Reviewer's report

Title: Building bridges to patients: design and pilot evaluation of a training session in argumentation theory for chronic pain experts

Version: 2
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Reviewer: Nanon Labrie

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GENERAL COMMENT: The paper aims to present the design and pilot evaluation of an argumentation training course developed for doctors in the field of chronic pain. The study described by the authors addresses a central and increasingly recognized topic in the field of health communication, namely the role of argumentative discourse in the context of modern day medical consultation and the potential merits of argumentation skills for doctors communicating with their (in this case, chronically ill) patients. While I am convinced the issues dealt with in the present paper are of high interest to the medical education/communication community, I have several major concerns pertaining to this preliminary study's theoretical underpinnings, methodological approach, and some of the conclusions that are drawn. I believe these issues need to be addressed by the authors before the paper can be considered for publication.

Major Compulsory Revisions

BACKGROUND: In Line 31 the authors state that “Its potential in the healthcare context, however, has not yet been explored.” This statement should be reformulated as this is incorrect. While the study of medical argumentation is indeed in its infancy, the role, characteristics, effects, and potential of argumentation in the context of doctor-patient have been explored by researchers from various disciplines. While the development of a course is in itself innovative, the possibility of training doctors to use argumentation has been suggested by a number of other authors.

THEORY: The authors set out to design and pilot test an argumentation theory course for doctors. Moreover, the authors mention in the discussion section that the paper contributes to the field of argumentation theory. It is therefore surprising that the authors do not elaborate on the precise theoretical framework underlying their work. Argumentation theory – indeed, starting from ancient times – is a comprehensive field including many different approaches. It would be good if they authors would provide an in-depth explanation of the theoretical underpinnings of their study. This includes providing definitions and proper references to the terminology that is used (e.g., “critical discussion”, “difference of opinion”). Moreover, it should become clear which ideas are the authors’ own and which are insights gained from existing theory, amongst others by providing references. At present, remarkably, none of the publications included in the
reference list refer to standard works of argumentation theory.

DEFINITIONS: One of my main concerns with the study regards the definition of “argumentation”. Do the authors refer to argumentation as a product or a process, or both? How do they distinguish between argumentation, information, persuasion, explanation/clarification? In the analysis of the interview data, often I would argue that the doctors do not refer to principles of argumentation but rather to information/explanation. These are conceptually different processes and a clear distinction should be made. This bears on the essence of the paper, as the authors aimed to develop a course on argumentation theory and not on the provision of information.

RATIONALE: The authors should provide a rationale for the inclusion/exclusion of sub-topics of argumentation theory into the course. Why discuss argumentation schemes, relevance, and beliefs, but not argumentation structures, or fallacies, or simply the very basic concepts/definitions at the core of argumentation theory? By clarifying the argumentation theoretical starting point of their work, the authors may simultaneously provide a rationale for the choices made in selecting the course topics (e.g., there are many schools of thought when it comes to argument schemes). Topics that were not included in the course but that could be relevant nonetheless can be mentioned in the limitations/future research section. In describing the course topics, the authors should also provide more evidence for claims made. For example, why would certain schemes work better than others? Is there scientific proof that suggests this? The section describing the selection of the course contents, in my opinion, is the most important section of the paper because it can guide future researchers.

Lines 180-182: “The training course illustrated how argumentation can guide agreement through rational discussions of the arguments for or against a specific viewpoint.” Elaborate: how did the course do that? Also, clarify what you mean by “agreement”. The patient’s agreement with the doctor’s advice or reasonable agreement between the two discussion partners?

Line 232. “Argumentation is relevant and acceptable to doctors because it takes into consideration the reality of the medical consultation”. Technically, it is not “argumentation” that the doctors deem relevant and acceptable, but the argumentative principles that were taught in the course.

METHODOLOGY: The small, convenient, self-selected sample of doctors – including almost twice as many males as females – forms a clear limitation to the study design. This is also discussed to some extent by the authors. The design allows for a qualitative focus, but renders quantification of the findings impossible (or not meaningful). The doctors reported/assessed their own behaviors and may have been prone during the interviews to give socially desirable answers that were primed by the course. For example, the authors state that participants consider argumentation as fundamental because it is the starting point for a critical discussion. Somehow this seems a repetition of something that was taught during the course. This makes me wonder whether the doctors’ responses
where authentic or primed by the course. How did the authors handle this? In addition, both authors acted as the course teachers as well as the interview coders. While they coded the data individually, they were both aware of the study aims and what was done during the course. It would be good if the authors would elaborate on how they ensured the validity of their analyses.

LIMITATIONS: While the authors do discuss the study limitations, I think some clear limitations should be acknowledged. Not only was the sample small, but also convenient and self-selected. The doctors self-reported on their behaviors and more so might have been inclined to provide desirable answers.

OVERALL: I would advise the authors to stick more closely to their objective and provide an even more systematic and detailed overview of the theoretical and methodological decisions made in the design (and validation) of the study as to inform future, more comprehensive argumentation courses. Given the small, convenient sample the results cannot be generalized. The results should therefore, in my opinion, be used to illustrate the description of the study design. That is, I would recommend the authors to shift the attention in the paper towards the theory and design and somewhat away from the pilot results. This might require partially restructuring of, and adding to, the paper. More so, I believe that the author should more elaborately address the limitations of the study and outline how the present study can inform follow-up research.

Minor Essential Revisions

Despite not being an English native speaker myself, I believe the paper could benefit from language editing. Particularly the placing of commas (in series) should be checked.

Please explain how and why argumentation can be conceptualized as a “set of communication skills”. Which are the skills belonging to the “set”?

The paper should throughout be substantiated with proper referencing. Some examples:

Line 24. “Patient-centered care, as the recognized ideal approach to healthcare […]”

Line 27. “Argumentation is defined as […]” (This is a definition that draws on argumentation theories)

Line 137. “[…] analyzed using the inductive approach of thematic analysis”.

Lines 176-177. “The growth of correct and appropriate beliefs can enhance partnerships between doctors and patients.”

Line 41. “This paper shows that argumentation skills can enhance the exchange of views between doctors and patients”. This statement should be weakened as the study design does not allow for any such causal claims to be made.

Lines 232-235. Clarify: is this the authors’ opinion or the conclusion based on the doctors’ responses during the interviews? In case of the latter, move this paragraph towards the end of the section instead.
Lines 229/358. The checklist is mentioned only here. Explain what this is exactly.

Lines 360-366. I would have expected this earlier on in the paper. This deserves also further explanation. How does this work exactly? Do X, Y, and Z always need to be explicit? What about unexpressed premises? And what about indirectness?

Line 373. “highlighted”. Use present tense.

Lines 383-385. If generalizations are not possible, why is this study particularly relevant? Use this section to explain that (e.g., to inform future studies).

Lines 414-416. From an argumentation perspective, I believe it is theoretically incorrect to state that a “rational exchange” is used to correct or re-contextualize misleading beliefs. A rational discussion procedure is aimed at reasonably reaching mutual agreement (this may also mean that the doctor accepts the patient’s view!). Also taking a patient-centered approach, I would avoid referring to the patients’ beliefs as “misleading” (rather, e.g.: medically inaccurate).

Discretionary Revisions

The authors mention that doctors perceive argumentation as a natural process or interaction that is consistent with their mindset (perhaps clarify the last term). It would be good to mention that doctors’ perceptions might not concur with their actual behavior in practice.

Line 78. Perhaps add that patients’ views are not only shaped by (online) information, but also by their experiences, their norms and values, etc.

Lines 79-81. It could be nice to mention the role of patient empowerment and health literacy here.

Lines 96-98. Perhaps rephrase in order to avoid repetition.

Lines 107-108. Line 108 should start directly after line 107 to avoid paragraphs that contain only one sentence. Check this throughout the paper.

Line 109. The information included between brackets seems somewhat redundant as this has been discussed in the above (delete this or restructure these sections).

Self-efficacy measurement: The authors adapted an existing self-efficacy scale. Did they also validate the new scale? I would like to see a short discussion of this – even in a footnote.

The measurement section may be easier to read through if it is split up into smaller sections/paragraphs with the variable name as a header.

Line 150. –s missing after “scheme”? 

RESULTS SECTION: Given the small sample size as well as the study objective,
I wonder whether it is relevant to quantify the findings, including also tables. The same goes for the numbers mentioned in the discussion section. More so, I found the 1-10 scale with 1 being the highest score somewhat counter-intuitive. Why not recode the variables as such that low scores represent less confidence/satisfaction, etc.?

Line 238. “wrong beliefs”. Do you mean medically inaccurate? Following patient-centered approaches as well as taking an argumentation theoretical perspective, I would avoid classifying beliefs/opinions as “wrong”. Line 259. Idem.

Line 269. “prevent”. From an argumentation theoretical point-of-view I would prefer “anticipate” over prevent. After all, one cannot prevent another person from having a different opinion prima facie. One may only anticipate doubt/opposition by providing argumentation.

Line 291. It would be good to elaborate on this from an argumentation theoretical perspective. What does “agreeing to disagree” imply for the discussion. Is it still a successful (or ‘reasonable’) discussion? Is that the same in all contexts or is this specific for the context of doctor-patient communication?

Lines 328 onward. I find this section highly interesting, from a health communication perspective and also from an argumentation theoretical point of view. I think this section could be expanded, adding theory and references to other studies.

Line 347-348. Could it be that the doctors’ high satisfaction and self-efficacy is one of the reasons for them liking the course? In other words, could it be possible that – because of the self-selection procedure – you only included communication enthusiasts in your sample?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests