

Evidence Base for Collaborative Care

Substance Use Disorders

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1) Observational Studies, Screening, and Referral

1.1. Alford DP, LaBelle CT, Kretsch N, et al. Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Arch Intern Med.* 2011;171:425-431.

Summary: This report describes a five-year experience of using a nurse collaborative model of care manager program for treating patients with opioid use disorders in primary care. Over the observation period, over 400 patients were treated with buprenorphine. After 12 months of treatment, over one-half were either retained in treatment or were successfully tapered after 6 months of treatment. Of those retained in treatment at 12 months, less than 10% had urine toxicology tests positive for cocaine or other opioids.

Scientific Abstract:

Background: Opioid addiction is a chronic disease treatable in primary care settings with buprenorphine hydrochloride, but this treatment remains underused. We describe a collaborative care model for managing opioid addiction with buprenorphine hydrochloride-naloxone hydrochloride dihydrate sublingual tablets.

Methods: Ours is a cohort study of patients treated for opioid addiction using collaborative care between nurse care managers and generalist physicians in an urban academic primary care practice during a 5-year period. We examine patient characteristics, 12-month treatment success (ie, retention or taper after 6 months), and predictors of successful outcomes.

Results: From September 1, 2003, through September 30, 2008, 408 patients with opioid addiction were treated with buprenorphine. Twenty-six patients were excluded from analysis because they left treatment owing to preexisting legal or medical conditions or a need to transfer to another buprenorphine program. At 1 year, 196 of 382 patients (51.3%) underwent successful treatment. Of patients remaining in treatment at 12 months, 154 of 169 (91.1%) were no longer using illicit opioids or cocaine based on urine drug test results. On admission, patients who were older, were employed, and used illicit buprenorphine had significantly higher odds of treatment success; those of African American or Hispanic/Latino race had significantly lower odds of treatment success. These outcomes were achieved with a model that facilitated physician involvement.

Conclusion: Collaborative care with nurse care managers in an urban primary care practice is an alternative and successful treatment method for most patients with opioid addiction that makes effective use of time for physicians who prescribe buprenorphine.

1.2. LaBelle CT, Choongheon Han S, Bergeron A, Samet JH. Office-based treatment with buprenorphine (OBOT-B): statewide implementation of the Massachusetts Collaborative Care Model in Community Health Centers. *J Subst Abuse Treatment.* 2016;60:6-13.

Summary: The authors describes experiences with scaling up office-based treatment with buprenorphine in Community Health Centers across Massachusetts. The clinical outcomes of this work are described in 1.1 Alford, et al. above. Details of the roles of nurse care manager, barriers, and potential solutions are described. Common workflows are reviewed.

Scientific Abstract:

We describe a Massachusetts Bureau of Substance Abuse Services' (BSAS) initiative to disseminate the office-based opioid treatment with buprenorphine (OBOT-B) Massachusetts Model from its development at Boston Medical Center (BMC) to its implementation at fourteen community health centers (CHCs) beginning in 2007. The

Massachusetts Collaborative Care Model for the delivery of opioid agonist therapy with buprenorphine, in which nurses working with physicians play a central role in the evaluation and monitoring of patients, holds promise for the effective expansion of treatment for opioid use disorders. The training of and technical assistance for the OBOT nurses as well as a limited program assessment are described. Data spanning 6 years (2007–2013) report patient demographics, prior treatment for opioid use disorders, history of overdose, housing, and employment. The expansion of OBOT to the fourteen CHCs increased the number of physicians who were “waivered” (i.e., enabling their prescribing of buprenorphine) by 375%, from 24 to 114, within 3 years. During this period the annual admissions of OBOT patients to CHCs markedly increased. Dissemination of the Massachusetts Model of the Office-Based Opioid Treatment with Buprenorphine employing a collaborative care model with a central role for nursing enabled implementation of effective treatment for patients with an opioid use disorder at community health centers throughout Massachusetts while effectively engaging primary care physicians in this endeavor.

1.3. Chan YF, Huang H, Sieu N, Unützer J. Substance screening and referral for substance abuse treatment in an integrated mental health care program. *Psychiatr Serv.* 2013;64:88-90.

Summary: Observational data from the care of over 11,000 individuals in Community Health Centers (CHCs) receiving Collaborative Care showed screening for substance use disorders using a standardized measure (Global Appraisal of Individual Needs-Short Screener) was documented in just over two-thirds of individuals, with a wide range of screening rates (16% to 98%) across the over 100 CHCs. Positive screening results occurred in approximately 40% of those screened, and almost half screening positive were referred to substance use treatment. Opportunities to improve screening and referral to SUD treatment.

Scientific Abstract:

Objective: This study examined rates of substance screening and referral for substance abuse treatment as part of an integrated care program providing mental health services to low-income patients in primary care.

Methods: Adults (N=11,150) who were enrolled in the program between 2008 and 2010 were included. Primary outcomes included substance screening rates, treatment referral rates, and correlates of accessing recommended treatment.

Results: A total of 7,513 (67%) participants were screened for substance abuse. Among the 2,856 (38%) participants with a positive screen, 1,344 (47%) were referred for treatment. After adjustment for covariates, accessing recommended treatment was associated with past substance abuse treatment history, alcohol use, heavy drug use, posttraumatic stress disorder, and number of follow-up contacts with a care manager.

Conclusion: This study of a vulnerable population highlights missed opportunities for identifying and referring patients in primary care to substance abuse treatment.

1.4. Chan YF, Huang H, Bradley K, Unützer J. Referral for substance abuse treatment and depression improvement among patients with co-occurring disorders seeking behavioral health services in primary care. *J Subst Abuse Treat.* 2014;46:106-112.

Summary: The authors sought to evaluate the effect of substance use treatment on depression improvement in primary care patients. Observational data from the care of over 2300 individuals with concurrent depression and

substance use disorders in Community Health Centers (CHCs) receiving Collaborative Care showed almost one-half were referred for substance use treatment, and over 70% of those referred accessed the substance use treatment. Patients accessing substance use treatment were significantly more likely to experience depression improvement, compared to those not receiving a referral or declining referral.

Scientific Abstract:

This study examined the relationship between substance treatment referrals and depression improvement among 2,373 participants with concurrent substance use and depressive disorders enrolled in an integrated behavioral health program. Three groups of substance treatment referral status were identified: accessed treatment (n=780), declined treatment (n=315), and no referral for treatment (n=1278). The primary outcome is improvement in depressive symptoms (PHQ-9<10 or ≥50% reduction). Using propensity score adjustments, patients accessing substance treatment were significantly more likely to achieve depression improvement than those who declined receiving treatment services (hazard ratio (HR)=1.82, 95% confidence interval (CI): 1.50-2.20, p<0.001) and those without a referral for treatment (HR=1.13, 95% CI: 1.03-1.25, p=0.014). Each 1 week delay in initiating a referral was associated with a decreased likelihood of depression improvement (HR=0.97, 95% CI: 0.96-0.98, p<0.001). Study findings highlight the need of enhancing early treatment contact for co-occurring substance use disorders in primary care.

1.5. Chan YF, Lu SE, Howe B, et al. Screening and Follow-Up Monitoring for Substance Use in Primary Care: An Exploration of Rural-Urban Variations. *J Gen Intern Med.* 2016;31:215-222.

Summary: The authors compared rates of substance use screening and monitoring in patients receiving Collaborative Care in rural and urban Community Health Centers. Across all sites, screening for substance use disorders using a standardized measure occurring for approximately three-quarters of patients, while substance use monitoring rates varied with lowest rates in small or isolated rural settings.

Scientific Abstract:

Background: Rates of substance use in rural areas are close to those of urban areas. While recent efforts have emphasized integrated care as a promising model for addressing workforce shortages in providing behavioral health services to those living in medically underserved regions, little is known on how substance use problems are addressed in rural primary care settings.

Objective: To examine rural-urban variations in screening and monitoring primary care- based patients for substance use problems in a state-wide mental health integration program.

Design: This was an observational study using patient registry.

Subjects: The study included adult enrollees (n = 15,843) with a mental disorder from 133 participating community health clinics.

Main outcomes: We measured whether a standardized substance use instrument was used to screen patients at treatment entry and to monitor symptoms at follow-up visits.

Key results: While on average 73.6 % of patients were screened for substance use, follow-up on substance use problems after initial screening was low (41.4 %); clinics in small/isolated rural settings appeared to be the lowest (13.6 %). Patients who were treated for a mental disorder or substance abuse in the past and who showed greater

psychiatric complexities were more likely to receive a screening, whereas patients of small, isolated rural clinics and those traveling longer distances to the care facility were least likely to receive follow-up monitoring for their substance use problems.

Conclusions: Despite the prevalent substance misuse among patients with mental disorders, opportunities to screen this high-risk population for substance use and provide a timely follow-up for those identified as at risk remained overlooked in both rural and urban areas. Rural residents continue to bear a disproportionate burden of substance use problems, with rural-urban disparities found to be most salient in providing the continuum of services for patients with substance use problems in primary care.

2) Treatment Trials

2.1. Rombouts SA, Conigrave JH, Saitz R, et al. Evidence based models of care for the treatment of alcohol use disorder in primary health care settings: a systematic review. *BMC Fam Pract.* 2020;21:260.doi: 10.1186/s12875-020-01288-6.

Summary: A recent systematic review of integrated care models for patients with alcohol use disorder in primary care. The authors identified 11 studies. Several of the included studies are described in greater detail below to highlight various methods or populations (2.2, 2.3, 2.6). The authors concluded that across studies, integrated care models can increase treatment uptake, and that alcohol-related outcomes in studies varied.

Scientific Abstract:

Background: Pharmacological and behavioural treatments for alcohol use disorders (AUDs) are effective but the uptake is limited. Primary care could be a key setting for identification and continuous care for AUD due to accessibility, low cost and acceptability to patients. We aimed to synthesise the literature regarding differential models of care for the management of AUD in primary health care settings.

Methods: We conducted a systematic review of articles published worldwide (1998-present) using the following databases; Medline, PsycINFO, Cochrane database of systematic reviews, Cochrane Central Register of Controlled Trials and Embase. The Grey Matters Tool guided the grey literature search. We selected randomised controlled trials evaluating the effectiveness of a primary care model in the management of AUD. Two researchers independently assessed and then reached agreement on the included studies. We used the Cochrane risk of bias tool 2.0 for the critical appraisal.

Results: Eleven studies (4186 participants) were included. We categorised the studies into 'lower' versus 'higher' intensity given the varying intensity of clinical care evaluated across the studies. Significant differences in treatment uptake were reported by most studies. The uptake of AUD medication was reported in 5 out of 6 studies that offered AUD medication. Three studies reported a significantly higher uptake of AUD medication in the intervention group. A significant reduction in alcohol use was reported in two out of the five studies with lower intensity of care, and three out of six studies with higher intensity of care.

Conclusion: Our results suggest that models of care in primary care settings can increase treatment uptake (e.g. psychosocial and/or pharmacotherapy) although results for alcohol-related outcomes were mixed. More research is required to determine which specific patient groups are suitable for AUD treatment in primary health care settings and to identify which models and components are most effective.

2.2. Bradley KA, Bobb JF, Ludman EJ, et al. Alcohol-Related Nurse Care Management in Primary Care: A Randomized Clinical Trial. *JAMA Intern Med.* 2018;178:613-621.

Summary: This study randomized patients with alcohol use disorder in primary care to 12 months of treatment with a care management approach or to usual care. Patients in the care management arm had a four-fold increase in initiation of medication for alcohol use disorder compared to the usual care group. Both groups demonstrated reduction in heavy drinking days and improvements in good drinking outcomes, with no differences between groups. Usual care participants could access treatments available to all patients in the VA settings, and clinicians were aware of patients being assigned to usual care and may have monitored those patients more closely. Though designed to treat patients with alcohol use disorder, less than three-quarters of patients in this study had alcohol use disorder diagnosis at baseline, suggesting less of an opportunity to see differences between study arms.

Scientific Abstract:

Importance: Experts recommend that alcohol use disorders (AUDs) be managed in primary care, but effective approaches are unclear.

Objective: To test whether 12 months of alcohol care management, compared with usual care, improved drinking outcomes among patients with or at high risk for AUDs.

Design, setting, and participants: This randomized clinical trial was conducted at 3 Veterans Affairs (VA) primary care clinics. Between October 11, 2011, and September 30, 2014, the study enrolled 304 outpatients who reported heavy drinking (≥ 4 drinks per day for women and ≥ 5 drinks per day for men).

Interventions: Nurse care managers offered outreach and engagement, repeated brief counseling using motivational interviewing and shared decision making about treatment options, and nurse practitioner-prescribed AUD medications (if desired), supported by an interdisciplinary team (CHOICE intervention). The comparison was usual primary care.

Main outcomes and measures: Primary outcomes, assessed by blinded telephone interviewers at 12 months, were percentage of heavy drinking days in the prior 28 days measured by timeline follow-back interviews and a binary good drinking outcome, defined as abstinence or drinking below recommended limits in the prior 28 days (according to timeline follow-back interviews) and no alcohol-related symptoms in the past 3 months as measured by the Short Inventory of Problems.

Results: Of 304 participants, 275 (90%) were male, 206 (68%) were white, and the mean (SD) age was 51.4 (13.8) years. At baseline, both the CHOICE intervention ($n = 150$) and usual care ($n = 154$) groups reported heavy drinking on 61% of days (95% CI, 56%-66%). During the 12-month intervention, 137 of 150 patients in the intervention group (91%) had at least 1 nurse visit, and 77 of 150 (51%) had at least 6 nurse visits. A greater proportion of patients in the intervention group than in the usual care group received alcohol-related care: 42% (95% CI, 35%-49%; 63 of 150 patients) vs 26% (95% CI, 19%-35%; 40 of 154 patients). Alcohol-related care included more AUD medication use: 32% (95% CI, 26%-39%; 48 of 150 patients in the intervention group) vs 8% (95% CI, 5%-13%; 13 of 154 patients in the usual care group). No significant differences in primary outcomes were observed at 12 months between patients in both groups. The percentages of heavy drinking days were 39% (95% CI, 32%-47%) and 35% (95% CI, 28%-42%), and the percentages of patients with a good drinking outcome were 15% (95% CI, 9%-22%; 18 of 124 patients) and 20% (95% CI, 14%-28%; 27 of 134 patients), in the intervention and usual care groups, respectively ($P = .32-.44$). Findings at 3 months were similar.

Conclusions and relevance: The CHOICE intervention did not decrease heavy drinking or related problems despite increased engagement in alcohol-related care.

2.3. Saitz R, Cheng DM, Winter M, et al. Chronic care management for dependence on alcohol and other drugs: the AHEAD randomized trial. JAMA. 2013;310:1156-1167.

Summary: The authors reported results of a trial randomizing 563 patients with substance use disorders to treatment with chronic care management or usual primary care. The chronic care management intervention included use of a patient registry, multidisciplinary clinic staff including a nurse care manager and a social worker. Based on this report, Chronic care management in this study did not include systematic case review by a psychiatric consultant, or measurement-based care, which differed from usual Collaborative Care. No significant differences were observed in participant-reported abstinence from opioids, stimulants, or heavy drinking.

Scientific Abstract:

Importance: People with substance dependence have health consequences, high health care utilization, and frequent comorbidity but often receive poor-quality care. Chronic care management (CCM) has been proposed as an approach to improve care and outcomes.

Objective: To determine whether CCM for alcohol and other drug dependence improves substance use outcomes compared with usual primary care.

Design, setting, and participants: The AHEAD study, a randomized trial conducted among 563 people with alcohol and other drug dependence at a Boston, Massachusetts, hospital-based primary care practice. Participants were recruited from September 2006 to September 2008 from a freestanding residential detoxification unit and referrals from an urban teaching hospital and advertisements; 95% completed 12-month follow-up.

Interventions: Participants were randomized to receive CCM (n=282) or no CCM (n=281). Chronic care management included longitudinal care coordinated with a primary care clinician; motivational enhancement therapy; relapse prevention counseling; and on-site medical, addiction, and psychiatric treatment, social work assistance, and referrals (including mutual help). The no CCM (control) group received a primary care appointment and a list of treatment resources including a telephone number to arrange counseling.

Main outcomes and measures: The primary outcome was self-reported abstinence from opioids, stimulants, or heavy drinking. Biomarkers were secondary outcomes.

Results: There was no significant difference in abstinence from opioids, stimulants, or heavy drinking between the CCM (44%) and control (42%) groups (adjusted odds ratio, 0.84; 95% CI, 0.65-1.10; P=.21). No significant differences were found for secondary outcomes of addiction severity, health-related quality of life, or drug problems. No subgroup effects were found except among those with alcohol dependence, in whom CCM was associated with fewer alcohol problems (mean score, 10 vs 13; incidence rate ratio, 0.85; 95% CI, 0.72-1.00; P=.048).

Conclusions and relevance: Among persons with alcohol and other drug dependence, CCM compared with a primary care appointment but no CCM did not increase self-reported abstinence over 12 months. Whether more intensive or longer-duration CCM is effective requires further investigation.

2.4. Roy-Byrne P, Bumgardner K, Krupski A, et al. Brief intervention for problem drug use in safety-net primary care settings: a randomized clinical trial. JAMA. 2014;312:492-501.

Summary: This randomized trial of an integrated care intervention in primary care enrolled 868 individuals in primary care with substance use in the last 90 days to receive a single session brief intervention or usual primary care. No effect was observed on drug use in the sample receiving the brief intervention, compared to usual primary care. The authors described several possible explanations for the lack of difference between those receiving and not receiving the brief intervention, including heterogeneity of the sample (in type and frequency of

substance use), the majority of participants having a single brief intervention contact only, and the patients' primary care physicians did not deliver the interventions to the patients. Additionally, all participants had several research assessments during the study period, which could have contributed to reduced substance use in the control group.

Scientific Abstract:

Importance: Although brief intervention is effective for reducing problem alcohol use, few data exist on its effectiveness for reducing problem drug use, a common issue in disadvantaged populations seeking care in safety-net medical settings (hospitals and community health clinics serving low-income patients with limited or no insurance).

Objective: To determine whether brief intervention improves drug use outcomes compared with enhanced care as usual.

Design, setting, and participants: A randomized clinical trial with blinded assessments at baseline and at 3, 6, 9, and 12 months conducted in 7 safety-net primary care clinics in Washington State. Of 1621 eligible patients reporting any problem drug use in the past 90 days, 868 consented and were randomized between April 2009 and September 2012. Follow-up participation was more than 87% at all points.

Interventions: Participants received a single brief intervention using motivational interviewing, a handout and list of substance abuse resources, and an attempted 10-minute telephone booster within 2 weeks ($n = 435$) or enhanced care as usual, which included a handout and list of substance abuse resources ($n = 433$).

Main outcomes and measures: The primary outcomes were self-reported days of problem drug use in the past 30 days and Addiction Severity Index-Lite (ASI) Drug Use composite score. Secondary outcomes were admission to substance abuse treatment; ASI composite scores for medical, psychiatric, social, and legal domains; emergency department and inpatient hospital admissions, arrests, mortality, and human immunodeficiency virus risk behavior.

Results: Mean days used of the most common problem drug at baseline were 14.40 (SD, 11.29) (brief intervention) and 13.25 (SD, 10.69) (enhanced care as usual); at 3 months postintervention, means were 11.87 (SD, 12.13) (brief intervention) and 9.84 (SD, 10.64) (enhanced care as usual) and not significantly different (difference in differences, $\beta = 0.89$ [95% CI, -0.49 to 2.26]). Mean ASI Drug Use composite score at baseline was 0.11 (SD, 0.10) (brief intervention) and 0.11 (SD, 0.10) (enhanced care as usual) and at 3 months was 0.10 (SD, 0.09) (brief intervention) and 0.09 (SD, 0.09) (enhanced care as usual) and not significantly different (difference in differences, $\beta = 0.008$ [95% CI, -0.006 to 0.021]). During the 12 months following intervention, no significant treatment differences were found for either variable. No significant differences were found for secondary outcomes.

Conclusions and relevance: A one-time brief intervention with attempted telephone booster had no effect on drug use in patients seen in safety-net primary care settings. This finding suggests a need for caution in promoting widespread adoption of this intervention for drug use in primary care.

2.5. Suzuki J, Matthews ML, Brick D, et al. Implementation of a collaborative care management program with buprenorphine in primary care: a comparison between opioid-dependent patients and patients with chronic pain using opioids nonmedically. *J Opioid Manag.* 2014;10:159-168.

Summary: This single arm open trial examined implementing Collaborative Care with medication treatment of buprenorphine/naloxone for patients with opioid use disorder or who had pain symptoms and used prescription opioids. The intervention included weekly systematic case review by a psychiatrist and other team members including pharmacist care manager, and health coach. Forty five patients participated and over one-half remained in treatment at 6 months. Positive urine toxicology testing significantly decreased from baseline to 6 months (69%

to 32%). PCPs were surveyed and reported significant increases in confidence treating patients with opioid use disorder.

Scientific Abstract:

Objective: To implement a collaborative care management program with buprenorphine in a primary care clinic.

Design: Prospective observational study.

Setting: A busy urban academic primary care clinic affiliated with a tertiary care hospital.

Participants: Opioid-dependent patients or patients with chronic pain using opioids nonmedically were recruited for the study. A total of 45 participants enrolled.

Interventions: Patients were treated with buprenorphine and managed by a supervising psychiatrist, pharmacist care manager, and health coaches. The care manager conducted buprenorphine inductions and all follow-up visits. Health coaches offered telephonic support. The psychiatrist supervised both the care manager and health coaches.

Main outcome measures: Primary outcomes were treatment retention at 6 months, and change in the proportion of aberrant toxicology results and opioid craving scores from baseline to 6 months. After data collection, clinical outcomes were compared between opioid-dependent patients and patients with chronic pain using opioids nonmedically. Overall, 55.0 percent of participants (25/45) remained in treatment at 6 months. Primary care physicians (PCPs)' attitudes about opioid dependence treatment were surveyed at baseline and at 18 months.

Results: Forty-three patients (95.6 percent) accepted treatment and 25 (55.0 percent) remained in treatment at 6 months. The proportion of aberrant urine toxicology results decreased significantly from baseline to 6 months ($p < 0.01$). Craving scores significantly decreased from baseline to 6 months ($p < 0.01$). Opioid-dependent patients, as opposed to patients with chronic pain using opioids nonmedically, were significantly more likely to complete 6 months of treatment ($p < 0.05$). PCPs' confidence in treating opioid dependence in primary care increased significantly from baseline to 18 months postimplementation ($p < 0.01$).

Conclusion: Collaborative care management for opioid dependence with buprenorphine may be feasible in a primary care clinic. More research is needed to understand the role of buprenorphine in managing patients with chronic pain using opioids nonmedically.

2.6. Watkins KE, Ober AJ, Lamp K, et al. Collaborative care for opioid and alcohol use disorders in primary care: The SUMMIT randomized clinical trial. *JAMA Intern Med.* 2017;177:1480-1488.

Summary: This study randomized 377 patients with alcohol use and/or opioid use disorders in 2 clinics of a Federally Qualified Health Center to treatment with Collaborative Care or to usual care for 6 months.

Approximately one-third of participants reported Hispanic origin, and approximately half of participants reported current homelessness. Treatment with Collaborative Care resulted in a significantly greater proportion of individuals receiving higher quality of care and reporting abstinences from opioids or alcohol at 6 months.

Scientific Abstract:

Importance: Primary care offers an important and underutilized setting to deliver treatment for opioid and/or alcohol use disorders (OAU). Collaborative care (CC) is effective but has not been tested for OAU.

Objective: To determine whether CC for OAU improves delivery of evidence-based treatments for OAU and increases self-reported abstinence compared with usual primary care.

Design, setting, and participants: A randomized clinical trial of 377 primary care patients with OAU was conducted in 2 clinics in a federally qualified health center. Participants were recruited from June 3, 2014, to January 15, 2016, and followed for 6 months.

Interventions: Of the 377 participants, 187 were randomized to CC and 190 were randomized to usual care; 77 (20.4%) of the participants were female, of whom 39 (20.9%) were randomized to CC and 38 (20.0%) were

randomized to UC. The mean (SD) age of all respondents at baseline was 42 (12.0) years, 41(11.7) years for the CC group, and 43 (12.2) years for the UC group. Collaborative care was a system-level intervention, designed to increase the delivery of either a 6-session brief psychotherapy treatment and/or medication-assisted treatment with either sublingual buprenorphine/naloxone for opioid use disorders or long-acting injectable naltrexone for alcohol use disorders. Usual care participants were told that the clinic provided OAUD treatment and given a number for appointment scheduling and list of community referrals.

Main outcomes and measures: The primary outcomes were use of any evidence-based treatment for OAUD and self-reported abstinence from opioids or alcohol at 6 months. The secondary outcomes included the Healthcare Effectiveness Data and Information Set (HEDIS) initiation and engagement measures, abstinence from other substances, heavy drinking, health-related quality of life, and consequences from OAUD.

Results: At 6 months, the proportion of participants who received any OAUD treatment was higher in the CC group compared with usual care (73 [39.0%] vs 32 [16.8%]; logistic model adjusted OR, 3.97; 95% CI, 2.32-6.79; $P < .001$). A higher proportion of CC participants reported abstinence from opioids or alcohol at 6 months (32.8% vs 22.3%); after linear probability model adjustment for covariates ($\beta = 0.12$; 95% CI, 0.01-0.23; $P = .03$). In secondary analyses, the proportion meeting the HEDIS initiation and engagement measures was also higher among CC participants (initiation, 31.6% vs 13.7%; adjusted OR, 3.54; 95% CI, 2.02-6.20; $P < .001$; engagement, 15.5% vs 4.2%; adjusted OR, 5.89; 95% CI, 2.43-14.32; $P < .001$) as was abstinence from opioids, cocaine, methamphetamines, marijuana, and any alcohol (26.3% vs 15.6%; effect estimate, $\beta = 0.13$; 95% CI, 0.03-0.23; $P = .01$).

Conclusions and relevance: Among adults with OAUD in primary care, the SUMMIT collaborative care intervention resulted in significantly more access to treatment and abstinence from alcohol and drugs at 6 months, than usual care.

2.7. Zatzick DF, Roy-Byrne P, Russo J, et al. A randomized effectiveness trial of stepped collaborative care for acutely injured trauma survivors. *Arch Gen Psychiatry*. 2004;61:498-506.

Summary: The authors report results of a clinical trial including $n=120$ individuals hospitalized for care of acute injuries treated with Collaborative Care or usual care post hospital discharge, and found those receiving Collaborative Care has significantly better mental health outcomes including lower PTSD symptom severity and rates of alcohol abuse/dependence.

Scientific Abstract:

Context: Although posttraumatic stress disorder (PTSD) and alcohol abuse frequently occur among acutely injured trauma survivors, few real-world interventions have targeted these disorders.

Objective: We tested the effectiveness of a multifaceted collaborative care (CC) intervention for PTSD and alcohol abuse.

Design: Randomized effectiveness trial.

Participants: We recruited a population-based sample of 120 male and female injured surgical inpatients 18 or older at a level I trauma center.

Intervention: Patients were randomly assigned to the CC intervention ($n = 59$) or the usual care (UC) control condition ($n = 61$). The CC patients received stepped care that consisted of (1) continuous postinjury case management, (2) motivational interviews targeting alcohol abuse/dependence, and (3) evidence-based pharmacotherapy and/or cognitive behavioral therapy for patients with persistent PTSD at 3 months after injury.

Main outcome measures: We used the PTSD symptomatic criteria (PTSD Checklist) at baseline and 1, 3, 6, and 12 months after injury, and alcohol abuse/dependence (Composite International Diagnostic Interview) at baseline and 6 and 12 months after injury.

Results: Random-coefficient regression analyses demonstrated that over time, CC patients were significantly less symptomatic compared with UC patients with regard to PTSD ($P = .01$) and alcohol abuse/dependence ($P = .048$). The CC group demonstrated no difference (-0.07%; 95% confidence interval [CI], -4.2% to 4.3%) in the adjusted rates of change in PTSD from baseline to 12 months, whereas the UC group had a 6% increase (95% CI, 3.1%-9.3%) during the year. The CC group showed on average a decrease in the rate of alcohol abuse/dependence of -24.2% (95% CI, -19.9% to -28.6%), whereas the UC group had on average a 12.9% increase (95% CI, 8.2%-17.7%) during the year.

Conclusions: Early mental health care interventions can be feasibly and effectively delivered from trauma centers. Future investigations that refine routine acute care treatment procedures may improve the quality of mental health care for Americans injured in the wake of individual and mass trauma.

Last updated: 1/18/2021

