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Denying and Accepting a Family Member's Illness: Uncertainty Management as a Process

Charee M. Thompson[a], Lynsey K. Romo[b], Manuel D. Pulido[a], Danni Liao[a], Lauren A. Kriss[c], and Sara Babu[a]

[a]Department of Communication, University of Illinois at Urbana-Champaign; [b]Department of Communication, North Carolina State University; [c]School of Journalism and Mass Communication, University of Wisconsin-Madison

ABSTRACT

Doubt is a common, yet challenging form of uncertainty to have about another's illness. Although navigating illness uncertainty is a process of continual (re)appraisal and management, existing research narrowly examines windows of uncertainty experience. To illustrate how uncertainty management in the context of doubt is recursive, nonlinear, and ongoing, we apply a process approach to communication to uncertainty management theory. Drawing on interviews with 33 U.S. adults, our findings explicate a prominently teleological (i.e., goal-driven) process wherein participants' uncertainty management served to accept or deny illness, depending on the extent individuals valued their own and the other's identity and the relationship. Participants generally moved through this process along one of three trajectories: growth, stagnation, or resentment. We also observed dialectical, evolutionary, and life cycle processes in the data. Findings demonstrate the heuristic value of studying uncertainty management as a multiple motor process.

> [My husband's] an obsessive worker … He suddenly stopped doing that and got into bed for days at a time. That put me in a panic because I was like, "Oh my gosh. That's not like him." Then in my head, I was trying to figure out what was going on. Is it depression? Is it this? Is it that? This is scary. We're not going to be able to buy groceries, or we're going to go on welfare. What's going on? Then that's what started my prompting of something's really off … [I said], "You've got to go [to the doctor]." He got referred [to a specialist], and then that made me go, "Oh, maybe this is real."

This excerpt comes from an interview with "Jes," who experienced doubt about the legitimacy of her husband's symptoms of what was eventually diagnosed as diverticulitis, a gastrointestinal disease. From an uncertainty management theory (UMT; Brashers, 2001) perspective, Jes' experience is rife with unknowns and ambiguity, including considerable medical and personal uncertainty (Brashers et al., 2003). UMT posits that uncertainty is not necessarily undesirable, but its valence comes from the positive, negative, or neutral ways it is appraised (Brashers, 2001; Brashers et al., 2000). In turn, appraisals of uncertainty and related emotions influence behavioral and psychological responses to uncertainty (see Kuang, 2018; Kuang & Wilson, 2017 for reviews). For instance, people who view ambiguity negatively seek to reduce it, whereas those who view it positively seek to maintain or even increase it (Brashers, 2001). As Jes viewed her uncertainty negatively, she sought to reduce it by seeking information from physicians, alleviating some uncertainties but also leaving unanswered questions and chronic uncertainty about her husband's health (Brashers, 2001; Mishel, 1990).

As Jes managed her uncertainty, she had to integrate chains of answers to form new understandings of her husband's condition and what it meant for their lives (Babrow, 2001). Answers also raised new questions about his condition – questions that may or may not have answers. This ongoing uncertainty management demands attention to how people navigating illness in their relationships continually appraise and act upon the answers they (do not) have. Brashers et al. (2001, 2000) developed UMT as a grounded theory to explain uncertainty management as a complex, goal-driven, and nonlinear process. Drawing on focus groups with adults with HIV/AIDs, most of whom were gay men, Brashers and colleagues (1998, 1999, 2000) were explicit in early theorizing that communicative uncertainty management is a process and that uncertainty is "multilayered, interconnected, and temporal" (Brashers, 2001, p. 481).) were explicit in early theorizing that communicative uncertainty management is a process and that uncertainty is "multilayered, interconnected, and temporal" (Brashers, 2001, p. 481). However, most studies of uncertainty offer relatively static, narrow windows into individuals' uncertainty management experiences, focusing primarily on uncertainty appraisals (e.g., Kerr et al., 2019) or strategies (e.g., Zhong et al., 2020), or capturing uncertainty at one point in an illness trajectory (e.g., cancer survivorship; Miller, 2014).

In contrast to static phenomenon, processes involve change, unfold over time, are comprised of one or more series of events, and maintain coherence through unifying principles (e.g., causal relationships; Poole, 2013). Thus, we apply Poole's (2013) process approach to communication to UMT because such a lens (a) provides theoretical structure to unpack

CONTACT Charee M. Thompson charee@illinois.edu Department of Communication, University of Illinois, Urbana-Champaign, 702 S. Wright St./Lincoln Hall 4002, Urbana, IL 61801, USA

how uncertainty management is patterned, recursive, nonlinear, and continuous (Brashers et al., 2000); and (b) introduces the potential for other motors driving uncertainty management process (e.g., life cycle, evolutionary) beyond goals. Thus, in an effort "to better understand the ongoing, contextually-situated, and multidimensional nature of uncertainty" (Kuang, 2018, p. 198), our study strives to explicate the process of uncertainty management (Brashers, 2001) for people who initially doubted their family member's illness.

The significance of doubt: When illness becomes a reality

Doubt is an ontological form of uncertainty (Babrow, 2001) in which people are unsure whether a claimed illness is (a) legitimate or medically recognized (e.g., "I am not sure Lyme disease is a real disease."), (b) applicable to their family member (e.g., "What if she has depression and not physical pain?"), (c) severe (e.g., "When I see him he does not look too bad"), and (d) possible (e.g., "A normal, healthy person should not work and then go home to bed"; Thompson & Duerringer, 2019, p. 16). Theoretically, doubt is important to examine because individuals must believe a health condition is real to experience other illness-related uncertainties (Babrow, 2001) and because doubt is intrinsically tied to communicative responses, including social support and coping (Thompson et al., 2020).

Practically, doubt is a frequently experienced, relationally challenging, and communicatively complex form of uncertainty (Thompson et al., 2020). Doubt is common for several reasons. As another's embodied experience of illness is inaccessible, it is impossible to know exactly how someone living with an illness feels (i.e., subjectivity or epistemological challenges; Miller et al., 2017). Many heath conditions provide few or no visual cues, have unpredictable symptoms patterns, and co-occur with other conditions, making it difficult for individuals to recognize suffering in others (Champlin, 2009; Mishel, 1988; Schone, 2019, p. 155). Therefore, many illnesses take years to diagnose (e.g., fibromyalgia; Schone, 2019) and doubt may emerge because no definitive label exists to help people organize and make sense of symptoms (Jutel, 2009). Individuals may also reject illness identities if the illness is stigmatized (e.g., addiction) or otherwise too painful to accept, such as a terminal diagnosis (Thompson & Duerringer, 2019). Finally, individuals have expectations for how people will present and cope with their health issues that, when violated, lead people to contest others' illnesses (e.g., "If it was really that bad you would do something about it"; Thompson & Duerringer, 2019).

Doubt about another's health is relationally challenging because it often undermines the person's subjective illness experience (Pryma, 2017; Schone, 2019). Doubt fuels individuals' negative feelings about another's illness and that person's credibility (Thompson et al., 2018). Doubt is associated with a host of negative outcomes and relational challenges (e.g., Thompson et al., 2018). For people living with illness, others' doubt is described as an isolating and stigmatizing experience – a struggle to be believed and understood (e.g., Pryma, 2017). For family members, doubt presents communication dilemmas in knowing how to manage uncertainty, including how to ask questions and broach topics without offending the person or jeopardizing the relationship (Thompson et al., 2020).

Over time, and often inevitably as illnesses progress, family members may begin to believe a person's health issues are real and as severe as claimed. A diagnosis may finally arrive, which symbolically legitimizes the illness and often provides a tangible means of treating and coping with it (Jutel, 2009). People can accept illness in their family and attempt to show understanding to the person living with it (Thompson et al., 2017). Although resolving doubt might help families adjust to a "new normal," that process is nonlinear and people can experience uncertainty about other topics and from other sources (Babrow, 2001; Brashers, 2001). For example, persons living with HIV/AIDS accepted their premature death, but then found themselves having to negotiate their futures, roles, identities, and relationships as HIV treatments improved and prolonged their survival (Brashers et al., 1999). In this study, we employ a process approach (Poole, 2013) to unpack how uncertainty management related to resolving doubt is recursive, nonlinear, and ongoing (Brashers, 2001; Brashers et al., 2000).

Exploring uncertainty management as a process

We draw on Poole's characterization of process and typology of process motors (generative mechanisms that drive processes) to explicate uncertainty management processes. Processes are characterized by four features: they capture change; they unfold over time; they are comprised of at least one event; and they cohere through unifying principles, including causal or functional relationships (Poole, 2013). In UMT (Brashers, 2001), uncertainty appraisals (e.g., negative) and accompanying emotions (e.g., anxiety) are causally associated to motivate uncertainty management, for example, seeking information to reduce negatively-appraised uncertainty is a functional relationship. Moreover, contextual factors, external processes, and critical incidents can influence any process (Poole, 2013). In our study, contextual factors could include doctor visits and recommendations; external processes may include prior relational history; and critical incidents might include rapid symptom onset and hospitalization.

Additionally, a process theory expounds how patterned series of events are driven by one or more motors that explain its course, including life cycle, teleological, dialectical, and evolutionary motors. Life cycle motors conceive of process as a series of stages "determined by some natural, logical, or institutional program that predates the cycle and prefigures how it unfolds" (Poole, 2013, p. 384). Life cycles are fixed, unitary sequences that terminate at the end of the sequence, or with dissolution or death. Relevant to this study, relational development (e.g., Solomon & Knobloch, 2004) and aging and illness are life processes that affect and give meaning to communication. Teleological ("end" or "purpose") processes are goal-driven, with individuals or group members acting and orienting sequences toward goal attainment (Poole, 2013). The process concludes with goal attainment or maintenance (Poole, 2013). Indeed, much relational research is grounded in the notion that communication, including uncertainty

management behaviors (Brashers, 2001; Brashers et al., 2000; Goldsmith, 2001), is strategic and driven by instrumental, identity, and relational goals (Caughlin, 2010). Dialectical processes are defined by one of two patterns: the thesis leading to the antithesis leading to the synthesis, or tension between poles (Poole, 2013). In the former pattern, the process concludes with synthesis or resolution; in the latter there is no resolution, only continual tension. Communication scholars theorize that dialectics are inherent to relationships, such as individuals' desires for both openness and closedness (Baxter & Montgomery, 1996). In health contexts, scholars have examined individuals' divergent beliefs and desires (Babrow, 2001), such as end-of-life discussions that preclude hope (Chatterjee & Kozar, 2020). Finally, evolutionary processes explain how a population of entities (e.g., individuals, relationships) responds to environmental demands over time (e.g., critical events), including the variation-selection-retention of certain attributes necessary for survival (e.g., communication strategies; Poole, 2013). An evolutionary process lens would shed light on uncertainty management as "patterns of communication, interpretive lenses, and environmental resources [that] can evolve (or devolve) together over time" (Goldsmith et al., 2012, p. 83).

In sum, our investigation's overarching goal is to deepen uncertainty research by employing a process-centered approach to uncertainty management in the context of resolving doubt about a family member's illness. Thus, we asked:

RQ: What process(es) characterize how individuals manage uncertainty in the form of doubt about a family member's illness?

Method

Participants

Participants included 33 U.S. adults between the ages of 26 and 70 (M = 39.85, SD = 11.33). The sample was 51.5% male and predominantly White/Caucasian (69.7%), followed by African American (6.1%), Asian (6.1%), Native American (3.0%), Hispanic/Latinx (3.0%), Puerto Rican (3.0%), and other (6.1%). Household incomes ranged from $0 to $180,000 ($M$ = $52,000, SD = $35,000). Participant-defined "family" members were between the ages of 22 and 77 (M = 44.97, SD = 18.59), predominantly female (60.1%), and included siblings (33.3%), romantic partners (24.2%), parents (including stepparents and in-laws; 21.2%), cousins (9.1%), friends (9.1%), and ex-partners (3.0%). Three family members were deceased at the time of the interviews. Participants described a wide range of family member illnesses, including mental illnesses (e.g., depression, anxiety; 54.5%), autoimmune disorders (e.g., multiple sclerosis, lupus, Type 1 diabetes; 24.3%), chronic pain (e.g., back pain, leg pain; 18.2%), alcoholism and addiction to pain pills (12.1%), and various other conditions (e.g., cardiac issues, motion sickness, sleep apnea; 42.4%). A majority (60.6%) of participants described two or more health conditions. Two participants did not know or state their family members' health condition(s).

Procedure

With Institutional Review Board approval, we recruited participants through Amazon's Mechanical Turk (MTurk) platform. We described our project as: "Interview study about family members whose health you doubted, but now believe" and listed $15 U.S. compensation. Potential participants were told the family member should have a chronic or acute mental or physical health condition that participants "doubted [was] real or as severe as [the family member] claimed, but [participants] came to believe." If participants believed they qualified for the study, they scheduled an interview with a member of the research team via a Doodle poll.

Participants then dialed a Google Voice number at their scheduled interview time. Participants chose their pseudonym. Two authors conducted the interviews following a semi-structured protocol. We first asked participants to provide background information on their identified family member, including aspects of that person's personality and how others would describe their relationship. We then asked participants a series of questions to uncover their uncertainties, features of their conversations, and what led them to doubt and later believe, including: "Previously, what were some of the factors that made you think the person was not experiencing their health issues as severely as claimed?"; "What are some of the factors that made you start believing?"; "What if any differences do you see in the conversations about the health condition that you have now?"; and "What uncertainties do you still have?" Interviews were professionally transcribed and ranged from 21 to 64 minutes (M = 42 minutes).

Analysis

We conducted an iterative analysis of our interview data (Tracy, 2020), first immersing ourselves in the data and independently reading and primary-cycle coding half of the transcripts, sensitized to participants' uncertainties, uncertainty appraisals, and uncertainty management strategies. We next reconvened and discussed our primary-cycle codes, compiling ideas about the sources of participants' uncertainty, how they appraised their uncertainty, and how they managed their uncertainty. Examples included: "observing family members' symptoms," "attributing personality changes to mental illness," and "reaching out to other family members." We next coded the other half of the data to compare, refine, and extend ideas, particularly homing in on uncertainty. Throughout our coding, we sought to preserve communication action and process using gerunds (Charmaz, 2014) or process codes (Saldaña, 2015).

We then began secondary-cycle coding, analyzing our primary-cycle codes alongside the characteristics of process and elements of a process theory (Poole, 2013). Our aim was to move from groups of codes to patterns and sequences (i.e., hierarchical codes; Tracy, 2020) independently and iteratively engaging UMT (Brashers, 2001), process theory framework (Poole, 2013), research on doubt in relationships (e.g., Thompson et al., 2020), and our first-level codes. For every transcript, each team member diagrammed its critical incidents (Poole, 2013) and participants' corresponding uncertainty, uncertainty appraisals, and uncertainty management strategies.

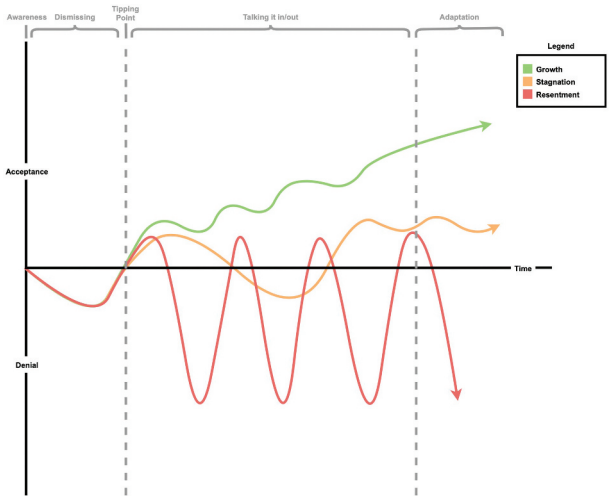

Figure 1. A process model of uncertainty management and its variants or trajectories.

We met as a team to discuss similarities and differences across the transcripts. We then repeated these steps with the other half of the data and began developing a coherent model for the emerging process that we were observing in the data.

Over the course of several meetings, we engaged in constant comparative analysis between and across transcripts (e.g., Glaser & Strauss, 1967), refining the nature of uncertainty management over time for participants, including the contextual factors and external processes that differentiated participants' stories (Poole, 2013). We simultaneously consulted Poole's (2013) typology of process motors to help explain differing responses to similar events (e.g., an illness disclosure) and divergent endpoints. Our independent readings and group discussions yielded three trajectories within our larger process model, each characterized by a unique pattern of uncertainty management strategies, goals, and end points (i.e., evidence of evolutionary motors): growth, stagnation, and resentment. Together we constructed these trajectories and conceptualized how uncertainty management unfolds within them, including the visual illustration of the trajectories in Figure 1 and the detailed descriptions of the trajectories in Table 1. To enhance the validity of our findings, we engaged in negative case analysis (Tracy, 2020) to seek out participants who did not fit into one of the three emerging trajectories. We concluded that all participants fit into one of the three trajectories, and the analysis provided us the opportunity to expand descriptions of the trajectories. We also conducted member checks with interviewees. The one participant who responded stated that our findings resonated, and she remained just as uncertain as when we interviewed her.

Findings

Our research question asked what process(es) characterize how individuals manage uncertainty in the form of doubt about a family member's illness. Below we provide an overview of the process we observed in our data, unpacking its five stages and the uncertainty management strategies characterizing its central phase: talking illness into and out of existence. Then we elaborate on and provide extended examples of the three trajectories we identified within this larger uncertainty management process: growth, stagnation, and resentment.

Uncertainty management as a teleological process

Following Poole's (2013) prescriptions for explicating a process theory, we first (a) describe the overall process and series pattern, (b) provide a micro-level account of how and why events are joined, and (c) explain how these transitions are connected to the overall pattern. Overall, we found participants' stories can be conceptualized as a five-stage process, including stages of awareness, initially dismissing the existence of illness, a tipping point, talking illness into and out of existence, and adaptation (Figure 1). Participants' stories began with awareness of the family member's health issues. Next, participants dismissed the health issues because they did not want to believe the person was ill, they lacked evidence, or the illness was not visually apparent (also see Thompson & Parsloe, 2019). Life seemingly continued without major cause for concern. Next, a tipping point occurred. Tipping points included: (a) observing family members' day-to-day behavior deviating from the norm, such as surprising or "off" behavior; (b) bearing witness to the family member's symptoms – an embodied cue of first-hand observations of others' health issues; (c) receiving medical evidence of illness, including diagnoses, x-rays, and prescriptions; and (d) noticing increasing or persistent symptom severity. Tipping points comprised a critical event or a series of smaller, everyday events that reached a concerning threshold and catalyzed participants' talking illness into existence.

It was at the tipping point stage that participants' trajectories diverged, indicating an evolutionary process motor (i.e., variation-selection-retention of communication strategies in response to critical events; Poole, 2013). Whereas some interviewees continued to talk illness into existence (acceptance) – albeit nonlinearly – others talked illness out of existence (denial), and some vacillated. Participants accepted and denied their family member's health issues by employing strategies aligned with Brashers (2001) typology of uncertainty management strategies: seeking and avoiding information, seeking social support, and adapting to chronic uncertainty (See Table 2 for examples of uncertainty management strategies toward talking illness into and out of existence). In particular, we identified how talking illness into existence served to confirm and validate the person's health issues through the following uncertainty management strategies: (a) questioning the family member about their illness experience and feelings; (b) vigilantly observing the family member to provide assistance when needed; (c) seeking information to corroborate the family member's symptoms; (d) engaging with the family member; (e) seeking social network support to reframe doubt or ask about similar experiences to better understand the family member; (f) acknowledging the family member's pain and difficulties; and (g) employing positive interpretive lenses (Goldsmith et al., 2012) by assuming legitimacy of the family member's health complaints, making benevolent attributions, being patient, and emphasizing the family member's positive attributes. Interviewees expressed

Table 1. Descriptions of trajectories of uncertainty management.

		Growth	Stagnation	Resentment
UM Trajectory		Talking illness into/out of existence, then talking illness into existence	Talking illness into/out of existence (passively)	Talking illness out of existence
Goals	Identity (self and other)	Be supportive and caring Affirm person's valued identities	Indifferent, low self and other identity concerns	Appear morally superior Cast person as responsible for/deserving of health issues
	Relational	Maintain and increase closeness	Ambivalent, increase closeness and distance	Maintain and increase distance
	Task (health)	Address health issues, find diagnosis and effectiveness treatment	Irrelevant, person and others can manage	Avoid addressing health issues
Meanings of Doubt	Personal	Person is attention-seeking Person is avoiding responsibilities	Person is attention-seeking Person is avoiding responsibilities	Person is attention-seeking Person is avoiding responsibilities Person is not trustworthy
	Social	Relational uncertainty, unclear norms and expectations	Low communication efficacy regarding health issues	Health issues are a site of vulnerability
	Medical	No or late diagnosis Inconsistent symptoms	No or late diagnosis Inconsistent symptoms	No or late diagnosis Inconsistent symptoms
Appraisal of Doubt		Conflicted, patience, tolerance to guilt, shame, regret	Indifference, frustration, resignation	Justified, angry, hurt
Other Process Motors		Life Cycle: Personal relationship development; illness and death Dialectical: Have to care vs. Want to care; denying and accepting illness Evolutionary: uncertainty management evolves over time	Life Cycle: Personal relationship development; illness and death Dialectical: Have to care vs. Want to care; denying and accepting illness Evolutionary: uncertainty management idles over time	Life Cycle: Personal relationship development; illness and death Dialectical: Have to care vs. Want to care; denying and accepting illness Evolutionary: uncertainty management devolves over time
Contextual Factors/ External Processes	Relational History	Typically close and satisfying relationships Typically romantic partners, parents, siblings	Typically geographically or emotionally distant relationships Typically distant relatives or friends as family	Typically estranged relationships Typically parents and siblings
	Communication	Frequent	Infrequent and often constricted, large gaps over time	Inconsistent, tension-filled
	Role of Social Network Members	Others assist with UM, providing support	Others provide information about person	Others "take sides" or are confidants for venting
Critical Incidents		Health scares are serious, calls to action	Health scares are serious, but inconsequential	Health scares induce dissonance
Adaptation	Doubts Other Uncertainties Uncertainty Management	Sometimes unsure health issues are severe, then no doubts Chronic illness trajectory (Mishel, 1990) Actively adapting to chronic uncertainty management, often with person and others in social network	Sometimes unsure health issues are real and severe Chronic illness trajectory (Mishel, 1990); whether a relationship is possible Passively or inactively adapting to chronic uncertainty management	Sometimes unsure health issues are real and severe Chronic illness trajectory (Mishel, 1990); whether person is trustworthy Actively seeking/avoiding information/ person

Table 2. Uncertainty management strategies in the service of talking illness into and out of existence.

Uncertainty Management Strategy (Brashers, 2001)	Talking Illness Out of Existence, Dismissing Strategies	Example	Talking Illness into Existence, Corroborating Strategies	Example
Seeking Information	Questioning the person's choices, treatments, doctors, or approaches to their health; suspicion or challenging	"I was aggressive with the questions I asked. 'Like what type of MS do you have?' . . . And he couldn't answer that. He said, 'I don't know, I just let the doctors-' 'What do you mean you just let the doctors? Doctors can be criminals. Why didn't you ask? You get papers, you look things up. What are you doing?'" -Jennifer, 52 (brother with Multiple Sclerosis)	Questioning what and how the person feels; curiosity and desire for understanding	"So, there are times when she's feeling something and she's like, 'Well, do you think that's this, or is it not?' And I'm like, 'How does it make you feel? What do you feel? What are you thinking?' And we try to figure it out together. So, there's no more disbelief anymore, because it's mutual discovery, kind of." -Eric, 30 (wife with severe social anxiety)
	Confronting the person	"And I would ask, you know, 'Are you kind of overdoing it? Have you started drinking already?' And she would normally get defensive and, kind of . . . If I didn't drop it right away it would kind of turn into a fight." -Jay, 41 (wife with anxiety, addiction issues)	Vigilantly observing	"I know if she's going to come visit me again in September, and I pay a lot of attention to like whether her eye symptoms have flared up . . . Whether her asthma symptoms have flared up . . . " -Jayne, 46 (mother with Graves' disease)
	Looking for information disconfirming the person's symptoms (online, from doctors, observations)	"I've spent 30 years like a big dummy and tried to figure out what his deal is, and it's only been past a year that I'm pretty positive based on what a counselor said and whatever I've read extensively online is that he's a covert narcissist. I've been looking for answers for so long and everything with a covert narcissist fits him." -Jes, 51 (husband with diverticulitis)	Looking for information that corroborates the person's symptoms (online, from doctors, observations)	"So, what we did in the beginning when I first began to detect that this was all true, I started reading about it, studying about it. I found this thing called Carlson's Cod Liver Oil. . . . As that developed, as she got better, I realized then that yeah if this cod liver oil is working and she's not in as much pain as she used to be, then, I guess there really was something there." -Horatio, 70 (wife with osteoporosis)
Avoiding Information/ Person	Creating emotional and physical distance in the relationship	"I'll draw this boundary. So, she'll be fine for a while, and then she'll do a very specific, detailed thing where she'll push a boundary, and she won't be direct . . . and I said, 'I have to confront this now. [Sister], you're inappropriate, and you cannot apologize, and you are not able to be responsible for your actions, which are damaging and destructive repeatedly. And I love you, but this is a boundary I'm not going to cross now. You can build my trust back. It's an option, although you need to take action, and we're not there yet. Okay?'" -McKenna, 50 (sister with Multiple Sclerosis)	Engaging Information/Person	" . . . when she talks about it now, I think we pay more attention. And part of it is because it's potentially hereditary, and part of it is just, you know, we kind of want to know what's going on. But also, it helps us understand, you know, what's going on with her and how we can help her be more comfortable." -Jayne, 46 (mother with Graves' disease)
	Avoiding the health topic in conversation	"He tried to explain it to me like an ache, or a dull ache, or whatever, but he would say, 'It feels like I'm being stabbed with a knife in my back,' and I'm like, 'Okay,' and I'd just keep on trucking about with my days." -Amanda, 32 (husband with chronic back pain)		

(*Continued*)

Table 2. (Continued).

Uncertainty Management Strategy (Brashers, 2001)	Talking Illness Out of Existence, Dismissing Strategies	Example	Talking Illness into Existence, Corroborating Strategies	Example
Seeking Social Support	Gossiping and denigrating the person with others	"I feel like he [cousin] was kind of just taking a break from life and kind of giving up. And then his dad, my uncle … and he believes, I think still to this day he believes that it's just a choice to have anxiety and depression … my uncle was pretty much the reason I was thinking that he was faking it." -Jake, 29 (cousin with back pain and depression)	Asking others about their experiences with similar health issues; seeking therapy or counseling for productive coping strategies; marshaling support from others	"I have as well turned to my stepmother who deals with motion sickness. I know that over the years that it's been a thing that's been a varying issue … So I asked her some different things to try to get some insight … " -Robert, 28 (significant other with motion sickness)
Adapting to Chronic Uncertainty	Resignation	"She'll say that and then you know, we'll start arguing, and then she'll get into exclamations and such, you know? And now it's just like we've been doing it so long, like no sense to really argue about it or anything like that. This is denigration of the current moment and then move on." -Tom, 32 (girlfriend with back pain)	Empathizing, perspective taking to acknowledge the person's pain, difficulties	"At that point I started to kind of pull away from my own dumb reaction and realized, 'Look, he really is struggling.' You're seeing somebody else do something for attention made me realize that he wasn't doing it for attention that, in fact, there was a lot of valid mental and physical stuff going on with him that it was real." -Lydia, 39 (stepfather with obsessive compulsive disorder)
	Negative interpretive lenses: Attributing health issues to negative personality traits or relational history	"Okay, so my brother, I guess he got to a point where he didn't want to walk … my thought process at the was – because we'd taken him to a doctor before and they said they couldn't find anything wrong with him – so my thought was that he was just being ornery in a way even though he wasn't mean, he was just trying to tell me, 'I don't like this, so I'm not going to move.'" -Deanna, 48 (brother with unknown illness)	Positive interpretive lenses: giving the benefit of the doubt, benevolent attributions	"I like it. Because I have things I like to do, which we still do, but now she's also presenting me with things that she likes. Because before, she didn't. Because maybe she was afraid I would think less of her because of her options, or the things that she was presenting, because they weren't always as social as the ones that I would recommend." -Eric, 30 (wife with severe social anxiety)

greater other-focused identity goals and relationship-enhancing goals when employing these strategies.

Conversely, we acknowledged how participants' talking illness out of existence functioned to dismiss and minimize the health issues through the following uncertainty management strategies, consistent with existing research (Thompson & Parsloe, 2019; Thompson et al., 2020): (a) questioning the family member's health choices regarding treatments, doctors, or other illness-related behaviors; (b) confronting the person to elicit a confession of dishonesty or to uncover the family member was not (as) ill as claimed; (c) seeking information to disconfirm the family member's symptoms; (d) avoiding information by creating emotional and physical distance in the relationship; (e) avoiding discussing the family member's health; (f) seeking social support to denigrate the family member or gossip about them; (g) resigning that the family member's health would remain a point of contention in the relationship; (h) and employing negative interpretive lenses and psychologizing the family member or blaming them for their health issues. Interviewees expressed more self-focused identity goals and relational-distancing goals when employing these strategies.

The final stage of the process was adaptation. Most participants expressed some stasis to their uncertainty management over time, having selected and retained strategies that helped them adapt to chronic uncertainty about the person's health (evolutionary motor). Doubt had been resolved, but other or lingering uncertainties remained. We next explicate how varied goals for self, other, and the relationship (Caughlin, 2010) resulted in three different trajectories of this overall uncertainty management process (see Figure 1): growth, stagnation, and resentment.

Three trajectories of goal-driven uncertainty management

Growth

Growth trajectories were characterized by individual and relational growth over time and inconsistent but largely present and increasingly prioritized other-identity and relationship-enhancing goals. Critical events moved interviewees to initially doubt, but over time they sought to respond with supportive uncertainty management behaviors because they cared about the person and the relationship. Accepting illness and managing chronic uncertainty were framed as growth (Mishel, 1990). That is, life cycle motors were also at work (Poole, 2013), particularly individual and relational development. For example, participants reported more self-focused and judgmental of their family members when they were younger; aging provided wisdom and perspective-taking. As intimacy progressed, interviewees appraised illness uncertainty as a daily interference (Solomon & Knobloch, 2004), which produced some growing pains but also fostered resilience (Afifi et al., 2020). Life cycle motors also manifested as recognition that illness, aging, and death are inevitable.

We observed two variants in the growth trajectory. Some participants experienced growth as guilt, shame, and regret about their initial (in)action and (in)attention to the person's health issues. These appraisals motivated them to make amends, similar to a "redeemed" caregiver (Cooper, 2021). Supporting, caregiving, and even sacrificing constituted end points in these stories. Accordingly, interviewees' uncertainty management was characterized by strong other-identity and relational-enhancing goals that pushed them to respond to critical events with uncertainty management strategies in the service of talking illness into existence. Acceptance seemed to come more quickly, albeit painfully (sometimes family members passed away), than it did for other types. Interviewees used uncertainty management strategies such as looking for information that confirmed the person's claims. Additionally, they changed their interpretive lenses (Goldsmith et al., 2012) and corrected initial, inaccurate perceptions, mobilizing to support the person. Participants appraised past uncertainty negatively, mostly because they associated it as harmful to the family member. They reported little to no present uncertainty about the person's health and any uncertainty they felt was appraised as manageable or typical of chronic illness. Importantly, because interviewees valued the person and the relationship, over time they prioritized coping with health issues and uncertainty over time, often as a communal or dyadic effort (e.g., Afifi et al., 2020).

Flowers, 34, illustrated this first growth trajectory. She and her siblings initially responded to her brother's pain complaints with doubt and teasing: "We used to spin him a little bit for it . . . We thought he was just trying not to help out . . . " (awareness and dismissing). Flowers witnessed her younger brother's health deteriorate following a diagnosis of diabetes at 13 – she repeated that "he would start throwing up" – but she did not fully grasp the severity of his illness until her brother experienced a diabetic coma at the age of 17. The coma was the "part that really woke us all up" (tipping point). Flowers' doubt shifted quickly to feelings of guilt, which propelled her to become his primary caregiver. Flowers sought information about diabetes to manage her uncertainty and to better care for her brother, although she was unable to predict and prepare for his subsequent comas (talking illness into existence). Moreover, despite feeling overwhelmed and emotionally exhausted from caregiving, working outside the home, and single handedly raising three children, she still put her "best face" forward because she "didn't want him to feel like he was a burden." At age 30 her brother passed away, and Flowers "watch[ed] him die." Flowers said she still felt regretful that she once doubted her brother's illness, sharing lingering uncertainties about the past and wondering, "Why we didn't see how sick he was sooner? Why did we feel that little bit of resentment?" (adaptation).

Similarly, Horatio, 70, struggled believing his wife had pain and mobility issues when they first married. After she confronted him about her pain, Horatio recounted: "I would say, ' . . . I don't know how anybody could be as sick as you are and still be alive'" (awareness and dismissing). However, after attending several doctor appointments with his wife, viewing her x-rays and receiving confirmation of her osteoporosis and joint pain (tipping point), Horatio said: "My belief in her illnesses grew. I began to realize then that more and more so that I wasn't sensitive enough. I was thinking too much in terms of what I wanted or what I wished for, rather than

what the reality was." Horatio began searching online for remedies and accompanying her to numerous knee and thumb surgeries (talking illness into existence). He reflected on his uncertainty management evolution:

> I had to learn more than she did; I had to learn to control my temper over it. Because it was upsetting because I didn't want to believe I had a . . . wife or a woman who was going to be sick all the time. They might die on me at any time. That scared me.

Here it is evident that Horatio's growth not only manifested in his behaviors, but in his talk. He described their current uncertainty management as a "we" issue that he attributed to aging and not his wife's character or choices (adaptation):

> She has some ailments which we've been working on for years. We are solving them, but not solving them, I guess you could say. As we get older, of course, things break down and we have to go back and redo some it.

Flowers, Horatio, and other interviewees resolved doubt through a process of individual and relational growth in which they realized their prior uncertainty management was misguided and even hurtful to their family member. For these individuals, redeeming themselves involved drastically changing uncertainty management to validate the person's health issues and marshal relational resources, such as closeness, shared identity, and social network support, to accept their family member's aging, illness, and death (life cycle motor).

Other participants were still growing at the time of the interviews. Although these interviewees believed the health issues, they described continually working through uncertainty connected to their family member's interference with their daily lives, trust in the person, and relational uncertainty. Interviewees described how they were inclined to talk illness out of existence, particularly early in the trajectory, and how they also consciously chose to talk illness into existence through perspective-taking, empathizing, and providing support – even when they did not necessarily want to. Their accounts suggested dialectical motors manifesting as tensions between wanting to care(give) and having to care(give) and denying and accepting illness (Poole, 2013). Hence, these participants were likely in the midst or cycling within the first stages of the growth trajectory depicted in Figure 1.

Stacy's experiences managing her uncertainty about her husband's back pain from a teenage car accident typifies this growth trajectory variant: "When I met him, he was always complaining of back problems and things," she explained (awareness). "I never really believed that he had a problem and he was always very dramatic with anything" (dismissing). Stacy, 31, also thought he was using his pain as an excuse to avoid caring for their baby and attending family functions. She eventually convinced him to seek medical care and an MRI revealed several herniated discs in his back, which convinced her he "really [had] a medical issue" (tipping point). Stacy went on to describe how she navigated his treatment options and uncertainties associated with cortisone injections:

> Even when he was sick, throwing up after the first one, I was still supportive and I wasn't really telling him, "Get over it," or whatever. I kept that to myself. And I remember we were up all night, all through the night because he was throwing up . . . I was there with him the whole time and supportive and everything.

Stacy recounted how she appraised her uncertainty positively, optimistic that the injections would help. She also managed her uncertainty in ways that affirmed her husband's health issues, seeking information with him about his treatment options while simultaneously suppressing her doubt (talking illness into and out of existence). Over time, she said his pain had diminished as her maturity grew. She described her uncertainty management in developmental terms, stating she learned to stop "assuming the worst instead of maybe giving him the benefit of the doubt more . . . " (adaptation).

Chris' experiences also reflected this continued growth trajectory. Chris, 39, described a cyclical pattern of talking his sister's health complaints into and out of existence because "she has always struggled with anxiety and that that anxiety has oftentimes manifested in irrational fears about health issues . . . literally since she first came to live with me when she was a child." Chris tended to start from a place of uncertainty any time his sister claimed something was wrong (awareness), engaging in information-seeking about her symptoms to then "filter what she's saying as she says it and attempt to gauge" their validity (talking illness out of existence). Then, he either encouraged his sister to consult a doctor or offered advice about how to manage her anxiety, attempting "to give her the tools that she needs to help herself," depending on his perception of the severity and consistency of her complaints. Yet sometimes Chris assessed incorrectly (tipping points), leaving him with guilt (talking illness into existence):

> She was having these pains in her bladder and I just kept thinking . . . Mind you, I was a lot younger, too, so I was a lot less patient than I probably am now, and I just kept thinking, "This is nothing. This is nothing. It's just anxiety. It's just anxiety." . . . After a few days, it kept going on and on and on, and so I was like, "Okay, let's go to the . . . " It turned out to be a urinary tract infection, and I felt horrible.

Chris suspected his sister's most recent illness " . . . probably did in fact start with anxiety and then sort of turned into an actual physical problem," which took months of information-seeking from his sister and then from doctors to reconcile (talking illness into/out of existence). Chris said his uncertainty management became more supportive over time but also more restricted, as his sister entered adulthood and he was trying to transition from his primary caretaker role: "In some ways, I'm more patient, but in some ways I'm less tolerant" (adaptation). Stacy and Chris' processes illustrate the centrality of personal and relational growth for managing uncertainty. Like other participants, they described a continued struggle to overcome some negative patterns of uncertainty management, with concerted efforts to choose more supportive ways of responding to their uncertainty to protect their valued identities and relationships.

Stagnation

On the other hand, some participants experienced uncertainty and its management as largely detached. Their uncertainty management was characterized by weak other-identity and weak relational-enhancing goals, either because the relationship was never geographically and/or emotionally close, or because managing the health issue was at an impasse. Generally, such interviewees appraised their uncertainty

about the person's health condition neutrally; only a sense of obligation kept them loosely connected to the person and the person's health issues (i.e., dialectical tension between wanting to care[give] and having to care[give]). Eventually, participants believed the health issues were real and said they sympathized with the person, but uncertainty lingered surrounding the severity of the illness, its "true" causes, and the future of the person's health. As such, interviewees tended to talk illness into and out of existence (i.e., dialectic of denying and accepting illness) at a relatively consistent, yet slow pace, often as physical distance lessened exposure to the person's health issues. Participants reflected little on what was happening – their approach to uncertainty management was mostly "wait and see" or "give the person space to figure it out." Uncertainty management idled or occurred indirectly through others or via observation.

John, 30, who discussed his experiences with his older brother's mental health issues, illustrates the stagnation trajectory. From childhood, John witnessed his brother's mood swings (awareness), but because they would "just go away," he thought "maybe this is part of normal behavior" and did not involve himself because he was not sure what, if anything, to do (dismissing). John and his brother did not have a close relationship, and, as the younger brother, John did not consider it his place to question his brother or tell him how to fix his problems. It was not until his brother's marriage was ending that his "true colors" came out and John witnessed the severe depression, anger management, and mood swings that had quietly lurked in the background and were triggered by the divorce (tipping point[s]). Although John was still unsure about his brother's condition, he felt obligated to try to communicate with him about what John assumed was mental illness. They did not have explicit conversations about mental health; instead, John said he would ask him "what was going on?" and urge him to "get a hold of yourself . . . Just because your marriage failed, make sure you take control. Control your emotions" (talking illness into/out of existence). For the most part, however, John viewed these conversations as unproductive, leaving him to wonder whether his brother was willing to acknowledge his potential mental health issues and seek help (adaptation). John recounted:

> What I kind of doubt is really based on his intentions. Does he want to fix it? Does he want to come out and, "Hey, I might have some health issues, mental issue. So, I might probably have to seek professional [help]."

Alex, 31, also exemplifies stagnated uncertainty management. The first time Alex's cousin "announced that she was dealing with her panic attacks and social anxiety disorders and depression," Alex thought she was trying to avoid working (awareness and dismissing). Alex paradoxically attributed his inability to communicate with his cousin about her mental health issues to her social anxiety: "When my cousin would explain it, it was just basically, 'Hey, yeah, I'm dealing with depression.' Or, 'I feel . . . ' – just kind of making it sound like it wasn't that big of a deal" (talking illness out of existence). However, Alex's conversations with his cousin's mother about the severity of his cousin's condition prompted him to seek information online (talking illness into existence). Alex's doubt was not fully resolved until he witnessed his cousin's panic attack at a Christmas gathering, which "really helped to wake me up to realize, yeah, I guess it is a lot more severe than what we thought" (tipping point). Feeling concerned and sympathetic, Alex advised his cousin to employ meditation and spirituality instead of medications to treat her condition, which he and his family attributed to her worsening mental health. However, his cousin was unwilling to discuss treatment options. Alex said he " . . . kind of got the hint it was a topic she wasn't too comfortable talking about it. We don't discuss it much." Consequentially, Alex's uncertainty management was stagnated because he and his family did not "know how to fully help her"; "she doesn't really let too many people into her life"; and because differing beliefs about treatment were a source of relational strain (adaptation). The stagnation trajectory exemplified by John and Alex captures the uncertainty of those who found themselves emotionally distant-yet-attached to their relationship with the family member and at an uncertainty management stalemate, with little or no motivation (i.e., weak goals) to act.

Resentment

Finally, some participants shared unfolding uncertainty experiences exuding resentment. These accounts were characterized by strong self-identity, self-protection goals, and relational-distancing goals, often following years of conflict and estrangement. They appraised uncertainty about the person's health issues negatively – as an unfair burden on them and others. To accept the illness would potentially make themselves responsible to care for the person and vulnerable in the relationship, which they resisted. These interviewees described an ongoing, volatile sense of responsibility, speaking to the wanting to care(give) and having to care(give) dialectic we observed in other trajectories (Poole, 2013). In response to their uncertainty, participants extensively talked illness out of existence and refuted evidence, even when – in their own words – that evidence was irrefutable (i.e., dialectical tension between denying and accepting illness). Some interviewees sought to maintain or increase health uncertainty, largely by avoiding information and distancing themselves, although they were not always able to do so. Others interrogated the person or gossiped about them, and most made negative attributions about the person's health (e.g., it is their fault) to uphold negative images of the person or to make themselves appear morally superior. Participants considerably reflected about their family member's health, likely because they were responding with what they knew were normatively unsupportive behaviors. Unlike participants following stagnation trajectories, resentful participants were unable or unwilling to disengage from the relationship, consistent with Poole's (2013) notion of dialectical motors and Cooper's (2021) notion of "prisoner" caregivers who feel trapped by the responsibility of caregiving.

Indeed, Jennifer, 52, exemplifies the resentment inherent in some participants' stories of grappling with doubts. Jennifer recounted her first response after her brother informed the family he had Multiple Sclerosis (MS): "I didn't believe him because he is a liar" (awareness). She relied on her preexisting

relationship with her brother, whom she detested and described as "self-centered," "sneaky and deceptive and manipulative," and a "jerk" (dismissing). Coming from this place of disdain, it is perhaps unsurprising that Jennifer would initially want to talk his MS out of existence. Consistent with the resentment trajectory, she ignored her brother's complaints and distanced herself for several months, believing that he was lying because he "wanted something" from the family (talking illness out of existence). However, her doubt transitioned to gradual, tentative acceptance, after witnessing her brother take a potentially life-threatening fall down the stairs (talking illness into existence). As she recalled:

> That was when I first saw, okay this is really going far to prove that you have MS. It was a whole flight of stairs, it's like potentially dying . . . and hitting your head. And you happen to be paralyzed forever might be an extreme lie to try to convince someone you have MS.

Additionally, her brother's wife – whom Jennifer liked and respected – corroborated his MS diagnosis, which also assuaged some of Jennifer's uncertainty, as did observing additional symptoms and "subtle things" like balance, vision, and mobility problems. However, at the time of the interview, Jennifer had still not seen any medical reports and her brother was not taking medication, which left a large opening for doubt. Jennifer's words indicated that she preferred to maintain her uncertainty surrounding his MS: " . . . I'm hoping that he doesn't have MS because I don't want to have a responsibility to take care of him . . . " (adaptation).

Jane's experiences with her mother-in-law also exemplify the resentment trajectory. Jane, 32, directly attributed her disbelief in the severity of her mother-in-law's Crohn's disease to her mother-in-law's past behaviors, such as false health claims that "she had a C-section and she went to work the next day," something Jane "know[s] is completely impossible" (dismissing). The critical event Jane returned to multiple times throughout her narrative was her mother-in-law's reasons for not visiting her grandchildren:

> She hasn't come to see our children because she keeps saying that the Crohn's disease is preventing her from doing that, that she's like holed up in a bathroom and she can never leave. But on the contrary, she's at her vacation home and she's literally cutting down trees with a chainsaw and piling it up and everything like that. And when I mean trees, I mean like pine trees–like tall, tall trees, not even like little baby trees.

Jane went on to explain how there were moments when "you have to believe her because she's going to have surgery and they have to resect a part of her colon. So obviously her Crohn's disease is bad if they need to take a piece of her colon away" (talking illness into existence). However, her doubt persisted: "But I can't believe everything she says because she's a liar" (talking illness out of existence). Jane explained how she adapted to her uncertainty by learning to "play nice" despite her mother-in-law having "a chip on her shoulder and she's always out to prove something." Jennifer and Jane's stories typify the resentment trajectory by illustrating the role that existing attitudes, beliefs, and relationships play in participants' goals for managing their doubt, and how obligation and resentment can be intertwined. Resentment also illustrates the mental and emotional challenges of simultaneously denying indisputable evidence.

Discussion

Our purpose was to explore evolving uncertainty management, guided by the contention that uncertainty management has been theorized as a process (Brashers, 2001; Brashers et al., 2000), yet not been adequately explored empirically. Consequently, we cast UMT (Brashers, 2001) through the lens of Poole's (2013) process approach to communication to illustrate how uncertainty management is not only recursive, nonlinear, and ongoing, but also teleological or goal-driven (Brashers, 2001; Brashers et al., 2000). Overall, our process model of UMT explicated stages of (a) becoming aware, (b) initially dismissing the existence of illness, (c) a tipping point in a series of critical events, (d) subsequently talking illness into and/or out of existence, and (d) adapting to chronic uncertainty.

Consistent with original conceptions of UMT (Brashers, 2001; Brashers et al., 2000), the primary motor driving participants' uncertainty management process was teleological (i.e., goal-driven) in nature because participants' objectives for self, other, and the relationship (Caughlin, 2010) influenced how participants talked illness into and out of existence through their uncertainty appraisals and management strategies. Variations in goals influenced patterns of uncertainty appraisals and management strategies, resulting in three distinct trajectories of the larger process: growth, stagnation, and resentment. As contextual factors and critical incidents inform how processes unfold (Poole, 2013), we also observed how relational history, identity and roles in the relationship, the rapid onset or visibility of symptoms, and coming upon new health information intersected with participants' goals, informing how they responded to their uncertainty about the person's health. Our findings also suggest that contextual factors and critical incidents shape beliefs about the seriousness and legitimacy of an illness, as well as the stigma surrounding it (Freidson, 1970). For example, participants said mental illnesses were difficult to accept as they are culturally stigmatized, presented the most profound changes to identities and relationships, and often had no clear treatment.

Our process was prominently teleological in nature; however, we found that other process motors drive uncertainty management. These include life-cycle motors, such as individual maturity and relational development (or dissolution) amidst concerns for self, other, and the relationship, as well as aging and mortality. Participants' uncertainty management was also guided by dialectical motors, with all participants struggling at some point with denying and accepting illness in their family member. Moreover, all trajectories demonstrated tensions between poles of having to care(give) and wanting to care(give), with some participants experiencing this dialectic more profoundly than others. Additionally, evolutionary motors were present in our data and explain why participants experimented with strategies, encountered new information, and decided to retain existing uncertainty management strategies depending on whether strategies helped participants achieve their personal, medical, and social

uncertainty management goals. Thus, our findings support Poole's (2013) assertion that processes are often driven by multiple, sometimes hierarchically-organized, motors. Our results suggest that in the context of illness uncertainty management, life cycle motors are present and operating in the background more or less consciously to people. The denying and accepting illness dialectical motor may be less conscious to people as well. Teleological motors guide relational behavior, and some dialectical motors operate under certain relationship conditions (e.g., conflict; high costs of caring). Finally, evolutionary motors explain why trajectories neither end at the same place nor follow the same predictable pattern.

Theoretical contributions and practical implications

Our application of Poole's (2013) process approach to uncertainty management reveals two interrelated contributions to UMT and UMT research. First, our findings showcase how the same uncertainty management strategies can be utilized to achieve very different ends, depending on people's goals for enacting the strategy. For instance, all study participants sought information to learn more about their family members' health condition toward corroborating or discrediting family members' health experiences. Similarly, some participants pursued social support from others outside of the relationship to develop productive coping skills or to gossip about and derogate the person. Our attention to strategy nuances responds to Kuang's (2018) critique that uncertainty scholars rely on an "oversimplified understanding that people manage uncertainty via strategies such as information seeking, avoiding, and cognitive reappraisal" (p. 197). Second, our findings draw attention to how people manage uncertainty in ways that shape environments and reinforce desired end states, thereby serving a self-fulfilling function. Identity and relational goals drove the termination of participants' process (Poole, 2013) or adaptation to uncertainty. For example, if interviewees did not want to maintain a relationship or they distrusted the person, they talked illness out of existence by avoiding, confronting, and dismissing. Uncertainty management strategies were often connected and patterned in ways that encouraged further corroborating or dismissing.

Beyond the context of doubt, we envision health-related uncertainty research might be even more richly elucidated from a process perspective. This study provides a model for doing so. For example, studies could consider the common experience of navigating concerns about a family member's mental health (Thompson et al., 2020; Wilson et al., 2015), from first becoming aware of the person's symptoms and potentially denying a stigmatized illness, to diagnosis and alternating uncertainties about recovery and recurrence, and ultimately, to some adaptation to chronic uncertainty. The model could also be applied to understand the more commonly studied perspective of the person with the health condition. For instance, a person may become aware of a lump or pain on their body and dismiss its significance (talk it out of existence) because they are outwardly "healthy." However, a biopsy could result in a life-altering cancer diagnosis (tipping point). During treatment, they may talk their cancer into and out of existence with family as they seek and receive information about their treatment progression (e.g., Is the tumor shrinking?). Ultimately, they may adapt to uncertainty by maintaining some routine for managing the unknowns, not the least of which is cancer recurrence, through attending yearly exams and participating in support groups.

From a practical perspective, understanding uncertainty management from a process-oriented perspective – and understanding trajectories in particular – could be useful for practitioners, counselors, and informal caregivers. These support providers could help individuals experiencing doubt and their family members recognize the challenges of accepting illness amidst uncertainty and normalize the nonlinearity of uncertainty management, which takes time. This recognition could help people in relationships feel validated in their experiences and help them alter their relational expectations. Moreover, findings suggest people may need different kinds of information and support at different points in their trajectory, and there may be intervention points – namely, the point at which the trajectories diverge in more or less productive ways – at which individuals and their family members may need education and encouragement to make conscious decisions to change their uncertainty management patterns depending on their goals for self, other, and the relationship.

Limitations and future directions

Although Mechanical Turk was a useful recruiting and interview platform because it enabled us to reach a broader sample of potential interviewees and it allowed anonymous participation, it does have methodological limitations. First, individuals who complete tasks on Mechanical Turk (i.e., "Turkers") are mostly Caucasian and tend to be younger and more educated than the general population (see Sheehan, 2018). As such, our findings may not resonate with all individuals who have doubts about a family member's illness, and future research should strive for more sample representativeness (see Afifi & Cornejo, 2020). Second, the nature of the relationship between researchers and Turkers is strictly transactional on the platform, disincentivizing member-checking when there are expectations of payment for any requests. Moreover, this study only captures the uncertainty experiences of one person in the relationship. Future research may consider how family members jointly tell stories of illness doubt – and uncertainty more broadly – in their relationships. Doing so would shed light on how family members make meaning of difficult health experiences and how the presence or absence of shared meaning is associated with (communal) coping and resilience (Afifi et al., 2020; Koenig Kellas & Trees, 2006). Overall, whether doubt spurred conflict in the relationship or prior relational tension fueled their skepticism, participants shared stories of how health, relationships, and identity are intrinsically linked. Future research should unpack the process of identity and relationship (re)construction as individuals manage their uncertainty. Last, a forthcoming investigation could explore whether severity of illness or such characteristics as age or gender affected uncertainty management and trajectories. Such insights would further inform practical strategies and shed more light on uncertainty management processes.

ORCID

Charee M. Thompson http://orcid.org/0000-0002-5946-7153
Lynsey K. Romo http://orcid.org/0000-0002-7233-8540

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