

# A Shared Laugh Between Mother and Daughter Conversation on Daughter's End-Stage Cystic Fibrosis Disease

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## ABSTRACT

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Study shows the meaning of laughter can be varied. This article is discussing about the meaning of laughter between a mother and her daughter in the context of health communication, especially within an end-stage disease namely Cystic Fibrosis. This article is using a Conversation Analysis as a method to analyse a series of interaction and divided into several parts of conversation excerpts based on the categories discussed with previous theories. The previous studies have also consistently demonstrated that laughter has positive effects on human interaction and social behaviour, including increased social connection, improved mood, and enhanced coping, especially within a 'crisis moment' or 'traumatic experience' such as coping with an end-stage diseases. This study breaks down the interaction that shows how frustrating life events can be a laugh-worthy memories.

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## 1. Introduction

Laughter is a ubiquitous aspect of human communication, and its role in health communication has been the subject of increasing interest in recent years. Conversation Analysis (CA) provides a valuable framework for examining the use of laughter in health communication interactions. Research has shown that laughter can serve a range of functions in communication, such as signalling agreement, building rapport, and providing emotional support. However, the meaning and interpretation of laughter can also be context-dependent and can vary based on factors such as the speakers' relationship, the topic of conversation, and cultural norms. By utilizing CA, researchers can identify the details of laughter's use in conversation, such as its timing, duration, and accompanying speech or action, to better understand the communicative functions and meanings of laughter in specific contexts. This analysis can inform the development of health communication interventions that incorporate humours and laughter or help healthcare providers better navigate the use of laughter in sensitive health-related conversations (Heritage & Clayman, 2010).

Laughter has also often defined as a response to something funny, however previous research has found that the analysis of laughter comes from the prior talk on why people laugh. For example, according to Holt (2019), laughter in interaction occurs in different way, such as

1) within a turn, often interspersing toward the end of the turn, 2) at the end of a turn following talk, by the same speaker, 3) as a response to a prior turn. The difference between laughter and talk is that for laughter, it is acceptable for the participants in the conversation to laugh together, whereas usually the participants will avoid talking together so that an overlapping talk is not happening.

During a social interaction, research in conversation analysis has revealed that laughter is highly organised for all social interaction but specifying the meaning of “something is funny” with a laugh is not easy. But a laughter can potentially describe a delicate environment in interactions as a range of studies have highlight the association between laughter and medical or therapeutic settings.

In addition to its application to health communication, using Conversation Analysis (CA) to examine the communication of individuals with Cystic Fibrosis, such as Claire Wineland, can contribute to the development of the CA method itself. Studying the communication of individuals with Cystic Fibrosis presents unique challenges due to the physical limitations and medical needs associated with the disease. These challenges may require modifications to traditional CA methods, such as accounting for interruptions or pauses related to medical equipment, or considering how participants communicate nonverbally.

By addressing these challenges and adapting CA methods accordingly, researchers can gain a more comprehensive understanding of how individuals with Cystic Fibrosis use communication to manage their illness and interact with others. This knowledge can inform the development of new health communication interventions tailored to the specific needs of individuals with chronic illnesses, ultimately leading to improved health outcomes and quality of life.

In this way, using CA to analyse the communication of individuals with Cystic Fibrosis not only contributes to our understanding of health communication, but also supports the continued evolution and refinement of the CA method itself.

## 2. Method

Conversation Analysis (CA) is a research method that is concerned with the study of naturally occurring talk-in-interaction. It is a qualitative approach that analyses the structure and organization of talk, including the actions, sequences, and turn-taking practices of participants in a conversation. The method has been widely used in a variety of fields, including sociology, linguistics, psychology, and communication studies.

One past study that utilized CA is the research conducted by Schegloff, Jefferson, and Sacks (1977) on the organization of repair in conversation. The researchers analysed naturally occurring conversations to identify how participants dealt with problems or misunderstandings that occurred during the course of talk.

The study found that participants in conversation employ a range of techniques to manage misunderstandings and resolve problems. These techniques include self-repair, other-initiated repair, and repair expansions. Self-repair involves the speaker recognizing and correcting their own errors, while other-initiated repair involves a recipient pointing out an error made by the speaker. Repair expansions involve a participant elaborating on a previous turn to clarify its meaning.

Another example of CA in action is the research conducted by Heritage (1984) on the ways in which participants in medical consultations establish and negotiate their roles and responsibilities. The study analyzed audio recordings of medical consultations between

doctors and patients and found that participants employ a range of verbal and nonverbal cues to establish their roles and responsibilities in the interaction. For instance, doctors use medical jargon and technical language to assert their expertise, while patients use personal narratives and descriptions of their symptoms to assert their need for care.

Overall, Conversation Analysis is a useful method for exploring the complexities of talk-in-interaction and has been applied to a variety of settings and contexts. By analyzing the structure and organization of talk, researchers can gain insights into the social and communicative practices that shape our everyday interactions.

Conversation Analysis (CA) can be a valuable research method for exploring health communication in a variety of contexts. CA is concerned with the study of naturally occurring talk-in-interaction, and as such, it is well-suited for analyzing communication in real-life health care encounters, such as doctor-patient consultations, support group discussions, or health education sessions.

One way that CA can be used to study health communication is by analyzing the ways in which participants in a conversation use language to negotiate and manage their roles and responsibilities. For example, in a doctor-patient consultation, the doctor may use medical jargon and technical language to assert their expertise, while the patient may use personal narratives and descriptions of their symptoms to assert their need for care. By analyzing the structure and organization of talk, researchers can gain insights into how participants in a health care encounter establish their respective roles, and how these roles affect the communication process.

CA can also be used to examine the ways in which health care professionals and patients interact and collaborate to achieve specific health-related goals. For example, researchers can analyze how physicians elicit patients' concerns and preferences, and how they provide information and advice that is relevant to the patients' specific health needs. By examining the communicative practices that facilitate effective health communication, researchers can identify strategies that can be used to improve the quality of health care encounters.

Furthermore, CA can be used to explore how individuals with health conditions manage and cope with their illness through talk. For example, researchers can analyze the ways in which support group members use language to express their emotions, share information and advice, and provide mutual support. By examining the structure and organization of talk, researchers can identify the communicative practices that facilitate coping and adjustment to illness.

The following are some of the Jeffersonians' Transcript System being used on this research:

1. Turn-taking organization:	<ul style="list-style-type: none"> <li>'&gt;&gt;' and '&lt;&lt;' indicate overlap between speakers, with the former indicating an overlap of the following speaker and the latter indicating an overlap of the previous speaker.</li> <li>'//' indicates a point where a speaker self-interrupts or self-corrects.</li> <li>'[ ]' indicates a point where a speaker is interrupted by another speaker.</li> <li>'&lt;&gt;' indicates a point where a speaker's utterance is cut off abruptly.</li> </ul>
2. Prosodic features:	<ul style="list-style-type: none"> <li>'!' indicates a raised or stressed tone of voice.</li> <li>'?' indicates a rising or questioning tone of voice.</li> <li>'.' indicates a falling or declarative tone of voice.</li> </ul>
3. Nonverbal features:	<ul style="list-style-type: none"> <li>':)' and ':(' indicate a smile or frown, respectively.</li> <li>'^' indicates a laugh.</li> </ul>

- '...' indicates a pause or hesitation.
- 'xxx' indicates a deleted portion of the conversation.

Subsequently, Conversation Analysis is a valuable research method for studying health communication because it provides a detailed and nuanced understanding of the ways in which language is used to negotiate and manage social roles and relationships, to achieve specific health-related goals, and to cope with illness. By analyzing naturally occurring talk-in-interaction, researchers can gain insights into the complex and dynamic nature of health communication and identify strategies that can be used to enhance the quality of health care encounters.

### **Previous Study: Laughter in Health Communication**

Laughter is a complex human behavior that has been studied from various perspectives. While there is no consensus on the exact meaning of laughter, researchers have proposed different theories and explanations for this phenomenon. In this comparative analysis, we will examine some of the previous studies on the meaning of laughter and highlight their similarities and differences.

One of the earliest theories on the meaning of laughter was proposed by Charles Darwin in his book "The Expression of the Emotions in Man and Animals" (1872). Darwin argued that laughter evolved as a social signal to communicate pleasure and playfulness. He suggested that laughter evolved from the panting sounds made during play and evolved into a distinct vocalization associated with humor and mirth. This theory emphasizes the social and communicative function of laughter.

Another theory that emphasizes the social function of laughter is the "social bonding" theory. This theory suggests that laughter evolved to strengthen social bonds between individuals. According to this theory, laughter serves as a nonverbal cue that signals to others that we are friendly and approachable. This theory is supported by research that shows that laughter is contagious, and that people are more likely to laugh in social situations.

A contrasting theory to the social bonding theory is the "relief theory." This theory suggests that laughter evolved to release tension and alleviate stress. According to this theory, laughter is a physiological response that helps to reduce arousal and promote relaxation. This theory is supported by research that shows that laughter can reduce cortisol levels and increase endorphins, which are hormones associated with stress reduction and pain relief.

Another theory that emphasizes the cognitive function of laughter is the "incongruity theory." This theory suggests that laughter occurs when there is a violation of expectations or incongruity between what is expected and what occurs. According to this theory, humor arises when there is a mismatch between what we expect and what we experience, and laughter is the result of the brain resolving this incongruity. This theory is supported by research that shows that brain activity in response to humorous stimuli is similar to brain activity in response to unexpected events.

One of the most consistent findings across multiple studies is that laughter has a positive effect on social interaction. Research has shown that laughter can increase feelings of social connection, trust, and rapport between individuals (Bryant & Aktipis, 2014; De Koning et al., 2019). Laughter has also been found to enhance social support and improve group cohesion in various contexts, such as in the workplace or in social clubs (Romero & Cruthirds, 2006; Ziv et al., 2015).

Additionally, laughter can have a powerful effect on people's emotions and mood states. Studies have found that laughter can reduce negative affect and increase positive affect, which can lead to improved well-being and resilience (Martin, 2002; Cann & Collett, 2014). Laughter can also serve as a coping mechanism in difficult situations, helping people to manage stress and deal with adversity (Berk et al., 2014).

However, the effects of laughter on human interaction and behavior may also depend on cultural and social factors. For example, research has shown that the frequency and intensity of laughter can vary across different cultures, and that some cultures may place a greater emphasis on suppressing or controlling laughter in certain social contexts (Provine, 2000; Lefcourt, Davidson-Katz, & Kueneman, 1990).

Subsequently, in this research, there are some categories that can be used based on the theories of laughter as coping mechanism. The first category is Emotional Regulation, where laughter can help regulate emotions, especially in times of distress or anxiety. By laughing, people can shift their focus from negative or traumatic thoughts to reframe of perspective (Gross & John, 2003; Samson & Gross, 2012). The second category is Physical Benefits where laughter releases endorphins, which are the body's natural feel-good chemicals. This can lead to a reduction in the sensation of pain and an increase in overall well-being (Berk et al, 2001; Bennet & Lengacher, 2008). The third category is Cognitive Reframing where humor can provide a new perspective on troubling situations. By finding humor in a difficult scenario, one can change their perception of it, making it seem less threatening (Lefcourt et al, 1990; Martin, 2003). The fifth category is Confronting Taboos which is used to allow individuals to confront and discuss taboo or anxiety-inducing topics in a manner that's less direct and confrontational. By joking about these subjects, individuals can explore and process their feelings in a safer context (Meyer, 2000; McGraw & Warren, 2010). The final category is Distraction which at a basic level, laughter can serve as a distraction from distressing emotions or events. Even if temporary, this momentary distraction can be therapeutic, offering a mental break from incessant worrying or ruminating (Moran, 1996; Kuiper et al, 1992).

In conclusion, the meaning of laughter is a complex and multifaceted phenomenon that has been studied from various perspectives. While there is no consensus on the exact meaning of laughter, researchers have proposed different theories that emphasize its social, cognitive, and physiological functions. The previous studies have also consistently demonstrated that laughter has positive effects on human interaction and social behavior, including increased social connection, improved mood, and enhanced coping. However, the effects of laughter may also depend on cultural and social context, and future research should continue to explore these factors in more detail.

### **3. Results and Discussion**

This research is using one interaction that happened on Claire's vlog and will be divided into 4 different excerpts for an easier explanation and analysis. The conversation is between Claire Wineland and her mother around Claire's childhood memory that they shared together and how they deal with Cystic Fibrosis on daily basis. Each excerpt will discuss the meaning of laughter given in the conversation.



In excerpt 2, we can see that CLR has shown resilience towards the story on ‘how’ she gets CF shown from line 26 that CLR starts to laugh on her mother’s confusion about CF in the beginning of doctor diagnosis. In addition, on line 13 CLR is trying to mimic her mother on line 12 which shows that they have feelings on their social connection. This conversation also shows that MUM is using laughter as a means of ‘Distraction’ to process a basic uncomfortable information which is shown in line 21 – 24, in which she was explained about meconium ileus or a ruptured bowel which leads to Cystic Fibrosis and in the line 24, she then proceeds with ‘I hadn’t heard of it’ and laugh.

**Excerpt 3. Laughing to explain a stressful process**

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26 MUM: [(laugh)
27 and um (.)they said it was a genetic disease that your father
28 and I both carried and we didn't know that at the time so:: it
29 was te:rrifying a::nd(.)you know 18 years ago::(0.3)children did
30 not have a really good prognosis and so of course your father
31 and I went right to Google search it a::nd um (.) everything was
32 really grim and um(.)you:: I remember they wheeled you off you
33 the NICU(.)and you already were very alert (.) like(.)as an
34 infant you were like(.)what's up and we're walking you know
35 with you down to the NICU and you were just making eye contact
36 and looking at us kinda telling us:: that it was gonna be okay
37 CLR: what are so::me really funny memories that you have throughout my
38 childhood like fun like funny hospit[al] stories
39 MUM: [(laughing)
40 well you definitely definitely hated to wear clothing(0.3) [laugh
41 CLR: [laugh

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In the excerpt 3 we can see from line 27 until 26 that MUM is explaining a stressful journey about finding out what is Cystic Fibrosis, but we can see that on line 26 MUM have already shared a laugh with Claire which then give a good bridging for Claire’s mother to start the story. We can also see that MUM likes to prolong some word such as on line 28, 29, 32, 36 which indicate that she is comfortable and really taking the time to tell her story without rushing it. And then on line 37 Claire proceed to asking her mother a question about her childhood memories at the hospital and despite of the stressful events happening in the hospital, her mother proceed to laugh on line 39 and on line 40 – 41 they both shared a laugh together over the story her mother said. The conversation starts to show how they both love to laugh over stories which shows a ‘social bonding’ and at the same time ‘relief’ the stress that they might have gone through.

On the basic category, this conversation also shows how laughter is used as an ‘Emotional Regulation’ to process a stressful event as a mother taking care a baby at that time. Line 37 – 38 show how MUM is trying to shift her focus on a traumatic experience to something more positive.

**Excerpt 4. Laugh negotiates the used-language**

42 MUM: =and so anytime I would put clothes on you especially the diapers  
 43 with the straps you would be all in your diaper you'd be looking  
 44 at me across the room and I would stand up and you have your  
 45 hands on the straps here and I'd be like don't do it and you'd  
 46 walk phews rip off the diaper and you'd just run run out the  
 47 CLR: \_\_\_\_\_ [(laughing)  
 48 MUM: door and I'd be like Clai:::re come ba::ck you were always  
 49 \_\_\_\_\_ stripping  
 50 CLR: [(laugh)  
 51 MUM: [(laugh)always stripping and u::m [(unclear uttering  
 52 CLR: \_\_\_\_\_ [ I have a great career ahead  
 53 of me (laugh)  
 54 MUM: (laugh) oh please

On excerpt 4 we can see how laughter has changed the meaning on negative context into something playful. As Darwin argued that laughter evolved as a social signal to communicate pleasure and playfulness. From the line 42 to 49 MUM is telling stories about how cheeky Claire was when she was a toddler with diaper and on the line 49 MUM is saying the word 'stripping', which then on the line 52 CLR is associating the word 'stripping' with a career but on the line 53 and 54 both are still laughing about it. Subsequently, it shows that there is a negotiation of meaning around the use of language. This also shows laughter is used to describe 'Confronting Taboos', in which having CLR joking about being a stripper and MUM is saying 'oh please' and then laugh on line 54. MUM can be seen not to be mad or make 'sush' about Claire's dark humour after MUM's talk on line 48 – 49.

The previous studies around laughter mostly looking at a general interaction but from CLR and MUM conversation we can see that laughter is a powerful effect that can bring positivity and serve as a coping mechanism for an unexpected events. However, it is still interesting to examine conversation regarding 'present moments' as on this conversation they are both talking about past memories.

#### 4. Conclusion

In conclusion, the meaning of laughter is a complex and multifaceted phenomenon that has been studied from various perspectives. While there is no consensus on the exact meaning of laughter, researchers have proposed different theories that emphasize its social, cognitive, and physiological functions. The previous studies have also consistently demonstrated that laughter has positive effects on human interaction and social behaviour, including increased social connection, improved mood, and enhanced coping, especially within a 'crisis moment' such as coping with an end-stage diseases.

The theories on laughter have helped to create the category for this research as well such as laughter as 'Emotional Regulation, Physical Benefits, Distraction, Confronting Taboos and Cognitive Reframing'. There are so many of Claire Wineland's vlog that shows laughter on her interaction and how her life-span was no longer than 5 years old but she proceed to lived her life until 21 years old before having a stroke during her lung replacement procedure.

However, the effects of laughter may also depend on cultural and social context. This research is based on an interaction of a Caucasian US-Citizen mother and daughter, which can be noted that future research should continue to explore another end-stage disease from another culture in more details.

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