ORIGINAL RESEARCH

Humor During Clinical Practice: Analysis of Recorded Clinical Encounters

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Objective: **Little is known about humor's use in clinical encounters, despite its many potential benefits. We aimed to describe humor during clinical encounters.**

Design: **We analyzed 112 recorded clinical encounters. Two reviewers working independently identified instances of humor, as well as information surrounding the logistics of its use.**

Results: **Of the 112 encounters, 66 (59%) contained 131 instances of humor. Humor was similarly frequent in primary care (36/61, 59%) and in specialty care (30/51, 59%), was more common in gender-concordant interactions (43/63, 68%), and was most common during counseling (81/112, 62%). Patients and clinicians introduced humor similarly (63 vs 66 instances). Typically, humor was about the patient's medical condition (40/131, 31%).**

Discussion and Conclusion: **Humor is used commonly during counseling to discuss the patient's medical condition and to relate to general life events bringing warmth to the medical encounter. The timing and topic of humor and its use by all parties suggests humor plays a role in the social connection between patients and physicians and allows easier discussion of difficult topics. Further research is necessary to establish its impact on clinicians, patients, and outcomes. (J Am Board Fam Med 2018;31: 270–278.)**

Keywords: **Humor, Patient-Centered Care, Primary Health Care, Physician-Patient Relations, Patient-Physician Communication**

Adequate and open communication between patients and clinicians can have a positive effect on the outcomes of care.[1] Positive interactions between patients and physicians in the medical encounter helps build a relationship, establish trust, and support the exchange of accurate and relevant information, all of which may contribute to achieving favorable health outcomes.[2] In fact, the Accreditation Counsel of Graduate Medical Education considers interpersonal and communication skills to be one of the core competencies to be taught to physicians in training.[3] Although many strategies exist to bolster physician-patient communication, humor is particularly interesting due to its utility in

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navigating difficult topics and potential to bridge gaps between patients and clinicians.[4,5]

Humor is one of many verbal and nonverbal strategies used by patients and physicians to connect in the medical encounters. In 1996 Wender[6] and in 1999 Frances and colleagues[7] discussed the role of humor in clinical practice. Humor, they posited, could reduce anxiety, demonstrate connectedness, and invite warmth into an interaction that is otherwise formal, cold, and distant. Humor can be a mean for physicians to surface difficult or uncomfortable topics, subtly express dissatisfaction with the patient's behavior, provide reassurance, or get the patient's attention. In addition, it can invite patients to comfortably express anxiety or discuss frustration with their diagnosis, treatments, or with the medical system. Humor has the potential to decrease power imbalance and cultural differences between patients and physicians, which can otherwise hinder open communication.[6,7] Humor has also been correlated with positive outcomes such as improved satisfaction, fewer malpractice claims, and increased patient enablement.[8–11]

Although humor may serve numerous beneficial functions in clinical encounters, there is no standard definition of humor for research purposes and the logistics of humor's use in clinical encounters (eg, frequency, who introduces it, what is it about) has not been well studied. Where it has been studied, its prevalence varies widely across settings (inpatient rounds, emergency department, hospice; Table 1).[8–16]

To further characterize the logistics of humor in medical encounters, we analyzed audio/video-recorded clinical encounters to describe the frequency and other features of humor in outpatient primary and specialty care visits.

Methods

We analyzed clinical encounters recorded as part of practice-based randomized trials conducted to examine the effect of decision aids on shared decision making (published between 2009 and 2015).[17–23] Recordings were audiovisual or audio-only based on the preferences of the patients and their clinicians at the time of enrollment. Of the 272 complete videos available for analyses from these trials, we included all the videos that were recorded in specialty care (51) and selected a random sample of 61 videos from the 221 remaining primary care videos stratified by treatment arm (decision aid use) to complete a sample of 112 videos.[24]

Our primary objective was to quantify and evaluate the use of humor; however, the concept of humor is subjective and lacks a standardized definition. Thus, 12 recordings were analyzed by 4 experienced independent reviewers (all with medical training) to define what constitutes an instance of humor, calibrate the coding, and identify variables to be collected. Humor was defined as a statement made with the intent to make others in the room laugh or react positively (ie, deemed humorous by reviewers) and to which a positive response was elicited. Therefore, unacknowledged humorous comments or statements that were not intended to be funny (ie, deemed not humorous by reviewers) but were laughed at nonetheless were not included (eg, nervous laughter within a generic conversation). Once calibration was achieved, 2 reviewers working independently analyzed each one of the remaining recordings. Humor was considered present when both reviewers identified the instance as humorous.

Coding was completed using Noldus XT[25] software. For all videos, reviewers recorded how many physicians interviewed the patient, the gender of the patient, and senior clinician, the setting (primary care, specialty care), whether a decision aid was used, the duration of the encounter, and whether a physical examination was performed. Use of humor was coded as a binary (humor present or absent during the whole visit) and quantitative variable (how many times humor was noted in the visit). For each instance of humor within the encounter, reviewers recorded who introduced humor (patient, provider or guest), timing (introduction, history taking, physical examination, or counseling), subject, apparent function of the humor, and whether the instance was a single statement ("dead end") or resulted in a string of humorous back-and-forth comments. These data were collected using Research Electronic Data Capture (REDCap), a data collection and management program.[26] Contextual clues were used by reviewers to determine the subject and function of humor, and disagreements were resolved by consensus. We compared the proportion of encounters with humor by setting, decision aid use, and participant gender. Hypotheses testing of differences between groups was performed using the χ^2 statistic and adjusted χ^2, where the clustering was within study.

Table 1. Studies Evaluating Frequency, Features, and Outcomes of Humor during Medical Encounters

Author, Year, Country	Methods	Definition of Humor	Setting	Sample	Prevalence of Humor	Other Humor Findings	Clinical Outcomes Associated with Humor
McCarthy, 2013, US	Evaluation of audio recording	Roter Interaction Analysis System (laughter/joke, as a positive talk, building relationship)	Emergency department	26 patients who visited the emergency department for ankle sprain, back pain, head injury, or laceration	Provider focused 21.6% of their talk on building a relationship (including social talk, jokes/laughter, approval, or empathic statements)	Median of 4 (1.75 to 7) utterances of laugher/jokes as part of the physician pattern analysis and 4.5 (1.75 to 13.25) in the patient pattern analysis*	No direct evaluation of outcomes
Pawlikowska, 2012, UK	Evaluation of video recordings	Roter Interaction Analysis System (laughter/joke, as a positive talk, building relationship)	Primary care clinic	88 patients who were seen during routine appointments with 3 clinicians, as part of a study evaluating patient enablement			The variable of laughing/joking was found to be associated with patient enablement
Haskard Zolnierek, 2009, US	Evaluation of audio recordings	This study developed and validated a Physician-Patient Humor Rating Scale	Primary care clinic	246 physician-patient interactions, including 123 physicians		46 items were evaluated in the scale	Humor subscales correlated with effective communication, patient involvement, physician, patient collaboration, and mutual trust. Patient negative humor was negatively correlated with overall physician satisfaction. High-income patients received and displayed more positive and less negative humor, were more dominant and displayed greater physician-patient trust than low-income patients.

Continued

Table 1. Continued

Author, Year, Country	Methods	Definition of Humor	Setting	Sample	Prevalence of Humor	Other Humor Findings	Clinical Outcomes Associated with Humor
Weber, 2007, Switzerland	Audio recordings	Roter Interaction Analysis System (laughter)	Hospital wards	71 ward round interactions in internal medicine including clinicians, nurses, and patients	Laugher accounted for 3% of the total utterances studied. Doctors had 1.33 (2.06) utterances per encounter and patients 1.14 (1.96)†		No direct evaluation of outcomes
Adamle, 2005, US	Encounter transcriptions	Not clear, defined by authors	Hospice	132 nurse visits, including 89 hospice patients, 17 nurses, and 44 primary care givers	Humor was present in 85% of the visits	Patients initiated humor 70% of the time, nurses 18%, and the caregiver 12%. There were on average 3 humorous remarks per visit.	No direct evaluation of outcomes
Sala, 2002, US and Canada	Audio recordings	A meaningful word or phrase that contained mirthful or comic content accompanied by laughter (laughter was not a strict criteria)	Primary care clinic	92 visits stratified according to high and low patient satisfaction		Humor was present 6.43 times per visit; on average one humor utterance every 3 minutes. Physicians used humor 2.75 times per visit and patients 3.67 times per visit.	High satisfaction visits contained more humor compared to low-satisfaction visits (5.59 vs 4.28)
Roter, 1999, US	Audio recordings	Roter Interaction Analysis System (laughter/joke, as a positive talk, building relationship)	Obstetrics	82 patients evaluated by 16 physicians		The frequency of jokes/laughter was higher in visits held by female obstetricians compared to male, regardless of the patient sex	No direct evaluation of outcomes

Continued

Table 1. Continued

Author, Year, Country	Methods	Definition of Humor	Setting	Sample	Prevalence of Humor	Other Humor Findings	Clinical Outcomes Associated with Humor
Levinson, 1997, US	Audio recordings	Roter Interaction Analysis System (laughter/joke, as a positive talk, building relationship)	Primary care and orthopedic clinics	124 physicians (primary care and surgeons) communication skills based on 10 visits and correlated with malpractice claims			Primary care physicians labeled as having no malpractice claims laughed and used humor more than those with claims. (Odds ratio, 0.43; 95% CI, 0.18 to 0.99).
Greene, 1994, US	Audio recordings	Multidimensional interaction analysis scoring system (frequency of shared laughter between the physician and the patient)	Primary care clinic	81 first visits of patients older than 60 years seen by 18 physicians			Shared laughter between the physician and the patient was associated with patient satisfaction.

*Median and interquartile range.
†Mean and standard deviation.
CI, confidence interval; UK, United Kingdom; US, United States.

This method accounted for any intraclustering effect across studies.[27] All statistical analyses were performed using JMP[28] and Stata Statistical Software.[24]

Results

Of the 112 medical encounters, 87 (78%) were audiovisual recordings and 25 (22%) were audio only. Most video recordings took place in primary care clinics (61; 54%), with 51 (46%) taking place in specialty care clinics. The median encounter duration was 30 minutes (range, 4 to 80 minutes). Humor was present in 66/112 (59%) of these encounters. A total of 131 instances of humor were identified with a median of 2 humorous instances per humor-containing encounter (interquartile range, 1 to 2; range, 1 to 5).

Humor was similarly present regardless of participant gender, setting (primary or specialty care), and in encounters with and without shared decision-making tools. However, there was significantly more humor used when the senior clinician and patient were of the same gender (43 of 63 encounters; 68%) than when they were not (23 of 49 encounters; 47%; $P = .02$; Table 2).

Humor was used most commonly during the counseling of the medical encounter (62% of the encounters; Table 3). Representative examples of humor are presented in Table 4.

Discussion

In this study, we found that humor was present in approximately 60% of encounters at an average rate of 2 instances per encounter. Humor was most commonly used in the counseling portion of the encounter and was introduced by the patient and physician almost equally. The most common subject of humor was the patient's medical condition. The function of humor was most often to relate to general life or to discuss adherence and other difficult topics. Humor was often limited to one-line exchanges ("dead end").

There was no difference in the use of humor between primary- and specialty-care settings, nor was there a difference based on the gender of the clinician or patient or any effect from the use of a decision aid. However, when the patient and the senior clinician were of the same gender, humor was used more often. This phenomenon was noted by Roter et al[16] in the obstetrics setting as well.

Table 2. Distribution of the Use of Humor According to Setting, Decision Aid Use, and Gender of the Patient and Senior Clinician

	Humor Present (n = 66)	Humor Absent (n = 46)	*P* Value
Distribution by setting			.98
Primary care	36/61, 59%	25/61, 41%	
Specialty clinic	30/51, 59%	21/51, 41%	
Distribution by use of decision aid			.605
Decision aid, yes	31/50, 62%	19/50, 38%	
Decision aid, no	35/62, 56%	27/62, 44%	
Distribution by gender of the patient			.29
Male patient	31/48 (65%)	17/48 (35%)	
Female patient	35/64 (55%)	29/64 (45%)	
Distribution by sex of senior clinician			.84
Male clinician	40/67 (61%)	27/67 (40%)	
Female clinician	26/45 (58%)	19/45 (42%)	
Distribution by gender congruence			*.02*
Gender congruent	43/63 (68%)	20/63 (32%)	
Gender incongruous	23/49 (47%)	26/49 (53%)	

Though a reason for this phenomenon has not been proposed or explored, we hypothesize 2 possible causes for this finding. First, it may be due to an increased level of comfort sensed between individuals of a similar gender. In addition, those of concordant gender tend to have more similar senses of humor, thus may feel more comfortable introducing humor into an interaction. Finally, although we did not have access to data to verify this, it is plausible that more gender-concordant pairs were those of primary-care provider and patient. The familiarity in these relationships may allow for easier use of humor.

Table 3. Proportion of Humor Use by Portion of the Encounter, by Subject and by Purpose

	n/131, %
Humor use by portion of encounter	
Counseling	81, 62%
Data gathering	22, 17%
Introduction/opening	15, 11%
Physical exam	13, 10%
Humor use by subject	
Medical condition, treatment, testing	40, 31%
Patient	29, 22%
Third party (not present)	18, 14%
Physician	16, 12%
Other	16, 12%
General life	9, 7%
Third party (present)	3, 2%
Humor use by purpose	
Relate to general life	44, 34%
Other	32, 25%
Introduce difficult topics	20, 15%
Patient adherence	20, 14%
Ice breaker	15, 11%

Based on our observational findings, it is difficult to draw concrete conclusions about the benefits of humor in these encounters. However, based on the data we gathered, we can infer agreement with previously published literature regarding the uses of humor in clinical encounters (Table 1).

The counseling portion of the medical encounter is commonly when discussions of diagnosis, treatment, adherence, and other potentially difficult topics surface, thus necessitating some of the key functions of humor. Humor was most often seen in this portion of the interview, suggesting it is being used in these discussions. It is possible that humor allows patients and physicians to more openly broach these otherwise-uncomfortable topics and helps maintain a productive interaction.[6,7]

The fact that humor was used to relate to general life events and circumstances provides further evidence that humor can be used to promote connectedness and warmth, as previously stated by Wender and Frances.[6,7] Patients and physicians experience a network of roadblocks that can ruin efforts of communication. Power imbalance, gender differences, age discrepancy, and varied cultural

Table 4. Examples of Humor by Subject, Time, and Type

By Subject	
Medical condition/treatment/testing	Patient: I went [to the pharmacy] one day, my medication was like $250, and I just about fainted.
	Doctor: And your liver should be normal. Do you want me to do a liver biopsy just to see?
	Patient: So, the first time that I was diagnosed with Graves' disease I lost about 20 pounds and I was eating whatever I wanted. It was like the best weight loss diet ever!
Patient	Doctor: You could eat whatever you want and still lose weight, ha-ha
	Doctor: It's well tolerated because, you know, you're just a young kid.
	Patient: Haha oh yah
	Doctor: Well . . . sort of. Haha, you know you look great. You do!
	Patient: Haha. Far from a young kid. Hahaha
	It is all who you are talking to as to whether you are a young kid or not.
	Doctor: That is good to hear. Some people are of the mentality that they know everything there is to know and do not want to meet with a dietitian.
	Patient: Oh, no! I got kids; I have been told repeatedly that I do not know anything!
Third party (not present)	Patient: You know I have to chase my husband off to the doctor every now and then for [skin checks].
	Patient: . . . My kids are so spoiled, they are so dependent on me. My son asked me the other day, &lquote;Mom where is the fork so that I can eat my dinner!' Ha ha
	Doctor: I ask my wife that!
Physician	Doctor: Blood pressure is 139/75 [elevated]
	Patient: Oh that must be because of you! Haha because when I used to come in . . .
	Doctor: Oh ha-ha! I am not very intimidating!
General life	Doctor: So, you are taking the medication for the cholesterol and at last fall, you had asked about stopping it due to muscle pains.
	Patient: Yeah, during the winter there were a few nights that I was having leg cramps, but I thought it was related to surviving the Minnesota winter!
By portion	
Introduction	Patient: It's [the video recording] so funny because of YouTube
	Doctor: Haha. Right. Everything is on YouTube. Ha-ha
	Patient: Kids will tape it and they cannot figure out why they get in trouble if they put it on and somebody sees it.
	[Both laughing]
	Doctor: And that Facebook is worse because feel like 'Ohhh' you know and they can comment.
Data gathering	Doctor: Do you test [blood sugars] ever?
	Patient: Only when I come in here! Ha-ha
	Both laugh
Physical exam	Doctor: Well I will have you sit right there and I will listen to you, ok?
	Patient: You can make me have that [stethoscope] and I'll talk into it.
	Both laugh
	Doctor: [holding the tuning fork] Are you into music. Watch this! [hits tuning fork so that it starts buzzing]
Counseling	Doctor: This is not like selling encyclopedias. This offer [medication adjustments] stays open after today!
Dead end vs continued exchange	
Dead end	Patient: I should get my [institution name] medical book out, but it's too darn heavy for me to get out because my ribs are broken. Haha
Continued exchange	Doctor: It's well tolerated because, you know, you're just a young kid.
	Patient: Haha oh yah
	Doctor: Well . . . sort of. Haha, you know you look great. You do!
	Patient: Haha. Far from a young kid. Hahaha
	It is all who you are talking to as to whether you are a young kid or not.

and socioeconomic backgrounds can all lead to hindered communication. In turn, this can affect the patient experience and the efficacy of the clinical encounter.[29,30] Humor may help to overcome those roadblocks by connecting people on common ground.[7] As an example, it was noted that patients and physicians commonly discussed pets or spouses in humorous ways. This allowed for connection on a simple level, which could serve as a launching point for more serious and intimate conversations. An improved personal connection may explain the increased patient satisfaction noted in visits with more humor.[11]

Our study cannot make concrete conclusions nor suggest recommendations for medical education or clinical practice. However, it quantifies the use of humor in the clinical encounter, and it suggests agreement with previously published literature regarding the uses and benefits of humor.

In this study, we evaluated the use of humor in medical encounters. All videos were reviewed in duplicate to increase reliability. This is important when characterizing a subjective construct like humor. In seeking rigor, we may have underestimated the use of humor, as we required agreement between 2 reviewers to adjudicate an instance as humorous. A limitation of our study is that we did not confirm our judgments regarding the humorous intent of each statement with the participants nor did we obtain judgments from observers with nonmedical backgrounds. In addition, our assessment of available videos is convenient and not necessarily representative. Our medical encounters were collected within a health system with longer than average appointment times in both primary and specialty and were recorded as part of clinical trials assessing the efficacy of decision aids. Thus the data may not be widely representative.

A few studies have sought to identify and explore the impact of humor in the medical encounter, but few identify its frequency and none explore other logistic aspects of its use in clinical encounters. Our study contributes to reduce this knowledge gap. Future studies may need to apply video-reflexivity techniques to capture participant views of humor use in encounters. Additional research may need to characterize how humor use can facilitate or hinder partnership, communication, and conflict resolution and contribute to improve the experience of care for clinicians and patients and the usefulness of the encounter. Finally, while focusing on humor, we noticed in some recordings that patients or clinicians would laugh or chuckle when nothing funny was said. Often this went unacknowledged by the other party. The significance of this sign, for example, as a marker of unstated anxiety or discomfort, deserves further exploration.

Conclusion

The use of humor during medical encounters is common, occurring in about 6 of 10 encounters. It seems to be introduced equally by patients and clinicians in both primary- and specialty-care settings. Studies have demonstrated a positive impact of humor on a number of outcomes[8–11]. Our study serves to describe in detail how humor is used in clinical encounters and to support humor as a tool used to discuss difficult topics and bring warmth into the medical encounter.

To see this article online, please go to: http://jabfm.org/content/31/2/270.full.

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