PCR12 - Construct Validity of a New Migraine Satisfaction with Treatment Questionnaire

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OBJECTIVES

- The aim of this study is to test the content validity of a new questionnaire measuring SAtisfaction with Treatment in MIgraine patients, the MISAT-Q.

METHODS

- After thorough scientific literature review and grounded in the SATMED-Q satisfaction model. A total of 35 items were produced to build up the questionnaire.
- Eight dimensions were defined to structure the questionnaire: Side effects, treatment effectiveness in crisis treatment effectiveness in prevention, convenience, impact on Quality-of-Life, medical care, emotions, and overall satisfaction.
- An expert panel composed by 3 clinicians, 1 nurse, 3 pharmaco-economists, 1 expert patient and 1 methodologist, supervised item generation process.
- Thirteen migraine content-specialists (8 clinicians, 2 nurses, 1 psychologist, 2 health-outcomes-research specialists) valued each one of the proposed items in all of the 8 dimensions measured and defined to scaffold the questionnaire (1=measured, 0=unsure, -1=not measured).
- Item-Domain congruence was measured using the Hambleton-Rovinelli (1976) procedure for assessing item validity by inter-rater agreement.

RESULTS

- All items obtained a positive score in the theoretical intended dimension, ranging between 0.52 and 0.92 (88% of values ≥ 0.70).
- Most items obtained lower and negative scores in all other dimension (see Table 1).
- The following pattern was observed: The overall satisfaction dimension tended to obtain low positive scores for most items. Similarly, impact on the quality-of-life domain tended to obtain moderate positive scores on most items, particularly for side-effect, prevention and emotion items.
- Content-specialists agreed on the assignment of items to their construct dimension as the main measurement dimension. Albeit two dimensions gathered some minor positive values from other theoretic dimension: overall satisfaction, prevention and emotions.
- This result was expected since the treatment satisfaction construct assumes dimensions to be conceptually correlated.

Table 1. Item-Domain content congruence index values (-1,1).

	F1	F2	F3	F4	F5	F6	F7	F8
p1	0,75	-0,39	-0,30	-0,26	0,31	-0,26	0,01	0,14
p2	0,76	-0,34	-0,25	-0,29	0,06	-0,34	0,37	0,02
p3	0,82	-0,32	-0,32	-0,15	0,42	-0,28	-0,15	-0,02
p4	0,78	-0,32	-0,32	-0,23	0,38	-0,23	-0,14	0,08
p5	-0,27	0,87	-0,18	-0,18	0,13	-0,18	-0,23	0,04
p6	-0,30	0,84	-0,30	-0,13	0,14	-0,30	0,05	0,01
p7	-0,35	0,75	-0,30	-0,08	0,09	-0,26	-0,13	0,27
p8	-0,32	-0,06	0,60	-0,15	0,03	-0,24	-0,06	0,20
p9	-0,37	-0,07	0,77	-0,24	0,02	-0,24	-0,07	0,20
p10	-0,30	0,27	0,58	-0,21	0,05	-0,21	-0,25	0,05
p11	-0,27	-0,19	0,52	-0,23	0,25	-0,19	0,08	0,03
p12	-0,28	-0,24	0,73	-0,19	-0,02	-0,15	0,20	-0,06
p13	-0,27	-0,14	0,87	-0,14	0,03	-0,19	-0,23	0,08
p14	-0,25	-0,21	-0,16	0,89	0,05	-0,25	-0,12	0,05
p15	-0,22	-0,18	-0,04	0,70	0,13	-0,22	-0,22	0,04
p16	-0,25	-0,21	-0,18	0,89	0,14	-0,21	-0,16	-0,03
p17	-0,27	-0,23	-0,18	0,87	0,08	-0,18	-0,18	0,08
p18	-0,23	-0,23	-0,18	0,87	0,08	-0,23	-0,09	-0,01
p19	-0,25	-0,16	-0,16	-0,12	0,90	-0,16	-0,03	-0,03
p20	-0,26	-0,21	-0,17	-0,13	0,84	-0,17	0,01	0,09
p21	-0,24	-0,15	-0,15	-0,15	0,90	-0,15	-0,11	0,07
p22	-0,24	-0,15	-0,15	-0,15	0,86	-0,15	-0,07	0,07
p23	-0,16	-0,12	-0,16	-0,16	-0,12	0,85	-0,08	-0,03
p24	-0,27	-0,27	-0,18	-0,18	-0,09	0,87	0,13	-0,01
p25	0,10	-0,25	-0,16	-0,16	-0,03	0,76	-0,16	-0,08
p26	-0,18	-0,14	-0,18	-0,18	-0,09	0,83	-0,05	-0,01
p27	-0,25	-0,25	-0,16	-0,16	-0,12	0,81	0,19	-0,07
p28	-0,32	-0,32	-0,23	-0,23	-0,05	0,78	0,25	0,12
p29	-0,26	-0,22	-0,26	-0,18	0,13	-0,13	0,88	0,04
p30	-0,23	-0,23	-0,19	-0,23	0,16	-0,19	0,91	-0,01
p31	-0,22	-0,22	-0,18	-0,18	0,09	-0,13	0,92	-0,09
p32	-0,23	-0,23	-0,23	-0,14	0,21	-0,14	0,08	0,65
p33	-0,23	-0,18	-0,14	-0,18	-0,05	-0,05	0,13	0,70
p34	-0,16	-0,12	-0,12	-0,16	-0,12	-0,12	-0,07	0,85
p35	-0,26	-0,21	-0,26	-0,13	0,09	-0,21	0,23	0,75

F1: Side effects, F2: Crisis effectiveness, F3: Prevention effectiveness, F4: Convenience, F5: Quality of life impact, F6: Medical care, F8: Feelings, F9: Overall satisfaction

LIMITATIONS

- Content validity concordance values may vary after item reduction due to context effects.

CONCLUSIONS

Results from the performed item-Domain congruence task support evidence on the validity of most items proposed for measuring the structure of the Migraine Treatment Satisfaction concept, and highlighted those particular items which may be problematic in further validation steps, like confirmatory factor analysis.

REFERENCES

ROVINELLI, RJ.; HAMBLETON, RK. On the use of content specialists in the assessment of criterion-referenced test item validity. 1976.

DISCLOSURE