ISSA Proceedings 2014 – Can Argumentation Skills Become A Therapeutic Resource? Results From An Observational Study In Diabetes Care

Abstract: The paper describes results from an observational study on argumentation in the medical setting, which show how and why argumentation skills can become a useful therapeutic tool in chronic care. The results of the study show that the therapeutic goals of chronic care are strongly linked to dialogic activities such as argumentation, explanation, decision making and information giving. The article discusses how doctors' argumentation skills can be improved, especially in the crucial phase of shared decision making.

Keywords: argumentation schemes, chronic care, decision making, doctor-patient communication, medical argumentation.

1. *Introduction*

When we consider the relationship between the study of argumentation and the professions, the legal domain is probably the one in which the usefulness and applicability of argumentation skills for the achievement of professional goals is the clearest. Such link between the effective use of argumentation and professional goals, however, has not been as clear in other professional domains, such as the medical one.

The medical profession has developed in a such a way that for a long time it did not seem particularly relevant for physicians to be also good communicators and to have particular argumentation skills (see, Moja & Vegni, 2000; Roter & Hall, 2006). The trend of patient-centered care has progressively eroded the paternalistic, biomedical paradigm, collecting evidence to show that when communication between doctors and patients is good, significantly better clinical outcomes are reached. However, it has also been observed that there is still lack of evidence as to exactly which aspects of communication correlate positively with

clinical outcomes (Epstein and Street, 2011).

The therapeutic goals of chronic care are to: educate, counsel and motivate patients. In spite of these goals, it is common to talk with medical doctors and discover that, for example, many of them cannot describe the difference between the activities of information giving and argumentation. It is also common for many of them to not understand immediately why argumentation skills should be useful to them in the first place. An interesting study conducted by the Association of Italian Diabetologists (Musacchio & Zilich, 2013) revealed that diabetes doctors in Italy overestimate the effects of information-giving and are highly frustrated by the fact that after having provided a large and fairly detailed amount of data, patients still do not adhere to prescriptions or suggested behaviors. I observed a similar kind of problem when conducting individual interviews with medical staff at a diabetes outpatient clinic in Italy: the members of staff felt they were conducting rather accurate and complete shared decision-making phases with their patients, but videorecordings collected during the consultations revealed that this was not always the case.

In considering both the goals of chronic care consultations and this disconnect between what doctors do and what they think they are doing, the specific question I address in this paper is if and how argumentation skills could become actual therapeutic tools in the chronic care consultation.

I address this issue by presenting results from an observational study on argumentation in doctor-patient consultations in a diabetes care setting. The aim of the paper is to show that consciously mastering certain argumentation skills could actually become a significant resource for chronic care doctors in their effort to achieve the therapeutic goals of the consultation with their patients. On a more theoretical level, the results of the analysis show that real-life data are necessary to argumentation scholars as a basis to define more specifically the role argumentation can play in a specific context as opposed to other discursive activities, such as explanation, information giving, or others.

2. *The study*

The data I present in the following sections were collected within the framework of an observational study conducted at a diabetes outpatient clinic in northern Italy**[i]**. The study was aimed at collecting data and insights on the most frequent communicative and argumentative patterns in doctor-patient encounters in an

Italian chronic care setting. The clinic is part of the Italian public system and patients are referred to the clinic by their general doctors.

Participants
All the members of the medical staff at the clinic participated in the study: three medical doctors, specialized in diabetes care; two professional nurses, specifically trained for diabetes care; and one dietician. I also recruited 20 patients among the ones assisted at the clinic: 10 men and 10 women affected by Type 2 Diabetes Mellitus, whose ages ranged between 60 and 90. All of them had been assisted at the clinic for more than 5 years and they were chosen randomly. An informed consent was obtained from all the patients involved in the study and from all the members of staff at the clinic.

Data collection
Every time the recruited patients came in for a visit, their encounter with the health care providers was videorecorded. This resulted in an uneven distribution of the recordings for each patient. The recording went on for 21 months and resulted in a collection of 60 videos, for a total of about 1.800 minutes of recorded material.

Analysis
For the aims of the study, I proceeded by first describing the consultations according to the following phases:

1. opening;
2. record updating;
3. discussion of therapy or of eating habits/physical examination;
4. assessment;
5. shared decision making on therapy modifications/dietary recommendations/prescription of new exams;
6. closing/ These phases have been identified by slightly modifying Byrne and Long's (1976) famous representation of the medical consultation to adapt it to the specific features of the encounter in diabetes care.'

Given the specific clinical and therapeutic aims of each phase, in my analysis of the argumentative practices I focused on phase 5, where it was more likely for argumentation to be used. More specifically, I analyzed the process of shared decision making as an instance of deliberation dialogue (Walton and Krabbe,

1995; Walton, 2006; Walton et al., 2010; Walton, 2010). As in deliberation dialogues, also in this part of the interaction the parties' aim is to answer the question: what should we do?**[ii]**. Deliberation dialogues usually develop in three stages: opening, argumentation and closing.

In the opening stage the parties agree on a common goal and acknowledge that action is needed to achieve it. In the argumentation stage, the parties conduct a discussion on which course of action is the best way to reach the common goal. During the discussion, new information is often introduced, which can bring the parties to alter their original proposals and formulate new ones. In the concluding stage, the parties agree on one proposal for action, which in the model is supposed to be a joint action, while in the case of medical encounters it is usually something that will be carried out by the patients.

For the description of the argumentation schemes, I followed the approach proposed in Walton (1996, 2006), Walton & Reed (2002), and Walton, Reed & Macagno (2008).

The next section draws on the results of such analysis to answer the question central to this paper: if and how argumentation skills can become therapeutic tools in the chronic care encounter. I first describe the results of the analysis that refer to the occurrence of the argumentation stage in interactions. I then report a few examples of doctors' argumentation and a few examples of patients' replies to doctors. Especially in the case of patients' responses, the examples show that identifying argumentation is not always straightforward, calling for a wider and deeper analysis of the kind of communication activities that are performed by the interlocutors.

3. *The results*

The results presented here are a subset from a detailed analysis of 31 out of the 60 videos collected during the observational study. The analyzed videos concern patients talking with doctors or with the dietician. These interactions differ in many ways from the ones with the nurses, which I analyze and describe separately in a paper in preparation.

The argumentation stage

Only in 3 cases out of 31 it is possible to describe an actual argumentation stage, in which doctor and patient both contribute to the discussion by putting forward

alternative proposals to achieve a certain shared goal (Walton et al., 2010). In most of the other cases, doctors argue in favor of a generic line of conduct – e.g., "you should exercise more", or "you should lose weight" – without engaging with their patients in a discussion on specific action items. In a minority of cases, there is no argumentation stage because the patient's diabetes is within acceptable ranges and there seems to be no need to change neither the therapy nor the patient's behaviors.

Doctors' argumentation schemes

In my data, doctors' argumentation is realized most frequently by arguments from positive/negative consequences, from means to end, and from cause to effects.

In the following example**[iii]** of an argument from positive consequences, doctor and patient are discussing about things to do to prevent episodes of hypoglycemia, which is a very dangerous complication deriving from the sugar in the blood dropping below certain levels and causing patients a variety of serious symptoms, among which are trembling, dizziness, sweating, loss of consciousness, emotional instability, or aggressiveness. The most effective remedy when the patient starts feeling the first symptoms is to eat some sugar, but what if the crisis happens while driving, on the street, in a store? The doctor argues as follows:

(1)

"You should always carry a sugar sachet in your wallet and not in the pocket of your trousers, because nobody leaves the house without their wallet, but you do change your trousers from time to time, so if you keep the sugar in your wallet you will never forget it"

The following is an example of argument from negative consequences, in which the dietician explains to the patient why she should be careful about eating croissants or similar food too frequently:

(2)

"Croissant is not ideal for you because it is very rich in sugar and fat, and since you need to lose a bit of weight, this does not help you. If you happen to eat it on special occasions, it's ok. But if it happens every day, it is not ok"

The argument from means to end in my data occurs almost exclusively to argue in favor of better performed self-monitoring of blood glucose and in favor of always

bringing the glucometer and self-monitoring journal to the encounter. In the following example, the doctor has noticed that the patient is writing in his journal very different (lower) values from the ones that have been recorded in the glucometer. She presupposes (but does not verify explicitly) that the patient is trying to hide the very high values from her and reacts with the following argument:

(3)
"I don't know if you made a mistake or if you wrote down a different value […], but what you write in your journal is for yourself, it's not for me. Is this clear? We are collaborating. In this moment I am working together with you to help you feel better and have a better health. If you do not show all the information, I cannot help you improve"

In another case, the patient asks the doctor if it is really necessary for him to take the insulin three times a day, implicitly suggesting that maybe he could take less. The doctor uses an argument from causes to effects in response to the patient's question:

(4)
"Yes, because insulin controls your blood sugar. If you were not taking insulin your values would be above 400, which can be really damaging for you"

There are also a few cases in which the doctors reason in favor of or against a certain explanation provided by patients to make sense of a phenomenon. In these cases, again, one frequent argument is the one from causes to effects, as in the case below, where the patient complains that ever since he started taking insulin he has seen a weight loss of 10 kilos. The doctor does not agree:

(5)
"You did not lose weight because of the insulin you are taking, but because the management of your diabetes is not perfect yet. When diabetes is not well controlled, you lose weight."

In very few cases, I have observed the use of the argument from waste (Walton 1996). This argumentation scheme is based on the concept that wasting resources or efforts is negative, as in the following example, in which the doctor observes that the patient has worsened and comments:

(6) “It’s such a pity because you had improved last time”

The implicit point the doctor is making is that the patient could have done a better job at keeping his diabetes under control, because now he has wasted all the effort made previously.

Patients’ responses
As reported in many other empirical studies on doctor-patient consultations, also in my data patients are not the ones who do most of the talking. However, they do participate and one dimension of this participation that is particularly relevant to the point of this paper regards the motivations patients offer for their behaviors, in response to doctors’ noticing a worsening of their diabetes.

Most frequently, these motivations are either offered at the very beginning of the consultation, in the opening phase, or when the doctor asks to see the tests and the self-monitoring; at other times, they come up during the discussion about lifestyles, after the doctor has looked at the general situation and has begun to conduct a deeper analysis of single behaviors.

The motivations patients offer mostly have to do with social events or conditions that somehow get in the way of a proper management of the diabetes. Below I report a few examples:

(7)
“I haven’t always taken my therapy nor done the self-monitoring properly in the past few months because my husband has been very sick and I had to take care of him”

(8)
“I haven’t done the self-monitoring because I have spent a couple of months with my family in Calabria [in the South of Italy] and people were always offering me good things to eat, so then it was not the case to measure my blood glucose”

(9)
“I have been traveling often lately and when I travel I let myself go a little and I don’t do the self-monitoring the way I should”

(10)
“With the job I have, it’s difficult for me to eat properly and to do the self-

monitoring when I'm at work"

(11)
"I've stopped going to the gym because I got lazy"

A different set of motivations refer to other conditions affecting the patient that impacted on the quality of diabetes self-management:

(12)
"A couple of months ago, I broke my arm, I was so upset, I had to undergo rehabilitation, so I just set aside the diet and the self-monitoring"

(13)
"I have been to the Emergency Room three times last month and maybe that impacted on my diabetes"

(14)
"I have had a flu earlier this month and I think that caused my sugar values to become higher"

4. *Discussion*
I now turn to discuss the results of the analysis in view of the question I set out to answer: can argumentation skills become a therapeutic resource?, by highlighting how and why argumentation in this kind of encounters could be improved.

First, the analysis showed that a complete and effective argumentation stage is almost always missing in the interactions. Literature on shared decision making in the medical encounter has shown a high positive correlation between the presence of shared decision making and patient outcomes, especially patient self-efficacy (Heisler et al., 2013; Lafata et al., 2013; Epstein and Gramling, 2013)**[iv]** As the model of the deliberation dialogue shows, effective shared decision making is based on the ability to use argumentation as a means to support or criticize proposed lines of conduct, therefore it would be crucial for medical doctors to become aware of the process and be able to activate it and conduct it in ways beneficial to patient active participation.

Secondly, in the previous section I reported a description of the argumentation schemes that are frequently used by the doctors in my data. I don't think these argumentation schemes pose problems of acceptability or validity, but I believe

that in some cases they do at least open questions regarding their effectiveness. If we consider the argument from positive/negative consequences, we know it presupposes agreement between the parties on what is considered positive or negative, on what is considered better or worse. In the data, discussions on value hierarchies never emerge and the value of good health above everything else is taken for granted. This may be correct in a general sense, but diabetes is a disease that does not have particularly annoying symptoms until it is too late. It is likely that patients tend to underestimate the risks connected to their condition because actually they are feeling pretty good, and therefore the possibility of eating a croissant (example (2)) every now and then in practice is placed above the value of good health, simply because the risk connected to eating the croissant is underestimated. This hypothesis is supported by empirical research in the field of psychology, showing that in making decisions people tend to underestimate the probabilities of failure of complex systems, believing that it is more likely for one part at a time to stop functioning (among others, Tversky and Kahneman, 1974). Unfortunately uncontrolled diabetes will impact on eyes, heart, kidneys and nerves all at the same time, leading to the system's complete failure in the long run. Therefore, also in this case, the awareness of the importance of agreement on values as a precondition for the effectiveness of the argument from positive/negative consequences seems to be a skill that is lacking and that could be very useful to doctors.

Regarding the use of the argument from means to end, the question arises whether the importance of the end is actually shared by the parties. In example (3), the doctor argues that the patient should report in his journal his exact values, because otherwise she – in her capacities of doctor and *counsellor* – will not be able to help him appropriately. This end may not be shared by the patient, who might have an understanding of the doctor's role as that of a 'controller' rather than a 'helper'. Indeed, in a few other encounters the patients expressed quite clearly their perception of the doctor as the person who not only guides but also controls them. Evidence needs to be collected regarding patients' perceptions of doctors' authority in order to determine the effectiveness potential of the argument from means to end used in this way.

The argument from cause to effect is often necessary as a means of patient education: but are causal relations regarding scientific phenomena always understood by patients? Examples (4) and (5) provide rather clear causal

correlations, but would it help the patient to understand why and how insulin keeps the blood sugar down? Or why and how uncontrolled diabetes makes him lose weight? Maybe it would, at least according to researchers in education, who show that understanding is at the heart of behavior change (Asterhan and Schwartz, 2009). Other scholars in the same field have also collected evidence to show that understanding is not improved by *listening* to explanations about *phenomena but by talking about phenomena and their causes* (De Vries, Lund and Baker, 2002).

Finally, I point out an analytical difficulty that emerged in relation to the description of doctors' argumentation practices. There are many cases in the data in which it is very difficult to decide whether we are looking at instances of argumentation or explanation. Typically, these are cases in which patients are not doing well clinically and have not adhered to the recommended behaviors (correct self-monitoring; lifestyle changes). In almost all of these cases, the doctors assess the situation and then start providing information about the causal relations between the correct behavior and the possibility to achieve a better health condition, while the patients remain silent. From the point of view of the analysis, the difficulty is posed by the fact that in order to describe these causal relations as instances of explanations or argumentation we would need to know what the doctor had in mind, i.e. if she presumed to be addressing a misunderstading – in which case her response would function as an explanation – or a disagreement – in which case, her response would function as an instance of argumentation.

Also regarding the examples showing patients' responses to doctors, a similar question arises: should patients' responses be accounted for as instances of argumentation? If so, which are the standpoints being supported or criticized? Are patients casting doubt on the doctors' points of view or are they doing something else?**[v]**

If we take examples (7) to (11) and consider them in the context of the interactions in which they occur, it is very difficult to describe them as moves aimed at casting doubt on the doctors' claim that the self-monitoring has not been done correctly, that the diet needs to be followed more accurately, or that exercising more is necessary. Rather, they look more like instances of dispreferred responses, i.e. turns in which a party is in a position to provide the response that is considered to be contrary to the interlocutor's expectations (Pomerantz and Heritage, 2013; Pomerantz, 1984).

Are the patients therefore not arguing? And if not, what are they doing? My understanding is that patients in these cases *are* using argumentation but not with the aim of making a conceptual point, rather in favor of behaviors that can be generally defined as 'incorrect', *except* in the specific circumstances described in each case. What the patients seem to be saying is that *since the contextual conditions in which they found themselves had temporarily changed* a behavior that would normally have been considered as unacceptable could be excused. This strategy probably has a main face-saving function and the doctors must be somehow aware of it because they seldom press the patients to admit that their behaviors were actually *not* excusable. Instead, they either change the subject, or just put forward rather generic recommendations to behave differently from now on. In spite of being socially preferred, perhaps this kind of reaction from the doctors is not the most functional to the attainment of the therapeutic goal of patient education, because the *special conditions* the patients in examples (7)-(11) describe are precisely the kind of conditions in which one should keep his/her diet, exercise and self-monitoring even more under control. A potential misunderstanding of the nature of their disease underlies these patients' motivations, but the doctors do not seem to perceive it and they do not address it.

As regards the other set of examples, (12)-(14), I consider them different from the previous ones because they aim at describing a relation of cause-effect between an additional health condition and a change in the sugar values. They look more like explanations and indeed in these cases the doctors responded by accepting them and providing argumentation to support them, thus fulfilling their goal of patient education.

In summary, the set of examples regarding patients' responses shows patients arguing that in certain specific circumstances a normally unacceptable behavior could be accepted. In other words, patients show how their 'lifeworld' is impacting on the self-management of their diabetes, disclosing important information in relation to their lifestyles. The potential for an instructive and constructive discussion on what is the best line of conduct even in those exceptional circumstances is there, but doctors rarely see it and take advantage of it.

Finally, in many cases, patients' accounts for their behaviors are provided at the very beginning of the consultation or just as the doctors are beginning to analyze the patient's clinical picture. These cases are very interesting because they are

usually preceded by some form of self-accusation, which triggers always the socially preferred reaction of the doctors who immediately disagree with the self-accusation (Pomerantz, 1984). The problem is that this 'social game' seems to 'distract' the doctors from their clinical goal, which is to assess the reasons why the patient believes s/he has not behaved properly. This almost never happens, and the patients are excused but not further questioned about their behaviors.

Limitations

The observational study on which this paper is based has of course a few limitations. First, it did not aim at quantitative representativeness. The data were collected in only one clinic and a somewhat peculiar one, as it is not the norm for diabetes doctors in Italy to be working in such a big team of professionals.

Secondly, the medical staff at the clinic had all had some training at different moments in their professional life on patient-centered care or communication with patients. It would be interesting to observe the communication practices of doctors with no such training.

I did not have the possibility to collect feedback from the patients regarding their perceptions on the encounters with the doctors, which would also have been interesting for a deeper understanding of the dynamics within the encounter.

Finally, it was not always possible to place the videocamera so as to make it totally unobtrusive. The videos give the impression that this did not substantially alter the spontaneity of the interactions, but of course this cannot be proved in any way and it may well be that without the camera in place the persons involved would have behaved differently.

5. *Conclusions*

Can argumentation skills become a therapeutic resource? Could argumentation skills become a normal professional asset for chronic care doctors? I believe even the limited results reported in this contribution point in the direction of an affirmative answer to these questions. Becoming aware of and mastering argumentation skills could actually provide chronic care doctors with crucial tools for the achievement of therapeutic goals that almost entirely depend on the quality of communication during the encounter with patients.

Interestingly, by looking at argumentation practices from this perspective can also inspire argumentation scholars to improve and refine their methods of

analysis. The analytical challenge I faced when trying to make a clear-cut distinction between instances of argumentation and explanation reveals the necessity for the young field of medical argumentation to take a closer look at the context of interaction it is studying, in order to describe its relevant features and the criteria to identify and evaluate the instances of argumentation within its boundaries.

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NOTES

i. The project's website can be found at: https://sites.google.com/site/docpatcommpro/ On the project's results, see Bigi 2014

ii. In my analysis, I did keep in mind the fact that deliberation dialogues often overlap with information-seeking dialogues and persuasion dialogues, but I am not giving a detailed account of this overlap in this paper. An article discussing the use of the deliberation dialogue as a useful model for the interpretation and analysis of this phase of interactions in the medical context has been submitted by the author to a scientific journal and is currently under review.

iii. All examples have been translated by the author from the original data in Italian.

iv. Self-efficacy is defined as patients' understanding of their condition and treatment, and patients' self-confidence in their own self-care abilities (Heisler et al., 2002).

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