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Support and negation of colorectal cancer risk prevention behaviors: analysis of spousal discussions

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ABSTRACT

The shared social context created in a marriage may be important in motivating engagement in health behaviors, but spousal influence may not be uniformly applied. Our goal was to examine how spouses discuss health behaviors relevant for colorectal cancer (CRC) risk-reduction to better understand how spouses exert or fail to exert influence. In this pilot study, first degree relatives of CRC patients and their spouses completed demographic and self-reported health questionnaires. After a genetic counseling session regarding risk and risk reduction, couples engaged in a semi-structured discussion task to discuss lifestyle choices they currently undertake or could undertake to reduce risk. Demographic and health data was analyzed using descriptive statistics. Using a directed content analysis based on the transtheoretical model of behavior change, we coded discussion transcripts for depth and direction of talk for seven behavioral CRC risk factors. Spouses engaged in several strategies to reduce their risk for CRC, and problem-solved together to increase these preventative efforts. All couples mentioned diet and exercise as important factors in CRC risk; however, other risk factors received less attention. Despite evidence of support and encouragement, spouses ignored, minimized, or negated the importance of some health behaviors. Spousal influence could be an important tool to improve participation in health behaviors, but more guidance may be necessary to hold couples accountable to evidence-based guidelines to reduce risk. Health care providers should address couples as a unit to assess and address health behaviors.

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Colorectal cancer; spouses; communication; social support; influence

First-degree relatives (FDRs; parents, siblings and children) of individuals diagnosed with colorectal cancer (CRC) have an increased risk of CRC compared to the general population (Butterworth, Higgins, & Pharoah, 2006). CRC has a 90% 5-year survival rate when diagnosed early, but is the third most common cause of cancer death in the U.S. (American Cancer Society, 2015). In addition to screening, engaging in health behaviors can cut risk up to 37% (Aleksandrova et al., 2014).

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Spouses may influence health decisions relevant to CRC risk reduction. A shared social context, such as marriage, can play a large role in motivation, self-efficacy, and health behaviors (Bandura, 1986). Spouses' attitudes are interdependent and important in each other's screening decisions (Manne, Kashy, Weinberg, Boscarino, & Bowen, 2012). Married individuals have higher colorectal screening rates than single individuals (Van Jaarsveld, Miles, Edwards, & Wardle, 2006) and eat healthier, but also have higher body mass index and exercise less (Mata, Frank, & Hertwig, 2015). These findings demonstrate not all spousal influence may be beneficial or spouses may not use their influence across all health behaviors.

Purpose

We examined how spouses discuss health behaviors relevant for CRC prevention with the goal of understanding spousal influence across a variety of health behaviors.

Methods

We conducted an observational pilot study of couples' communication. This study was approved by University Institutional Review Boards.

Sample

Sixteen FDRs of CRC patients and their spouses (32 individuals) were recruited through NCI-designated Cancer Center clinics and the community. Eligible participants were married couples where one member of the couple was a FDR of a CRC patient, with the FDR age 50+, and without a personal history of cancer. Spouses were not restricted by age or family cancer history.

Procedure

Couples completed demographic and health questionnaires, including worry about FDR risk and spousal influence (Manne et al., 2002). A licensed, American Board of Genetic Counseling certified counselor (WK) delivered a semi-personalized evaluation using NCI recommendations as a guideline (National Cancer Institute, n.d.) and discussed modifiable risk prevention strategies. Couples then participated in a semi-structured discussion task about lifestyle choices they had taken or could take to reduce CRC risk. Mean average discussion time was 7 min (range = 4–10 min). All sessions were recorded and transcribed verbatim.

Analysis

Demographic and health data was analyzed using descriptive statistics. A directed content analysis (Hsieh & Shannon, 2005) was conducted by two coders (MR & WB) to identify and describe specific CRC prevention behaviors in which spouses exert or fail to exert influence. Transcripts were analyzed and coded for presence and depth/direction of discussion on seven risk factors. Disagreements were discussed until consensus was achieved.

Table 1 lists and provides examples of topics. Each behavior received only one code per interaction. Depth and direction were chosen to align with the transtheoretical model of health behavior change (Prochaska & Velicer, 1997). Positive statements encouraged another to move towards or stay within the maintenance stage, while negative statements encouraged reverting to or maintaining a lower stage. We included depth of discussion to capture the increased processing that is required to transition to and maintain new stages.

Couples typically had a belief about what behaviors they did or did not plan to engage in. The exception, which we felt merited its own unique code (problem-solving/negation), occurred rarely, but represented an important process – when a couple engaged in problem-solving, but then negated and overturned the direction of their conversation.

Results

Demographic characteristics are presented in Table 2. All FDRs were currently adherent to CRC screening guidelines. Half of FDRs were male and most endorsed some spousal influence. FDRs and spouses reported worry about FDR's risk as moderate.

Couples' communication strategies broken down by risk factors are presented in Figure 1. Most often, couples did not mention behaviors, but this was largely driven by smoking and HRT, which may not have been relevant to most participants. In contrast, all FDRs were compliant for CRC screening, but this factor was mentioned in the majority of discussions (69%). This may be due to the heavy cultural emphasis on screening as a key to CRC prevention. A participant echoes the NCI recommendations, 'My worry is fairly low. Because

Table 1. Codes, definitions, and examples identified in transcripts.

Code	Definition	Example
Low-depth positive		
Mention	A factor is brought up without further discussion about how the couple addresses it or a concrete plan for how to change	
Should	A recommendation of what an individual, couple, or people in general should do, but which is not currently being done	'I just need to exercise more' 'Probably don't eat enough vegetables'
Do	An acknowledgment of something an individual or couple already engages in	'I do the colonoscopies so I'm good there' 'I got my weight down'
High-depth positive		
Problem-solving	Active or more extensive discussion of a factor and how it could be addressed, including concrete plans	'You're tired after work is the problem'. 'I know, but if we weren't going for a 45 minute walk, I probably would be more agreeable to it. You know, if we did 20 minutes …'
Explanation	Actively or more extensively providing a rationale for a factor an individual or couple values or already engages in	'I'm not scared anymore. When I came out [of the colonoscopy] it was like ok, they got 'em in that first time. That means we're doing okay and we'll just have to keep eyeing it'
High-depth negative		
Negation	Reducing or eliminating the importance of a factor	
Dismissal	Excusing a factor as something an individual/couple does not care about or is unwilling to change	'I'm not going to start taking daily aspirin for that condition to try and prevent it just because my brother has had it'
Minimization	Acknowledging the importance of the factor and a gap between current efforts and goal, but minimizing or rationalizing	'We don't have that much [junk food]. Well we have junk in the house … but not too bad'

Table 2. Demographic characteristics ($N = 32$).

Variable	*N*	%	Mean (SD)	Min	Max
Age			57.06 (7.07)	39	70
FDR gender					
Male	8	50			
Female	8	50			
Race/ethnicity					
White	29	91			
Hispanic/Latino	3	9			
Educational status					
High school diploma	3	9			
At least some college	29	90			
Income					
Over $40,000	30	94			
Declined to answer	2	6			
Smoking status					
Non-smoker	25	77			
Smoker	1	3			
Missing	6	20			
Hormone replacement therapy (women only)					
No	5	31			
Yes	6	37.5			
N/A; Missing	5	31			
Hours exercise per week			2.36 (4.9)	0	25
BMI			26.82 (4.75)	19.17	36.18
Worry about cancer (range 3–15; FDR)			6.50 (3.48)	3	13
Worry about cancer (range 3–15; Spouse)			6.78 (2.46)	3	13
Spousal influence (range 0–11; FDR)			3.81 (2.46)	0	7
Spousal influence (range 0–11; Spouse)			5.75 (3.38)	1	11

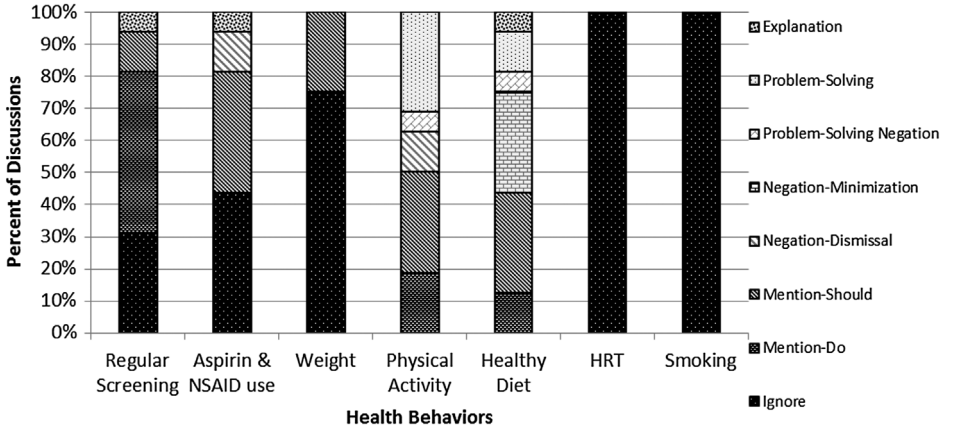

Figure 1. Couples' communication about CRC risk prevention health behaviors.

you've gotten the colonoscopy … We know now to go every five years and [CRC is] never gonna jump out … against you'. Despite short discussions, not much time is required to generalize behavior (Heyman et al., 2001).

All couples at least mentioned diet and physical activity. This emphasis may be due to large-scale messaging campaigns. While some mentions of health behaviors were simply acknowledgment of current engagement or need of engagement, there was also some evidence of positive spousal influence. One FDR commented, 'I certainly eat differently, way

different than I did when you met me'. While another FDR said, 'You bug me to eat better, lose weight. That's good. You've allowed me to go to the gym in the mornings … so that's helped'.

Problem solving occurred for physical activity and diet. For instance, one spouse brainstormed ways to get more exercise, 'We'll watch our program until 11, and you can get on the treadmill from 11 until 12 when I get your lunch ready … and then I go down on the treadmill until 1'. Another couple identified a key barrier to eating more vegetables and found a solution:

FDR: We forget to cook [vegetables].

Spouse: I don't know how to prepare broccoli or cabbage or cauliflower.

FDR: Yeah, they're easy. You need some more cooking lessons on vegetables?

Along with problem solving, some couples engaged in active explanation of current health practices. 'Preaching to the choir' may reinforce existing behaviors. For instance:

Spouse: I think just our healthy food choices is important because if you wanted to eat crappy all the time, or I wanted to eat crappy all the time, that would be bad. So we balance each other, we both kind of actively choose healthy foods, even when we are out and about and we enjoy doing things together.

Although we found spouses could be positive forces, couples frequently mentioned that they 'should' engage in behavior without creating a concrete plan to do so. One FDR said, 'We need to exercise more, and I need to drop some weight. I need to eat more of the leafy stuff', before moving on to discuss another topic. Later, he circled back to say, 'Bring in more leafy stuff, more veggies. I like veggies a lot actually. I could eat a lot of veggies'. His wife responded, 'Alright, we'll have to work on that more'. While both acknowledge that including more vegetables in their diet would be beneficial, they missed the opportunity to make a plan to actually increase their intake.

Spouses minimized and justified not engaging in health behaviors. One FDR, while discussing their diet, said '… Cold cuts are not good for you'. Though they both agreed, the FDR and spouse together proceeded to minimize how many cold cuts they ate weekly, which then expanded as they continued the discussion:

Spouse: No, but we don't have that many of that either … The only time we eat sandwiches are on the weekends'.

FDR: Pretty much … and Tuesdays because we work so late.

Spouses also often dismissed health behaviors. In one instance, the dismissal happened after a lengthy problem-solving discussion. The spouse was more active than the FDR and together they made plans to do shorter, more manageable walks that he'd be more likely to join. However, he followed this up by saying, 'I just wanna relax and take it easy', and the couple then joked together that rather than following through on their plans, he will end up on the couch playing video games.

Discussion

Knowledge is not enough to change health behaviors (Ferris, von Gunten, & Emanuel, 2001). Couples in our study overwhelmingly recognized the need to exercise, eat right, and maintain a healthy weight, even if they did not necessarily engage in those behaviors,

indicating that knowledge was not a barrier. Spousal influence may be an important factor for health behavior engagement by setting expectations, reinforcing expectations in the form of socialization and support, partnering and persuading (Manne, Etz, et al., 2012).

Most couples acknowledged the role of the spouse in risk prevention strategies. However, the social environment can have both positive and negative effects (Seeman, 2000). For example, we saw missed opportunities for influence. Participants also co-created norms about not exercising or eating healthy. This may reflect lack of willpower, avoiding discomfort, or guilt of being the 'unhealthy' one (Mackert, Stanforth, & Garcia, 2011). Additionally, some spouses may have been working to avoid 'nagging' (Rook, August, Stephens, & Franks, 2011). This darker side of social influence is often not accounted for in behavioral change programs.

Conclusion

Our study shows the need to address patients and families units to assess current practices and plan health behavior change. Clinicians should communicate the importance of health behaviors to both patients and spouses as well as provide specific metrics for compliance.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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