Chronic Diseases – International

Open Access

Austin Publishing Group

Research Article

Engagement among Minority Patients in Collaborative Care Management for Depression

DeJesus RS[1]*, Njeru J[1] and Angstman K[2]

[1]Division of Primary Care Internal Medicine, Department of Medicine, Mayo Clinic, USA

[2]Department of Family Medicine, Mayo Clinic, USA

***Corresponding author:** DeJesus, R, Division of Primary Care Internal Medicine, Department of Medicine, Mayo Clinic, 200 First Street SW, Rochester, MN, USA

Received: February 12, 2015; **Accepted:** April 16, 2015; **Published:** April 17, 2015

Abstract

The Collaborative Care Management (CCM) is an effective model for depression care and has been shown to mitigate disparity in treatment outcomes among minority. Engagement pattern among this group is less known. This retrospective study evaluated both enrollment and drop-out rates among minority patients in CCM at primary care sites of a Midwestern academic institution from March 2008 to December 2011 using the registry. Of the 765 eligible minority patients who were offered CCM, 49.9% enrolled; acceptance rate was not statistically significant when compared to non-minority patients (Caucasians). At six month, the drop-out rate among minority, defined as absence of care manager's contact with patient for 2 months, was significantly higher than in Caucasians (p value=0.002). Both minority race and initial PHQ-9 scores were independent predictors to increased odds of dropping out from CCM. Hence, while CCM appear to mitigate disparity in outcomes and access to depression treatment among minority, treatment engagement in this population group remains a challenge as reflected by sub-optimal enrollment to the program and higher dropout rate.

Keywords: Depression; Collaborative care; Minority; Drop-out

Background

Major depressive disorder is a prevalent illness affecting 5-13% of all adults but it is often under diagnosed and untreated [1,2]. The impact of depression is even greater among the minority population where there remains a disparity in access, management and treatment outcomes [3-5]. The Collaborative Care Management (CCM) in primary care has been shown to effectively achieve and sustain significant improvement in depression treatment outcomes across various population groups [6,7]; it may also mitigate depression care disparity among minority groups [2,8]. A recent analysis of CCM's impact on minority population done by Angstman et al showed resolution of disparity in remission outcomes between minority and non-minority groups treated under this model [9].

Treatment adherence and engagement has continued to be a challenge in chronic disease management; as many as 60% of persons with chronic illness are poorly adherent to treatment [10]. Depression is no exception with low treatment engagement among patients being a persistent concern of primary care providers who usually initiate therapy. This is particularly challenging in underserved and minority populations who are more likely to miss clinic appointments and prematurely discontinue depression treatment [11]. Adherence to treatment has been correlated to improved outcomes [12]; in depression, this translates to remission. A review by Interian et al. on interventions that can potentially improve mental health treatment engagement among underserved racial-ethnic minority populations reported the collaborative care model to be most efficacious [13]. This retrospective study's aims were (1) to evaluate enrollment rate to CCM among minority patients and (2) to determine and compare drop-out rates between minority and non-minority groups within CCM. We hypothesized that among those patients with depression who were enrolled to CCM, there is no significant difference in the drop-out rates between minority and non-minority participants. CCM was adopted among primary care sites at an academic institution in Midwestern United States on March 2008.

Methods

Using the registry, records of patients eligible for CCM from March 2008 until December 2011 were reviewed. Details of the model had been described previously [14]; adults 18 years and older with a Patient Health Questionnaire-9 (PHQ-9) score of 10 or higher and a DSM-IV diagnosis of major depression (initial or recurrent) or dysthymia, were eligible for enrollment. Those with a diagnosis of bipolar disorder were excluded. For the purpose of this study, only patients who chose to self-identify their racial or ethnic status and who gave consent to participate in research were included. Enrollment rate to CCM among minority patients was tracked. Six month drop-out rates, defined as absence of care manager's contact with patient for 2 months, were compared between Caucasian and minority (non-Caucasian) patients who were followed under CCM.

Data were analyzed using Chi-Square testing with Yates correction; Mann-Whitney test was used for age and PHQ-9 score as sample distribution did not follow the normal curve. Logistic regression modeling for six month odd of dropping out was performed while retaining all independent variables studied. Calculations were performed on MedCalc software (www.medcalc.org, version 12.7.7). The study was reviewed and approved by the institutional review board.

Results

Of the 765 minority patients who met eligibility for enrollment

Citation: DeJesus RS, Njeru J and Angstman K. Engagement among Minority Patients in Collaborative Care Management for Depression. Chronic Dis Int. 2015;2(1): 1014.

Table 1: Comparison of minority and non-minority patients enrolled in CCM.

CCM N=3349	MINORITY N=382	NON-MINORITY N=2,967	*P*
Age	38.9 (18.0-78.1)	41.7 (18.0-92.7)	0.004
Gender (% female)	266 (69.6%)	2,175 (73.3%)	0.145
Marital Status (% married)	178 (46.6%)	1,585 (53.4%)	0.014
Initial PHQ-9 score	16.0	15.5	0.009
Diagnosis			
First Episode	214	1,544	0.199
Recurrent	135	1,190	
Dysthymia	33	233	
Drop-out (% no contact for 2 months)	135 (35.3%)	819 (27.6%)	0.002

Table 2: Odds of dropping out of collaborative care management (no contact for two consecutive months) by variable.

N=3,349	Odd Ratio	95% CI	*P*
Age	0.964	0.959 to 0.970	<0.001
Gender (female)	0.993	0.833 to 1.184	0.936
Marital Status (married)	0.698	0.594 to 0.820	<0.001
Race (Minority)	1.312	1.042 to 1.652	0.021
Initial PHQ-9	1.042	1.022 to 1.061	<0.001
Diagnosis			
First Episode	Reference	Reference	
Recurrent	1.270	1.077 to 1.497	0.005
Dysthymia	1.270	0.955 to 1.687	0.005

to CCM, 49.9% (N=382) enrolled; the rest (N=383) stayed in UC. Majority of enrolled minority (69.6%) was female and mean age was 38.9 years. Enrollment rate to CCM among Caucasians was 47.7% (N=2967). The difference in enrollment rates between the two groups was not statistically significant (*p* value=0.07). However, the mean baseline PHQ-9 score in minority patients was significantly higher than Caucasians (Table 1).

At six months, the drop-out rate from CCM was significantly higher in minority patients when compared to Caucasians (35.3% *vs.* 27.6%, *p* value=0.002). Using logistic regression analysis, minority status and initial PHQ-9 score were independent predictors of increased odds of dropping out from CCM; being married was associated with decreased likelihood of dropping out from the program (Table 2).

Discussion

In this study, we observed no statistical difference in enrollment rates to CCM between minority and non-minority groups. This finding is consistent with what have been reported in the literature. The collaborative care model integrated into primary care practice is particularly effective in improving access to and participation in mental health treatment across various ethnic groups and may ameliorate racial disparity [8,15,16]. An integral component of CCM is having care managers who utilize motivational interviewing, goal setting, and regular phone call follow-ups which are strategies that help keep patients involved in their care. As a unique feature of the model, it may be what is ameliorating disparity in enrollment rate among minority. In a survey that asked patients enrolled in CCM of various ethnic groups what their experience was with the program, majority agreed that CCM helped improve their depression over and above pharmacological and psychological therapies as well as enhance their self-management skills [17]. Among racial and ethnic minority elders, collaborative or integrated care has also been shown to be associated with higher likelihood of treatment success [18].

While CCM appear to mitigate disparity in treatment participation and outcomes, only 50% of eligible minority patients chose to be in CCM; majority still preferred usual care. The effectiveness of the model is well documented and it is a recommended approach to improving engagement in depression care within the primary care setting among racial-ethnic populations [13,18], yet the rate of enrollment seen in his study remained sub-optimal. An integrated model of care with mental health services delivered within the primary care practice has been shown to be effective in improving treatment participation among elderly minority [16]; however, this was not seen in this study even with CCM fully integrated into the practice. The younger mean age of study participants may explain this observed difference. Further investigation to identify factors that create barriers to enrollment in CCM among both minority and non- minority patients will help shed light to the observed low enrollment rate.

A significant difference was seen in drop-out rate between non-Caucasian and Caucasian patients enrolled under CCM; the null hypothesis pertaining to this is thus rejected. This observation is not surprising and has been reported in a systematic review that looked at sociodemographic predictors of compliance with antidepressant therapy. Caucasian patients were more likely to adhere and stay with treatment course than minority ethnic groups [19]. While most minority patients are more likely to seek health care in primary care clinics, Fortuna et al attributed the low treatment retention in depression among the minority population to a preference for specialized mental health services as opposed to generalists [11]. Patients' primary care providers direct the course of treatment in CCM as guided by recommendations from a psychiatrist supervising the care managers. This key consultative role played by a mental health provider in CCM but whom patients generally do not meet face-to-face may need to be clearly elucidated at the time of enrollment particularly in this population group. Treatment drop-out also appeared to be attenuated when positive treatment effects are seen and patients are motivated [20]. Hence, care managers need to possess the necessary skills to motivate and help improve patients' self-efficacy.

A community partnered participatory research conducted in under-resourced communities of a large metropolitan region of the United States found that most depression services occurred outside primary care settings [21]. Coordinating with community based services appeared to add value over and above resources available within CCM in reaching out to underserved minorities [22] and implies a need to assess ways by which CCM can be incorporated in various neighborhood-based mental health programs. Ethnic differences in health beliefs, attitudes and treatment preferences likewise modulate adherence and treatment retention [23]. Culturally tailored adaptation or incorporation into the collaborative care model of approaches such as telepsychiatry-based culturally sensitive

collaborative intervention, tailored motivational interviewing, cultural counseling, innovative use of interpreters and community-partnered services all show promise in enhancing treatment engagement across various ethnic minority groups [2,22,24].

Our study comprised of patients seen in an academically based primary care practice in Midwestern United States which limits the generalizability of findings to other community based practices with more heterogeneous population. Prospective studies that enroll larger minority sample size may yield different results.

Results from our study add to the data that highlights the need to integrate culturally sensitive components in programs such as CCM to enhance recruitment and improve retention rates. While this model has been shown to mitigate disparity in depression treatment outcomes among minority groups, patient engagement as reflected by drop-out rates have not been previously captured. Our study observation helps solidify the importance of identifying and addressing barriers to engagement in order to close the disparity gap. This is a key step in moving forward with population health management for the future.

Conclusion

In conclusion, while CCM appears to mitigate disparity in access to depression treatment among minority, treatment engagement in this population group remains a challenge as reflected by sub-optimal enrollment to the program and higher dropout rate. Identifying barriers to treatment retention, re-evaluating CCM process to address these barriers, and finding innovative ways of expanding its reach are key elements to successful implementation of this model in depression management among minority patients.

References

1. O'Connor EA, Whitlock EP, Bell TL, Gaynes BN. Screening for depression in adult patients in primary care settings: a systematic evidence review. Ann Intern Med. 2009; 151: 793-803.
2. Hails K, Brill CD, Chang T, Yeung A, Fava M, Trinh NH. Cross-cultural aspects of depression management in primary care. Curr Psychiatry Rep. 2012; 14: 336-344.
3. Simpson SM, Krishnan LL, Kunik ME, Ruiz P. Racial disparities in diagnosis and treatment of depression: a literature review. Psychiatr Q. 2007; 78: 3-14.
4. Gonzalez HM, Vega WA, Williams DR, Tarraf W, West BT, Neighbors HW. Depression care in the United States: too little for too few. Arch Gen Psychiatry. 2010; 67: 37-46.
5. Alegria M, Chatterji P, Wells K, Cao Z, Chen CN, Takeuchi D, et al. Disparity in depression treatment among racial and ethnic minority populations in the United States. Psuchiatr Serv. 2008; 59: 1264-1272.
6. Thota AB, Sipe TA, Bayard, GJ, Zometa CS, Hahn RA, McKnight-Eily LR, et al. Collaborative to improve the management of depressive disorders: a community guide systematic review and meta-analysis. Am J Prev Med. 2013; 42: 525-538.
7. Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. Arch Intern Med. 2006; 166: 2314-2321.
8. Davis TD, Deen T, Bryant-Bedell K, Tate V, Fortney J. Does minority racial-ethnic status moderate outcomes of collaborative care for depression? Psychiatr Serv. 2011; 62: 1282-1288.
9. Angstman KB, Myszkowski MR, Schak KM, DeJesus RS, Lineberry TW, Phelan S, et al. Minority primary care patients with depression: outcome disparities resolve with collaborative care management. Med Care. 2015; 53: 32-37.
10. Dunbar-Jacob J, Mortimer-Stephens MK. Treatment adherence in chronic disease. J Clin Epidemiol. 2001; 54: S57-S60.
11. Fortuna LR, Alegria M, Gao S. Retention in depression treatment among ethnic and racial minority groups in the United States. Depress Anxiety. 2010; 27: 485-494.
12. Fortney JC, Pyne JM, Edlund MJ, Mittal D. Relationship between antidepressant medication possession and treatment response. Gen Hosp Psychiatry. 2010; 32: 377-379.
13. Interian A, Lewis-Fernandez R, Dixon LB. Improving treatment engagement of underserved U.S. racial-ethnic groups: a review of recent interventions. Psychiatr Serv. 2013; 64: 212-222.
14. Angstman K, DeJesus R, Williams M. Initial implementation of a depression care manager model: an observational study of outpatient utilization in primary care clinics. Popul Health Manage. 2009; 12: 227-230.
15. Arean PA, Ayalon L, Hunkeler E, Lin EH, Tang L, Harpole L, et al. Improving depression care for older, minority patients in primary care. Med Care. 2005; 43: 381-390.
16. Ayalon L, Arean PA, Linkins K, Lynch M, Estes CL. Integration of mental health services into primary care overcomes ethnic disparities in access to mental health services between black and white elderly. Am J Geriatr Psychiatry. 2007; 15: 906-912.
17. DeJesus R, Howell L, Williams M, Hathaway J, Vickers KS. Collaborative care management effectively promotes self-management: Patient evaluation of care management for depression in primary care. Postgraduate Medicine. 2014; 126: 141-146.
18. Fuentes D, Aranda MP. Depression interventions among racial and ethnic minority older adults: a systematic review across 20 years. Am J Geriatr Psychiatry. 2012; 20: 915-931.
19. Rivero-Santana A, Perestelo-Perez L, Perez-Ramos J, Serrano-Aguilar P, De Las Cuevas C. Sociodemographic and clinical predictors of compliance with antidepressants for depressive disorders: systematic review of observational studies. Patient Prefer Adherence. 2013; 7: 151-169.
20. Wells AA, Palinkas LA, Shon EJ, Eli K. Low-income cancer patients in depression treatment: dropouts and completers. J Behav Health Serv Res. 2013; 40: 427-441.
21. Miranda J, Ong MK, Jones L, Chung B, Dixon EL, Tang L, et al. Community-partnered evaluation of depression services for clients of community-based agencies in under-resourced communities in Los Angeles. J Gen Intern Med. 2013; 28: 1279-1287.
22. Wells KB, Jones L, Chung B, Dixon EL, Tang L, Gilmore J, et al. Community-partnered cluster-randomized comparative effectiveness trial of community engagement and planning or resources for services to address depression disparities. J Gen Intern Med. 2013; 28: 1268-1278.
23. Givens JL, Houston TK, Van Voorhees BW, Ford DE, Cooper LA. Ethnicity and preferences for depression treatment. Gen Hosp Psychiatry. 2007; 29: 182-191.
24. Yeung A, Hails K, Chang T, Trinh NH, Fava M. A study of the effectiveness of telepsychiatry-based culturally sensitive collaborative treatment of depressed Chinese Americans. BMC Psychiatry. 2011; 11: 154.

Chronic Dis Int - Volume 2 Issue 1 - 2015
ISSN 2379-7983 | www.austinpublishinggroup.com

Citation: DeJesus RS, Njeru J and Angstman K. Engagement among Minority Patients in Collaborative Care Management for Depression. Chronic Dis Int. 2015;2(1): 1014.