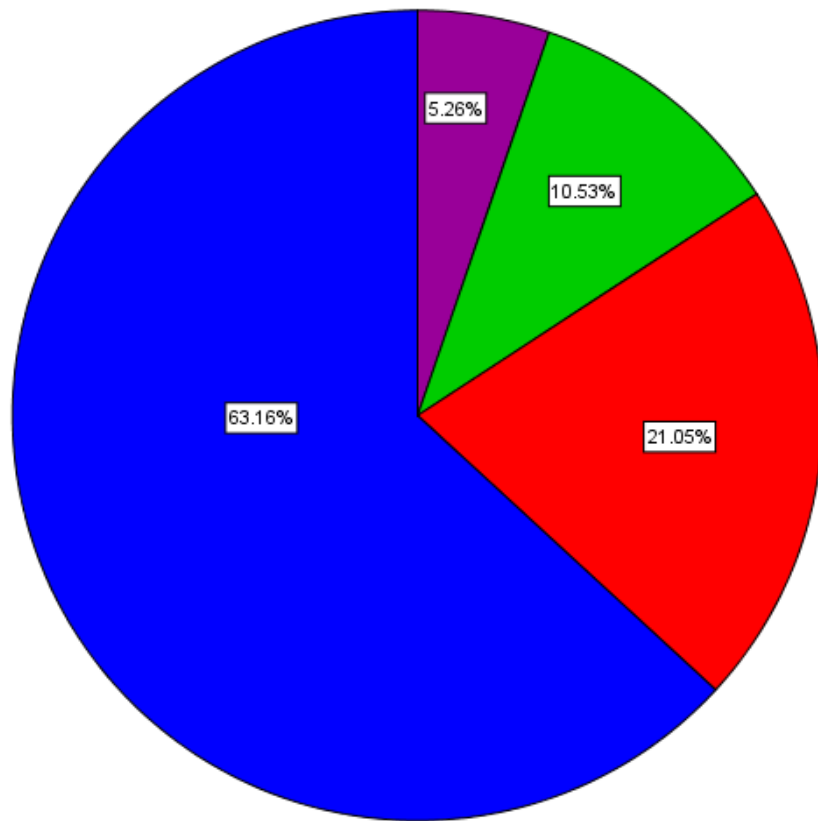


Trend towards higher education in high improvers (average: 4.0) compared to low improvers (average 3.3)

Patient motivation

***p<0.001

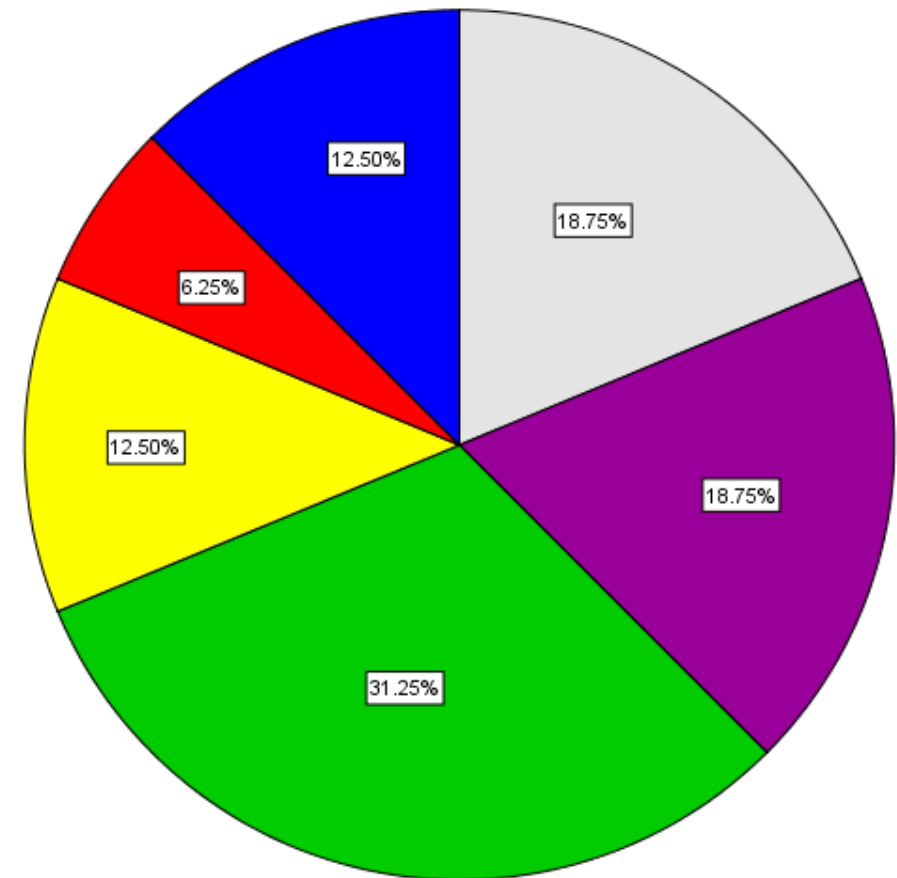
100% Improvement



PT
MOTIVATION

- 1
- 2
- 4
- 5

<50% Improvement



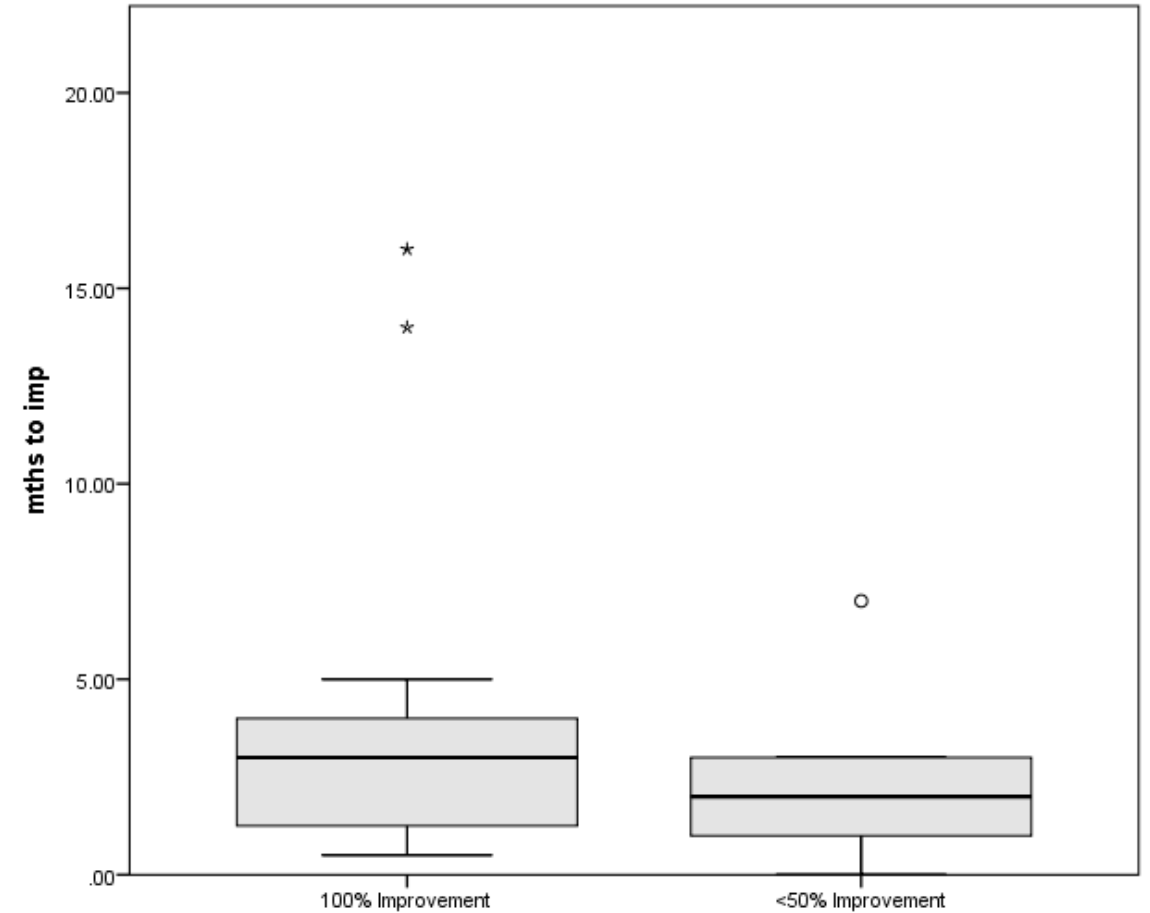
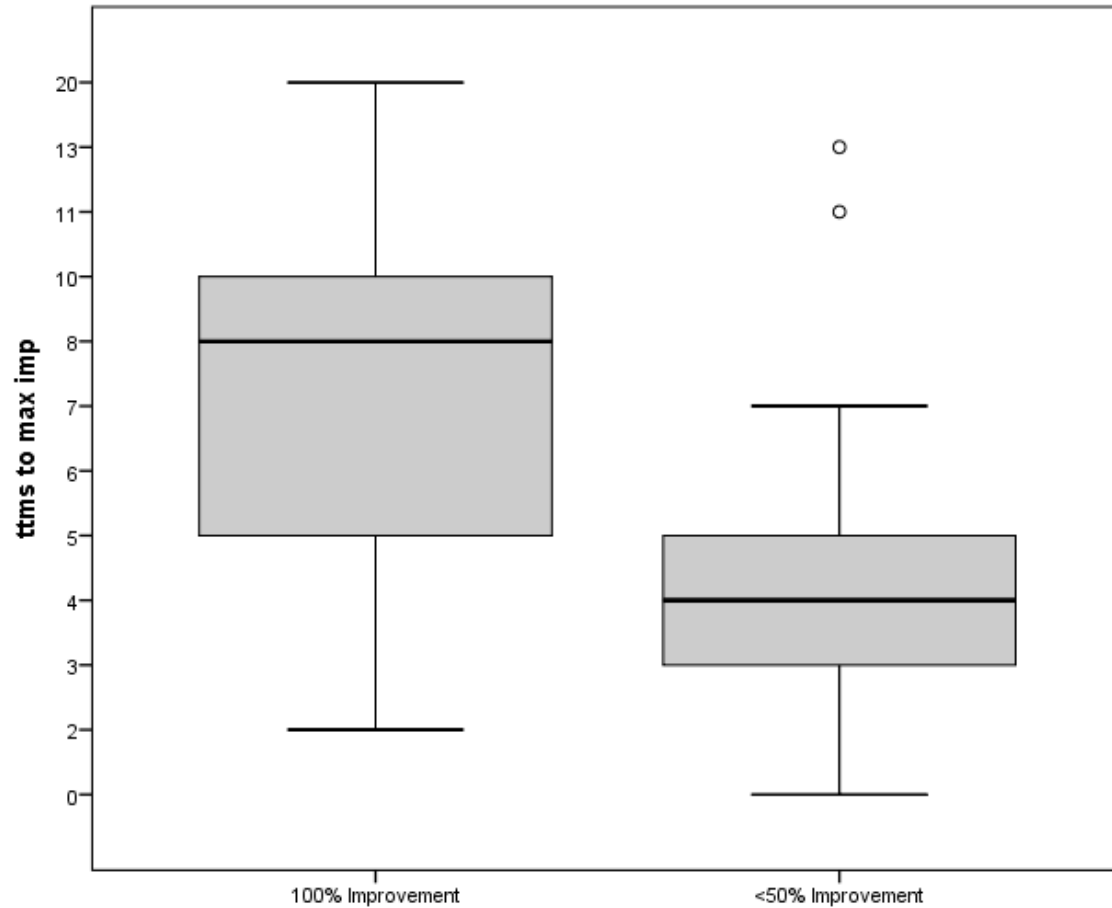
PT
MOTIVATION

- 0
- 1
- 2
- 3
- 4
- 5

Clear significant difference (p<0.001) in patient motivation of high improvers (average: 4.3) compared to low improvers (average: 2.1)

TTMS to max IMP & mths to max imp

*p=0.03



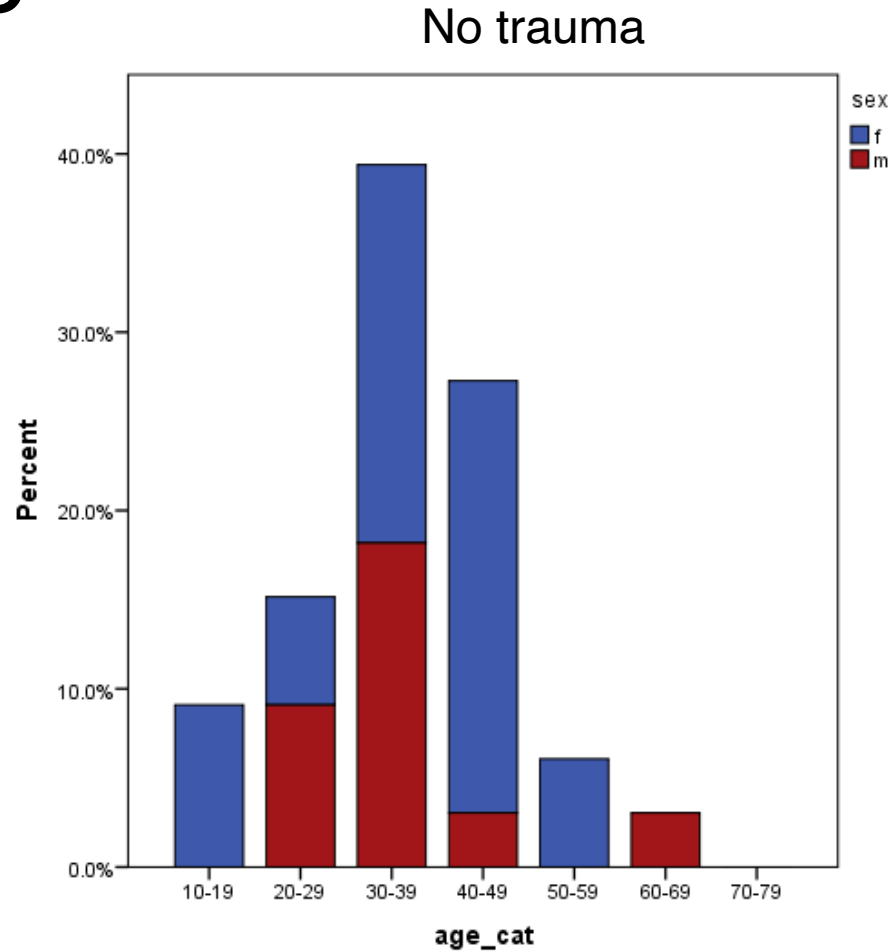
Significant difference in treatment times to maximum improvement in high improvers (average: 8) compared to low improvers (average: 5), but no significant difference in months to reach the maximum improvement in both groups

Comparing no trauma vs severe trauma patients

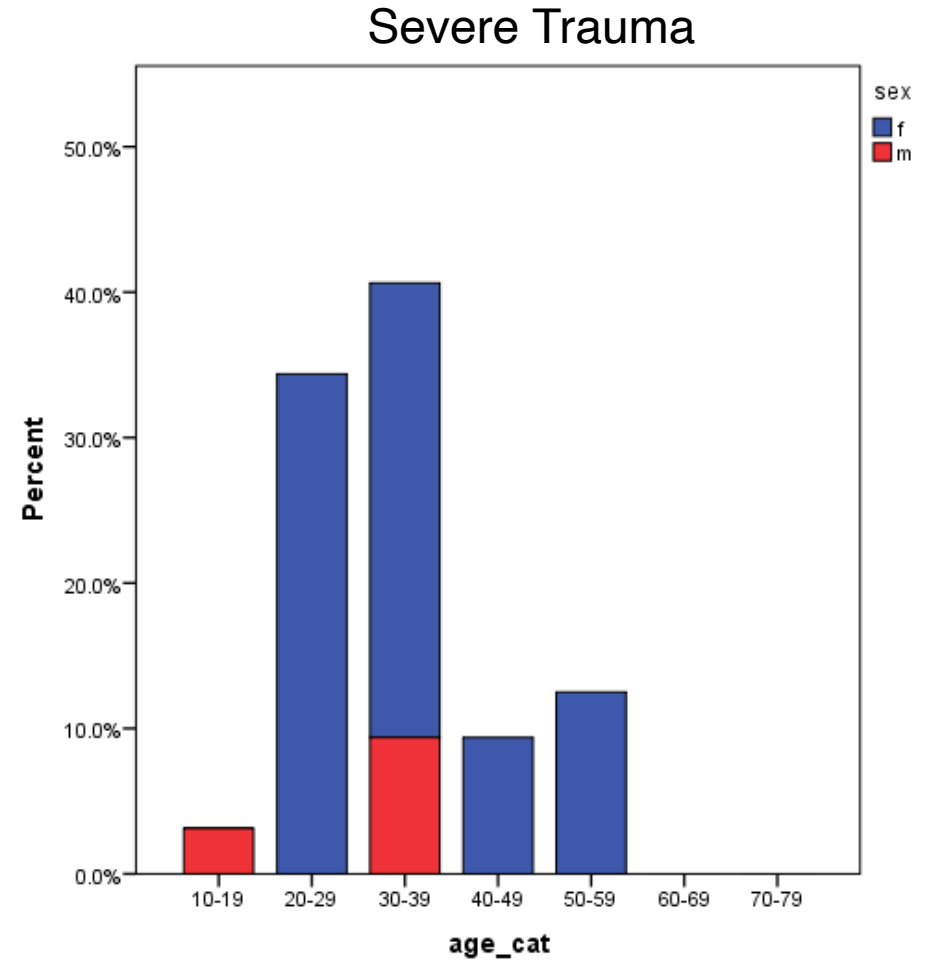
Descriptives no trauma vs severe trauma patients

| | No Trauma (n=33) | Severe Trauma (n=32) |
|--------------------------------|--|---|
| Gender | 66.7% female | 87.5% female |
| Age | 36 (+/- 11 years) Range: 13-60 | 35 (+/- 10 Years) Range: 17-57 |
| BMI | 25 (+/- 4) Range: 19-33 | 23 (+/- 5) Range: 19-46 |
| Pain | 4 (+/- 1) Range: 1-5 | 4 (+/- 1) Range: 2-5 |
| Months since onset | 23 (+/- 38) Range: 1-216 | 24 (+/- 25) Range: 1-96 |
| Sedentary | 4.1 (+/- 1.4) Range: 0-5 | 2.7 (+/- 1.6) Range: 0-5 |
| Education | 3.6 (+/- 1.1) Raneg: 1-5 | 3.8 (+/- 1.2) Range: 1-5 |
| Patient motivation | 2.8 (+/- 1.4) Range: 1-5 | 3.6 (+/- 1.6) Range: 0-5 |
| Improvement | 66.5 (+/- 30.1) Range: 0-100 | 71.7% (+/- 28.2%) Raneg: 0-100 |
| TTMS to max improvement | 5.8 (+/- 3.2) Range: 1-5 | 6.8 (+/- 3.8) Range: 1-5 |
| Months to improvement | 2.8 (+/- 1.4) Range: 0-9 months | 2.8 (+/- 2.6) Range: 0.5 -14 |

Age

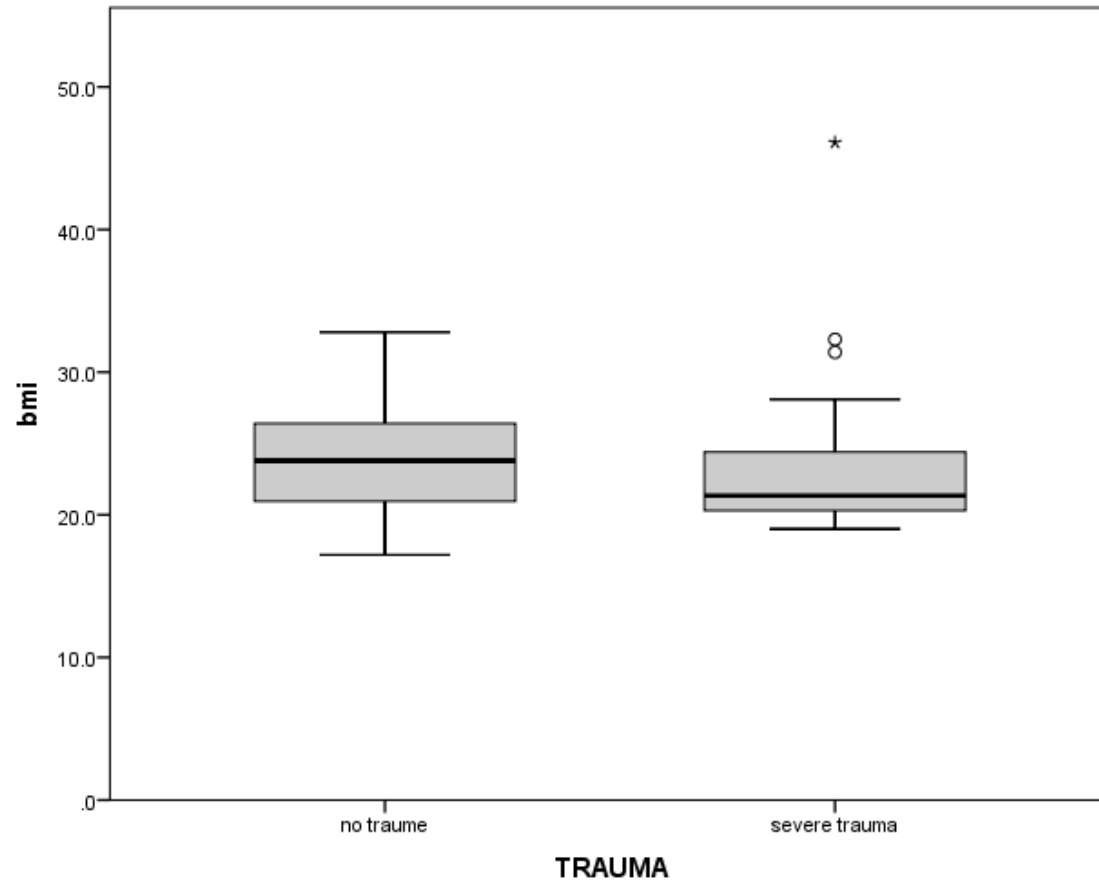


- More normal age distribution
- 66.7% are female



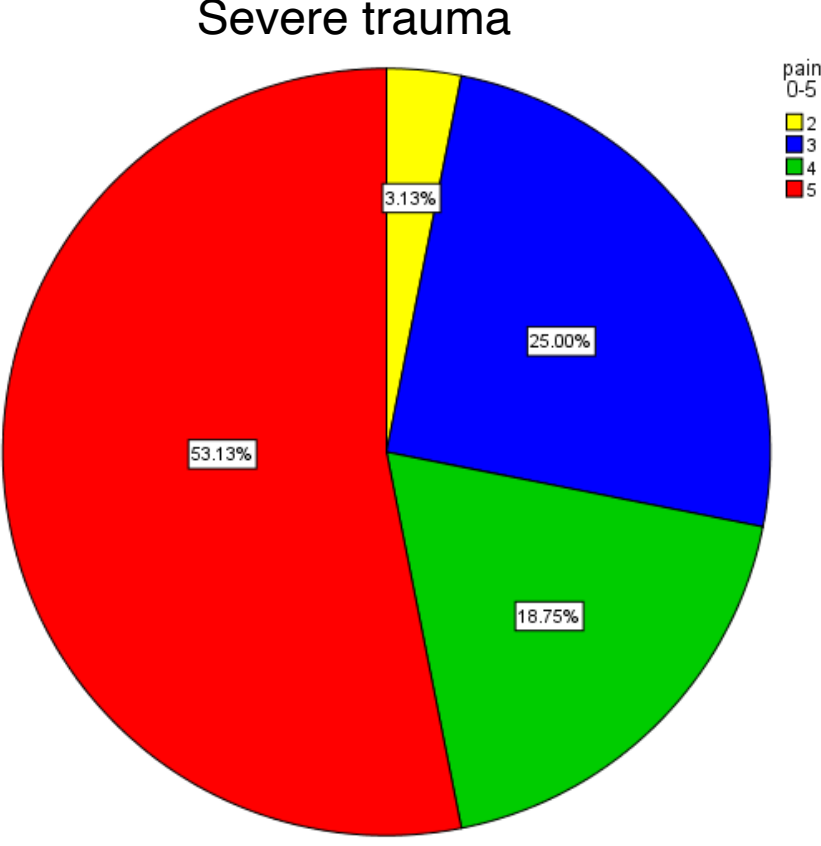
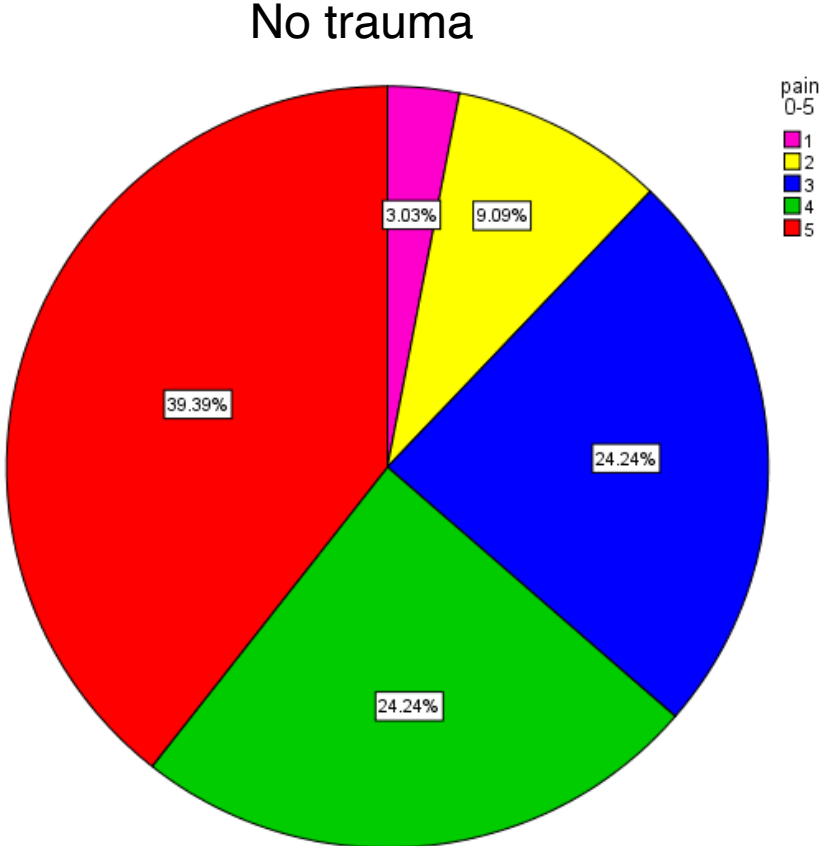
- 75% of patients with severe trauma are between 20-30 years of age
- 87.5% are female

BMI



No significant difference in BMI between no trauma (average: 25) and severe trauma patients (average: 23)

Pain

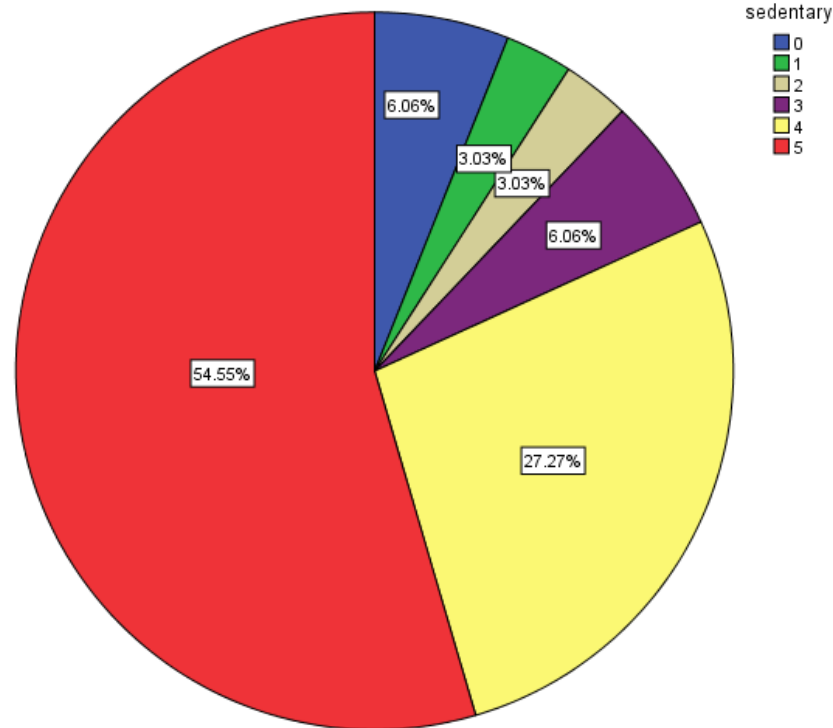


No significant difference in pain score between patients with no trauma and severe trauma, although a high proportion of the severe trauma patients was also in severe pain (53%) compared to 39% of patients without trauma

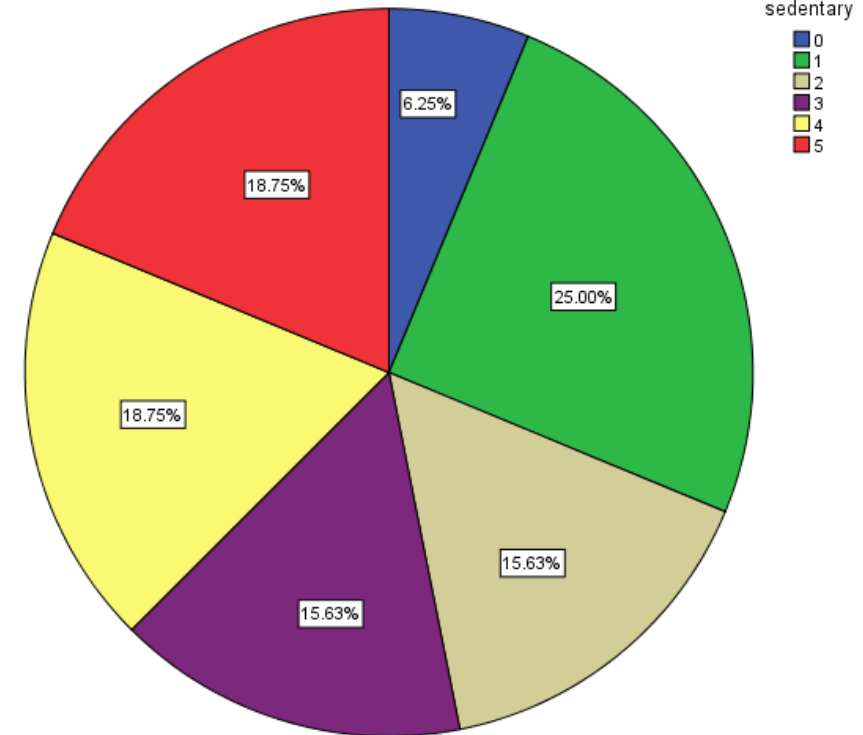
Sedentary

$p^{**}=0.008$

No trauma

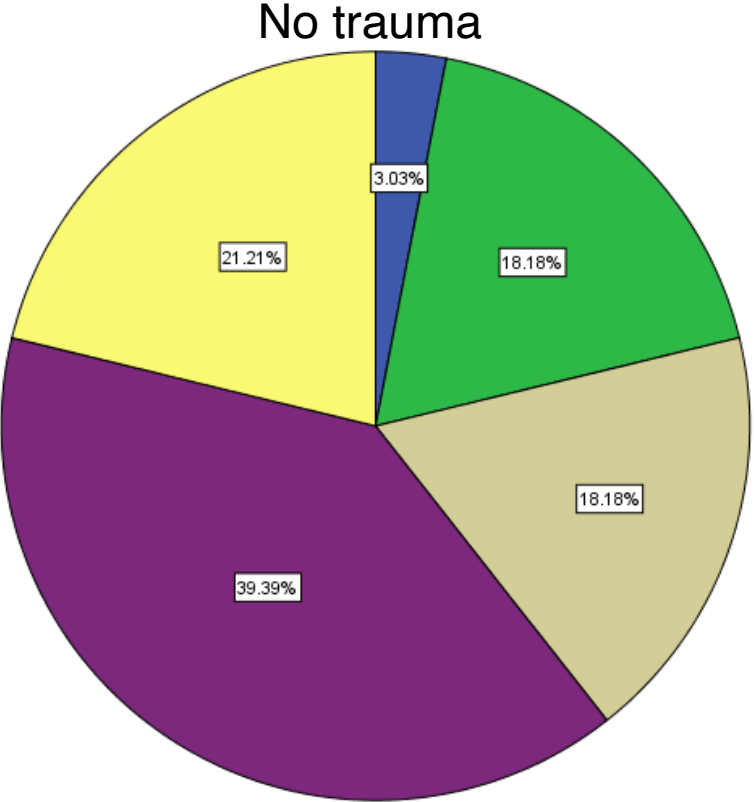


Severe trauma



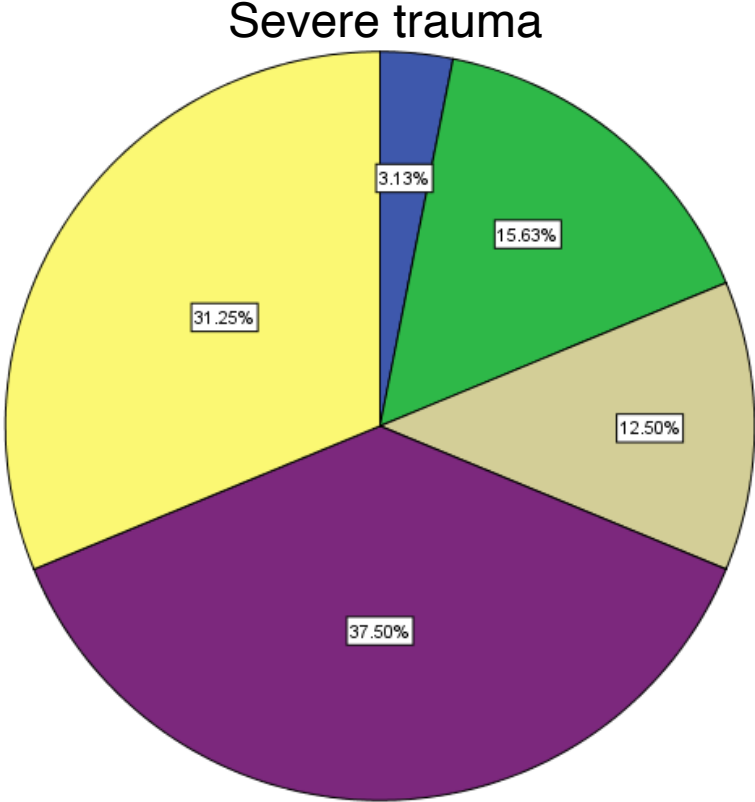
Strong significant difference ($p=0.008$) in sedentary levels between patients with severe trauma (average: 2.7) and no trauma (average: 4.1)

Education



educ
0-5

- 1
- 2
- 3
- 4
- 5

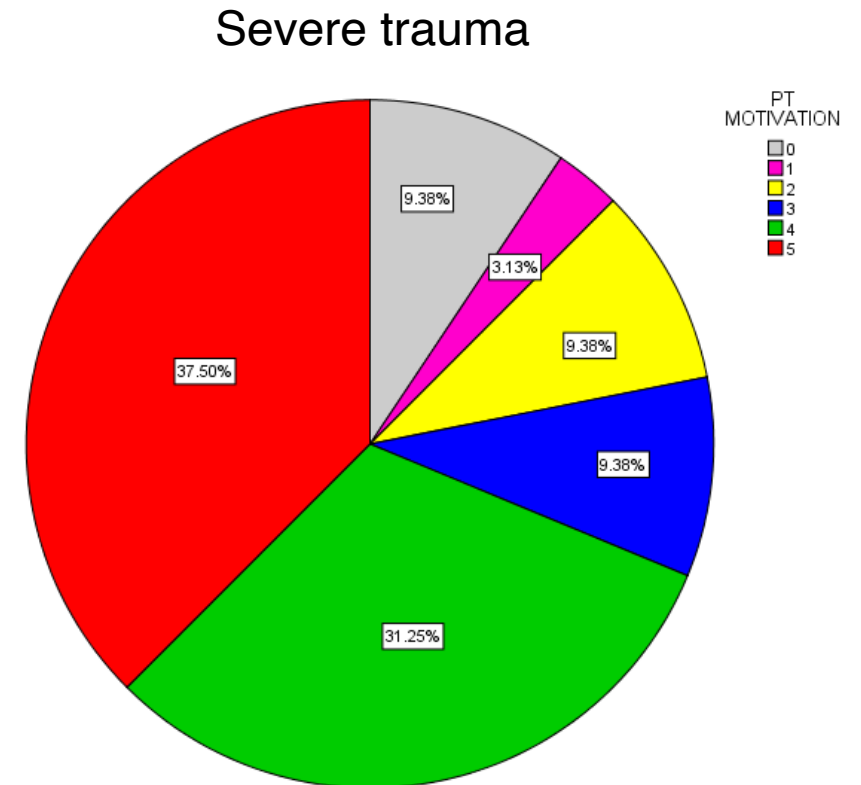
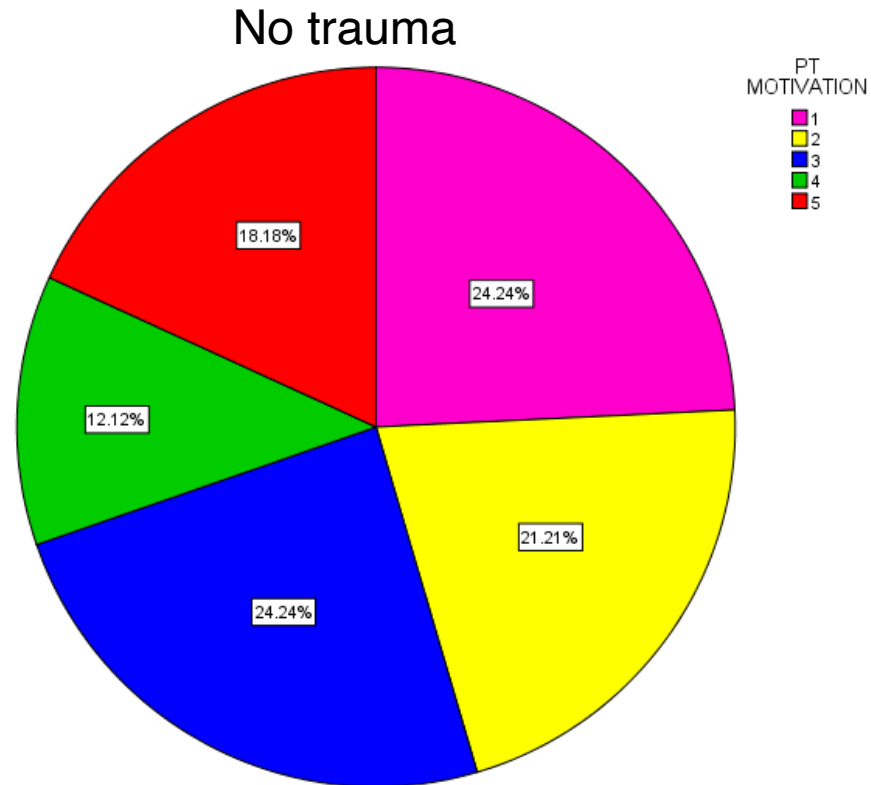


educ
0-5

- 1
- 2
- 3
- 4
- 5

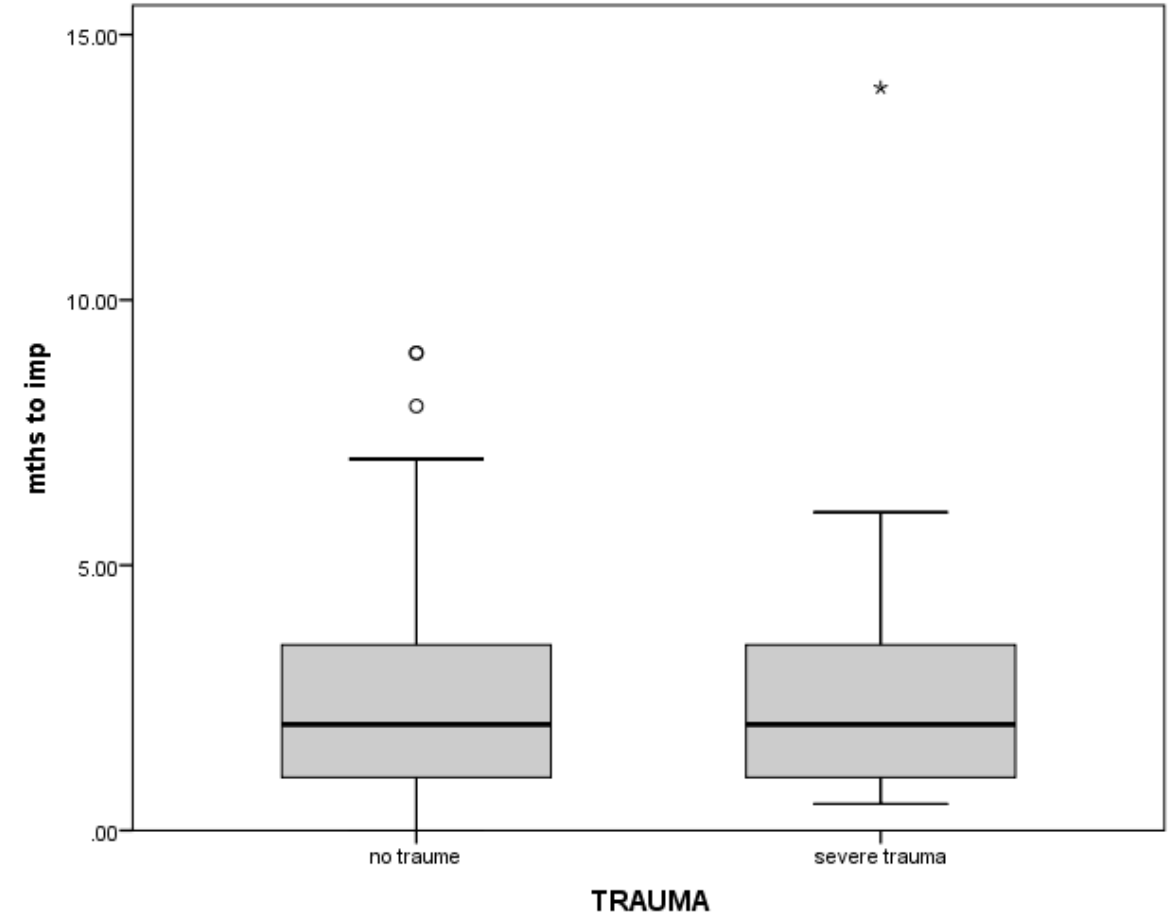
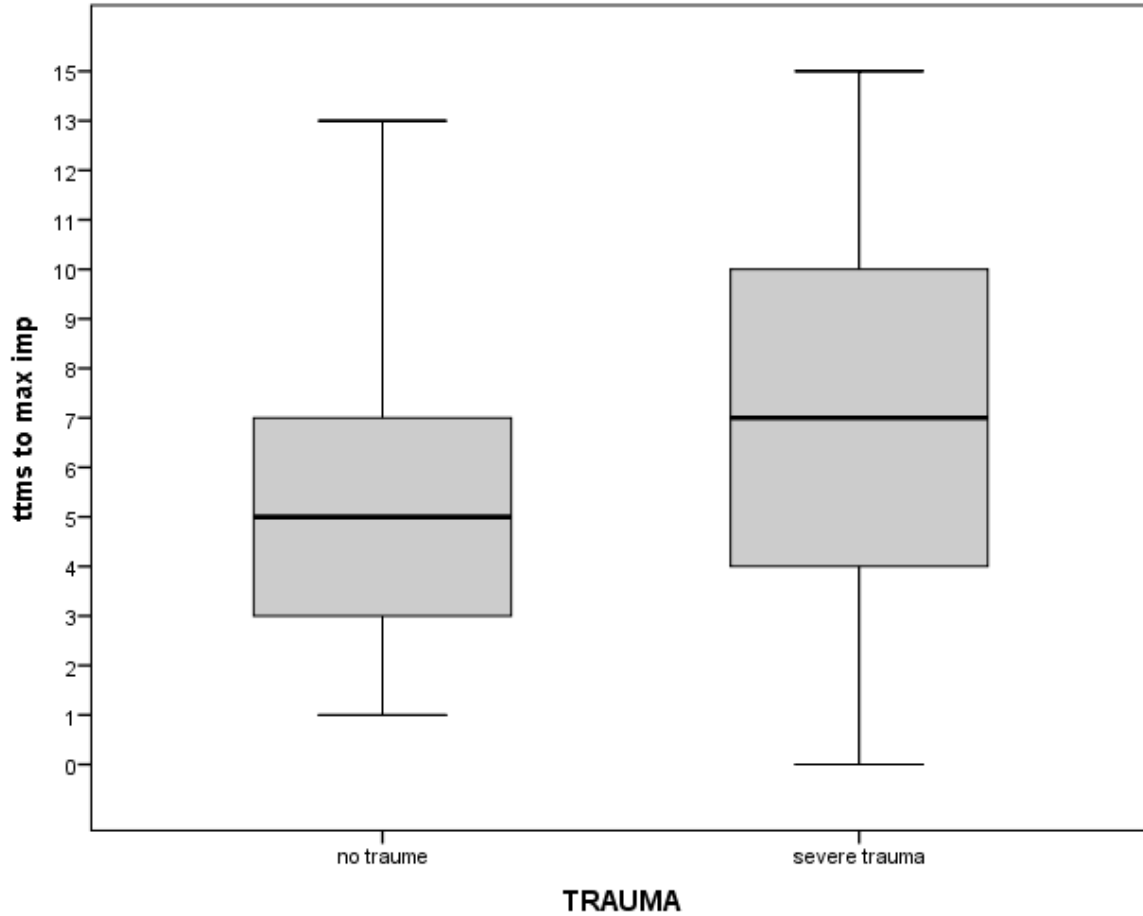
No significant difference in education between patients with no and severe trauma

Patient motivation



Clear trend towards higher patient motivation in the severe trauma group (average: 3.6) compared to the no trauma patient group (average: 2.9), with 68% of severe trauma patients being highly motivated (scores >4) compared to only 30% of non trauma patients

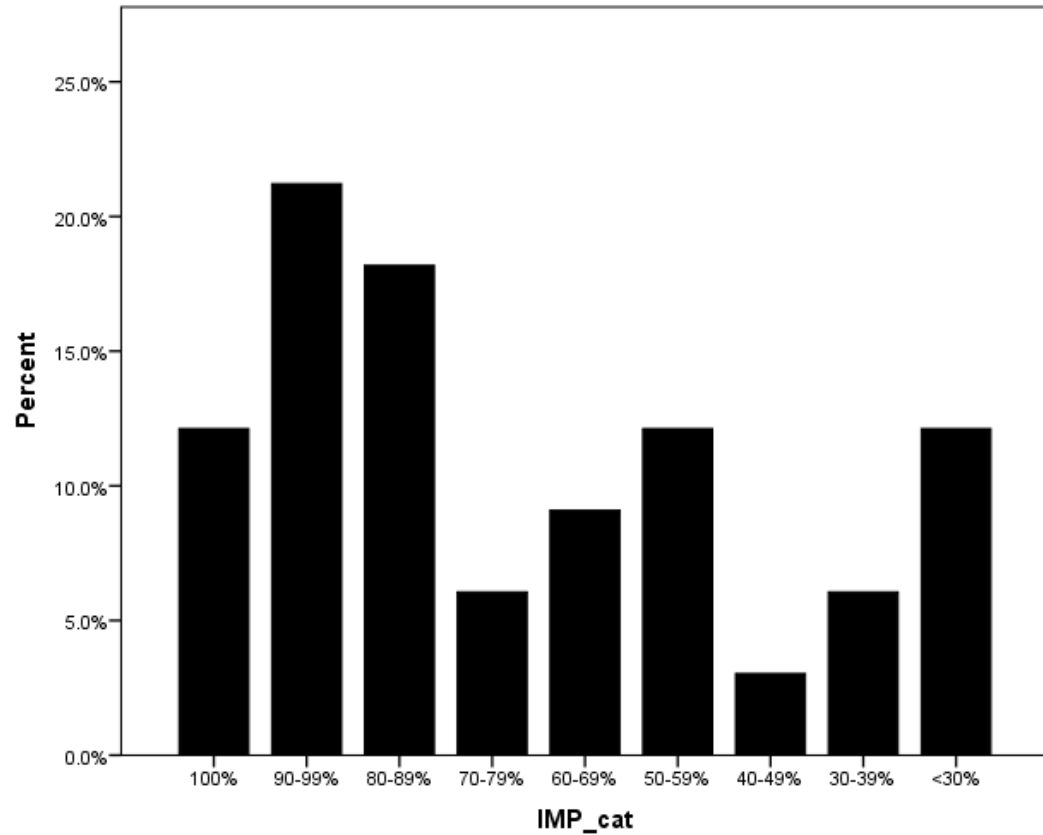
Number of treatments to maximum improvement & months to maximum improvement



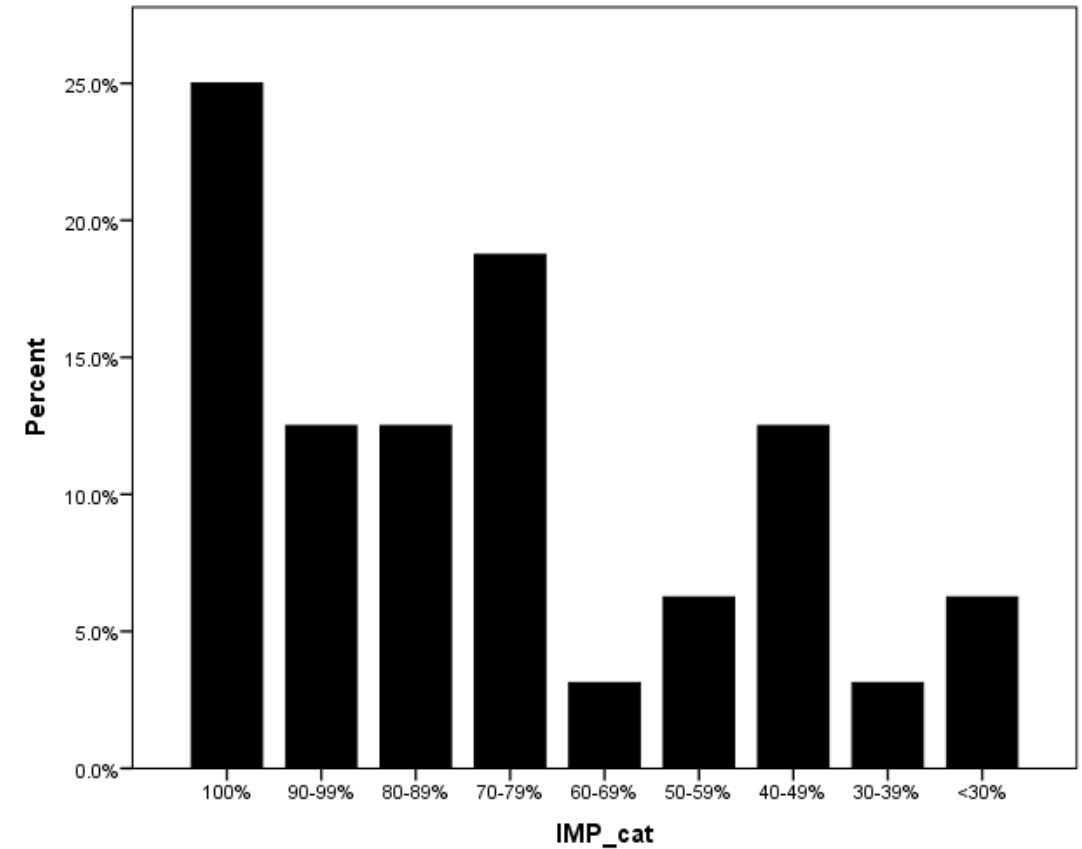
Trend towards more frequent treatments required to achieve maximum improvement in severe trauma patients (average: 6.8) compared to patients without trauma (average: 5.8), no significant difference in time (months) required to achieve maximum improvement

Improvement

No trauma



Severe trauma



A smaller proportion of severe trauma patients (9.4%) showed less than 40% improvement compared to 18.2% of patients without trauma that showed less than 40% improvement, similarly 25% of severe trauma patients improved 100% whereas only 12.1% of the patients without trauma recovered fully

Conclusions

Dr JY Maigne found a mild effectiveness - approx 25% - with 3 treatment sessions of intrarectal manipulation in chronic coccydynia in his 2006 paper

COMPARED with:

My RESULTS of 73% of patients improving between 70-100% over an average of less than 7 treatments using specific manipulation, medical acupuncture, physical therapy and robust exercise.

I need to publish a well designed study in SPINE to get the ball rolling internationally to educate and change the worldwide medical approach to mechanical coccyx conditions - effectively to stop seeing it as normal to treat a simple mechanical problem as a depression or pain problem by prescribing drugs to suppress pain and neurological activity which depresses and lead patients to become obese, miserable and destined to become victims who suffer long-term.

