Behavioral Health Services for Women Who Have Breast Cancer

Vanessa Azzone, Richard G. Frank, Juliana R. Pakes, Craig C. Earle, and Michael J. Hassett

ABSTRACT

Purpose

To explore whether the use of behavioral health services (BHS) among women with breast cancer is influenced by how insurance plans administer these services, we compared utilization of psychotherapy and psychotherapeutic medications among women with breast cancer who received BHS coverage through a carve-out versus integrated arrangement.

Patients and Methods

We analyzed insurance claims, enrollment data, and benefit design data from the MarketScan Commercial Claims & Encounters Research Database for the years 1998 to 2002 for women ≤ 63 years old with newly diagnosed breast cancer. We compared the probability of receiving psychotherapy, the likelihood of receiving antidepressant/antianxiety/hypnotic medications, and the number of psychotherapy sessions used during the year after a breast cancer diagnosis among women whose behavioral health services were provided through carve-out versus integrated arrangements.

Results

Women enrolled in carve-outs were significantly less likely to receive any psychotherapy visits compared with women in integrated arrangements (odds ratio, 0.68; $P < .01$). Conditional on having received psychotherapy, however, women in carve-out arrangements used more psychotherapy visits than women in integrated arrangements. The use of antianxiety/hypnotic drugs was significantly higher for women in carve-out arrangements versus women in integrated arrangements (36.1% v 32.6%, $P < .05$). Moreover, women who received psychotherapy were significantly more likely to receive antidepressants and antianxiety/hypnotic medications (five and three times more likely, respectively).

Conclusion

The type of BHS arrangement was associated with the utilization of psychotherapy and psychotherapeutic medications among women with breast cancer.

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INTRODUCTION

Breast cancer is the most common nondermatologic cancer among women in the United States and the leading cause of death among women 40 to 55 years old. More than 211,000 American women are diagnosed with, and 43,300 die as a result of, breast cancer each year. One woman in eight will develop breast cancer in her lifetime.^{1,2} Advances in the diagnosis and treatment of breast cancer during the last quarter century have improved the chance of cure for women who have localized breast cancer and have prolonged the survival of women who have metastatic breast cancer.^{3,4,5} At the same time, awareness of the psychological impact of breast cancer, its treatment, and its consequences has increased significantly. Breast cancer patients are at higher risk for depression and anxiety than non-

cancer patients.⁶⁻¹⁰ They can also experience fear of recurrence, concerns about mortality, body image disruption, sexual dysfunction, treatment-related anxiety, intrusive thoughts about illness, impaired partner communication, and vulnerability.¹¹

Although 22% to 40% of women who have breast cancer experience significant psychological distress,¹¹⁻¹³ at most only 30% of those who experience this distress receive a psychosocial intervention.^{9,11} This is concerning, because studies of psychosocial interventions administered in both randomized clinical trials and usual care settings have demonstrated benefits for women at all stages of illness. These data support the integration of psychosocial interventions into comprehensive medical care.¹⁴⁻¹⁸

Regardless of who provides the care or where it is provided, most psychosocial services are covered

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The Appendix is included in the full-text version of this article, available online at www.jco.org. It is not included in the PDF version (via Adobe® Reader®).

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under a health plan's mental health benefit. (Together with substance abuse health care, this is also known as behavioral health care). Compared with general medical services, behavioral health coverage has traditionally faced stricter benefit limits and higher cost sharing.¹⁹⁻²¹ Most insurers carve out the behavioral health benefit from the overall health insurance risk.²² These behavioral health carve-outs are administered and managed separately, usually via a specialized vendor that operates within a separate budget. These arrangements may help to control costs for health plans and patients by taking advantage of specialized expertise in managing behavioral health care, compiling exclusive provider networks that offer services at discounted rates, incorporating care management and utilization review processes, and isolating the behavioral health budget.²³⁻³³ However, carve-outs may create additional administrative costs that range from 8% to 20% of total behavioral health expenditures. Moreover, separating payers' responsibilities for the different segments of care could lead to fragmentation of care and cost shifting.³⁴ Health plans that do not carve out their behavioral health services (ie, plans that use the same administration and management systems to provide behavioral health as well as other kinds of benefits), are considered as ones that offer integrated benefits.

More important, but still unclear, is whether behavioral health care can be delivered more effectively in an integrated environment or via a specialized carve-out contract. Behavioral health care provided through specialty carve-out arrangements may be more appropriate than behavioral health care delivered by primary care physicians. However, for complex clinical circumstances that involve medical and behavioral health problems, such as those experienced by women who have breast cancer, the design features of carve-out arrangements may create impediments to access, coordination, and management of health and behavioral health services. Moreover, women rely more heavily on general medical providers than men.³⁵ Many experts in breast cancer care have recommended the integration of psychosocial interventions within the comprehensive medical and specialized cancer treatment settings.^{11,14-18}

We explored the impact of different organizational arrangements for behavioral health care in private insurance on the behavioral services provided to women who have breast cancer. In particular, we compared the utilization of psychotherapy and psychotherapeutic medications when behavioral health services were organized and paid for through an integrated health plan or when they were contracted out to a specialized vendor through a carve-out arrangement. We hypothesized that the financial incentives created by carve-out arrangements would lead to less frequent use of psychotherapy services and to more frequent use of prescriptions for antidepressant and antianxiety/hypnotic medications.

PATIENTS AND METHODS

Data Source and Study Population

The data sources for this analysis included claims, enrollment, and benefit design information that came from the MarketScan Commercial Claims and Encounters Research Database for the years 1998 through 2002. Medstat compiles this database from claims submitted to health plans that contract with large private employers, public agencies (state and local governments), and public organizations in the United States. The health plans provided employer-sponsored, private, fee-for-service, or capitated health insurance to employees and their covered dependents. The database tracks longitudinally,

at the patient level, all inpatient, outpatient, and prescription claims, as well as benefit design characteristics, for as long as employees stay with their employers.

We included women aged 18 to 63 years who had two breast cancer diagnoses (International Classification of Diseases, 9th revision [ICD9]-174.x) that were separated by 30 days but had no other cancer diagnosis. Women 64 years or older were excluded, because their claims would have been submitted to Medicare as soon as they reached age 65 years. We restricted the sample to women who were enrolled in a health plan for at least 3 months before and 12 months after their first breast diagnosis (unless they entered hospice or died during the admission) and to women who had at least one face-to-face encounter for which a breast cancer diagnosis code was recorded (ICD9-174.x). We additionally restricted the sample to women for whom behavioral health benefit design data were available. Some plans did not provide complete benefit design data to Medstat. We were able to retrieve the type of behavioral health benefit arrangement for 74.6% of the women who met the other inclusion criteria. The exclusion of patients without behavioral benefit data did not significantly alter the underlying characteristics of the study population.

For each woman, we extracted data on age, relation to the primarily insured employee, health plan type, comorbid diagnoses, and metastasis status. We also extracted claims for drug prescriptions, cancer treatments received within the first 12 months of the breast cancer diagnosis (mastectomy/lumpectomy, chemotherapy, radiation therapy, or antiestrogen/antibody treatments), hospitalizations, and/or emergency room visits, and serious adverse effects (SAEs) of therapy, as defined by Hassett et al.³⁶ The 12-month cutoff was chosen to identify all initial breast cancer treatments and any psychosocial care that immediately followed the initial breast cancer diagnosis. Comorbid diagnoses were defined by using a modification of the method developed by Charlson et al;³⁷⁻³⁹ cancer diagnoses were excluded from this calculation, however. Metastatic status was identified by using diagnostic codes for secondary malignant neoplasm (ICD9-197.x, -198.x and -199.x). From the benefit design section of the database, we extracted information on the costs incurred by patients for their outpatient psychiatric care, which were measured as the percentage of outpatient psychiatric costs a patient had to pay after the deductible was met. Outpatient prescription data were available for 80% of the sample; some health plans did not provide prescription data to Medstat. Hassett et al³⁶ provides a complete list of procedure codes and drug codes used to define cancer treatments.

We defined three outcome variables (ie, psychotherapy visits, antidepressant medications, and antianxiety/hypnotic medications) on the basis of the presence of at least one claim for each service within 12 months after the first breast cancer diagnosis. Psychotherapy visits were identified by using procedure codes listed in the outpatient claims (Appendix Table A1, online only). Antidepressant and antianxiety/hypnotic medications were identified by using national drug codes in the outpatient prescription claims (Appendix Table A2, online only). We were able to assess the number of psychotherapy sessions within 12 months of the first breast cancer diagnosis by using information from the outpatient claims.

Statistical Methods

To test the impact of the type of behavioral health arrangement on the utilization of behavioral health services, we implemented a cross-sectional comparison. Our population was divided into two cohorts: women whose behavioral health services were provided by a carve-out at the time of the first breast diagnosis and those whose behavioral health services were provided by an integrated arrangement. Those enrolled in carve-out arrangements were more likely to be spouses or dependents, rather than the primary insured/employed person (43.5% v 35.3%; $P < .01$; data not shown), and were more likely to use emergency room visits (17.8% v 13.8%; $P < .01$; data not shown). They were less likely to have metastases (9.3% v 12.8%; $P < .01$; data not shown), to be admitted to the hospital (30.3% v 34.5%; $P < .01$; data not shown), and to receive treatment for breast cancer, in particular, radiation therapy and immune/hormonal medications (38.1% v 41.7% [$P < .01$] and 55.3% v 60.3% [$P < .01$], respectively; data not shown). We used propensity score matching⁴⁰⁻⁴² to balance the observable covariates in these two groups. The propensity score predicted the probability of being in a carve-out arrangement by using the following predictors: age, relation to the primary employed

person, health plan type, comorbidity score, and metastatic status. Women who were not in a carve-out arrangement were matched 1:2 with women who were in a carve-out arrangement. The distance between the logits was such that the predicted probabilities of 96% of the matched pairs were no greater than 0.025. We were able to match 86% of the non-carve-out arrangement sample, which yielded a matched population of 8,068 women. All subsequent analyses were conducted on the matched sample.

We estimated logistic regressions on the probability that women who had breast cancer would receive any behavioral health services, defined as psychotherapy use or antidepressants/antianxiety/hypnotic medications use. We compared women enrolled in carve-out arrangements versus women in integrated health insurance arrangements. We also estimated a linear regression model on the number of psychotherapy sessions. Statistical analyses were performed with SAS software (SAS Institute, Cary, NC). Binary and categorical variables were compared with the Fisher's exact and χ^2 tests, respectively. Odds ratios were expressed with their 95% confidence intervals.

RESULTS

The characteristics of the matched sample were similar to the characteristics of the original, unmatched population (Table 1). A majority

of the women (68.7%) were 50 to 63 years old, and most were enrolled in noncapitated health plans (only 26.0% were enrolled in health maintenance organizations). Few (10.5%) had ICD-9 diagnostic codes for metastatic cancer, though this may underestimate the proportion of patients who had stage IV breast cancer, because 40.5% did not have surgery for breast cancer.

Table 2 lists the results from a multivariate logistic regression model of the probability of receiving any psychotherapy services. Our main independent variable of interest was the type of behavioral health service benefit—carve-out versus integrated arrangement. We found that women enrolled in carve-out arrangements were significantly less likely than women enrolled in integrated arrangements to have psychotherapy encounters (odds ratio [OR], 0.68; $P < .01$). Other variables associated with lower odds of any psychotherapy included older age (OR, 1.64; $P < .05$ for age group < 40 years). Women who had a comorbidity score of at least one were significantly more likely to have a psychotherapy encounter (OR, 1.70; $P < .05$). Women who received chemotherapy or who were enrolled in a health plan that had higher cost sharing for

Table 1. Characteristics of the Sample Before and After Propensity Score Matching

Characteristic	Population (%)					
	Before Matching			After Matching		
	Carve-Out (n = 5,998)	Integrated (n = 3,128)	Total (n = 9,126)	Carve-Out (n = 5,378)	Integrated (n = 2,690)	Total (n = 8,068)
Age, years						
< 40	5.3	5.2	5.2	5.1	5.4	5.2
40-49	26.6	24.9	26.1	27.2	25.9	26.7
50-63	68.1	69.9	68.7	67.8	68.8	68.1
Employee status						
Employee	56.5	64.7	59.3	62.7	61.8	62.4
Health plan type						
Basic/comprehensive	27.9	34.5	30.2	31.1	32.0	31.4
Preferred provider organization	34.7	37.5	35.7	38.7	39.2	38.9
Health maintenance organization	30.1	18.1	26.0	22.0	20.9	21.7
Point-of-service plan	6.3	9.9	7.5	7.0	7.9	7.3
Stage						
Metastatic	9.3	12.8	10.5	9.7	10.1	9.8
Severity						
Comorbidity score > 1	5.5	5.4	5.5	5.1	5.3	5.2
Adverse effects of therapy	36.0	36.9	36.3	36.4	36.4	36.4
Hospitalizations	30.3	34.5	31.7	30.5	34.2	31.7
ER visits	17.8	13.8	16.4	18.0	13.6	16.5
Cancer therapies						
Breast cancer surgery	59.0	60.4	59.5	59.2	60.2	59.5
Radiotherapy	38.1	41.7	39.3	34.0	31.8	39.2
Chemotherapy	33.8	33.3	33.6	38.2	41.2	33.2
Cancer drug therapy*	55.3	60.3	57.3	55.3	59.5	56.9
Psychosocial services						
Psychotherapy	6.6	8.5	7.3	6.8	8.2	7.3
Medication management	4.1	5.5	4.6	4.0	5.5	4.5
Psychiatric diagnostic testing						
Any mental health visit	8.4	10.1	9.0	8.5	10.0	9.0
Antidepressant use*	30.5	29.6	30.2	31.2	29.5	30.5
Antianxiety/hypnotic use*	35.9	33.6	35.0	36.1	32.6	34.8
Outpatient psychiatric care cost						
Psychotherapy coinsurance	8.4	21.4	12.8	9.0	21.7	13.3

Abbreviation: ER, emergency room.

*The sample for which prescription drug claims were available included 7,348 women before matching and 6,389 women after matching.

Table 2. Use of Any Psychotherapy

Characteristic	Analysis	
	Odds Ratio	95% CI
Type of group		
Carve-out*	0.68	0.56 to 0.82
Integrated arrangement	Reference	
Age, years		
< 40†	1.64	1.17 to 2.30
40-49	1.11	0.91 to 1.34
50-63	Reference	
Employee status		
Employee	1.24	1.03 to 1.48
Health plan type		
Preferred provider organization	0.94	0.76 to 1.16
Health maintenance organization†	0.78	0.61 to 1.00
Point-of-service plan	0.75	0.53 to 1.07
Basic/comprehensive	Reference	
Stage		
Metastatic	1.29	0.98 to 1.69
Severity		
Comorbidity score > 1†	1.70	1.23 to 2.34
Adverse effects of therapy	1.17	0.97 to 1.41
Cancer therapies		
Breast cancer surgery	1.19	0.96 to 1.47
Radiotherapy	1.03	0.84 to 1.26
Chemotherapy†	0.74	0.60 to 0.92
Outpatient psychiatric care cost		
Psychotherapy coinsurance*	0.98	0.97 to 0.99
Data		
No. of observations used	8,068	
Wald χ^2 (14)	78.86	
Prob > χ^2	< .01	
-2 log likelihood	4,129.11	

* $P < .01$.
† $P < .05$.

psychiatric care/visits were less likely to any have psychotherapy visits (OR, 0.74 [$P < .05$] and 0.98 [$P < .01$], respectively). Women enrolled in health maintenance organizations were significantly less likely to have a psychotherapy encounter compared with women enrolled in basic/comprehensive plans (OR, 0.78; $P < .05$); there was no significant difference for women enrolled in other types of plans.

After we restricted the sample to women who received some psychotherapy, we analyzed whether the number of psychotherapy sessions was associated with the type of mental health arrangement. Women in carve-out arrangements used more psychotherapy visits than women in integrated arrangements (Table 3). Moreover, women in preferred provider plans used fewer psychotherapy visits than the women in basic/comprehensive plans (ce, -3.07; $P < .01$).

When we considered only those women for whom outpatient prescription data were available and when we did not restrict analysis for psychotherapy use, we compared psychotherapeutic drug use between women in carve-out and integrated arrangements. We found the use of antianxiety/hypnotic drugs was significantly higher for women in carve-out arrangements (36.1% v 32.6%; $P < .05$; data not shown). Moreover, women who had psychotherapy encounters re-

Table 3. Number of Psychotherapy Visits

Characteristic	Analysis		
	Coefficient Estimate	Standard Error	P
Type of group			
Carve-out*	2.33	1.00	.02
Integrated arrangement	Reference		
Age, years			
< 40	0.56	1.78	.75
40-49	1.76	1.02	.09
50-63	Reference		
Employee status			
Employee	1.40	0.96	.15
Health plan type			
Preferred provider organization†	-3.07	1.12	.01
Health maintenance organization	-2.32	1.32	.08
Point-of-service plan	-1.62	1.86	.38
Basic/comprehensive	Reference		
Stage			
Metastatic	0.95	1.43	.51
Severity			
Comorbidity score > 1	-2.92	1.67	.08
Adverse effects of therapy	1.81	0.96	.06
Cancer therapies			
Breast cancer surgery	0.41	1.13	.72
Radiotherapy	0.09	1.04	.93
Chemotherapy	-1.41	1.14	.22
Outpatient psychiatric care cost			
Psychotherapy coinsurance	0.03	0.04	.44

* $P < .01$.

† $P < .05$.

ceived significantly more antidepressant and antianxiety/hypnotic medications (five times more likely and three time more likely, respectively; data not shown).

The multivariate logistic regression that predicted the probability of antidepressant and antianxiety/hypnotic use (Tables 4 and 5, respectively) showed that the carve-out variable was not a significant predictor in either model. Younger women were less likely to use antidepressants than older women (OR, 0.68 [$P < .05$] for women in the age group < 40 years and 0.88 [$P < .05$] for women in the age group 40 to 49 years; Table 4), and women who underwent surgery or radiation for breast cancer were more likely to receive antidepressants (OR, 1.29 [$P < .05$] and 1.14 [$P < .05$], respectively; Table 4). Also, women who had comorbid diagnoses or who experienced an SAE of therapy were more likely to receive both antidepressant and antianxiety/hypnotic medications (OR, 1.71 [$P < .01$] and 1.48 [$P < .01$], respectively, for antidepressants; OR, 1.31 [$P < .05$] and 1.44 [$P < .01$], respectively, for antianxiety/hypnotic medications; Tables 4 and 5). Women who had metastatic disease and women who underwent surgery or who received chemotherapy for breast cancer were more likely to receive antianxiety/hypnotic medications (OR, 1.42 [$P < .01$], 1.76 [$P < .01$], and 2.34 [$P < .01$], respectively; Table 5). Women enrolled in a health plan that had higher cost sharing for psychiatric care/visits were less likely to any have psychotherapy visits (OR, 0.99; $P < .05$).

Table 4. Use of Any Antidepressant Drug

Characteristic	Analysis	
	Odds Ratio	95% CI
Type of group		
Carve-out	1.04	0.92 to 1.18
Integrated arrangement	Reference	
Age, years		
< 40*	0.68	0.53 to 0.89
40-49*	0.88	0.77 to 0.99
50-63	Reference	
Employee status		
Employee	1.09	0.97 to 1.22
Health plan type		
Preferred provider organization	1.05	0.92 to 1.21
Health maintenance organization	0.97	0.83 to 1.13
Point-of-service plan	0.98	0.78 to 1.22
Basic/comprehensive	Reference	
Stage		
Metastatic	1.17	0.98 to 1.41
Severity		
Comorbidity score > 1†	1.71	1.36 to 2.14
Adverse effects of therapy†	1.48	1.32 to 1.66
Cancer therapies		
Breast cancer surgery*	1.29	1.13 to 1.49
Radiotherapy*	1.14	1.00 to 1.29
Chemotherapy	1.06	0.93 to 1.21
Outpatient psychiatric care cost		
Psychotherapy coinsurance	0.99	0.99 to 1.00
Data		
No. of observations used	6,389	
Wald χ^2 (14)	157.48	
Probability > χ^2	< .01	
-2 log likelihood	7,701.82	

* $P < .05$.† $P < .01$.**Table 5.** Use of Any Anti-Anxiety/Hypnotic Drug

Characteristic	Analysis	
	Odds Ratio	95% CI
Type of group		
Carve-out	1.10	0.98 to 1.24
Integrated arrangement	Reference	
Age, years		
< 40	1.10	0.87 to 1.40
40-49	0.97	0.85 to 1.10
50-63		
Employee status		
Employee	1.02	0.90 to 1.14
Health plan type		
Preferred provider organization	1.11	0.96 to 1.28
Health maintenance organization	1.13	0.97 to 1.32
Point-of-service plan	1.07	0.86 to 1.34
Basic/comprehensive	Reference	
Stage		
Metastatic*	1.42	1.18 to 1.69
Severity		
Comorbidity score > 1†	1.31	1.03 to 1.66
Adverse effects of therapy*	1.44	1.28 to 1.62
Cancer therapies		
Breast cancer surgery*	1.76	1.53 to 2.02
Radiotherapy	1.04	0.92 to 1.18
Chemotherapy*	2.34	2.06 to 2.66
Outpatient psychiatric care cost		
Psychotherapy coinsurance†	1.00	0.99 to 1.00
Data		
No. of observations used	6,389	
Wald χ^2 (14)	615.10	
Probability > χ^2	< .01	
-2 log likelihood	7,582.63	

* $P < .01$.† $P < .05$.

DISCUSSION

Many women who learn that they have breast cancer may experience severe anxiety, depression, shock, and disbelief. They face multiple medical consultations and treatment decisions, and they often must endure treatments that make them more vulnerable and cause considerable suffering.³⁶ Moreover, they are forced to deal with the disfiguring consequences of treatments and the uncertain risks of recurrence and death. Because women cannot expect to require psychosocial care to deal with these challenges before they are diagnosed with breast cancer, their need for these behavioral health services is unexpected. For all these reasons, new or increased utilization of psychosocial services may occur.

We focused only on psychosocial services provided as part of the health plan behavioral benefit. These usually include screening, counseling, psychotherapy sessions, and medications (ie, antidepressant and anti-anxiety/hypnotic medications). We studied differences in utilization of these services between women who had breast cancer and who were enrolled in plans that provided behavioral health benefits via carve-out versus integrated arrangements. Our first hypothesis was that carve-out arrangements impede access to psychotherapy com-

pared with integrated arrangements, because they increase fragmentation of care, introduce barriers to the access of psychotherapy, and create incentives to shift costs. We also hypothesized that women in carve-out arrangements received more antidepressant and anti-anxiety/hypnotic medications than women in integrated arrangements, because we thought medication therapy would substitute for psychotherapy in the carve-out setting.

Forty percent of all women who have breast cancer received some behavioral health care (ie, psychotherapy visits or antidepressant or anti-anxiety/hypnotic medications), which is greater than some aggregate need estimates.^{9,11} Women enrolled in carve-out arrangements were significantly less likely to receive any psychotherapy visits. Among those who did receive psychotherapy visits, women in carve-out arrangements used more visits than those in integrated arrangements. Hence, the carve-out arrangement appeared to limit access to psychotherapy services, but the number of psychotherapy visits was higher for women in carve-out arrangements once access was established. Moreover, women who had psychotherapy visits received significantly more antidepressants and anti-anxiety/hypnotic medications, which reinforced the fact that, once access to psychotherapy was established, women in carve-out arrangements used more behavioral health services. Perhaps women in carve-out arrangements

had more visits and used more psychotherapeutic medications, because only those with the most severe problems were able to access behavioral health services.

Risk factors that have been associated with psychosocial distress among women who have breast cancer include younger age, more advanced cancer stage, impaired performance status, other comorbid medical conditions, inadequate social support, psychological distress, or a history of depression or other pre-existing mental illness.¹¹ Young women may find the diagnosis harder to accept for several unique reasons: they view the illness as a rare, unexpected event, they face a poorer prognosis than older women, they may have dependent children, and they have to deal with the risk of infertility. We were able to control for age, comorbid conditions, and metastatic status as risk factors. We also controlled for the type of health coverage and the out-of-pocket costs of psychotherapy. Our results confirmed that younger age and more comorbid conditions are risk factors for the use of psychotherapy services. They also showed that poorer health status (measured by comorbidity diagnosis, metastatic status, and occurrence of an SAE of therapy) was associated with higher use of antidepressants and antianxiety/hypnotic medications. Although we expected that younger women would be more likely to receive psychotropic medications, we found the converse to be true. Prospective studies would better elucidate the relationship between psychosocial distress, age, and breast cancer.

We acknowledge limitations in this study. This population was restricted to women younger than 65 years who had employer-sponsored insurance. We had no information on race or ethnicity. Moreover, we used claims data, which provide less than optimal accuracy regarding each patient's health and behavioral health problems and possibly provide an incomplete picture of the services provider (because they focus only on what was billed). We also could not control for severity of mental illness, past use of behavioral services, income, or pre-existing provider relationships, as these data were not part of the Medstat data.

These results suggest that there is differential utilization of behavioral health services for women who have breast cancer and

who receive their behavioral health services via carve-out versus integrated arrangements. Providers who care for women who have breast cancer and who refer patients for behavioral health services should realize that some patients experience more barriers than others when they try to access psychosocial services. Modification of carve-out contracts and administrative arrangements could permit more coordination between general health care and specialized cancer care and could correct for the differential utilization of behavioral health services provided by the current system. Allowing medical settings to bill carve-outs for behavioral health care, sharing the risk for complex cases (and/or adjusting case rates), and implementing performance standards aimed at complex cases are different approaches that could correct the distorted cost-shifting incentives, limited access to, and use of behavioral health services for women with breast cancer enrolled in a carve-out arrangements.¹⁸

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The author(s) indicated no potential conflicts of interest.

AUTHOR CONTRIBUTIONS

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