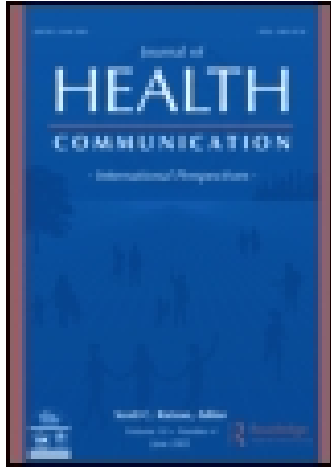


This article was downloaded by: [Kathryn Greene]

On: 15 January 2015, At: 16:32

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Health Communication: International Perspectives

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/uhcm20>

Decision Making in Cancer-Related Topic Avoidance

Maria K. Venetis^a, Kathryn Greene^b, Maria G. Checton^c & Kate Magsamen-Conrad^d

^a Brian Lamb School of Communication, Purdue University, West Lafayette, Indiana, USA

^b Department of Communication, Rutgers University, New Brunswick, New Jersey, USA

^c Department of Health Care Management, College of St. Elizabeth, Morristown, New Jersey, USA

^d Department of Communication, Bowling Green State University, Bowling Green, Ohio, USA

Published online: 13 Jan 2015.



CrossMark

[Click for updates](#)

To cite this article: Maria K. Venetis, Kathryn Greene, Maria G. Checton & Kate Magsamen-Conrad (2015): Decision Making in Cancer-Related Topic Avoidance, *Journal of Health Communication: International Perspectives*, DOI: [10.1080/10810730.2014.965364](https://doi.org/10.1080/10810730.2014.965364)

To link to this article: <http://dx.doi.org/10.1080/10810730.2014.965364>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Decision Making in Cancer-Related Topic Avoidance

MARIA K. VENETIS¹, KATHRYN GREENE², MARIA G. CHECTON³, and KATE MAGSAMEN-CONRAD⁴

¹*Brian Lamb School of Communication, Purdue University, West Lafayette, Indiana, USA*

²*Department of Communication, Rutgers University, New Brunswick, New Jersey, USA*

³*Department of Health Care Management, College of St. Elizabeth, Morristown, New Jersey, USA*

⁴*Department of Communication, Bowling Green State University, Bowling Green, Ohio, USA*

In this article, the authors use the Disclose Decision-Making Model to explore cancer-related topic avoidance among cancer patients and their partners. Participants include 95 dyads in which 1 partner had been diagnosed and/or treated for cancer. Variables of interest include death-, future-, sexuality-, and burden-related topic avoidance and dimensions of the Disclosure Decision-Making Model including information assessment, receiver assessment, relational quality, and discloser efficacy. Data were analyzed using linear regressions. Findings suggest that lack of reciprocity and efficacy are predictors of topic avoidance. The authors discuss implications of findings and suggests direction for future research.

The effect of cancer diagnoses affects not only the health of patients, but also extends to the well-being of partners, family members, and caregivers. The cancer treatment continuum from diagnosis through survivorship presents many opportunities for disclosure decision making. Beyond sharing the initial diagnosis, patients and close others contend with additional sensitive and potentially troubling issues such as recurrence, mortality, fears, and sexuality, among others (Rees & Bath, 2000). Patients and close others may consider communicative choices along the spectrum of openness and privacy (Petronio, 2002), balancing desires to disclose while at other times preferring to avoiding cancer-related discussion (Goldsmith, Miller, & Caughlin, 2007). Although both disclosure and avoidance impose consequences, avoidance has been associated with negative effects such as relational distress (Donovan-Kicken & Caughlin, 2010). Disclosure research considers the process of information sharing, and topic avoidance research examines why individuals may select not to share. Greene's (2009) Disclosure Decision-Making Model (DD-MM) was designed to explain factors that contribute to the management of health-related information and has been applied to disclose decisions that result in sharing as well as privacy (Greene et al., 2012). The present study uses the DD-MM as a framework for understanding patients' and partners' decisions in ongoing communication to avoid disclosure of issues particularly problematic in cancer communication, including death, the future, sexuality, and being a burden.

Topic Avoidance in Cancer Communication

Topic avoidance (TA) is a goal-based behavior that occurs when "an individual strategically decides not to disclose information" (Afifi & Guerrero, 2000 p. 166; see also Afifi et al., 2007). Individuals are motivated to topic avoid for several reasons (in both cancer and noncancer contexts) including self-, other-, and relationship-protection, conflict prevention, negative response avoidance, and to maintain "normalcy" (Afifi & Guerrero, 2000; Caughlin & Afifi, 2004; Parks, 1982). Thus, despite the literature's priority of openness (vs. privacy), TA is often a competent communicative choice (Parks, 2007).

Kornblith and colleagues (2006) noted that although cancer patients and partners exhibit "excellent" communication regarding non-cancer-related issues, there is "inadequate cancer-related communication" (p. 792). Zhang and Siminoff (2009) found that among lung-cancer patients, 65% of family members reported reluctance to discuss particular topics. Gray and colleagues (2000) described how prostate cancer patients avoid cancer-related discussions. This avoidance is not without consequence. Kornblith and colleagues (2006) found that among female cancer patients and their male partners, lack of discussion is related to patient and partner anxiety, depression, and relational adjustment. One sample of breast cancer patients shared that communication avoidance led to relationship strain, and in some cases, contemplation of separation (Walsh, Manuel, & Avis, 2005). Among cancer patients and partners, increased TA is associated with increased distress for patients and partners, patient depression, feelings of isolation, and reduced relational satisfaction (Donovan-Kicken & Caughlin, 2010; Walsh et al., 2005). These negative psychosocial outcomes have larger implications because patient and partner coping are interdependent, and the adjustment

of one affects the adjustment of the other. Examining longitudinal data, Segrin and colleagues (2007) demonstrated how partners' anxiety at Time 2 affected patients' anxiety at Time 3. As TA is a potential reoccurring stressor in cancer communication, this manuscript seeks to uncover predictors of patient and partner TA.

Discussing cancer-related issues can be challenging and problematic. Research has uncovered particularly sensitive topics within cancer-related communication. Furthermore, communication privacy management theory (Petronio, 2002) explains that individuals construct boundaries around not only relational dyads, determining who is privy to certain information, but also around particular pieces of information. These boundaries control what information can be shared and with whom; such expectations can also extend to content that is not shared, even between intimate partners (Parks, 2007; Petronio, 2002; Venetis, Magsamen-Conrad, Checton, & Greene, 2014). Thus, close individuals such as cancer patients and their partners may be both open and selectively avoidant about several cancer-related topics (Afifi et al., 2007; Goldsmith et al., 2007). Patterns of sharing information can differ among topics. Specific topics that are commonly avoided within cancer-related communication include death, emotions, fears, worries, sexuality, treatment, being a burden, future plans, and bodily change (Boehmer & Clark, 2001; Donovan-Kicken & Caughlin, 2010; Goldsmith et al., 2007).

Because disclosure/avoidance patterns can differ by topic, this study has selected four sensitive areas in this exploratory study: death, sexuality, the future, and being a burden. Topic avoidance concerning death and dying has been demonstrated among prostate and breast cancer patients (Goldsmith et al., 2007; Gray et al., 2000; Manne et al., 2004) and partners (Thomas et al., 2002). Separate from death is avoiding discussion about the future such as worsening prognosis (Gray et al., 2000; Kornblith et al., 2006; Thomas et al., 2002). Sexuality is a salient feature among breast and prostate cancer patients; Kornblith and colleagues (2006) found that 56% breast cancer patients expressed trouble communicating about sexual issues. Boehmer and Clark (2001) reported that among prostate cancer patients and spouses, discussion about sexual function occurred only before selecting treatment. Research also indicates that cancer patients worry about being a burden on their caregivers (Filiberti et al., 2001); furthermore, caregivers avoid discussing how the patient's cancer created burden (Thomas et al., 2002).

Disclosure Decision-Making Model

The DD-MM (Greene, 2009) addresses the complexity of the decision to share or avoid sharing health-related information. The model was designed to predict initial health-related disclosures but it has been applied to ongoing disclosure (Checton & Greene, 2012) and avoidance decisions (Greene et al., 2012). The model argues that potential health-related disclosers consider the following three factors: the information, the recipient, and disclosure efficacy.

Information assessment describes how individuals evaluate their health information. There are five components to information assessment including *stigma*, fear of negative social outcomes; *preparation*, anticipation of receiving the information (this component may be less relevant in ongoing disclosures); *prognosis*, the probability of negative illness outcomes; *symptoms*, illness visibility; and *relevance*, how directly the diagnosis affects others. The DD-MM predicts that greater stigma and reduced symptoms and relevance heightens the intention to avoid. To date, there is not definitive evidence of how prognosis or preparation affect disclosure or avoidance.

Recipient assessment considers relationship quality between discloser and recipient and the anticipated reaction to the shared information. Relational quality is the degree of intimacy with the other, and increased relational quality is associated with increased disclosure willingness (Afifi et al., 2005). Anticipated reactions include unresponsive, negative, neutral, or positive reactions and gossip (Afifi & Steuber, 2009; Caughlin & Afifi, 2004). Unlike initial disclosure decisions, individuals making ongoing decisions have prior disclosure experience, allowing past reactions to affect anticipated reactions. Four components of anticipated response (Magsamen-Conrad, 2012) include *support*, offering or withdrawal of social support; *emotional reaction*, display of negative emotions; *reciprocity*, subsequent recipient disclosure; and *anticipated avoidance*, recipient's refusal to respond (Afifi & Steuber, 2009; Greene et al., 2012). Greater support and reciprocity predicts reduced TA; additionally greater (negative) emotional reaction and anticipated avoidance predicts greater TA.

Disclosure efficacy describes perceptions of one's ability to share specific information with a specific other for a desired outcome. Caughlin and colleagues (2011) highlight that lack of efficacy is one reason that individuals avoided discussion of emotional topics when communicating with family members with lung cancer. The DD-MM predicts that increased perceived efficacy reduces TA.

Summary

Although TA may result from positive motivations such as maintaining normalcy (Caughlin & Afifi, 2004; Parks, 1982), among cancer patients, there is great evidence that TA results in negative outcomes (Donovan-Kicken & Caughlin, 2011; Kornblith et al., 2006). The DD-MM is a useful theory for the dissection of disclosure decisions in order to pinpoint specific predictors of TA per topic. This exploratory study applies the DD-MM to avoidance practices of four sensitive topics in efforts to better understand TA in cancer communication.

Hypotheses 1–4: The DD-MM factors of increased stigma, prognosis, symptoms, (negative) emotional reaction, anticipated avoidance and lower preparation, relevance, relational quality, support, reciprocity, and efficacy predict greater (a) patient and (b) partner TA of (H1a,b) death, (H2a,b) sexuality, (H3a,b) the future, and (H4a,b) being a burden.

Research Question 1: How do prognosis and preparation relate to (a) patient and (b) partner TA about death, sexuality, the future, and being a burden?

Method

Participants

Participants ($N=95$ dyads) were heterosexual couples in which one partner ($n=95$) was diagnosed with cancer (hereafter “patient”). Patients included 67 (70%) women; partners included 65 (68%) men. Participant age ranged from 32 to 91 years ($M=53.67$, $SD=10.97$). Participants were Caucasian (84%), Asian (5%), African American (4%), and other (<4%). Patient–partner relationships ranged from less than 1 to 63 years ($M=24.11$, $SD=12.98$). Cancer diagnoses included breast (37.5%), hematologic (14.6%), gynecologic (11.5%), male genitourinary (10.4%), throat/neck (9.4%), digestive (5.2%), and lung (3%). Time since diagnosis ranged from less than 1 year to 22 years ($M=5.20$, $SD=4.95$). During data collection, 84 patients (88%) were undergoing medical care, 59 patients (63%) were taking cancer-related medication, and 43 patients (49%) were undergoing other treatments. Patients reported good general health ($M=3.33$, $SD=0.98$, range = 1–5) and were positive about cancer managing and coping ($M=4.22$, $SD=0.62$, range = 1–5).

Study inclusion criteria included being ≥ 30 years old, in a committed relationship of at least 6 months, in the relationship when one partner was diagnosed and treated (or is currently being treated) for cancer, and having had more than one treatment session. Thus, our sample included couples who were together during an extended cancer treatment trajectory, affecting both partners.

Procedure

A network sampling technique was used in which undergraduate students in a research class recruited couples (e.g., from among acquaintances) to complete surveys individually and privately (e.g., in couples’ own homes; partners separated). Students received institutional review board certification, and all procedures were approved by the IRB. Researchers conducted training sessions with students prior to providing research packets. Students explained the study purpose to couples during prearranged face-to-face meetings. The couples individually completed a brief survey and returned individual surveys in sealed envelopes to the student. Students returned signed consent forms and sealed envelopes (separately) to researchers. Participants provided phone numbers for random callbacks from the researchers. Callbacks were conducted (23% contact); one student’s survey packet was deleted due to fraudulent information.

Measures

Variables measured for both patients and partners included *information assessment*, *relational quality*, *anticipated response*, *disclosure efficacy*, and TA concerning *death*,

future, *sexuality*, and *being a burden*. Confirmatory factor analysis was used to evaluate dimensionality of measures; tests of parallelism were conducted to establish discriminant validity. Confirmatory factor analysis requires items within factors to meet criteria of face validity, internal consistency, and external consistency (Anderson & Gerbing, 1988). Composite scores were created by averaging responses to individual items. Reliability was estimated by Cronbach’s alphas. Measurement information including confirmatory factor analyses is provided in Appendix A, available online.

Information Assessment

Information evaluation prior to a potential disclosure was measured with a 25-item, 5-factor scale adapted from the DD-MM. Responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). *Stigma*, measured with four items, assessed perceived negative feedback. Higher scores indicate greater stigma ($M=2.07$, $SD=0.77$, $\alpha=.67$, patients; $M=1.81$, $SD=0.65$, $\alpha=.70$, partners). *Prognosis*, measured with four items, assessed likelihood that patient health would improve. Higher scores indicate improved prognosis ($M=4.00$, $SD=0.74$, $\alpha=.75$, patients; $M=3.94$, $SD=0.85$, $\alpha=.83$, partners). *Symptoms*, measured with five items, assessed symptom visibility. Higher scores indicated greater visibility ($M=2.43$, $SD=0.97$, $\alpha=.87$, patients; $M=2.37$, $SD=1.01$, $\alpha=.82$, partners). *Relevance*, measured with three items, assessed perceptions of contagion. Higher scores indicated greater relevance ($M=1.40$, $SD=0.76$, $\alpha=.82$, patients; $M=1.14$, $SD=0.32$, $\alpha=.81$, partners).

Relational Quality

Relational quality focused on partner intimacy and was measured with nine items adapted from Rubin’s Love Scale (Rubin, 1970). Responses ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicated greater relational quality ($M=5.87$, $SD=0.92$, $\alpha=.87$, patients; $M=6.04$, $SD=0.83$, $\alpha=.84$, partners).

Receiver Assessment

Response anticipation before a potential disclosure was measured with a 16-item, a 4-factor scale adapted from prior research (Afifi & Stueber, 2008, 2009; Petronio, 2002). Items stem asked participants to consider “how your partner generally responds to you when you talk about your cancer” and responses ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). *Lack of support*, measured with four items, assessed social support. Higher scores indicate *less* perceived support ($M=1.89$, $SD=0.99$, $\alpha=.85$, patients; $M=2.10$, $SD=0.96$, $\alpha=.88$, partners). *Emotional reaction*, measured with three items, assessed negative response. Higher scores indicate greater negative emotional reaction ($M=2.06$, $SD=1.19$, $\alpha=.78$, patients; $M=2.13$, $SD=1.16$, $\alpha=.82$, partners). *Lack of reciprocity*, measured with two items, assessed reciprocated sharing. Higher scores indicate greater lack of reciprocity ($M=2.83$, $SD=1.57$, $\alpha=.83$, patients; $M=2.53$, $SD=1.47$, $\alpha=.94$, partners). *Anticipated avoidance*, measured with three items, assessed lack of communication. Higher scores indicate greater avoidance ($M=1.69$, $SD=0.96$, $\alpha=.88$, patients; $M=1.69$, $SD=0.84$, $\alpha=.87$, partners).

Disclosure Efficacy

Individuals' assessment of their ability to share the message was measured with six items adapted from prior research (Afifi & Steuber, 2009; Greene, 2009); responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicated greater disclosure efficacy ($M=4.47$, $SD=0.65$, $\alpha=.86$, patients; $M=4.31$, $SD=0.66$, $\alpha=.85$, partners).

Topic Avoidance

Topic avoidance items were adapted from Donovan-Kicken and Caughlin (2010) and responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Items began with the stem "I avoid talking to my partner about..." Higher scores indicated greater death-related TA ($M=2.37$, $SD=1.18$, $\alpha=.88$, patients; $M=2.85$, $SD=1.14$, $\alpha=.80$, partners), greater future-related TA ($M=1.77$, $SD=0.94$, $\alpha=.93$, patients; $M=1.73$, $SD=0.88$, $\alpha=.90$, partners), greater sexuality-related TA ($M=2.43$, $SD=1.17$, $\alpha=.92$, patients; $M=2.46$, $SD=1.07$, $\alpha=.90$, partners), and greater burden-related TA ($M=2.24$, $SD=0.90$, $\alpha=.73$, patients; $M=2.25$, $SD=0.95$, $\alpha=.79$, partners).

Results

All data were screened for normality and multicollinearity. Tables 1 and 2 present zero-order correlation matrices for patient- and partner-level variables. Hypotheses were tested with hierarchical linear regressions (SPSS 19.0); for all analyses, significance levels were set at $p < .05$. For all regressions, variables were entered as prescribed in the DD-MM. Relational quality and information assessment factors were entered into the first block. Receiver assessment factors were entered into the second block. Lastly, disclosure efficacy was entered into the third block.

Topic Avoidance

Hypotheses 1 through 4 were tested with a series of multiple linear regressions (see Table 3). Hypotheses predicted that DD-MM elements would predict patient and partner death-related TA (H1a & b), sexuality-related TA (H2a & b), future-related TA (H3a & b), and burden-related TA (H4a & b). Results partially supported hypotheses.

Patient Death-Related Topic Avoidance

Information assessment items were entered in the first block, Adjusted $R^2 = .11$, $F(5, 90) = 3.33$, $p = .01$; prognosis negatively predicted TA ($\beta = -.42$, $t = -2.58$, $p = .01$). The addition of the second block yielded significant change, $\Delta R^2 = .15$, $F(4, 86) = 4.80$, $p = .002$; prognosis negatively ($\beta = -.41$, $t = -2.63$, $p = .01$) and lack of reciprocity positively ($\beta = .22$, $t = 2.55$, $p = .01$) predicted TA. The addition of the third block did not produce significant change; only prognosis negatively ($\beta = -.40$, $t = -2.55$, $p = .01$) and lack of reciprocity positively ($\beta = .22$, $t = 2.53$, $p = .01$) predicted patient death-related TA, accounting for 23% of variance in the final model.

Partner Death-Related Topic Avoidance

Information assessment variables were entered in the first block, Adjusted $R^2 = .08$, $F(5, 88) = 2.59$, $p = .03$; prognosis negatively predicted TA ($\beta = -.37$, $t = -2.52$, $p = .01$). The addition of the second block did not produce significant change; prognosis negatively ($\beta = -.42$, $t = -2.69$, $p = .01$) and lack of reciprocity positively ($\beta = .22$, $t = 2.50$, $p = .02$) predicted TA. The addition of the third block yielded significant change, $\Delta R^2 = .06$, $F(1, 83) = 6.82$, $p = .01$. Prognosis ($\beta = -.33$, $t = -2.15$, $p = .04$) and disclosure efficacy ($\beta = -.62$, $t = -2.61$, $p = .01$) negatively and lack of reciprocity positively ($\beta = .19$, $t = 2.17$, $p = .03$) predicted partner death-related TA, accounting for 17% of variance in the final model.

Table 1. Zero-order correlation matrix for patient variables ($N=95$)

	Stigma	Progn	Symp	Relv	RelQ	Supp	EmoR	Recip	AntAv	Eff	TADth	TAFut	TASex
Stigma	—												
Progn	-.21*	—											
Symp	.19	-.28**	—										
Relv	.16	-.02	.20*	—									
RelQ	-.14	.14	-.07	.02	—								
Supp	.32**	-.07	.17	-.07	-.36***	—							
EmoR	.29**	-.20*	.20	.04	-.42***	.68***	—						
Recip	.27**	-.07	.05	-.20*	-.14	.53***	.38***	—					
AntAv	.29**	-.07	.16	.06	-.27**	.67***	.64***	.52***	—				
Eff	-.45***	.26**	-.31**	-.11	.36***	-.60***	-.49***	-.39***	-.59***	—			
TADth	.18	-.32**	.14	-.08	-.22*	.37***	.41***	.40***	.28**	-.30**	—		
TAFut	.19	-.35**	.35***	-.02	-.27**	.47***	.30**	.36***	.33**	-.45***	.39***	—	
TASex	.27**	-.10	.08	-.09	-.12	-.35***	.33**	.44***	.22*	-.26*	.49***	.44***	—
TABur	.21*	-.21*	.17	-.02	-.10	.30**	.32**	.45***	.34**	-.37***	.59***	.38***	.59***

Progn = prognosis, Symp = symptoms, Relv = relevance, RelQ = relational quality, Supp = lack of support, EmoR = emotional reaction, Recip = lack of reciprocity, AntAv = anticipated avoidance, Eff = disclosure efficacy, TADth = death-related TA, TAFut = future-related TA, TASex = sexuality-related TA, TABur = burden-related TA.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2. Zero-order correlation matrix for partner variables ($N=95$)

	Stigma	Progn	Symp	Relv	RelQ	Supp	EmoR	Recip	AntAv	Eff	TADth	TAFut	TASex
Stigma	—												
Progn	-.29**	—											
Symp	.15	-.30**	—										
Relv	.44***	-.19	.09	—									
RelQ	-.09	.16	-.24**	-.16	—								
Supp	.28**	-.40***	.23*	.14	-.21*	—							
EmoR	.30**	-.33**	.21*	.20	-.14	.69***	—						
Recip	.26**	-.12	.05	.09	-.07	.46***	.34**	—					
AntAv	.43***	.45***	.23*	.31**	-.12	.61***	.62***	.38***	—				
Eff	-.34**	.46***	-.27**	-.06	.33**	-.56***	-.47***	-.37***	-.58***	—			
TADth	.19	-.33**	.18	.10	-.12	.20*	.14	.29**	.15	-.39***	—		
TAFut	.23*	-.27**	.16	.11	-.24*	.38***	.37***	.11	.25*	-.40***	.27**	—	
TASex	.33**	-.21*	.29**	.16	-.16	.29**	.19	.29**	.16	-.41***	.44***	.31**	—
TABur	.35***	-.29**	.13	.28**	-.08	.13	.15	.19	.21*	-.31**	.46***	.24*	.61***

Progn = prognosis, Symp = symptoms, Relv = relevance, RelQ = relational quality, Supp = lack of support, EmoR = emotional reaction, Recip = lack of reciprocity, AntAv = anticipated avoidance, Eff = disclosure efficacy, TADth = death-related TA, TAFut = future-related TA, TASex = sexuality-related TA, TABur = burden-related TA.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Patient Sexuality-Related Topic Avoidance

Information assessment was entered in the first block, Adjusted $R^2 = .05$, $F(5, 90) = 1.96$, $p = .09$; stigma positively predicted TA ($\beta = .41$, $t = 2.54$, $p = .01$). The addition of the second block yielded significant change, $\Delta R^2 = .16$, $F(4, 86) = 4.75$, $p = .002$; lack of reciprocity positively ($\beta = .28$, $t = 3.14$, $p = .002$) predicted TA. The addition of the third block did not produce significant change. Only lack of reciprocity positively ($\beta = .28$, $t = 3.11$, $p = .003$) predicted patient sexuality-related TA, accounting for 18% of variance in the final model.

Partner Sexuality-Related Topic Avoidance

Information assessment was entered in the first block, Adjusted $R^2 = .15$, $F(5, 88) = 4.15$, $p = .002$; stigma positively predicted TA ($\beta = .44$, $t = 2.42$, $p = .02$). The addition of the second block did not produce significant change; stigma ($\beta = .41$, $t = 2.20$, $p = .03$), symptoms ($\beta = .22$, $t = 2.02$, $p = .05$), and lack of reciprocity ($\beta = .16$, $t = 1.98$, $p = .05$) positively predicted TA. The addition of the third block yielded significant change, $\Delta R^2 = .05$, $F(1, 83) = 6.15$, $p = .02$. Anticipated avoidance ($\beta = -.43$, $t = -2.40$, $p = .02$) and disclosure efficacy ($\beta = -.53$, $t = -2.48$, $p = .02$) negatively

Table 3. Model summary at third step for dependent variables

Predictors	Death-related topic avoidance				Future-related topic avoidance				Sexuality-related topic avoidance				Burden-related topic avoidance			
	Patient		Partner		Patient		Partner		Patient		Partner		Patient		Partner	
	β	t	β	t	β	T	β	t	β	t	β	t	β	t	β	t
Stigma	-.03	-0.30	.02	0.21	-.08	-0.82	.11	0.94	.13	1.23	.20	1.83	-.10	-0.09	.19	1.61
Prognosis	-.25	-2.56*	-.25	-2.15*	-.26	-2.83**	-.06	-0.53	.001	0.003	-.10	-0.87	-.11	-1.13	-.06	-0.48
Symptoms	.01	0.11	.007	0.71	.21	2.30*	-.01	-0.01	.02	0.16	.19	1.94	.06	0.55	.04	0.39
Relevance	-.20	-0.21	.09	0.77	.01	0.09	.02	0.19	-.03	-.27	.10	0.89	.003	0.03	.21	1.87
Relational quality	-.03	-0.33	.05	0.43	-.11	-1.12	-.09	-0.89	.03	0.27	.03	0.31	.06	0.62	.06	0.53
Lack of support	.10	0.64	-.06	-0.38	.38	2.72**	.19	1.24	.10	0.62	.10	0.70	-.13	-0.84	-.14	-0.90
Emotional reaction	.25	1.77	-.02	-0.16	-.18	-1.43	.21	1.50	.22	1.56	-.03	-0.19	.14	0.98	.02	0.15
Lack of reciprocity	.29	2.53*	.24	2.17*	.18	1.67	-.11	-1.0	.37	3.11**	.18	1.67	.38	3.24**	.10	0.88
Anticipated avoidance	-.12	-0.84	-.26	-1.74	-.04	-0.33	-.20	-1.35	-.23	-1.57	-.34	-2.40*	.04	0.26	-.12	-0.79
Disclosure efficacy	-.02	-0.12	-.36	-2.61*	-.13	-1.06	-.26	-1.89	-.03	-0.25	-.33	-2.50*	-.19	-1.40	.32	-2.25*

* $p < .05$. ** $p < .01$.

predicted partner sexuality-related TA, accounting for 23% of variance in the final model.

Patient Future-Related Topic Avoidance

Information assessment was entered in the first block, Adjusted $R^2 = .20$, $F(5, 90) = 5.81$, $p = .001$; prognosis ($\beta = -.29$, $t = -2.35$, $p = .02$) and relational quality ($\beta = -.21$, $t = -2.20$, $p = .03$) negatively and symptoms ($\beta = .26$, $t = 2.75$, $p = .01$) positively predicted TA. The addition of the second block yielded significant change, $\Delta R^2 = .16$, $F(4, 86) = 5.53$, $p = .001$; prognosis negatively ($\beta = -.35$, $t = -3.06$, $p = .01$), and symptoms ($\beta = .22$, $t = 2.51$, $p = .01$) and lack of support ($\beta = .40$, $t = 3.11$, $p = .01$) positively predicted TA. The addition of the third block did not produce significant change. Prognosis negatively ($\beta = -.33$, $t = -2.83$, $p = .01$) and symptoms ($\beta = .20$, $t = 2.30$, $p = .02$) and lack of support ($\beta = .36$, $t = 2.72$, $p = .01$) positively predicted patient future-related TA, accounting for 34% of variance in the final model.

Partner Future-Related Topic Avoidance

Information assessment was entered in the first block, Adjusted $R^2 = .09$, $F(5, 88) = 2.79$, $p = .02$; no variables predicted TA. The addition of the second block did not produce significant change. The addition of the third block trended toward but did not produce significant change, $\Delta R^2 = .03$, $F(1, 83) = 3.59$, $p = .06$; no variables predicted partner future-related TA. None of the entered variables predicted the 17% of variance reported in the final model.

Patient Burden-Related Topic Avoidance

Information assessment was entered in the first block, adjusted $R^2 = .04$, $F(5, 90) = 1.79$, $p = .12$; no variables predicted TA. The addition of the second block yielded significant change, $\Delta R^2 = .18$, $F(4, 86) = 5.27$, $p = .001$; lack of reciprocity positively ($\beta = .22$, $t = 3.27$, $p = .002$) predicted TA. The addition of the third block did not produce significant change, $\Delta R^2 = .02$, $F(1, 85) = 1.95$, $p = .17$; only lack of reciprocity positively ($\beta = .22$, $t = 3.24$, $p = .002$) predicted patient burden-related TA, accounting for 20% of the variance in the final model.

Partner Burden-Related Topic Avoidance

Information assessment was entered in the first block, adjusted $R^2 = .11$, $F(5, 88) = 3.28$, $p = .01$; stigma positively predicted partner burden-related TA ($\beta = .37$, $t = 2.25$, $p = .03$). The addition of the second block did not produce significant change; stigma ($\beta = .34$, $t = 1.96$, $p = .05$) positively predicted partner burden-related TA. The addition of the third block produced significant change, $\Delta R^2 = .05$, $F(1, 83) = 5.07$, $p = .03$; disclosure efficacy negatively ($\beta = -.45$, $t = -2.25$, $p = .03$) predicted partner burden-related TA, accounting for 13% of variance in the final model.

Prognosis and Preparation

In an effort to further explore the DD-MM, Research Question 1 addressed the role of prognosis and preparation in TA of death, sexuality, the future, and being a burden. Because of low factor loadings, preparation was removed from all models. As such, this manuscript cannot speak to

the potential relationships between preparation, the feeling of recipient readiness for a particular piece of information, and TA. Similar to Donovan-Kicken and Caughlin (2010), prognosis was negatively related to patient and partner death-related TA such that a weakened prognosis is associated with more death-related TA. In addition, a worse prognosis is also associated with increased patient (but not partner) future-related TA.

Discussion

The present research used the Disclosure Decision-Making Model as a framework for better understanding cancer-related TA between cancer patients and partners. The research is the first to explore specifically TA via the DD-MM as well as to dissect how TA differs by cancer-related topic and by participant role.

The DD-MM highlights elements integral to understanding the decision-making processes among cancer patients and partners when considering problematic cancer issues. All hypotheses were partially supported; certain factors of the DD-MM retain similar utility in predicting ongoing TA as they do in initial health disclosures. Although different variables predict patient and partner TA per topic, there were fairly robust patterns of lack of reciprocity predicting patient TA and disclosure efficacy predicting partner TA.

For patients, lack of reciprocity was a significant predictor of TA in three categories including death, sexuality, and being a burden. That is, patients report that for these topics, patients perceive that partners will not respond to the disclosure by sharing their own thoughts or concerns, thus inhibiting patient disclosures. According to Manne and colleagues (2004), among breast cancer patients, perceived lack of reciprocity is associated with greater patient distress, highlighting the importance of partner response to patient disclosure.

Throughout the partner models, the lack of disclosure efficacy is related to avoiding topics of death, sexuality, and being a burden; the relationship trends toward significance for avoiding talk about the future. Efficacy is a foundational component of several behavioral intention theories including social cognitive theory (Bandura, 1977) and the Integrated Model of Behavioral Prediction (Fishbein, 2000). Within information management literature, disclosure efficacy is a key predictor in TMIM (Afifi & Weiner, 2004) and the DD-MM, and both theories posit that without communication efficacy, individuals are more likely to avoid disclosure or seeking information. Findings for the present study support this claim, particularly among partners (vs. patients). It is interesting that patients do not report the same difficulty with communication efficacy. Communication privacy management theory (Petronio, 2002) may provide one explanation in the difference between patient and partner efficacy. Communication privacy management argues that individuals claim ownership of their information, and ownership involves determining when, how, and if the information is addressed. Within the cancer patient-partner dyad, patients and partners may perceive that patients have the primary information ownership while

partners are co-owners. Perceived ownership priority may enable patients to talk about their cancer, body, prognosis, future, and so forth. without the same hesitation because one is talking about himself or herself. However, efficacy may be more of a sensitive issue for partners who are attempting to broach a topic about the other that could potentially distress or agitate the cancer patient (e.g., Thomas et al., 2002).

Examination of avoidance by topic reveals that only for death-related TA is there overlap in predictive DD-MM variables (and factors predicting TA of sexuality, the future, and being a burden differ by participant). Prognosis and lack of reciprocity contribute to patients' and partners' choices to topic avoid about death. As patients' prognosis weakened, patients and partners had increased death-related TA (see also Donovan-Kicken & Caughlin, 2010). As discussed above, lack of reciprocity reflects the expectation that the recipient will not appropriately respond to a disclosure. Both patients and partners avoid discussing death due to issues of lack of reciprocity. Individuals have been socialized that talk of death, even when not part of an illness trajectory or immediately relevant (e.g., discussion of death between two healthy individuals), is taboo (Walter, 1991). Future research should examine how patients and partners can have useful discussions concerning death, including how to initiate and how to respond when talking about death.

The DD-MM explains that three components are integral in the decision to disclose or avoid sharing health-related information: information assessment, receiver assessment, and disclosure efficacy. Although disclosure efficacy was a consistent predictor in partner models and lack of reciprocity (a receiver assessment variable) was consistent across patient models, among both patient and partner models some DD-MM factors did not directly contribute to understanding cancer-related TA. For example, relational quality was not a significant variable in patient or partner analyses. Participants' reported relational quality was high, as may be expected from couples in committed relationships (e.g., Checton & Greene, 2012). Three information assessment subfactors were not significant predictors of TA: stigma, relevance, and preparation (not included in models). Stigma measures reaction to the cancer in general, rather than specific elements such as discussing death due to cancer. Stigma may not be a relevant issue in cancer-related communication among relational partners as it might be in other illness. Relevance measures fear of contagion, which is not salient to most cancer diagnoses (American Cancer Society, 2011). The omission of preparation was initiated by factor loadings but is also conceptually consistent since the focus of this study of ongoing communication. Information components for various health conditions or contexts may be better predictors for TA than the information assessment of cancer-related information. For example, one may expect different information management patterns for an acute versus a chronic condition.

Contrary to our expectations, the receiver assessment subfactor emotional reaction was not a significant predictor within either model. Prior research suggests that individuals

avoid disclosure when they anticipate a negative emotional reaction (e.g., Afifi & Weiner, 2004); therefore, one would expect that emotional reaction would be associated with TA. One explanation for the unexpected finding is that the items used to assess emotional reaction measured general cancer-related discussions (rather than specific problematic topics).

The research question attempted to further explore how prognosis and preparation contribute to information management decisions. As noted above, preparation was not included in the TA models. However, similar to prior research (Donovan-Kicken & Caughlin, 2010), prognosis was a significant predictor in three of the models. Namely, worse prognosis is related to increased patient and partner TA of death as well as increased patient future-related TA.

Limitations

This sample includes participants who reported diverse cancer diagnoses, times since diagnosis, and treatment protocols. A more homogenous population may provide more detailed explanation about the application of DD-MM to TA; for example, the information assessment factor of stigma may be more relevant for lung cancer patients than it may be for breast cancer patients. However, consideration of this more broadly defined cancer patient and partner population allows for greater generalizability of factors that contribute to TA. Another limitation is that participants were asked to recall ongoing communicative patterns, some of which could have changed with the treatment protocol; longitudinal data may better serve to untangle TA in ongoing cancer communication. As an exploratory study, this research applied the DD-MM to only four problematic cancer-related topics. Notably, there are additional salient issues that require attention, and future research should more closely examine the application of the DD-MM to TA choices such as treatment, feelings, and relating to others (see Donovan-Kicken & Caughlin, 2010).

Future Research

The patient models made relevant the association of lack of perceived partner reciprocity with TA. When patients perceive that partners cannot or will not appropriately respond to their disclosures, patients may topic avoid. Accordingly, partners may not provide the response desired by patients due to a perceived lack of skill in how to respond (as evidenced in the partner analyses). Future research should explore the relationship between lack of reciprocity and efficacy; that is, lack of partner efficacy could not only hinder partner initiation of problematic cancer issues, but also hinder patient initiation. It is possible that improved efficacy could allow for reduced TA by partners as well as by patients (improved perceptions of partner lack of reciprocity). Fortunately, partners (and patients) may be educated to (a) recognize their own communication needs, (b) appreciate the agency of their needs and their partners' needs and the potential negative consequences of unmet

communication needs, and (c) sensitively address problematic issues as relevant for individuals/couples. However, couples must also be educated to recognize that avoidance can be beneficial if satisfying both individual's information needs (Parks, 2007).

References

- Afifi, T. D., Caughlin, J., & Afifi, W. A. (2007). Exploring the dark side (and light side) of avoidance and secrets. In B. Spitzberg & B. Cupach (Eds.), *The dark side of interpersonal relationships* (2nd ed., pp. 61–92). Mahwah, NJ: Erlbaum.
- Afifi, T. A., & Steuber, K. R. (2009). The revelation risk model (RRM): Factors that predict the revelation of secrets and the strategies used to reveal them. *Communication Monographs*, 76, 114–176.
- Afifi, W. A., & Guerrero, G. L. (2000). Motivations underlying topic avoidance in close relationships. In S. Petronio (Ed.), *Balancing the secrets of private disclosures* (pp. 165–180). Mahwah, NJ: Erlbaum.
- Afifi, W. A., & Weiner, J. L. (2004). Toward a theory of motivated information management. *Communication Theory*, 14, 167–190.
- American Cancer Society. (2011). *Cancer facts and figures: 2011*. Retrieved from <http://www.cancer.org>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Boehmer, U., & Clark, J. A. (2001). Communication about prostate cancer between men and their wives. *Journal of Family Practice*, 50, 226–231.
- Caughlin, J. P., & Afifi, T. D. (2004). When is topic avoidance unsatisfying? Examining moderators of the association between avoidance and dissatisfaction. *Human Communication Research*, 30, 479–513.
- Caughlin, J. P., Mikucki-Enyart, S. L., Middleton, A. V., Stone, A. M., & Brown, L. E. (2011). Being open without talking about it: A rhetorical/normative approach to understanding topic avoidance in families after a lung cancer diagnosis. *Communication Monographs*, 78, 409–436.
- Checton, M. G., & Greene, K. (2012). Beyond initial disclosure: The role of prognosis and symptom uncertainty in patterns of disclosure in relationships. *Health Communication*, 27, 145–157.
- Donovan-Kicken, E., & Caughlin, J. (2010). A multiple goals perspective on topic avoidance and relationship satisfaction in the context of breast cancer. *Communication Monographs*, 77, 231–256.
- Filiberti, A., Ripamonti, C., Totis, A., Ventrididda, V., De Conno, F., . . . Tamburini, M. (2001). Characteristics of terminal cancer patients who committed suicide during a home palliative care program. *Journal of Pain and Symptom Management*, 22, 544–553.
- Fishbein, M. (2000). The role of theory in HIV prevention. *AIDS Care*, 12, 273–278.
- Goldsmith, D. J., Miller, L. E., & Caughlin, J. P. (2007). Openness and avoidance in couples communicating about cancer. *Communication Yearbook*, 31, 62–117.
- Gray, R. E., Fitch, M., Phillips, C., Labrecque, M., & Fergus, K. (2000). Managing the impact of illness: The experiences of men with prostate cancer and their spouses. *Journal of Health Psychology*, 5, 531–548.
- Greene, K. (2009). An integrated model of health disclosure decision-making. In T. Afifi & W. Afifi (Eds.), *Uncertainty and information regulation in interpersonal contexts: Theories and applications* (pp. 226–253). NY: Routledge.
- Greene, K., Magsamen-Conrad, K. C., Venetis, M. K., Checton, M., Bagdasarov, Z., & Banerjee, S. C. (2012). Assessing health diagnosis disclosure decisions in relationships: Testing the disclosure decision-making model. *Health Communication*, 27, 356–368.
- Kornblith, A. B., Regan, M. M., Kim, Y., Greer, G., Parker, B., Bennett, S., & Winer, E. (2006). Cancer-related communication between female patients and male partners scale: A pilot study. *Psycho-Oncology*, 15, 780–794.
- Magsamen-Conrad, K. (2012, November). *Information management and anticipated response: Providing conceptual clarity*. Paper presented at the annual meeting of the National Communication Association, Orlando, FL.
- Manne, S., Ostroff, J., Sherman, M., Heyman, R. E., Ross, S., & Fox, K. (2004). Couples' support-related communication, psychological distress, and relationship satisfaction among women with early stage breast cancer. *Journal of Consulting and Clinical Psychology*, 72, 660–670.
- Parks, M. R. (1982). Ideology in interpersonal communication: Off the couch and into the world. *Communication Yearbook*, 5, 79–107.
- Parks, M. R. (2007). *Personal relationships and personal networks*. Mahwah, NJ: Erlbaum.
- Petronio, S. (2002). *Boundaries of privacy: Dialectics of disclosure*. Albany: State University of New York Press.
- Rees, C. E., & Bath, P. A. (2000). The information needs and source preferences of women with breast cancer and their family members: A review of the literature published between 1988 and 1998. *Journal of Advanced Nursing*, 31, 833–841.
- Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology*, 16, 265–273.
- Segrin, C., Badger, T., Dorros, S. M., Meek, P., & Lopez, A. M. (2007). Interdependent anxiety and psychological distress in women with breast cancer and their partners. *Psycho-Oncology*, 16, 634–643.
- Thomas, C., Morris, S. M., & Harmn, J. C. (2002). Companions through cancer: The care given by informal carers in cancer contexts. *Social Science & Medicine*, 54, 529–544.
- Venetis, M. K., Magsamen-Conrad, K., Checton, M. G., & Greene, K. (2014). Cancer communication and partner burden: An exploratory study. *Journal of Communication*, 64, 82–102.
- Walsh, S. R., Manuel, J. C., & Avis, N. E. (2005). The impact of breast cancer on younger women's relationship with their partner and children. *Families, Systems, & Health*, 23, 80–93.
- Walter, T. (1991). Modern death: Taboo or not taboo? *Sociology*, 25, 293–310.
- Zhang, A. Y., & Siminoff, L. A. (2009). Silence and cancer: Why do families and patients fail to communicate? *Health Communication*, 15, 415–429.