

A Preliminary Exploration of Patient Satisfaction and Recall Based on Recursive Frame Analysis Methods

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Abstract. Created by Bradford Keeney, Recursive Frame Analysis allows for in-depth analysis of communicative events. Specifically, RFA has been applied to “therapeutic talk” involving various types of clinical scenarios. The goal of this study was to employ RFA to analyze actual video recorded physician-patient interactions to determine the relationship between various RFA constructs and patient measures of satisfaction and recall. We hypothesized that there would be a direct correlation between the number of frames and measures of patient satisfaction and recall. Preliminary findings suggest that RFA can be a useful tool for analyzing these relationships.

1. Introduction

Medical interactions have been the subject of much interest. Research has focused on the quality and success of medical visits, discourse, and other communicative factors [1; 2; 3]. The bottom-line in conducting this research has been to decrease health care errors, costs, and suffering. A component of high quality health care includes patient satisfaction and recall and a key component needed for adequate satisfaction and recall is effective “therapeutic talk”. A procedure called “Recursive Frame Analysis” (RFA) may be useful in analyzing therapeutic talk. RFA was created by Bradford Keeney [4]. It is a method used for systematic analysis of the ebb and flow of interactions. It allows for identification and visualization of the communicative event in terms of establishing, maintaining, and shifting topics. Specifically, the context and content of the interaction, and all other embedded subjects can be easily viewed and analyzed. RFA has been used to analyze narratives, conversations, and other forms of discourse in therapy. It has been described as a way to “get closer to the talk” because it allows for “sequential analysis which helps researchers and therapists to note their perceptions of semantic shifts in conversation” [5]. RFA has been used in therapy involving parents’ conversations about their children’s heart murmurs [6], describing family therapist-supervisor talk behind the one-way mirror in therapy sessions [7], analysis of divorce mediator-disputants discourse in child custody dispute resolution [8], and systemic family therapy discourse [9]. When applying RFA to medical scenarios, consider the following description of physician-patient interactions: Medical visits are events that occur in the contexts of offices and examination rooms during which an expected script is traditionally followed. Within the context of the visit, doctors and patients convey and interpret messages framed by words and meanings thereby creating more contexts within the overall event. The content is fluid and ever changing with new interpretations and meanings surfacing occasionally while prior interpretations and meanings are submerged. Adding to the flow, texture, and volume of the interaction, interpretations and meanings can be, and usually are, recycled and readdressed during the dynamic interaction. In this way, medical visits can be viewed as continual and shifting communicative transformations. In terms of RFA, some operational definitions based on the work of Keeney [4] and Chenail [5] were needed to identify key components characterized in this study. The term “event” refers to doctor-patient medical visits. The term “Recursive” refers to the evolving topography of the event. “Context” refers to groups of frames that convey messages and allow for interpretations of messages and meanings. “Frames” comprise the smallest units of meaning within a given context which may include letters, words, phrases, and sentences as well as obvious nonverbal communicative responses (i.e., head nod up/down for “yes”). The term “gallery” refers to classes or “chunks” of frames based on commonalities in the discourse. In this study three types of galleries were identified. They included “primary galleries,” “subordinate galleries,” and “peripheral galleries”. Primary galleries are those that contain the established primary purpose of the medical visit (event). Within the primary galleries are subordinate or embedded galleries. The subordinate galleries contain frames of exchanges that establish topics directly related to the primary gallery. Peripheral galleries contain exchanges of frames that establish topics not directly related to the primary purpose of the visit even though they may be relevant to the event. The purpose of this study was to conduct a series of tests to explore the relationship between the number of frames within the primary, peripheral, and subordinate galleries to measures of patient satisfaction and recall of actual physician-patient interactions. We hypothesized that there would be a direct correlation between the number of frames and

measures of patient satisfaction and recall. We suspected that the lower the ratio between the numbers of frames within the primary galleries to the number of frames within peripheral galleries, the lower would be satisfaction and recall.

2. Experiment, Results, Discussion, and Significance

Eighty video recordings of actual medical visits obtained for a prior study were used as the sample for this study. In addition to the recordings, data regarding patient recall and satisfaction from the actual visits were used. From the eighty recordings, one recording from each high/low category for recall and satisfaction was transcribed verbatim. Nonverbal messages were also transcribed if they were easily interpreted. Once transcribed, the four interactions were recreated into RFA tables depicting galleries and frames of the events. Data were tallied and compared to patient recall and satisfaction measures. For high recall, there were 139 total frames (doctor = 77, patient = 62). Total (doctor & patient) primary and subordinate frames combined outnumbered total (doctor & patient) peripheral frames 95 to 44, respectively. For low recall there were 261 total frames (doctor=123, patient=138). Total (doctor & patient) peripheral frames outnumbered total (doctor & patient) primary and subordinate frames 136 to 125, respectively. For high satisfaction, there were 221 total frames (doctor=142, patient=79). Total (doctor & patient) peripheral frames outnumbered total (doctor & patient) primary and subordinate frames 101 to 120, respectively. For low satisfaction, there were 308 total frames (doctor=116, patient=192). Total (doctor & patient) peripheral frames outnumbered total (doctor & patient) primary and subordinate frames 112 to 196, respectively. Trends based on these preliminary data were identified. Regarding recall and satisfaction, lower numbers of total frames corresponded to higher levels of recall and satisfaction. Conversely, higher total frame numbers corresponded with lower recall and satisfaction levels. When the total number of doctor frames exceeded the total number of patient frames in an interaction, recall and satisfaction measures were higher. Conversely, when the total number of patient frames exceeded the total number of doctor frames in an interaction, recall and satisfaction measures were lower. When contrasting the ratio of numbers of primary/subordinate frames to peripheral frames, higher recall scores were obtained when the ratio was nearly 2:1; lower satisfaction scores were obtained when the ratio was nearly 1:2, suggesting that time spent on the reason for the visit rather than in distracting or secondary “talk” is crucial.

3. Conclusions

These preliminary findings indicate that RFA is a tool that can be used to analyze doctor-patient interactions. Analyzing how time is spent during those interactions and how doctors and patients contribute to the interactions both individually and collaboratively may provide further insight into the construction of “therapeutic talk”. There appears to be a clear interaction between RFA analysis and measures of satisfaction and recall. Further study is indicated.

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