

Review on the Evaluation of Impact of Language and Culture on the Validity of Pain Quality Measures in Nepal: Encapsulation

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Abstract

Background: A study with aim to evaluate the impact of language and culture on the validity of pain quality measures by comparing the words spoken by individuals with chronic pain indicated that direct translations of measures that are developed using samples of patients from one country or culture are not necessarily content valid for use in other countries or cultures; some adaptations may be required in order for such measures to be most useful in new language and culture.

Objective: To re-evaluate the article Journal of Pain Research 2016:9 1057–1066, and reflect on the implications of its recommendations.

Methods: Content analysis of article published in Journal of Pain Research 2016:9 1057–1066., Critical review of the specified article was performed, its components, overall integrity assessed, relevant information was obtained from profiles, references, citations, and web. Current developments and changes in state of science and art are collected. Finally the general, philosophical, theoretical, methodological, and analytic output are presented.

Result: There was no complete theory, concepts, definition of terms. Topics were not covered, authors were uncertain on their sample size, sampling and its reliability. Content validity itself not defined determined, tested and presented. Interdependence of individuals, their previous and current works prevailed. Result was inconclusive. Finally concurrent changes in definition, change in tools, were not accounted for. The membership degree of authors is deep rooted.

Conclusion: The article provided unwarranted conclusion and recommendation.

Recommendation: Refinement, self- rectification and transformation.

Introduction

Atoms combine to create more complicated structures like molecules; molecules combine to create various kinds of matter. Using few symbols for elements (letters) in chemistry, we can write the whole of geology. The same atoms occur everywhere and combine according to the same laws; this atomic language is resolutely universal. Letters combine to form words; words combine to form sentences. Nature is not structured like language; language is structured like nature. The difference between individuals lies in the combination and sequence of our 4 nucleotides (molecules) [1].

Preconditioned to the emergence of quantitative population sciences are the fundamental belief that intimate relations exist between mathematics and material reality, that counting and categorizing are the currency of durable knowledge, and that empirical study of variegated humanity- chockfull of irreducible unique individuals can uncover universal truth [2].

Common to their work (epidemiology and social sciences) is the belief that society can be studied scientifically, that meaning can be discerned from population patterns that regularities bespeak cause, and that knowledge gives ground for action [2].

“According to Chomsky, the human brain contains a genetically transmitted blue prints- or basic linguistic plan for building language. He calls this plan a universal grammar. As they learn their native language, children experiment with different parts of the blue-prints. In so doing, they discover that their language uses some sections but not others. They gradually reject principles used in other languages and accept only the ones in their own. As we learn to speak we master a specific grammar, a particular set of rules, the ones our language has taken from the universal set. These rules let us convert what we want to say into what we do say. People who hear us and speak our language understand our meaning. Our knowledge of the rules enables to use language creatively, to generate infinite number of sentences with finite number of rules. In Chomsky’s view, language is more than the surface phenomena (sounds, words, and word-order). Beneath the surface features

discovered through stage- by-stage analysis of particular language, all languages share a limited set of organizing principles [3]. The Sapir-Whorf Hypothesis states that different languages produce different ways of thinking” [3].

Most tests are written by educated people in Europe and North America. They reflect the experience of people who devise them. It is not surprising that middle and upper class children do better because they are more likely to share the test-makers’ educational background and standard. No test is free from social and cultural bias. Tests invariably reveal past learning history, not the potential for learning [3].

Mathematics is the language of science, used to define fundamental concepts and write scientific laws. Statistics is the mathematical science of random variation, measurement error, and uncertainty. It is also the practical science of sampling, experimental design, and data analysis. Statistics has provided the language and methodology for much of the 20th century epidemiology [3]. Transformation is a powerful notion. It altered disciplinary focus from the study of individual mathematical systems to the study of relation between mathematical systems. It is the backbone to the 20th century mathematics [4].

Recent study in Nepal on pain measurement scale concluded that direct translations of measures that are developed using samples of patients from one country or culture are not necessarily content valid for use in other countries or cultures; some adaptations may be required in order for such measures to be most useful in new language and culture [5].

Pain

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [6].

Chronic pain

Chronic pain is often defined as any pain lasting more than 12 weeks. Chronic pain persists-often for months or even longer. Chronic pain may arise from an initial injury, such as a back sprain, or there may be an ongoing cause, such as illness. However, there may also be no clear cause [7]. Chronic pain is pain that lasts a long time. In medicine, the distinction between acute and chronic pain is sometimes determined by an arbitrary interval of time since onset; the two most commonly used markers being 3 months and 6 months since onset, though some theorists and researchers have placed the transition from acute to chronic pain at 12 months. Others apply acute to pain that lasts less than 30 days, chronic to pain of more than six months duration, and sub-acute to pain that lasts from one to six months. A popular alternative definition of chronic pain, involving no arbitrarily fixed duration, is "pain that extends beyond the expected period of healing". Epidemiological studies have found that 10.1% to 55.2% of people in various countries have chronic pain [8].

Quality of the pain

This is the patient's description of the pain. Questions can be open ended ("Can you describe it for me?") or leading. Ideally, this will elicit descriptions of the patient's pain: whether it is sharp, dull, crushing, burning, tearing, or some other feeling, along with the pattern, such as intermittent, constant, or throbbing [9].

Severity

The pain score (usually on a scale of 0 to 10). Zero is no pain and ten is the worst possible pain. This can be comparative (such as "... compared to the worst pain you have ever experienced") or imaginative ("... compared to having your arm ripped off by an alien"). If the pain is compared to a prior event, the nature of that event may be a follow-up question. The clinician must decide whether a score given is realistic within their experience—for instance, a pain score 10 for a stubbed toe is likely to be exaggerated. This may also be assessed for pain now, compared to pain at time of onset, or pain on movement. There are alternative assessment methods for pain, which can be used where a patient is unable to vocalize a score. One such method is the Wong-Baker faces pain scale [9].

Characteristics of good measurement are validity, reliability, and practicality. Content validity: of a measuring instrument is the extent to which it provides adequate coverage of the investigative questions guiding the study. If instrument contains a representative sample of the universe of subject matter of interest, then the content validity is good. To evaluate content validity of an instrument, one must first agree on what elements constitute adequate coverage. A determination of content validity involves judgment. First the designer may determine it through careful definition of topic, the items to be scaled, and the scale to be used. This logical process is often intuitive and unique to each research designer. A second way is to use a panel of persons to judge how well the instrument meets the standards, evaluated by content validity ratio, and those meeting the statistically significant value are retained. In both the content validity is primarily concerned with inferences about the test construction rather than inference about test scores [10].

Criterion Related Validity [10].

- Relevance: If it is defined and scored in terms we judge to be the proper measure
- Freedom from Bias: Is attained when the criterion gives each-an equal opportunity to score well
- Reliable Criteria: Is stable and reproducible
- Available: Information specified by the criteria must be available. If not available, how much will it cost? And how difficult will be to secure.
- Construct Validity: What accounts for the variation in the measure? [10].
- Concurrent Validity: One scale correlates with another designed to assess the same construct
- Reliability: A measure is reliable to the degree that it supplies consistent results. Reliability is a necessary contributor to validity but is not a sufficient condition for validity. Stability, equivalence, and internal consistency are aspects of reliability [10].
- Practicality: economy, convenience, and interpretability are aspects of practicality [10].

Result

Background of the article 2016: 9; 1057–1066 in the Journal of Pain Research [5]

The most commonly used pain quality measures in research with patients with a variety of chronic pain conditions are the McGill Pain Questionnaire (MPQ) [11] and its modifications, [12,13] the Pain (PQAS-R) [14]. Two of these, the PQAS and the PQAS-R [15], have demonstrated content validity as measures of pain quality in the US chronic pain populations. [16, 17].

For example, people living in Nepal differ from individuals living in the USA on a number of important factors, including socioeconomic status, culture, ethnicity, and education status. They may also differ with respect to their beliefs about their cause of pain. These factors could in turn influence how people in Nepal describe their pain. Thus, before existing measures of pain quality can be recommended for use in non-English-speaking populations – in particular, perhaps in populations who differ culturally from individuals in the USA – research is needed to evaluate their content validity in the new populations [18].

Their implied objectives were: To address this need, here we sought to better understand the role that language and culture may play in how people describe their pain by

- 1) Determining the words that individuals with chronic musculoskeletal pain from Nepal use to describe their pain and comparing these with those most commonly used by patients from the USA and
- 2) Evaluating the validity of pain quality measures developed for use in patients from Western countries and comparing them with those developed for use in patients from a non-Western country.

Their hypothesis: We hypothesized that while patients from Nepal would likely use some of the descriptors used by patients from the USA to describe their pain,

- 1) Some differences would emerge in the rates of the most commonly used descriptors used by patients from both countries,
- 2) There would be some descriptors commonly used by patients from one country but not in the other, and
- 3) Some of the pain quality measures developed and validated in Western countries and population would not be content valid for assessing pain.

Overall Comment on background section Journal of Pain Research 2016: 9, 1057–1066 [5]

- Background: Third author (MPJ) of the article 2016:9 1057–1066 in Journal of Pain Research [5], co-authored 6 of the 14 references including The third author in article 2016:9 1057–1066 Journal of Pain Research [5] was also the author of both citations: That is Reference No.16: Jensen MP, Johnson LE, Gertz KJ, Galer BS, Gammaitoni AR. The words patients use to describe chronic pain: implications for measuring pain quality. *Pain*. 2013; 154 (12):2722–2728. , and Reference No. 17: Lin CP, Kupper AE, Gammaitoni AR, Galer BS, Jensen MP. Frequency of chronic pain descriptors: implications for assessment of pain quality. *Eur J Pain*. 2011; 15(6):628–633.
- PQAS and the PQAS-R, that were described as have demonstrated content validity as measures of pain quality in the US chronic pain populations [16, 17]. Were developed by third author (MPJ) of article 2016:9 1057–1066 [5].

- This is also shown in page 1065 of article Journal of Pain Research 2016:9 1057–1066: “One of the authors (MPJ) is a co-developer of two of the measures discussed in this article (the Pain Quality Assessment Scale and Revised Pain Quality Assessment Scale)” [5].
- The article reference No. 18: Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine (Phila Pa 1976)*. 2000; 25(24): 3186–3191, was published in 2000 i.e. it predates PQAS and the PQAS-R. The suggestion (research is needed to evaluate their content validity in the new populations) is unrelated to PQAS and the PQAS-R.
- There is no theory, conceptual framework, incomplete coverage of topics.
- End of objectives and hypothesis: shall be recounted in result section.

Materials and methods of article 2016: 9; 1057–1066 [5] in Journal of Pain Research

The participants in this study (N=101) represented a convenience sample of individuals with chronic musculoskeletal pain from Nepal who were recruited from 1) an urban community (n=80) and 2) a tertiary care hospital that serves patients from rural areas (n=21).

Data collection for this study was performed between September 2015 and January 2016.

Advertisements about the study were made available in the social media for potential participants with chronic pain living in the community. Ten community participants responded to these advertisements and were found eligible.

An additional 70 community participants learned about the study by word of mouth and consented to participate.

These 80 community participants were then interviewed by a study research assistant at a location convenient for the participants.

Twenty-one participants with chronic musculoskeletal pain were recruited from a population of patients who were treated at the Department of Physiotherapy at Dhulikhel Hospital, Kathmandu University Hospital, for pain. These participants were interviewed at Dhulikhel Hospital.

Study design

An observational design

Sample Size determination

Nepalese sample the descriptors mentioned by at least 3% of the six US samples of individuals with chronic pain, as reported by Jensen et al [16] and Lin et al [17] In particular, we were interested to determine if the rate that a sub domain was mentioned by the current Nepalese sample was within the range of the rates reported in the six samples of patients we previously examined. This included samples of patients with spinal cord injury and no ciceptive pain, spinal cord injury and neuropathic pain, and multiple sclerosis and chronic pain, reported in Lin et al [17] and samples of patients with chronic low back pain, fibromyalgia, and headache, reported in Jensen et al [16]. Finally, to address the third study aim (to evaluate the content

validity of pain quality measures developed in Western countries for assessing pain quality in patients from Nepal), we determined the number of the pain quality descriptors mentioned most often by the current study sample which were assessed by the existing pain quality measures. As we had done with respect to this study question in the US samples [16,19] in order to be deemed as assessing the pain quality in question, the measure needs to only include one or more descriptors within a general category.”

Sampling technique

Convenience sample

Sampling procedure: Through advertisements social media yielding 10 subjects, 21 previously treated were recruited, and 70 community participants learned about the study by word of mouth.

Study inclusion criteria included

- 1) Being a citizen of Nepal who can speak Nepali fluently;
- 2) Aged 18 years or older;
- 3) Reporting that they experienced pain for more than half of the days in past 3 months;
- 4) Having pain in muscles or bones or joints for at least 3 months; and
- 5) Reporting an average pain intensity of at least “4” on a 0–10 Numerical Pain Rating Scale, where 0 is “No pain” and 10 is “Maximum pain”.

The exclusion criteria included

- 1) Having an acute medical problem that could explain the pain (such as infection or metastatic cancer) and
- 2) An inability to communicate in Nepali to answer the questions in the interview.

Data Collection instruments: Interview

Data Collection Tools: Questionnaire

Variables and measurements/scales: Age, sex, primary site of pain, ethnicity, education, pain description.

Data collection Procedure

Translation, Cross-Cultural adaptation and Psychometric Properties of the Nepali Versions of Numerical Pain Rating Scale and Global Rating of Change [20].

All participants provided signed informed consent. The participants were then questioned 1. “Please describe your pain to me. What specific words would you use to describe how this pain feels?” and 2. “Are there any other words that describe your pain?”

Data Analysis

As we had done when we had questions about the translations, in the event that there were further questions (which occurred primarily with respect to the sensory state words, which required some discussion to determine how best to code) concerning how best to classify a descriptor, SS and MPJ consulted with a professional translator, a physician, a third investigator (AP), and three nurses

along with individuals who reported these pain-related states. Discussion continued until a consensus was reached.”

- Translation, Cross-Cultural adaptation and Psychometric Properties of the Nepali Versions of Numerical Pain Rating Scale and Global Rating of Change [20].
- After the study data were collected, one of the study investigators (SS) listed each individual concept (single word or phrase in Nepali) used by each participant to describe their pain in an excel spreadsheet. These words and phrases were then translated to English by SS. A professional translator along with a physician, three nurses, and a subset of patient participants were contacted if the translation required a second opinion. Each of the words or phrases (in English) was then coded by an investigator (SS) into specific global domains (e.g., Sensory Quality) and sub domains (e.g., Burning) using procedures similar to those used in previous studies [5].

Compared with the Pain Quality Assessment Scale and Revised Pain Quality Assessment Scale.

Comment on Materials and methods of article 2016: 9; 1057–1066 (5) in Journal of Pain Research

- The study area and population: obscure/not defined and enumerated
- Source population, sample population, and study population not defined
- Study design: observational design and not specified; is descriptive
- Sample size determination: Not predetermined/presented explicitly
- Sampling technique varied: No sampling frame, convenience sample
- Sampling procedure: Haphazard varied and not clear and with poor yield
- Data Collection instruments: Interview
- Data Collection Tools Questionnaire.

Variables and measurements/scales/ precision: Age, primary site of pain, ethnicity, and education were not presented

Inclusion/exclusion criteria: Unjustified by definition, restrictive and self-conflicting. Also, an acute medical problem that could explain the pain (such as infection or metastatic cancer) is unsupported by definition. Whether any and all infections could be excluded, and whether any pathology can be diagnosed unequivocally, diseases for which the underlying pathology is unknown, the place of coexistence of infection and cancer e.g. HPV and cervical cancer, [21] is not clear. Other questionable areas are chronic diseases that induce years to decades sequel after infection, and the condition where classical symptoms of inflammation are absent [2].

Data collection Procedure:

SS (First Author): Translation, Cross-Cultural adaptation and Psychometric Properties of the Nepali Versions of Numerical Pain Rating Scale and Global Rating of Change [20].

Questions: 1 and 2 if specific...Then why any other?

1. “Please describe your pain to me. What specific words would you use to describe how this pain feels?” and
2. “Are there any other words that describe your pain?”

Data Analysis: The participants’ responses to these questions were written down verbatim and later coded for analysis (“Pain descriptors coding” section).

Consensus based.

Comment on Result of article 2016:9 1057–1066 (5) in Journal of Pain Research [5].

Data Analysis

Description of study subjects and descriptive statistics: Marked inhibition to reveal mean, median, range, mode by sex and other variables. All variables are not addressed. Primary (1–5 years), Secondary (6–10 years), Higher secondary (11–12 years) scale is not clear. Others are: the result shows 18 (18%) cases primary site was labeled as “other”, and there are 7 (7%) cases with magnitude of “mild”, that which in the inclusion was written as “usual pain intensity as at least 4 of 10 on a 0–10 NRS” is described in the discussion section as “the average pain intensity” (Table 1).

- No working operational definition of chronic pain. In consistent use of terms chronic pain/chronic musculoskeletal pain. Thus raises criterion related validity .Changeable metaphor (a variety of labels to designate the same people and factions): “Participants/patients/treated patients/population of patients/ sample of patients/Nepalese samples/individual sample of patients/ individuals with chronic pain”“From population/from community/ patients from Nepal “Apocalyptic: “chronic pain/ chronic musculoskeletal pain”, “usual intensity of pain/average intensity of pain”, “12 no schooling/18 primary site is “other”/21 treated for pain”, “estimate rate/estimate rate of descriptors “Cryptology, “Word of mouth, learned.
- But was NRS applicable to those with “no schooling”?
- How can magnitude of pain “mild” be interpreted?

Table 1: Evaluation of existing pain quality measures.

Sensory	MPQ Ref 4	SF-MPQ Ref 6	PQAS Ref 7	SF- MPQ-2 Ref 5	PQAS-R Ref 8
	1971	1987	2006	2009	2013
Piercing/ <i>chasakka</i>	X	-	X	X	-
Stretching	X	-	-	-	-
Pricking	X	-	X	-	X
Tingling/ <i>jham-jham</i>	X	-	X	X	X
Numb	X	-	X	X	X
Burning/ <i>bhat-bhat</i>	X	X	X	X	X
Heavy	X	X	X	X	X
Cramping	X	X	X	X	X
* <i>Kat-katand katakkal achy</i>	X	X	X	X	X

X: is that there items not found in the MPQ.

- Content validity: were not clearly determined whether by content validity ratio or correlation coefficient and/or the statistical significance.
- “Close to half (52%) of the Nepalese sample also used a metaphor to describe their sensory experience of pain. The most common metaphors used were “Like an infection”, “Like sleeping hands/ feet”, [Sudden Jump at C and D- to E] “Like an ant bite”, and “Like a wound” [That is back to C].”
- Their number is but 40(40%).

Sensory Metaphor 52 (52): See Table 1 in [5] “Unexpected Jump”

- A. Like an infection 9 (9)
 - B. Sleeping hands/feet 6 (6)
 - C. Like a wound 5 (5)
 - D. Like needle prick 4 (4)
 - E. Like ant bite 4 (4)
 - F. Like nettle leaf 3 (3)
 - G. Like stretched nerves 3 (3)
 - H. Like broken bone 3 (3)
 - I. Like a burn 3 (3).
- “Voice of an experienced nurse?": “A, C, D, G, H, and I” (see sensory metaphor above under statistical description: Data Analysis.
 - “Therefore, the evaluation of the content validity of such measures should be established for each country or culture in which the measure will be used [5]”.
 - “For example, one of the participants described his pain “Like cancer pain”, even though he had never been diagnosed with cancer, although he may have known someone who had cancer”.
 - “**Unexpected Metaphors**”: “Another interesting (and unexpected) cross-cultural difference that emerged in this study was the fact that the Nepalese participants used metaphors to describe their pain much more often than US patients do. This finding suggests the possibility that many people in Nepal may think about pain differently than people in the USA. Specifically, they appear to be more likely to think about their pain metaphorically by comparing it to experiences that they might have experienced or imagined themselves as experiencing, rather than merely as a sensation that can be described using single-word descriptors... However, the between-country difference in frequency of this that we observed is striking.”
 - “**Clinician provided metaphors**”: “For example, there are chronic pain treatments that involve the use of clinician provided metaphors for helping patients alter their thinking about pain, including hypnotic procedures” [5].

Comment on Limitations

“There are a number of limitations of this study that should be considered when interpreting the results. 1) To our knowledge, this is

the first time that patients with chronic pain in Nepal were asked to describe their pain” [5].

- What is the point of this last statement in the discussion of Limitations?
- Uncertainty about data collection procedure: “It would have been ideal if two independent researchers had translated the participants’ responses in order to be able to evaluate the reliability of the translation”.
- Uncertainty about sampling: “The findings might have been different if more participants had been recruited from the hospital who were seeking treatment for pain or who might have had more severe pain. Therefore, the current findings should be replicated in additional samples of patients from Nepal to determine their reliability”.
- Uncertainty about sample size: “The sample size, while adequate for obtaining good estimates of the rates that different pain domains are used for those domains that are fairly common, might be considered low for estimating the rates of descriptors that are less commonly used....this is another reason for replicating the current findings in additional samples of patients; ideally, samples that are even larger than the sample size used for this study”.
- Compare with their previous work: “We did not compare the findings of this study to data from a sample from the USA collected at the same time as the data collected here. Instead, we compared the words used by individuals with chronic pain in the Nepalese sample with the words used by the participants in the studies that were completed in 2011 and 2013”.
- Suggestion? “However, to help address this issue, we used the same methods here as were used in the previous studies in order to make the results obtained as comparable as possible”.
- What about unused variables like education, ethnicity? “It should be noted that the US and Nepalese samples differed on a number of important variables not specifically related only to culture. For example, people in Nepal earn much less and have much less education, on average, than people from the USA, which may influence the expression of pain. Moreover, even though one of the US samples had primarily musculoskeletal pain (specifically, low back pain), as did the current Nepalese sample, the US studies also included individuals with primarily neuropathic pain and other pain conditions (e.g., spinal cord injury and neuropathic pain, and multiple sclerosis and chronic pain, fibromyalgia, and headache).
- Opinion? “These other non-cultural differences in the US and Nepalese samples may have explained some of the differences found in the rates of descriptors chosen – although we think it unlikely that they explain the very high rates of metaphors used in the Nepalese sample relative to the US sample, as well as the use of state descriptors in the Nepalese sample only, given the lack of equivalent state words in the English language”.
- Suggestion? “Still, research that directly compares individuals from the USA who match a Nepalese sample in terms of

demographics (education level, salary) and pain type would help to identify those differences that are primarily due to cultural differences”.

Uncertainty on their sampling and its reliability

- Authors were uncertain about the reliability of the translation (reliability a measure is reliable to the degree that it supplies consistent results).
- “The findings might have been different if more participants had been recruited from the hospital who were seeking treatment for pain or who might have had more severe pain. Therefore, the current findings should be replicated in additional samples of patients from Nepal to determine their reliability”.

Uncertainty on their sample size and its reliability

- “The sample size, while adequate for obtaining good estimates of the rates that different pain domains are used for those domains that are fairly common, might be considered low for estimating the rates of descriptors that are less commonly used....this is another reason for replicating the current findings in additional samples of patients; ideally, samples that are even larger than the sample size used for this study.”
- Artifact of definition of “Chronic pain”, (see references 8 and 9), compared words concurrent validity (one scale correlates with another designed to assess the same construct).
- In The cover page: “The rates of the different pain descriptor domains and phrases used by the Nepali sample were then compared to the published rates of descriptors used by patients from the USA.” –Patients from USA/sample from the USA/participants in the studies.
- “We did not compare the findings of this study to data from a sample from the USA collected at the same time as the data collected here. Instead, we compared the words used by individuals with chronic pain in the Nepalese sample with the words used by the participants in the studies that were completed in 2011 and 2013”.

Same method as a means to ensure comparability

• “However, to help address this issue, we used the same methods here as were used in the previous studies in order to make the results obtained as comparable as possible”.

Difference between groups: why not compare education/what for were ethnicity?

- “It should be noted that the US and Nepalese samples differed on a number of important variables not specifically related only to culture. For example, people in Nepal earn much less and have much less education, on average, than people from the USA, which may influence the expression of pain. Moreover, even though one of the US samples had primarily musculoskeletal pain (specifically, low back pain), as did the current Nepalese sample, the US studies also included individuals with primarily neuropathic pain and other pain conditions (eg, spinal cord injury and neuropathic pain, and multiple sclerosis and chronic pain, fibromyalgia, and headache).

- “These other non-cultural differences in the US and Nepalese samples may have explained some of the differences found in the rates of descriptors chosen – although we think it unlikely that they explain the very high rates of metaphors used in the Nepalese sample relative to the US sample, as well as the use of state descriptors in the Nepalese sample only, given the lack of equivalent state words in the English language”.

Still research!

- “Still, research that directly compares individuals from the USA who match a Nepalese sample in terms of demographics (education level, salary) and pain type would help to identify those differences that are primarily due to cultural differences” (Table 2).

Table 2: Showing Roles of Individuals In The research.

Role	MPJ	SS	AP	Students	3 Nurses
Author	Yes	Yes	Yes (second author)	-	-
	(third author)	(first author)	(third investigator)		
Concept Developer	Yes	Yes	-	-	-
Design	Yes	Yes	-	-	-
Develop Questionnaire	Yes	-	-	-	-
Subject Recruitment	-	-	-	Yes	-
Translation	-	-	Yes	-	-
Data Collection	-	Yes	Yes	Yes	-
Data Analysis	Yes	Yes	Yes	-	-
Manuscript Writing	Yes	Yes	-	-	-
Final revision	Yes	Yes	-	-	-
Final Approval	-	-	Yes	-	-

- Intangible result
- Unwarranted conclusion and recommendation.

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Disclosure

- One of the authors (MPJ) is a co-developer of two of the measures discussed in this article (the Pain Quality Assessment Scale and Revised Pain Quality Assessment Scale) and receives royalties for sponsored use of these measures. The other authors (SS and AP) report no conflicts of interest in this work [5].

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Conclusion

- There was no complete theory, concepts, definition of terms
- Topics were not covered
- Uncertainty on their sample size, sampling and its reliability
- Content validity itself not defined determined, tested and presented
- Interdependence of individuals, their previous and current works

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