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A Randomized Trial of Collaborative Depression Care in Obstetrics and Gynecology Clinics: Socioeconomic Disadvantage and Treatment Response

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Abstract

Objective—To evaluate whether an Obstetrics-Gynecology clinic-based collaborative depression care intervention is differentially effective compared to Usual Care for socially disadvantaged women with either no health insurance or public coverage compared to those with commercial insurance.

Methods—A two-site randomized, controlled trial with 18-month follow-up recruited women who screened positive (PHQ-9 ≥ 10) and met criteria for major depression and/or dysthymia. We tested whether insurance status modified Intervention versus Usual Care continuous depression outcomes over 18 months. We also describe Intervention versus Usual Care differences in quality of depression care and dichotomous clinical outcomes (≥ 50% decrease in depressive symptoms and Patient Global Improvement).

Results—There was a significant modification of the treatment effect by insurance status ($p=0.05$). Patients in the no insurance or public coverage group had greater recovery from depression symptoms with collaborative care versus Usual Care over the 18-month follow-up period compared to the commercial insurance group. At 12-month follow-up, women in the no insurance or public coverage group had an effect-size for depression improvement versus Usual Care of 0.81 (95% CI 0.41, 0.95), whereas women with commercial insurance had an effect size for Intervention versus Usual Care of 0.39 (95% CI -0.08, 0.84).

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Conclusion—Collaborative depression care adapted to Obstetrics-Gynecology settings had greater impact on depression outcomes for socially disadvantaged women with no or public insurance compared to women with commercial insurance.

Markers of social disadvantage, such as lack of health insurance, low income, unemployment, less educational attainment, and single parenthood, have been linked to higher rates of major depression and anxiety disorders in the general population (1-4). Markers of poverty are also associated with more persistent depression (5-8). Lack of health care insurance and the low payment rates provided for mental health services by public insurers in many states likely limit access to evidence-based mental health services (9). Also, the chronic stressors that socially disadvantaged women face, such as lack of transportation, housing problems, and lack of day care services, may be barriers to initiating or continuing mental health care (1, 7-9).

Little is known about the impact of health insurance status in women on the effectiveness of evidence-based depression or anxiety care models and response to treatment. Lack of health insurance or publicly funded health insurance is often a proxy for socioeconomic disadvantage and greater psychosocial vulnerability. Several research groups have emphasized the need to do extensive outreach and patient engagement in order to successfully recruit and maintain low-income minority women with lack of health insurance or public insurance in treatment (10, 11). Two trials have found that the incremental effect of collaborative care versus usual primary care in improvement in mental health symptoms was as great in low-income patients as middle- to high-income patients (12, 13). However, both of these studies also found that low-income patients started with greater mental and physical health impairments and that low-income patients treated with collaborative care had higher levels of psychological distress at 12-months than middle-income patients treated with collaborative care.

Many women with limited income, and limited or no health insurance, utilize Obstetrics-Gynecology- clinics or women's clinics affiliated with university or county hospitals as their main source of primary care (14). However, several studies have documented that Obstetrics-Gynecology physicians have less confidence than other primary care physicians in their ability to recognize depression and their skills in treating this disorder (15). The Depression Among Women Now (DAWN) study completed by our research team found that integrating collaborative depression care in two university-affiliated Obstetrics-Gynecology clinics improved quality of depression care as well as depressive and functional outcomes compared to Usual Care (16).

The purpose of this analysis from the DAWN study (16) was to determine whether a collaborative depression care program designed to treat women with major depression in Obstetrics-Gynecology- settings was as effective in treating socially disadvantaged women with either no health insurance or public coverage (Washington State, Medicaid or Medicare) compared to women with commercial insurance.

Methods

A randomized-controlled trial with blinded assessment evaluated the effectiveness of a collaborative depression care program versus Usual Care for patients in Obstetrics-Gynecology clinics. Women were randomized to a 12-month Intervention program versus Usual Care, with blinded 6-, 12- and 18-month assessments. The University of Washington Institutional Review Board approved the study, all participants gave written informed consent, and a Data Monitoring Safety Board reviewed initial protocols and safety issues over the course of the trial.

Study Participants

Participants were recruited from November 2009 through December 2011 at two academic Obstetrics-Gynecology clinics: a university hospital clinic serving women from mixed socioeconomic backgrounds (N=136, with 59 (43.4%) uninsured or insured by public insurers including state, Medicaid, Medicare), and a county hospital serving an underserved, racially-diverse population (N=69, with 61 (88.4%) uninsured, or insured by public insurers). Both sites were staffed by resident and attending Obstetrics-Gynecology physicians and nurse practitioners.

Patients were screened for depression by research assistants with the Patient Health Questionnaire-9 (PHQ-9) while waiting for their physician appointments (17). Screen-positive women (PHQ-9 ≥ 10) were eligible if they met criteria for major depression or dysthymia on a structured psychiatric interview, the MINI-International Neuropsychiatric Interview, version 5.0, (18), had telephone access, were English speaking, and were ≥ 18 years of age. Exclusions included alcohol/substance abuse in previous three months, homelessness, current domestic violence, bipolar disorder or schizophrenia, high suicide risk, ≥ 2 prior suicide attempts, or currently seeing a psychiatrist. Women currently taking an antidepressant or seeing a non-physician mental health specialist were eligible. All interested, eligible women were scheduled for a baseline assessment, after which informed consent and randomization were completed.

Randomization

In order to ensure that the numbers of pregnant women and patients from the two clinics were similar in Intervention and Usual Care groups, women were block-randomized by computer off-site (by clinic site, pregnant versus non-pregnant) to the depression Intervention versus Usual Care. We utilized blocks with sizes 2 and 4 (alternating randomly) for pregnant women and blocks with sizes 4 and 6 (alternating randomly) for non-pregnant women to ensure balance and to blind the research staff to the pattern of assignment to treatment groups.

Intervention

The collaborative care model designed for the Obstetrics-Gynecology population included an initial engagement session with the care manager (10), choice of initial treatment (psychotherapy versus medication), proactive outreach for patients who did not follow

through with appointments, help for uninsured patients with charity care for medications, choice of in-person or telephone visits, and utilizing social workers as care managers to help alleviate barriers to care. Two depression care managers with masters in social work training who had at least five years of experience working with socially disadvantaged populations DCMs were hired and provided training specifically trained in issues related to women's mental health, such as domestic violence and sexual assault.

Women in the Intervention program received an initial engagement session to elicit health concerns and potential barriers to treatment, provide education about depression, and enhance participation in depression treatment. This engagement Intervention has been found to increase participation in psychotherapy in socially disadvantaged minority women (10). During follow-up sessions, DCMs obtained a clinical history with a semi-structured interview, reviewed educational materials, and elicited patient preferences for either starting with Problem Solving Treatment-Primary Care (PST-PC) (19, 20) or antidepressant medications. Depression care managers provided help with social interventions such as charity care for medications and financial assistance programs for housing. All women received depression educational materials (21).

The care managers followed patients in-person and by telephone every 1-2 weeks for up to 12 months. They monitored treatment response at each contact with the PHQ-9 and utilized a Microsoft Excel-based tracking system for weekly systematic case review sessions. Medication and behavioral recommended treatments were made each week at team meetings attended by the care manager, psychiatrist and Obstetrics-Gynecology physician. Physician-recommended medication changes were communicated by the care manager to Obstetrics-Gynecology physicians who prescribed all medications. Participants were followed until they either reached remission ($\text{PHQ-9} < 5$) or had at least a 50% decrease from baseline in depression scores. Once reaching one of these goals, they were followed by monthly telephone calls.

Patients with less than 50% improvement in depressive symptoms by 4-8 weeks of treatment received a revised treatment plan based on weekly systematic case reviews. Women receiving PST-PC could be augmented with, or switched to, an antidepressant medication. Women on antidepressant medication could receive an increased dosage, change of medication, and/or augmentation with PST-PC. Women with persistent symptoms, despite multiple changes in treatments, could be referred to mental health specialty care in each hospital.

PST-PC has been shown to be as effective as antidepressant medication in treating major depression in several primary care-based trials (19). PST-PC was designed to treat depressive symptoms by aiding patients in developing skills to alleviate problems and stressors that provoke or maintain depression (19, 20). The seven key steps in problem solving treatment are to clarify and define a problem, set a realistic goal, generate multiple possible solutions, evaluate and compare solutions, select a feasible solution, implement that solution, and evaluate the outcome (19, 20). Antidepressant medications (an SSRI was the usual first choice) were chosen based on a clinical algorithm which took into account the patient's prior treatment experiences with medications. All Intervention patients were

counseled regarding increasing positive activities, such as exercise or visiting friends who they had stopped seeing because of their depression.

Training for care managers included one week of PST-PC and antidepressant medication instruction, use of a standardized depression care management treatment manual (20), and training in issues specific to women's health, such as issues regarding infertility, and domestic conflict. Each care manager was required to audiotape an introductory session and at least one PST-PC session with a practice patient before being certified as competent in this treatment model. At least one other session per care manager audiotaped with a study participant was reviewed by the team psychologist (EL) for quality assurance using fidelity rating forms (20). Feedback on Intervention fidelity was also given during weekly supervision to minimize drift from the Intervention model.

Enhanced Usual Care

Patients randomized to Usual Care were informed of their depression diagnosis by the research assistant and received an educational depression pamphlet (21). All patients had an opportunity for referral to social work and psychiatric consultations. They were asked for consent to notify their provider of their depression diagnosis.

Blinded Outcomes

Data on outcomes were collected at 6-, 12-, and 18-month follow-ups by telephone using standardized questionnaires administered by a research assistant blinded to intervention status. The Hopkins Symptom Checklist-20 (SCL-20) was used to measure changes in depression over time including change from baseline to 18-months, and percent with at least a 50% drop in symptoms from baseline. (22). Each item on the SCL-20 is scored on a 0 to 4 Likert scale and a mean score of the 20 items is measured (range 0 to 4). This scale has been shown to be as sensitive to change as other commonly used depression scales and to have high reliability and validity. (22-24) Other outcomes included the the Patient Global Improvement scale (25), and on satisfaction with depression care.(26) The Patient Global Improvement Scale has patients rate their change in depression on a 7-item scale ("very much worse" to "very much improved") and has been shown to have high reliability and validity (23). The satisfaction scale is a 7-item scale that has patients rate their satisfaction with treatment from "very dissatisfied" to "very satisfied" and has been extensively used in primary care depression trials (24, 25).Quality of mental health care was assessed with standardized questions about medication use at baseline and each follow-up assessment, and counseling frequency in each six-month period (26, 27).

Insurance Status

Data on insurance status was collected from the medical record at baseline. Categories included: no insurance, Washington state, Medicare, Medicaid, commercial. Women were then grouped into two categories: no insurance or public versus commercial.

Demographic and Mental Health Comorbidity Variables

Demographic information collected at baseline included age, education, marital status, and race/ethnicity.

Variables potentially linked to insurance status included PTSD, dysthymia, panic disorder, social support and medical comorbidity. PTSD was measured using the 17-item PTSD Checklist-Civilian version (PCL-C) (28). A score of 45 or greater on the PCL-C was used to define a positive screen for PTSD; it has the highest sensitivity and specificity for a diagnosis of PTSD based on structured psychiatric interview (28). Dysthymia and panic disorder were diagnosed with modules from a structured psychiatric interview (the M.I.N.I.-International Neuropsychiatric Interview, version 5.0) (18). Four items from The Medical Outcome Survey Social Support Survey were used to assess quality of social support (29). The Depression Port Medical Comorbidity scale was used to measure medical comorbidity (30);

Statistical Analyses

We used independent t-tests and chi-square analyses to compare baseline characteristics among women in the “No insurance or public” coverage group to those in the “Commercial” insurance coverage group. To evaluate quality of depression care in the Intervention arm, we compared the number of in-person and telephone visits by insurance groups using data from the Microsoft Excel-based registry maintained by the DCMs. Because visits and phone calls are count data, we utilized Poisson regression models to examine differences in the Intervention arm by insurance group.

For the primary analysis, Generalized Estimating Equations (GEE) were used to determine if insurance status modified the pattern of changes in depression symptoms between intervention groups over time. GEE are intent-to-treat longitudinal regression models that allow for the inclusion of all participants in the analyses, regardless of missing outcomes. We employed an unstructured covariance model. Using SCL-20 depression scores as outcomes at baseline, 6-, 12-, and 18-months, modification by insurance status was demonstrated by a significant three-way interaction of Intervention group, time, and insurance status. In the event of significant modification by insurance status, additional GEE models were planned to test Intervention versus Usual Care differences on the SCL-20 for the insurance groups individually. In addition, for each of the insurance groups, we used logistic regression models, estimate odds ratios and 95% Confidence Intervals for categorical variable secondary outcomes (percent with 50% decrease in depressive symptoms, Patient Global Improvement, satisfaction with care, adherence to antidepressants and four or more mental health visits). These Odds Ratios are presented to illustrate Intervention versus Usual Care time frames of recovery from depression as well as quality of care across insurance groups.

Because comorbid PTSD and dysthymia may be associated with worse outcomes of depression treatment, we used the continuous PTSD score on the PCL-C and the dysthymia diagnosis by structured interview to evaluate modification by PTSD score and dysthymia respectively, by testing a three-way interaction by group, time, and PTSD severity or

dysthymia diagnosis. We performed a sensitivity analysis including clinic site in the primary model. Lastly, we estimated Intervention effect sizes (Intervention minus Usual Care differences in change in depression divided by the standard deviation of the depression scale) based on 12- and 18-month follow-up SCL-20 depression scores for the insurance groups using Cohen's *d* with a pooled variance estimate.

Results

A total of 120 (58.5%) patients had no insurance or public insurance (63 no insurance, 39 Medicaid, 12 Medicare, 6 Washington State) and 85 (41.5%) had commercial insurance. Patients in the no insurance/public group were older, less likely to be married or living with a partner, or white, had less social support and a greater number of medical disorders, and were more likely to have comorbid dysthymia and PTSD (Table 1).

All women in the Intervention arm received a similar number of in-person visits with DCMs, no insurance or public mean=9.4 (SD=7.3) and commercial insurance mean=9.9 (SD=6.9) (Wald's chi-square= 0.13, *p*=0.7). There was a non-significant difference in the number of telephone visits by insurance status. No insurance or public mean=7.7 (SD=6.0) and commercial insurance mean=5.5 (SD=6.3) (Wald's chi-square=1.76, *p*=0.19).

There was significant modification of the treatment effect by insurance status (Wald's chi-square =7.75, *df*=3, *p*=0.05). Patients with no insurance/public had greater recovery from depression symptoms over the 18-month time period with the Intervention versus Usual Care (Wald's chi square =27.63, *df*=3, *p*<0.0001), compared to women with commercial insurance (Wald's chi square =2.96, *df*=3, *p*=0.40) (Table 2, Figures 1a and 1b). The effect size for depression improvement with Intervention versus Usual Care was greater for women with no/public insurance compared to women with commercial insurance (12-month: 0.81 (95% CI 0.41, 0.95) versus 0.39 (95% CI -0.08, 0.84; 18 month: 0.59 (95% CI 0.43, 0.76) versus 0.23 (95% CI 0.07, 0.40)).

There was no evidence of modification of treatment effect by presence of either comorbid PTSD or dysthymia (Data not shown). Sensitivity analyses containing an indicator variable for clinic did not change the above results (data not shown).

As shown in Figures 2 and 3, based on clinical response (50% decrease in depressive symptoms) and the Patient Global Improvement measure), women with commercial insurance tended to improve sooner (at the 6-month follow-up) with Intervention versus Usual Care than women with no insurance/public. However, patients with no insurance/public tended to have greater improvements with Intervention versus Usual Care at 12- and 18-months on these measures than those with commercial insurance.

Similar Intervention versus Usual Care improvements were found in both insurance groups on the percentage of patients receiving 4 mental health visits (Table 2). Both Intervention insurance groups were also more satisfied with the quality of depression care than Usual Care patients, with the greatest differences in satisfaction in the commercially insured. For the two antidepressant quality of care measures (percent taking an antidepressant for 25 of the last 30 days and percent taking an antidepressant for at least 3 of the last 6 months), the

Intervention versus Usual Care differences at the six and 12 month time points were more consistently significant in the uninsured/public compared to the commercially insured group.

Discussion

The DAWN intervention was found to be more effective compared to Usual Care in treating women with no health insurance or public coverage compared to women who had commercial insurance at 12- and 18-months. Intervention women having either insurance status had better quality of depression care than that observed in Usual Care controls. The effect sizes found for the DAWN intervention model (versus Usual Care) at 12-months--0.39 for the insured women and 0.81 for the non-insured/public group--are both greater than the 0.27 effect-size found for collaborative depression care (versus Usual CareC) at 12-months in a recent meta-analysis of 79 studies of collaborative depression care provided in primary care (31).

Clearly, having no insurance or public coverage is a proxy for greater biopsychosocial vulnerability. The women in the no insurance/public group were older, less likely to be white or living with a partner, had less social support, had a higher number of medical conditions, were more likely to meet criteria for comorbid dysthymia, and had greater PTSD symptomatology. In addition, women with no insurance or publicly funded insurance are less likely to be able to access specialty mental health services which may have, in part, led to a worsening of physical and mental health. The collaborative care Intervention provided similar and in some cases (such as antidepressant adherence) better quality of care to this underserved, racially-diverse population, and they experienced more benefit from the collaborative care Intervention than the commercially-insured women.

The descriptive data on the effect of Intervention versus Usual Care on percent of women with at least a 50% decrease in depression symptoms and percent rating themselves as "much" to "very much" improved on the Patient Global Impression score suggest that there was a lag in improvement at 6-months for the uninsured/public patients compared to the commercially-insured group. The higher percentage of women in the uninsured/public group with comorbid psychiatric and medical conditions, and less social support may have delayed early recovery for this vulnerable population. This more vulnerable group of patients is also likely to need more social interventions, such as help with securing charity care to pay for medications and housing, which may have delayed their initiation or engagement in evidence-based treatments. However, as seen in the longitudinal data that evaluated 50% or greater drop in depressive symptoms and Patient Global Improvement, the difference between women treated in the Intervention group versus Usual Care tended to be greater in the uninsured/public population at 12- and 18- month follow-up. This may be explained in part by the better naturalistic recovery in the insured women treated in Usual Care as seen in Table 2 and Figure 1. Commercially insured women may improve more in Usual Care due to having less chronic social stressors, better social support, less medical comorbidity and more effective coping skills to work effectively with their physician to get effective treatment.

We tested whether the difference found in these two populations in outcomes by insurance status for those treated in the Intervention group versus Usual Care could have been explained by higher levels of PTSD symptoms or chronicity of depression in the uninsured/public group. Socially disadvantaged women have higher rates of exposure to both childhood adversity and adult trauma, both of which are risk factors in the development and persistence of adult anxiety and depressive disorders (7, 32, 33). As many as half of women with major depression have comorbid anxiety disorders including PTSD, and studies suggest that comorbid anxiety is often associated with lack of complete response to depression treatment alone (33, 34). Dysthymia has also been found to predict subsequent persistence of depression in primary care patients (32). However, we did not find that either probable comorbid PTSD or dysthymia, was associated with less response to the Intervention versus Usual Care.

Limitations of the study include that patients were recruited from university-affiliated Obstetrics-Gynecology clinics potentially limiting generalizability to other Obstetrics-Gynecology populations; non-English speaking women were not included; antidepressant adherence was based on self-report data. However, self-report questions on antidepressant adherence have shown high correlation with automated pharmacy refill data (35). Women covered by Medicare were included in the no insurance/public group because reimbursement for mental health visits is relatively low, and 10 of these 12 women were younger than 65 suggesting chronic disability and limited fixed incomes. In addition, the limited sample size precluded definitive study of effect modification of insurance status (uninsured/public versus commercial) on other important quality of care and clinical outcomes such as percent with 50% or greater improvement on depression, Patient Global Improvement, and use of antidepressants.

Conclusion

Prior data have shown that social disadvantage in women is associated with a higher risk of development of medical and psychiatric disorders, as well as more persistent depression (1-3, 5-7), but the effect of insurance status on treatment outcomes is a relatively new finding. Gaps in accuracy of diagnosis of depression and quality of mental health treatment in Obstetrics-Gynecology clinics have been extensively documented as well as lack of confidence by (15, 17) Obstetrics-Gynecology providers in delivering depression care (15). Our data show that collaborative depression care adapted to Obstetrics-Gynecology settings, is effective in improving quality of mental health care and depression outcomes in socially disadvantaged populations who are uninsured or receive public insurance. This is a relatively exciting and optimistic finding, in contrast to a belief that depression in socially disadvantaged women is recurrent, recalcitrant and difficult to manage in any setting.

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No Insurance/Public: Intervention vs. Usual Care Depression Outcomes

Commercial Insurance: Intervention vs. Usual Care Depression Outcomes

NS = Not Significant, * $p < 0.001$, ** $p < 0.01$

Figure 1.
Intervention versus Usual Care Depression Outcomes by Insurance Status

Figure 2.
Intervention versus Usual Care Differences in Percent with $\geq 50\%$ Reduction in SCL-20 from Baseline

Figure 3.
Intervention versus Usual Care Differences in Percent “Much” to “Very Much” Improved on PGI from Baseline

Table 1**Baseline Patient Characteristics***

Variable	Total N = 205		Commercial Insurance (N = 85, 42%)		No Insurance/Public (N = 120, 58%)		p
	Mean	SD	Mean	SD	Mean	SD	
Age, mean (SD)	39.0	12.1	36.4	12.1	41.0	12.6	0.007
Social Support Scale, mean (SD)	13.6	4.2	15.1	3.5	12.4	4.3	0.001
Number of chronic conditions, (PORT Comorbidity Scale), mean (SD)	1.9	1.7	1.4	1.3	2.2	1.8	0.001
SCL-20 depression score, mean (SD)	2.00	0.62	1.93	0.55	2.05	0.66	0.17
PHQ-9 depression score, mean (SD)	16.1	4.0	16.0	3.7	16.2	4.3	0.71
Age at first depression episode, mean (SD)	21.6	11.3	20.5	10.1	22.5	12.1	0.25
PCL-C PTSD score, mean (SD)	46.6	12.1	44.0	11.9	48.4	12.0	0.009

	%	N	%	N	%	N	p
Intervention Group	49.8	102	47.1	40	51.7	62	0.57
Education, at least some college	85.4	175	88.2	75	83.3	100	0.42
Married or living with significant other	48.3	99	64.7	55	36.7	44	0.0001
Race:							
White	57.1	117	69.4	59	48.3	58	0.001
African American	20.0	41	8.2	7	28.3	34	0.001
Asian-Pacific Islander	8.8	18	11.8	10	6.7	8	0.001
Hispanic	8.3	17	8.2	7	8.3	10	0.001
Native American	5.9	12	2.4	2	8.3	10	0.001
Pregnant, current	7.4	15	4.8	4	9.2	11	0.28
Major depression diagnosis (M.I.N.I.), current	98.5	202	97.6	83	99.2	119	0.57
Dysthymia diagnosis (M.I.N.I.), current	33.8	69	25.9	22	39.5	47	0.05
Recurrent depression (2 episodes)	79.8	143	67.1	57	71.7	86	0.54
% Taking anti-depressant at baseline	47.8	98	47	40	48.3	58	0.89
Panic Disorder (M.I.N.I. 5.0.0 Panic), current	8.3	17	10.0	12	5.8	5	0.22
Post-Traumatic Stress Disorder (PCLC score 45), current	55.1	113	47.1		60.8	73	0.06

* Data are presented as % (No.) unless otherwise indicated. Number of Medical Comorbidities (Depression PORT), range 0-19;(30) Depression and/or dysthymia diagnosis by structured psychiatric interview (M.I.N.I.);(18) Hopkins Symptom Checklist-20 (SCL-20), range 0-4(22); Patient Health Questionnaire-9 (PHQ-9), range 0-27;(17, 18) Panic Disorder by structured psychiatric interview (M.I.N.I. 5.0.0 Panic Module);(18) Post-Traumatic Stress Disorder (17-item PTSD Checklist-Civilian Version (PCL-C), range 17-85, 45 = cut-off for PTSD(28)

Table 2

Usual Care versus Intervention Quality of Care and Clinical Outcomes by Insurance Status

Variable	Commercial Insurance						No Insurance/Public					
	Raw Data			Logistic Regression Estimates			Raw Data			Logistic Regression Estimates		
	Usual Care		Intervention	OR or Between GP Difference	95% CI		Usual Care		Intervention	OR or Between GP Difference	95% CI	
	Mean	SD	Mean	SD			Mean	SD	Mean	SD		
<i>SCL-20 Depression Score</i>												
<i>Baseline</i>	1.94	0.60	1.92	0.50		0.02			0.65	2.13	0.67	-0.16 -40 - 0.08
<i>6 Months</i>	1.18	0.56	1.14	0.73		0.02			0.69	1.42	0.69	-0.03 -28 - 0.23
<i>12 Months</i>	1.13	0.68	0.86	0.60		0.28			0.69	1.02	0.68	0.53*** .27 - 0.79
<i>18 Months</i>	1.17	0.68	0.97	0.67		0.18			0.72	1.04	0.78	0.39*** .10 - 0.68
<i>PGI - Patient Rated Global Improvement (much or very much improved)</i>												
<i>Response (at least 50% decrease in SCL-20 depression score from baseline)</i>												
<i>6 Months</i>	40.0	16	47.1	16	1.33	0.53 - 3.36	30.8	16	31.6	18	1.04	0.46 - 2.34
<i>12 Months</i>	42.5	17	64.7	22	2.48	0.97 - 6.36	25.9	14	52.8	28	3.20**	1.42 - 7.22
<i>18 Months</i>	45.9	17	58.1	18	1.63	0.62 - 4.27	32.0	16	53.8	28	2.48*	1.11 - 5.55
<i>Satisfaction with care during study for depression, mood problems or stress (moderately or very satisfied)</i>												
<i>6 Months</i>	37.5	15	70.6	24	4.00**	1.51 - 10.62	30.8	16	45.6	26	1.89	0.86 - 4.14
<i>12 Months</i>	45.0	18	82.4	28	5.70**	1.94 - 16.79	31.5	17	73.6	39	6.06***	2.62 - 14.02
<i>18 Months</i>	54.1	20	80.6	25	3.54*	1.18 - 10.65	26.0	13	63.5	33	4.94***	2.12 - 11.53
<i>4 or more specialty mental health visits in the prior 6 months</i>												
<i>6 Months</i>	47.5	19	94.1	32	17.68***	3.72 - 83.95	56.0	28	86.0	49	4.81***	1.89 - 12.23
<i>12 Months</i>	30.8	12	91.2	31	23.25***	5.93 - 91.16	46.2	24	88.5	46	8.94***	3.26 - 24.57
<i>6 Months</i>	35.0	14	82.4	28	8.67***	2.90 - 25.91	25.0	13	77.2	44	10.15***	4.21 - 24.51
<i>12 Months</i>	18.4	7	73.5	25	12.30***	4.02 - 37.68	39.6	21	80.8	42	6.40***	2.65 - 15.47

		%	N	%	N		%	N	%	N		%	N	%	N
Any antidepressant for > 25 days in the past month															
Baseline	21.1	8	19.4	7	90	0.29 – 2.82	17.0	8	25.5	14	1.66	0.63 – 4.40			
6 Months	35.0	14	55.9	19	3.66*	1.12 – 12.00	28.8	15	50.9	29	5.34***	1.94 – 14.68			
12 Months	28.9	11	44.1	15	1.98	0.66 – 5.92	34.7	17	59.6	31	2.88*	1.18 – 6.99			
Any antidepressant for 3 of the past 6 months at an adequate dosage															
Baseline	10.3	(4)	16.7	(6)	1.75	0.45 – 6.79	21.3	(10)	12.7	(7)	0.54	0.19 – 1.55			
6 Months	35.0	(14)	52.9	(18)	2.05	0.71 – 5.93	39.6	(21)	80.8	(42)	7.44***	3.56 – 71.10			
12 Months	31.4	(11)	53.1	(17)	2.83	0.78 – 10.20	39.6	(21)	80.8	(42)	4.17***	1.53 – 11.34			

*
p < 0.05

**
p < 0.01

***
p < 0.001