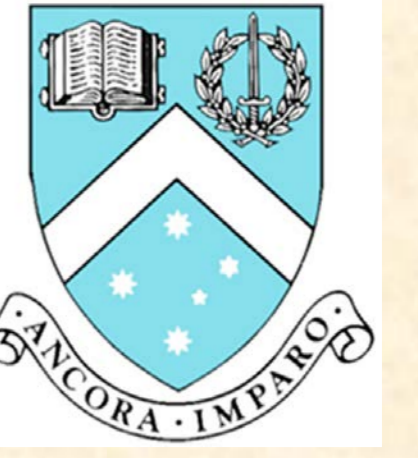




# Standardising Outcome Measures in Persistent Pain

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## Background

A standard set of assessment/outcome measures for patients attending pain management clinics is considered desirable.

Dworkin et al (2005) IMMPACT group recommend reporting on 6 basic outcome domains for chronic pain studies: pain, physical function, emotional function, global impression of change/satisfaction, symptoms & adverse effects and participant disposition as per CONSORT guidelines.

## Aim

The aim of this study was to assess the feasibility of collecting a minimum dataset in a small private pain medicine clinic.

## Method

All patients attending Frankston Pain Management (May 2010 to April 2012), completed a set of questionnaires before the first consultation to assist with multidimensional assessment. The core dataset of demographics, Brief Pain Inventory (BPI), K10, Pain Self-Efficacy (PSE) and Coping Strategies Questionnaire-Revised (CSQ-R) was compared to a larger dataset that also included the SF36v1, Oswestry, Depression Anxiety Stress Scale (DASS21) and Tampa Scale of Kinesiophobia (TSK).

Follow-up data was collected using postal return method at 3, 6 and 9 months; stamped return envelopes were provided, non-responders were called twice, questionnaires resent and further reminder calls were made if requested by the patient.

## Results 1

### Demographics

450 subjects between 2010 to 2012. The age range was from 12 to 100, average age was 54.5 years (SD 17.7) and included 274 females and 174 males. Of the group 210 were married, 39 lived in a defacto relationship, 49 were divorced, 30 were separated, 81 were single and 41 were widowed; 142 had not achieved education to Year 11 level, 68 had completed year 12, 153 had proceeded to tertiary study and 89 described 'Other' training; 347 were born in Australia, 57 migrated from the United Kingdom and 37 had migrated from a non-English speaking country. 164 were privately insured, 155 were uninsured patients (of whom 12 self-funded treatment, 27 Veterans, 6 Defence personnel, 15 motor vehicle accident and 80 workers compensation. The median waiting time for a new patient was 36 days, range 0-739 days with an average of 59 days (SD 70).

### Initial Measures

Of the 450 patients seen, 87% completed "all initial" questionnaires,

Table 1. BPI, PSEQ, CSQ-R, K10, K6, DASS21, SF36, OSW, TSK baseline scores

Questionnaire	N	Range	Median	Mean	SD
Pain Severity (BPI)	432	0.5-10	6	5.9	1.9
Pain Interference with ADL (BPI)	432	0-10	6.7	6.4	2.2
Self Efficacy (PSEQ)	432	0-60	22	22.9	14.3
Catastrophising (CSQ-R)	397	0-47	21	19.8	11.8
Psychological Distress (K10)	405	0-50	21	23.3	9.5
Psychological Distress (K6)	405	0-30	13	14.2	6.2
Depression (DASS21)	405	0-42	12	15.4	12.3
Anxiety (DASS21)	405	0-42	6	9.3	9
Stress (DASS21)	405	0-42	14	15.8	11.2
Physical Disability (Oswestry)	406	0-45	26	24.4	8.7
Fear of Movement/Kinesiophobia (TSK)	392	15-64	43	43.2	8.9
Physical Health (SF36v1)	406	0-100	22.9	26.3	34.3
Mental Health (SF36v1)	406	0-100	25.9	22.6	26.4

There were strong positive correlations between the psychological distress scales (K6, K10 and DASS), and moderate association between the K6, K10, DASS and SF36 Mental health scales (see Table 2).

Table 2. Correlations between baseline mental health measures

	BPI-M	BPI-A	DASS21- D	DASS21- A	DASS21- S	K6	K10	SF36-MH
BPI-M		0.86	0.4	0.3	0.44	0.43	0.43	0.46
BPI-A	0.86		0.45	0.34	0.49	0.49	0.46	0.5
DASS21- D	0.4	0.45		0.72	0.79	0.82	0.81	0.58
DASS21- A	0.3	0.34	0.72		0.74	0.68	0.67	0.43
DASS21- S	0.44	0.49	0.79	0.74		0.73	0.74	0.65
K6	0.43	0.49	0.82	0.68	0.73		0.95	0.62
K10	0.43	0.46	0.81	0.67	0.74	0.95		0.62
SF36- MH	0.46	0.5	0.65	0.43	0.58	0.62	0.62	
		No useful clinical correlation						
		May give support to other measures						
		Maybe be considered as a substitute for other measure						

## Results 2

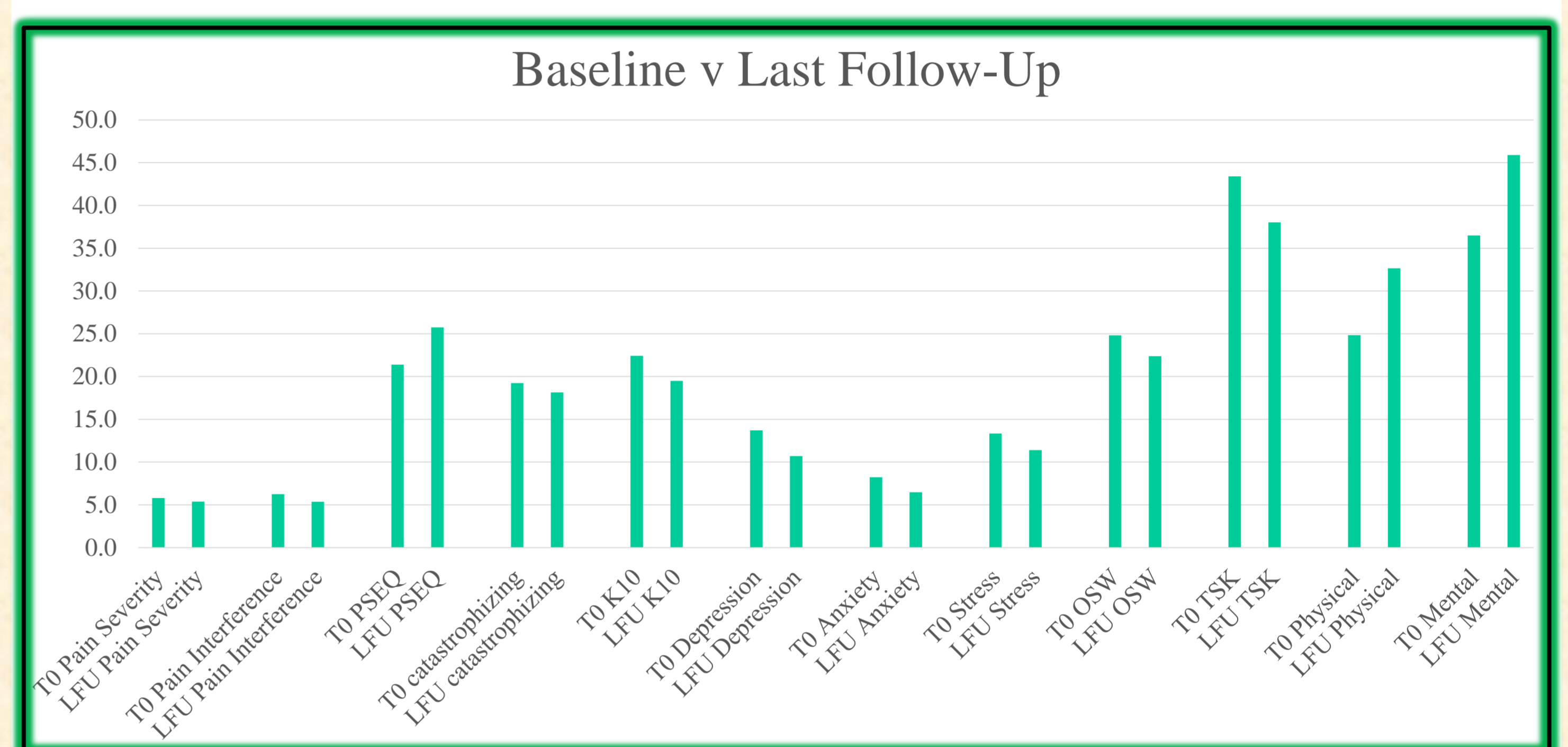
### Follow-Up Measures

Only 10/450 patients had all questionnaires completed at all 4 time points!

86/450 (24%) patients had a complete set of composite follow-up questionnaires at 3, 6 or 9 months that could be compared to baseline. Of this group 21% and 29% had more than 30%, 13% and 16% had more than 50% and 9% and 9% had more than 80% improvement in respective pain and pain interference scores.

A consistent 3-9% improvement in pain intensity, pain interference, mood and coping skills was seen on all outcome measures in this group of 86.

An additional 31% subjects had PSE and BPI questionnaires obtained at "review consultations". This resulted in 55% of patients having some data for initial and subsequent treatment comparison. 17% and 24% had more than 30%, 8% and 12% had more than 50% and 4% and 6% had more than 80% improvement in respective pain and pain interference scores by including the "in treatment" group.



## Discussion

Despite enrolment in a study which encouraged data collection, follow up data sets were incomplete and the responder rate was disappointingly low – due to literacy, cognitive impairment from age, medication, non-attendance, unreturned or incomplete questionnaires.

It was much easier to collect data in a "working sense" when patients are attending the first time or returning for clinical review. However including responses of 'patients in-treatment' reduced the over overall apparent "follow-up improvement".

There appears to be little interest in returning data collection sheets from patients not returning for clinical review. In a private clinic it is not known if failure to return data is due to a positive outcome, negative outcome or unrelated reasons. This is consistent with the data from Hardwick et al (APS 2013 Canberra).

The available data provides useful insight into changes in pain behaviour. However more work needs to be done on ways to improve the follow-up response rate, the dataset, likely to be small and any incentives to encourage patients to provide the information required for their care.

Using a mixture of postal, online, clinic assisted and telephone follow-ups may improve the responder rate, but this is both time consuming and costly.

The strong correlation between the K6, K10 and DASS21 means they are measuring similar things and that the 6 item K6 may substitute for the K10 and DASS21 as a screening tool reducing the burden to patients and staff.

## Conclusions

Data collection does help guide treatment and indicate progress for each patient against implemented treatment regimes. Data is easily collected from first time patients and from those who stay in treatment. Data is not readily available from other patients and more work is needed to increase outcome data collection from this group.

The low response rate, variable pain, frequent incomplete data and low follow-up response rate makes over all assessment of the outcomes achieved by a clinic difficult to determine.

## References and Reprints

Available on request from: mtaverner@phcn.vic.gov.au



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