

Content Validity of a Survey to Evaluate the Benefits and Risks Associated with Treatments for Pain

J. Iwanicki, MD¹, R. Magtanong, MPH¹, J. Black, PhD¹, R. Dart, MD, PhD¹

¹Rocky Mountain Poison & Drug Center - Denver Health, CO

Introduction

- Treatment of pain is a major reason that patients seek medical care, and is a major cause of loss of productivity in the workforce.
- Prescription drug abuse, misuse, and diversion have been studied by the RADARS System in the United States since 2001.
- However, no current systems collect data specifically on patients self-reporting pain or describe the benefits and risks associated with treatments for pain.
- To address the gap, a pilot survey utilizing a combination of questions from well-established instruments to evaluate pain, treatments for pain, and risks and benefits associated with these treatments was developed.
- The objective of this study is evaluate the ease of use, feasibility, and content validity of a self-administered survey evaluating the overall benefits and risks associated with the treatment of pain.

Methods

- A single center, prospective, observational study was conducted at a large urban safety-net hospital emergency department from June 2017 through November 2017.
- Eligible adult patients were recruited and completed a self-administered web-based survey evaluating the overall benefits and risks associated with the treatment of chronic pain.
- Following survey completion, a standardized semi-structured interview for content validity was performed with survey respondents who reported a history of chronic pain to assess survey readability, question comprehension and interpretation.
- Descriptive statistics for demographics and qualitative responses from the content validation interview are reported.

Table 1. Structural issues of survey identified in qualitative content validation interviews.

Structural Issue	Survey Example	Subject Feedback
Use of symbols	> 10 years ago	I would go back further than 10 years...
Use of abbreviations	Prescription NSAIDS	I don't know what NSAIDS are.
Use of parentheses combined with e.g. to mean "examples"	NSAIDS (e.g. ibuprofen, Advil, naproxen)	I think aspirin is an NSAID. If I didn't know myself I wouldn't know what all the NSAIDs were.
		I would have said yes to ibuprofen if it were a choice.
Medications and drug categories in medical terms	Antiepileptics	Antiepileptics they always called "nerve medicine", I would have known if they called it that.
		Define the medication list in layman's terms.
Use of medical terminology	Musculoskeletal pain Neuropathic pain	Worded with too big doctor words.
		Some of the responses I didn't know or the difference between.

Results

- From June 2017 through November 2017, 41 patients were enrolled in the survey pilot study.
- 36.6% completed the content validation interview.
- 51.2% of study participants were female.
- Mean age of participants was 41.8 years, with a range from 18 to 66 years.
- 55% had total household income of less than \$20,000 per year.
- During the content validation interviews, subjects confirmed that they understood the overall content and intent of questions, and were able to provide meaningful interpretations.
- However, 46.7% of subjects reported confusion on 12 questions, and recommended changes in wording on 18 questions

Conclusions

- Overall, the content of this pilot survey to evaluate the risks and benefits of treatment for pain was well understood in this population of emergency department patients in an urban safety-net hospital with low socioeconomic status and low literacy.
- Structural elements including the use of symbols and abbreviations caused some confusion.
- Future versions of this survey will incorporate changes to improve readability in this population.

Limitations

- Single center study, generalizability to other centers may be limited.