



# What is the data we collect from our psychometric screening tests telling us?



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## Introduction

Assessing a patient’s mood, coping mechanisms and impact of their pain on their total health and well being is an essential element of good pain management. At Frankston Pain Management, in common with many pain practices we use a collection of previously validated questionnaires to gather this information. The questionnaires in use have all been validated in their own setting. We wished to examine whether using questions in several formats in the clinical setting added useful information or duplicated similar information.

## Methods

Data for the previous 2 years was collated anonymously from 473 new patients. Any patients with missing data points were excluded. All data sets that included an assessment of mood or emotional state were compared looking for correlation.

The data sets we compared were: Brief Pain Inventory mood (BPI-M); Brief Pain Inventory Affect(BPI-A); DASS 21 Depression (DASS21-D); DASS21 Anxiety (DASS21-A); DASS21 Stress (DASS21-S); K10; SF36 Mental health (SF36-MH). Data were compared using Microsoft Excel (Microsoft Excel for Mac 2011, Version 14.2.4), and assessed by Pearson Correlation Coefficient in that program

	BPI-M	BPI-A	DASS21- D	DASS21- A	DASS21- S	K10	SF36-MH
BPI-M			0.40	0.30	0.44	0.43	0.46
BPI-A			0.45	0.34	0.49	0.46	0.50
DASS21- D	0.40	0.45				0.81	0.58
DASS21- A	0.30	0.34				0.67	0.43
DASS21- S	0.44	0.49				0.74	0.65
K10	0.43	0.46	0.81	0.67	0.74		0.62
SF36- MH	0.46	0.50	0.65	0.43	0.58	0.62	

## Results

The K10 scale showed a strong correlation with the DASS21 and the Mental health segment of the SF36, suggesting it collects the same information as the other 2 instruments.

All other correlations tested showed a mild correlation, but not strong enough to suggest the same information was being collected.

## Discussion

By assessing the various tools available for data collection, we can focus on getting a broad picture of the patient. Where the tools overlap in the information provided, there are administrative burdens to the collection and management of the data that does not provide any additional benefit to the patient or treating team. By assessing the consistency of the data collected we can streamline the amount of paper work for the patients and the administrative burden to the clinic.

## Future Issues:

Future work includes a review of the relationships over time within the same patients to ensure the correlations are consistent. Additionally more detailed analysis of individual questions may provide abridged versions of the questionnaires that provide adequate information for pain management clinics.

## Key Points

- Different specific tools provide the same information in same cohort
- Evaluation of the utility of the different tools may improve office efficiency
- K10 may prove to be as valid a tool as DASS21 in a pain population

## References

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## Conflicts

Nil