PA Depression Collaborative

Final Results

Depression is a significant and prevalent concern in nursing homes. Estimates of depressive symptoms for the 1.5 million nursing home residents in the U.S. range from 22% to 40% (Sahyoun, 2001). In addition to causing psychological suffering, research has demonstrated that untreated depression can have a host of other damaging effects for nursing home residents, including increased functional impairment and disability, poorer health outcomes, greater risk of physical injury, and increased rates of hospitalization (Bartels et al., 2003). Depression has recently been found to be highly related to hospital re-admissions (Mitchell et al., 2010).

In October 2010, the Centers for Medicare & Medicaid Services (CMS) introduced the PHQ-9, a validated depression screener, into the Mood Section of the MDS 3.0. The PHQ-9's nine items map to symptoms of clinical depression in DSM-IV. This tool improves depression detection and allows for the development of a valid and reliable measure of depression in the long-term care setting. The addition of the PHQ-9 in the MDS 3.0 assessment resulted in all nursing home residents across the United States receiving validated depression screening on at least a quarterly basis.

The Birth of the Pennsylvania Initiative

In January 2011, stakeholders across the Commonwealth of Pennsylvania initiated a state-wide depression collaborative, utilizing the PHQ-9 depression screener and the Abramson Center's quality improvement model of depression prevention and management with the goal of replicating the Abramson Center's successful results (Crespy, Van Haitsma, et al., 2008). The collaborative design included training 40 SNFs in two phases (active and waitlist control), with 20 facilities participating in each phase across an eight-month period.

Topics addressed in the Collaborative's four webinar learning sessions and accompanying toolkit included: depression in the elderly; PHQ-9; data requirements; depression interventions (Level 1 – based on behavioral activation; Level 2 - based on adjustment through social support/network; and Level 3 - industry standard care of psychology and/or psychiatry services); suggested intervention utilization based on depression risk (e.g., minimal, mild, moderate, severe); instituting QI processes that included a clinical rounding process; and addressing the needs of suicidal residents. Participants were trained to structure and administer existing resources at their facilities. Facilities that used external resources continued to do so.

Monthly aggregate level data was collected and submitted to the Polisher Research Institute (PRI) by participating SNFs. Data collected included: number of MDS assessments completed per month; number of positive depression screens (i.e., Total Severity Score of $\geq$ 10, MDS Section D: Mood); and number of residents who received care planned interventions by level type (i.e., Level 1: Activity).

What have we learned?

Recruitment & Training. Through active involvement of the associations that represent the SNF community, the PA Depression Prevention and Management Collaborative surpassed original recruitment goals by 33% (total of 40 participating SNFs; several homes had to be turned away due to the high level of interest). Training for active and wait-list control phases of the PA Depression Collaborative was completed on July 28th. Attendance for all four webinar learning sessions was

Table 1.
Training Session Attendance

Overview Session:	92.5% (37/40)
Learning Session 1:	95.0% (38/40)
Learning Session 2:	95.0% (38/40)
Learning Session 3:	90.0% (36/40)

high, averaging 93.1% (149/160) – see Table 1 for individual training attendance. The few homes that did not participate on the "live" webinars received a recorded copy.

Data Submission. The average data submission compliance rate for participants was high at 96.7% (293/303) – see Table 2 for monthly data submission compliance. Each home administered and reported an average of 70+ depression screeners per month, which totaled 22,713 PHQ-9s completed during this 8-month period.

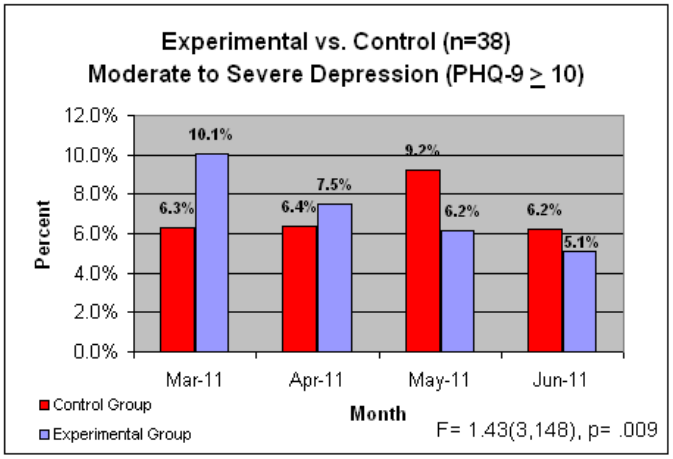
Table 2.
Data Submission Compliance

Mar 2011:	95.0% (38/40)
Apr 2011:	97.4% (38/39)
May 2011:	97.4% (37/38)
Jun 2011:	94.7% (36/38)
Jul 2011:	97.3% (36/37)
Aug 2011:	97.3% (36/37)
Sep 2011:	97.3% (36/37)
Oct 2011:	97.3% (36/37)

Facility Retention Rate. Thirty-seven of the original 40 participating SNFs completed the study (92.5%). Of the three homes that formally dropped out, two lost staff members who were integral to their participation in the collaborative; and a third reported that it was in the midst of too many changes to continue.

Results of Randomized Trial. Statistically significant findings were found with PHQ-9 score (10+) Group (E vs. C) X Time (months 1-4) interaction with facility 5 star quality rating as a covariate: F= 1.43(3,148), p= .009 (Graph 1). Compared to Wait List control participants, the experimental participant facilities showed a significant reduction in the number of residents with 10+ PHQ-9 scores over a four-month period. Wait List Control facilities showed no change in the number of residents scoring 10+ over four months.

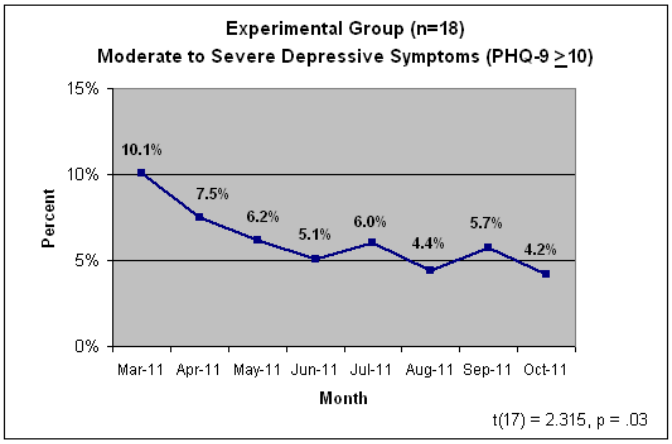
Graph 1.



The experimental participant nursing homes were followed for an additional four months (eight months total). Control group home participants received the intervention and were trained in July 2011 and were followed for four months.

Results of Follow-up Phase. The experimental group was followed to examine outcomes after a longer period of intervention tools usage. After eight months post training, the nursing homes in the experimental group continued to demonstrate a decline in the percentage of residents with depressive symptoms. There was a 58% relative reduction in the percentage of residents with moderate to severe depressive symptoms by October 2011 (4.2%) from March 2011 (10.1%).

Graph 2.



What is the next step?

After a successful expansion of the Abramson Center model for Depression Prevention and Management in 40 nursing homes across the Commonwealth of Pennsylvania, this Quality Assessment and Performance Improvement (QAPI) can be further expanded to multi-state collaborative design to assess the impact on secondary measures (e.g., reduction in avoidable hospitalizations, psychotropic medication use, falls, etc.). This QAPI intitiative may also be used in a national initiative (e.g., such as Achieving Excellence) to reduce depressive symptoms in the long-term care setting.