

## Intervention Impact on Employer Influence in Depression Product Discussions

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### INTRODUCTION

This brief report was written to clarify and extend the results presented in *Understanding the “Black Box” of Employer Decisions about Health Insurance Benefits: The Case of Depression Products* written by Kathryn Rost PhD, Airia Papadopoulou MPH, Su Wang MPH, and Donna Marshall MBA published in *Risks* 2013, 1, 1-x manuscripts; doi:10.3390/risks10x000x. The original paper presented a qualitative analysis of the content of company’s internal discussion about depression products in the year following the intervention. To generate the broadest possible range of responses for that manuscript, the authors included 32 respondents from four coalitions whose members were inappropriately randomized. This manuscript extends the original paper by analyzing intervention impact on internal and external discussion in the year following the intervention and respondent influence in that discussion in 239 (81.6%) of the 293 appropriately randomized respondents who completed one year follow-up. This paper is written as a brief report because our attempts to publish other manuscripts from this study revealed that few investigators read or contribute to this literature. The reader is referred to other publications on the study’s website [www.caremanagementfordepression.org/DMW](http://www.caremanagementfordepression.org/DMW) to learn more about the design and implementation of the original study. In short, each participating company nominated one senior health benefit professional as a respondent to provide baseline, 12 and 24 month data about their company. Participating respondents were randomized to a one hour presentation on evidence-based depression products or a comparable length presentation on HEDIS depression indicators.

As publications on this website demonstrate, many companies have the option to realize a return on investment from improved productivity by purchasing a depression product because these evidence-based products improve work productivity; however, few companies have purchased a depression product. Depression products are defined as a depression disease management program to assure all employees with depression have the opportunity to get high quality care for the condition by confidentially providing education, monitoring and clinician feedback. To better understand the barriers to this purchase, the research team drew upon the corporate purchasing literature, which notes that most companies conduct internal and external discussions in considering the purchase of a new product. When these discussions take place, respondents who participated in the intervention should potentially wield greater influence because the presentation provided them more extensive background.

### METHODS

The study measured internal discussion by asking the respondent whether in the 12 months following the intervention the organization had an internal discussion about depression products, defined as an email exchange, a telephone call, an in person meeting or a group meeting with other employees of the organization only. In internal discussion, the respondent wields some degree of influence. This study measured the degree of influence the respondent wielded during internal discussion by summing the number of six topics in which the respondent reported some or significant influence. Topics in internal discussion included the need for a depression product, the benefits of a depression product, the cost of a depression product, the complexity of a depression product, a comparison of different depression products, and confidentiality of a depression product. These topics were chosen during our pilot study which

identified common questions that employers had about depression products. Companies also conduct external discussions in considering a new product. External discussions are defined as an email exchange, telephone call, in-person meeting, or a group meeting with a vendor, with or without other employees of the organization. The study measured external discussion by asking the respondent whether in the 12 months following the intervention the organization had an external discussion about depression products, defined as an email exchange, a telephone call, an in person meeting or a group meeting with a vendor, with or without other employees of the organization. In external discussion, the respondent also wields some degree of influence. This study measured the degree of influence the respondent wielded during external discussion by summing the number of six topics in which the respondent reported some or significant influence. Topics in external discussion included the need for a depression product, the benefits of a depression product, the cost of a depression product, the complexity of a depression product, a comparison of different depression products, and confidentiality of a depression product.

In addition to the intervention, other organizational and respondent factors may also influence the discussion of depression products. These covariates are listed in Table 1 and defined in the manuscript *Intervention impact on depression product appraisal and purchasing behavior by employers: a randomized trial* in BMC Health Services Research 2014, 14:426 <http://www.biomedcentral.com/1472-6963/14/426>.

We analyzed the impact of the intervention and its accompanying covariates on the probability of internal discussion and respondent influence in internal discussion in two logistic regression equations. In the first equation, we entered all terms that were significant predictors of internal discussion in univariate analysis at  $p < .20$  or less in the equation for all respondents. In the second equation, we entered all terms that were significant predictors of influence during internal discussion in univariate analysis at  $p < .20$  or less in the equation for all respondents who reported any internal discussion. A parallel strategy was used to analyze the impact of the intervention and its accompanying covariates on the probability of external discussion and respondent influence in external discussion.

## RESULTS

The organizational and respondent characteristics of respondents participating in this study are described in Table 1. Previous manuscripts describe that respondents reported positive attitudes regarding depression products before the intervention. *Purchaser preferences in strategies to improve depression treatment* in Clinical and Experimental Medical Sciences 2013, 1: 161–175.

Two hundred thirty nine of these respondents completed one year follow-up (81.6%) with 235 of the 239 having complete values on internal and external discussion (98.3%).

### Internal Discussion and Influence

Fifty five of the 235 respondents (23.4%) reported internal discussion of depression products in the year following the intervention. The intervention had no impact on the probability of internal discussion ( $b=0.34$ ,  $p=.47$ ,  $OR=1.43$ ). The intervention had no impact on the influence these 55 respondents wielded during internal discussion ( $b=0.05$ ,  $p=.91$ ). On a scale of 1-6, the 24 intervention respondents who participated in internal discussion reported a mean influence of 1.83 compared to the 31 control respondents who reported a mean influence of 2.16.

Organizational predictors of internal discussion included the presence of a financial person in the benefit decision-making group ( $b=1.02$ ,  $p=.03$ ,  $OR=2.78$ ), benefit generosity ( $b=0.11$ ,  $p=.047$ ,  $OR=1.22$ ), and politicalization of the benefit decision-making ( $b=-0.61$ ,  $p=.02$ ,

OR=0.54). Respondent predictors of internal discussion included executive job title ( $b=.076$ ,  $p=.04$ , OR=2.13). Organizational predictors of influence during internal discussion included organizational size ( $b=.03$ ,  $p=.009$ ), organizational age, ( $b=.01$ ,  $p=.02$ ), and absenteeism monitoring ( $b=2.36$ ,  $p=.03$ ). Respondent predictors of influence during internal discussion included positive appraisal of depression product in social network ( $b=1.36$ ,  $p=.03$ ) and perceived influence over the decision-making process ( $b=.066$ ,  $p=.02$ ).

#### External Discussion and Influence

Thirty six of the 235 respondents (15.3%) reported external discussion of depression products in the year following the intervention. The intervention had no impact on the probability of external discussion ( $b=-0.81$ ,  $p=.17$ , OR=0.44). The intervention had no impact on the influence these 36 respondents wielded during external discussion ( $b=0.09$ ,  $p=.12$ ). On a scale of 1-6, the 11 intervention respondents who participated in external discussion reported a mean influence of 1.18 compared to the 25 control respondents who reported a mean influence of 1.68.

Organizational predictors of external discussion included benefit generosity ( $b=0.34$ ,  $p=.001$ , OR=1.41), and the perceived prevalence of depression in the workforce ( $b=-1.55$ ,  $p=.007$ , OR=4.76). Respondent predictors of internal discussion included executive job title ( $b=1.36$ ,  $p=.02$ , OR=4.00). No organizational or respondent characteristics predicted influence in external discussion.

## DISCUSSION

Although the intervention deliberately provided positively disposed respondents with clear 'sound bites' to encourage them to introduce the idea of depression product purchase to their company, the intervention was not successful in motivating respondents to take the first step in the purchase product. Since the intervention stimulated internal discussion in most if not all participants in our pilot study, the research team did not recognize the need to collect extensive information on modifiable barriers to internal discussion when the team planned data collection. The study was more successful in characterizing companies ready to take this initial step in the purchase process. Companies who provide generous benefits, whose benefit decision-making group includes a financial person, whose decisions are less driven by political factors, and whose respondents had executive titles were more likely to discuss depression products during the year following the intervention. When internal discussion occurred, respondents reported a modest degree of influence despite the fact they were probably the most knowledgeable person in the room. Respondents had more influence over internal discussion in larger and older organizations who monitored absenteeism. Respondents who indicated they played a central role in benefit decision-making also exerted more influence in internal discussion. Interestingly, these respondents were likely to be members of social networks which positively appraised depression products at baseline.

It is not surprising that an intervention which fails to stimulate internal discussion has little impact on external discussion. Companies with greater benefit generosity, companies who perceived greater depression prevalence, and companies represented by respondents with executive job titles were more likely to pursue external discussion. Respondents who participated in external discussion with vendors reported even less influence than they had in internal discussion, suggesting that vendors may be marketing their product rather than addressing employer questions about it. No characteristics predicted extent of influence.

The field clearly needs a better understanding of how to stimulate employers to conduct informed internal discussion of evidence-based health benefits as the first step in building payer demand for evidence-based care. Studies on the range and magnitude of barriers that senior health benefit professionals face in their attempts to introduce evidence-based benefits will make valuable contributions to the almost non-existent literature in this area. We suspect these studies will conclude that interventions to increase internal discussion will in all likelihood need to be tailored to the company's culture (note that none of the financing variables were significant predictors of discussion/influence even though the study was conducted in the midst of a major recession). Generous companies with transparent benefit review processes will benefit from very different interventions than companies with the opposite characteristics. These cultural characteristics may also impact the degree of influence a respondent has once a discussion has begun. It is possible that larger mature companies concerned about worker productivity expect their senior health benefit professionals to identify and lobby for promising new benefits, while smaller new companies regard this behavior as out of role. Interventions like reverse role play which naturally lend themselves to tailoring may be more successful than the 'one size fits all' intervention we tested. As the field progresses, researchers may find consistent predictors of external discussion that parallel factors like benefit generosity this study identified. Given that respondents report even less influence in external discussions than they do in internal ones, interventions to negotiate employer skills to negotiate what they want versus purchase what's for sale, may be very useful in increasing employer demand for evidence-base care. And even though it will make recruitment more difficult, we highly recommend future research initiatives recruit only health benefit professionals with executive title as respondents with lesser stature may not perceive sufficient power to raise new benefit products for internal consideration or external discussion.

Table 1: Organizational and Respondent Characteristics of Respondents at Baseline	Overall (n=293)	Intervention (n=140)	Control (n=153)
<b>Organizational Characteristics</b>			
Number of U.S. (SD) sites	23.4 (114.0)	32.6(156.7)	15.0 (47.2)
Size			
% small (100 to 500 employees)	34.1	30.7	37.3
% medium (501 to 2500 employees)	30.4	30.0	30.7
% large (2501 plus employees)	35.5	39.3	32.0
Type			
% for-profit	57.0	53.6	60.3
% not-for-profit	21.0	23.6	18.5
% public sector	22.0	22.8	21.2
Company age (SD)	75.9 (47.9)	76.8 (50.1)	75.0 (45.0)
% with any absenteeism monitoring	73.2	74.1	72.4
% with any productivity at work monitoring	56.4	53.8	58.7
Mean size of health benefit purchasing group (SD)	7.1 (6.4)	7.2 (6.5)	7.0 (6.4)
% centralized decision making	93.8	95.0	92.8
% local decision making	85.6	89.2	82.3
% purchasing groups with finance representative	80.1	78.5	81.7
% National Business Coalition on Health (NBCH) member	72.7	71.4	73.9
Mean depression impact (SD) *	2.4 (0.5)	2.5 (0.5)	2.4 (0.5)
% estimating depression prevalence greater than or equal to 11%	51.8	50.8	52.8
Mean number of health plan carriers (SD)	2.2 (2.5)	2.3 (2.9)	2.1 (2.1)
Insurance risk			
% fully insured	21.5	23.9	19.3
% self-insured	48.3	46.4	50.0
% mixture of full and self-insured	30.2	29.7	30.7
Health benefit generosity	6.3 (3.0)	6.4 (2.9)	6.2 (3.1)
% with any mental health carveout	18.2	20.8	18.7
% with Employee Assistance Program (EAP)	80.4	80.6	80.3
Mean health benefit risk taking (SD) *	2.3 (0.5)	2.3 (0.5)	2.4 (0.5)
Mean new health benefit resources (SD) *	2.5 (0.7)	2.5 (0.7)	2.6 (0.7)
Mean expected % premium increase (SD)	7.4 (5.2)	7.8 (5.1)	6.9 (5.2)
Mean politicalization of health care benefit decision-making (SD)*	1.6 (0.8)	1.6 (0.8)	1.6 (0.9)
Mean estimated return on investment with depression (SD)	2.5 (2.0)	2.5 (2.1)	2.4 (2.0)
% knowledge of any vendor who sells depression products	50.0	51.8	48.3
% previous pursuit of depression product at baseline (SD)	1.4 (0.8)	1.4 (0.8)	1.5 (0.9)
<b>Respondent Characteristics</b>			
% female	69.8	71.2	67.9

% racial/ethnic minority*	13.6	17.1	9.2
Median age	41-50 years	41-50 years	41-50 years
% moderate to complete influence over benefit decision-making	74.5	76.4	73.2

\* scale of 1-4 with higher scores representing greater amounts of the construct

+ p<.05

SD= standard deviation