Challenging the Quality of the Quality Indicator, “Depression Without Treatment”

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Objective: To assess the validity of the Minimum Data Set (MDS)-based quality indicator, “depression without treatment,” and examine whether a nonphysician-based educational intervention can improve the accuracy of MDS questions regarding depression and its treatment.

Subjects: All residents of a 538-bed urban, university affiliated, long-term-care (LTC) facility. Nursing and social work staff involved in completing the mood and behavior items on the MDS.

Design: Two retrospective chart review of psychotropic medications, psychiatric diagnoses, mental health evaluation, and treatment of all residents who were identified as displaying the MDS quality indicator, depression without treatment, before and 2 months after an educational intervention. The education consisted of three 1½-hour sessions led by a psychiatric clinical nurse specialist to educate registered nurse assessment coordinators and social workers about psychotropic medications, clinical characteristics of psychiatric diagnoses, chart review, and coordination of resident medical care.

Results: The first MDS identified 66 residents as having depression without treatment. Clinical record review revealed that 11 of these residents were receiving an antidepressant. Twenty-two others were receiving a psychotropic medication consistent with their psychiatric diagnosis. Twenty-five of the remaining residents had not received mental health assessment for greater than 1 year. Two months after the educational intervention, 36 residents were identified as depression without treatment. Four of these residents were receiving an antidepressant; eight others were receiving a psychotropic medication consistent with their psychiatric diagnosis. Thirteen of the remaining residents had not received mental health assessment for greater than 1 year.

Conclusions: This preliminary study reveals that the presence of the quality indicator, depression without treatment, may not accurately capture clinically depressed LTC residents in need of mental health intervention. An educational intervention may be able to assist staff in more accurately completing MDS questions regarding depression and its treatment. (J Am Med Dir Assoc 2002; 3: 41–45)

Keywords: Quality indicators; depression; long-term care
Clinical information documented on the MDS has been used for the development of a set of quality indicators. Quality indicators are measures used to monitor the outcomes of the care of residents in long-term-care facilities. These indicators are a primary component of the nursing home survey process and have been used to improve and assess the quality of care delivered in long-term-care facilities. Quality indicators represent important aspects of common conditions in broad areas of care. These areas include: accidents, behavior and emotional patterns, clinical management, cognitive patterns, elimination and incontinence, infection control, nutrition and eating, physical functioning, psychotropic drug use, quality of life, and skin care. A listing of the 24 quality indicators can be found in Table 1.

Interrater reliability and the validity of the MDS are integral to its use as a clinical tool and its ability to provide accurate quality indicators. Many studies have demonstrated the reliability of the MDS in a variety of domains, including cognition, performance of activities of daily living (ADLs), nutritional status, disease diagnosis, and medication. However, there have been numerous studies that have demonstrated low reliability of the MDS in identifying pain, comfort, incontinence severity, and terminal prognosis. In general, the reliability of the MDS has been lower in assessing mood and behavioral symptoms than other domains. There has also been low correlation of mood scores between the MDS and other mood scales. Many of the MDS mood and behavior items have not been shown to correlate with the traditional geriatric depression rating scales. Additionally, the use of the MDS to address the appropriate treatment of a variety of psychiatric symptoms has not been demonstrated.

In this preliminary study our primary objective was to examine the validity of the quality indicator, “depression without treatment.” The MDS items that are used to generate the quality indicator (QI), “depression,” include a sad mood with at least two symptoms of functional depression, including negative statements, suicidal thoughts, repetitive physical movements, withdrawal from activities, reduced social activity, not awake most of the time, resists care, awake one period of the day or less and not comatose, and weight loss. Many of the items used to generate this QI (depression) can be indicative of a variety of medical conditions other than depression. Studies have demonstrated that the QI, depression, may be influenced more by documenting staff of the MDS than by the actual prevalence rate of depression in the facility. We, therefore, hypothesized that the QI, depression without treatment, may not be an accurate representation of a resident’s clinical status.

Additionally, our interest in exploring this domain is based on previous research, revealing only weak correlation between mood and behavior subscales of the MDS and psychotropic drug use. Due to the extensive number of medicines available to treat depression as well as other psychiatric disorders, we hypothesized that this may also contribute to the inaccurate documentation of the QI, depression without treatment. Second, we attempted to design a staff intervention to improve the validity of the QI, depression without treatment.

METHODOLOGY

The study took place at Temple Continuing Care Center: a 538-bed, urban, academic-affiliated, long-term-care facility. The residents are predominately female (75%) with a median age of 85 to 89 years. The facility had an occupancy rate of 97% at the time of study.

Temple Continuing Care Center possesses a full-time consultant geropsychiatrist, psychiatric clinical nurse specialist (CNS), and full-time geropsychologist. Mental health assessment and intervention are considered an integral part of individualized resident treatment planning. The consultant geropsychiatrist is involved in the vast majority of psychotropic medication-prescribing decisions.

Sixty-six residents were identified in September 2000 by the quality assurance department as displaying the QI, depression without treatment. Registered nurse assessment coordinators (RNACS) coded questions for the QI, depression without treatment, on the MDS. Each RNAC is responsible for MDS coding for approximately 80 residents. The RNAC position is administrative, and none of the RNACS are directly involved in clinical care.

All 66 residents’ charts were retrospectively reviewed to ascertain the presence and type of psychotropic drug use and current and past psychiatric diagnoses. In addition, active or remote utilization of mental health services was also obtained for all 66 residents. The study primary investigators (MZ, TCS, and RW) performed the chart review.

A psychiatric CNS and primary investigator (TCS) performed an educational intervention in November 2000 with the RNACS and social work staff, who are involved in the assessment and documentation of mood and behavioral MDS data. Three 1½-hour interactive sessions took place. The first session included all RNACs. At the request of the RNACs, a second session was held with social work staff. The third session was attended by staff from both disciplines to foster collaboration.

The educational intervention consisted of four components. First, a list of psychotropic drugs (antidepressants, mood stabilizers, and antipsychotics) used by the psychiatry staff was distributed to each participant for review in the session and to utilize for future reference. The reasons for using drugs in each class were discussed utilizing case studies from the current LTC population. Second, skills to differentiate between the apathy of dementia and negative symptoms of schizophrenia with the symptoms of depression were discussed. In addition, types of brain pathology that may cause tearfulness in the absence of concurrent sadness were reviewed. Third, a process for more accurately reviewing the long-term-care chart to ascertain the documentation of psychiatric diagnoses, symptoms, and treatment decisions were discussed. Finally, a system by which the MDS data, registering symptoms of depression without treatment, might most efficiently be brought to the attending geriatrician’s attention for clinical assessment was developed.

Two months after the intervention, 36 residents were identified by the quality assurance department as displaying the quality indicator, depression without treatment. All 36 resi-
dent charts were retrospectively reviewed by the primary investigators in the manner previously described.

RESULTS

Complete results are illustrated in Table 2. The initial chart review revealed that 11 of 66 residents documented on the MDS as having depression without treatment were in fact receiving an antidepressant. An additional 22 were receiving other psychotropic agents. Fifteen of 22 were receiving antipsychotics, 5 were receiving mood stabilizers, and 2 were receiving a combination of an antipsychotic plus a mood stabilizer. All 33 residents receiving psychotropic medications were actively being monitored by the geropsychiatrist.

After the educational intervention, 2-month data revealed that 4 of 36 residents documented on the MDS as having depression without treatment were receiving an antidepressant. An additional eight were on other psychotropic agents. Three were receiving antipsychotics, three were receiving mood stabilizers, one was receiving a mood stabilizer plus an antipsychotic, and one was on a benzodiazepine. All 12 residents receiving psychotropic medications were actively being monitored by the geropsychiatrist.

In the initial review, all residents on antipsychotics had a diagnosis in their medical record consistent with their drug prescription. Thirteen of 15 patients possessed a diagnosis of dementia with delusions, 1 had a diagnosis of schizophrenia, and 1 resident’s diagnosis was dementia with delirium. None of these residents possessed a diagnosis of depression.

The postintervention data revealed that all 12 residents on psychotropics, who were documented on the MDS as having depression and not receiving treatment, possessed a chart diagnosis consistent with their drug prescription. Of the three residents on antipsychotics, one had a diagnosis of schizophrenia, and the other two had a diagnosis of dementia with delusions and behavioral disturbance.

The initial review of the five patients on mood stabilizers revealed that three had a diagnosis of bipolar disorder; the other two had a diagnosis of dementia with behavioral disturbance. The two residents on both a mood stabilizer and antipsychotic possessed a diagnosis of dementia with delusions and behavioral disturbance. Neither of these residents previously responded to therapy with one psychotropic agent. After the intervention, three patients were on mood stabilizers: one had a diagnosis of bipolar disorder, and the other two had a diagnosis of dementia with behavioral disturbance. The patient on a benzodiazepine had a diagnosis of generalized anxiety disorder.

The initial review showed that 33 of 66 residents, documented on the MDS as depressed without treatment, were not on psychotropic agents. Of these, seven were never seen by a psychiatrist or psychologist. Eighteen had previously received mental health services but had not received psychiatry or psychology follow-up for at least 1 year. No further psychiatric follow-up had been requested by the attending physician for any of the residents. Of these 18 residents, 16 had a past history of antidepressant use. No clinical response to the antidepressant was documented in the record of 11 residents. Three additional residents became delirious while on the antidepressant resulting in medication discontinuation. The remaining eight residents were seen by a geropsychiatrist within the past 3 months. In all cases, no evidence of acute depression warranting treatment was discovered.

The postintervention data showed that 24 residents documented on the MDS as depression without treatment were not on psychotropic medications. A psychiatrist or psychologist had not seen 13 of the residents for greater than 1 year. Two residents had a past history of antidepressant use. Chart review documented lack of clinical response in both cases. The remaining nine residents were evaluated by a geropsychiatrist and not thought to be displaying signs and symptoms of acute depression.

DISCUSSION

The main finding of our preliminary study is that the presence of the quality indicator, depression without treatment, may not accurately capture clinically depressed LTC residents in need of mental health intervention. Our data reveals that one-half of our LTC residents who were coded as depression without treatment was in fact receiving psychopharmacologic interventions consistent with their clinical diagnosis. One-sixth was actually receiving antidepressants. It may be that the staff completing the MDS has no formal mental health training and thus has limited knowledge of psychiatric disorders and their treatment. Or, it may indicate a defect in the MDS tool itself, indicating further refinement of mood behavioral symptoms, which more accurately reflect a diagnosis of depression, is needed.

We believe that enhanced staff training in the area of depression is an important issue. A recent study found that the prevalence of depression as measured by nursing home staff generated estimates to be more influenced by the ability of indigenous nursing staff to detect symptoms than by the actual prevalence rate.15 We believe that at minimum, a basic understanding of schizophrenia is necessary to ascertain “negative symptoms” of the condition and not misclassify or mistreat as depression. Likewise, a working knowledge of frontal lobe syndromes, which can produce apathy or emotional lability, is necessary to differentiate these symptoms from those of depression. In addition, there may be limited awareness of the newer psychotropic agents that are commonly used to treat depression, schizophrenia, and bipolar disorder in LTC residents due to their more favorable side effect profile. Staff may require regular educational updates as new psychotropic agents become available and existing agents receive approval for additional clinical indications. Concurrently, medication classifications in MDS training manuals require regular updating.

Quality of care in LTC facilities has been a topic of national concern. Recently the American Geriatrics Society issued a position statement regarding the regulation and quality of care standards in nursing facilities.16 Although they feel the Omnibus Budget Reconciliation Act (OBRA) of 1987 Regulations have had a positive impact on some clinical outcomes in nursing facilities, further outcome studies assessing quality of care using state-of-the-art research methodologies are necessary. Quality of care in the LTC setting is
multidimensional, addressing the physical, social, and emotional needs of its residents. The under-treatment of psychiatric illness and depression, in particular in the LTC setting, has been well-documented. Depression in the LTC setting tends to be persistent and associated with increased disability, subnutrition, and increased mortality. Thus, we agree that the recognition and treatment of depression in LTC residents is a condition that warrants close monitoring and scrutiny in quality of care measures. MDS items, however, target individual symptoms; they are not psychiatric diagnoses and do not specifically call for treatment interventions. MDS items related to mood disturbance include repetitive questions, repetitive verbalizations, persistent anger, repetitive health complaints, repetitive anxious non-health-related concerns, sad and/or pained facial expression, repetitive physical movements, and expression of unrealistic fears. Although a depressed individual could manifest any combination of these symptoms, they are not specific to depression and are not included in the DSM IV diagnosis of depression. These symptoms could be present in dementia with behavioral disturbance, anxiety disorders, and acute medical disorders. Therefore, it is not clear that using the current MDS, which represents a cross-sectional clinical snapshot, to yield quality indicator data regarding the presence and treatment of depression is an appropriate use for this assessment tool. In fact, recognizing the need for a standardized instrument to screen for depression in long-term-care facilities, which incorporates daily observations by nursing staff, researchers have recently derived the Minimum Data Set Depression Rating Scale. This scale has performed well compared to traditional rating scales and psychiatric diagnosis and may be more helpful in identifying residents who require further evaluation and possible treatment.

The MDS and QI, depression without treatment, do not acknowledge nonpharmacologic treatment modalities for depression. In fact, older persons may have a less than ideal response to antidepressants. About one-half of patients experience either no or partial response despite adequate dosing and duration of medication trial.

Electroconvulsive therapy (ECT) is a highly effective treatment for late-life depression, even among long-term-care residents. Neither ECT nor psychotherapy is reflected as treatment modalities in the current MDS and quality indicator schema.

Likewise, current quality indicator standards are only concerned about the presence of antidepressant treatment. They do not yield information about dosing adequacy or effectiveness of treatment. Thus, a facility can receive “credit” for maintaining a depressed, long-term-care resident on an inadequate and ineffective dose of antidepressant indefinitely. The fact that initially 22 residents and at follow-up 8 residents were receiving appropriate treatment for their mental health conditions yet were identified as depressed without treatment indicates that the quality indicator tool needs further refinement.

Secondarily, we found that a simple educational intervention may assist staff in more accurately filling out MDS questions regarding depression and its treatment and may assist LTC residents in having their clinical needs met. After the educational intervention, fewer residents treated with antidepressants were identified as depression without treatment and proportionally fewer residents receiving active treatment for other psychiatric conditions were incorrectly classified as depression without treatment. In addition, fewer total residents were identified as depressed without treatment. Previous research reveals that using trained raters the reliability of the MDS cognitive items have been good but there exists a lack of high agreement in facilities with staff not specifically trained to complete the MDS for study purposes. Better training for staff in mental illness and its treatment also seems necessary for the MDS to accurately recognize and promote psychiatric evaluations as well as monitor outcomes of psychiatric interventions.

The educational intervention we selected was based upon our preliminary chart review, revealing specific deficiencies hampering accurate completion of the quality indicator depression without treatment in our facility. With our relatively small sample size, the effects of our intervention did not reach statistical significance. The preliminary data do not lend themselves to ascertaining the specific outcomes of the staff education. The additional training and focus on depression may have provided the staff with a generalized heightened awareness regarding depression and its treatment. Different educational interventions may be successfully deployed at other facilities. Incentives to staff such as pre- and posteducation testing, availability of continuing education credits, and other acknowledgments of educational achievement may enhance the effects of the intervention. Using a standardized educational tool could lend itself more easily to training of new staff, as well as easily allow other facilities to duplicate the intervention. However, our intervention was an outgrowth of our study results and was designed for our setting and staff and not meant to be generalized to other facilities. However, education cannot correct for items in the MDS tool that seem to capture illnesses in addition to depression in LTC residents.

There are a number of other limitations of our preliminary study. The study facility utilizes RNACs and social workers to complete the MDS and QI measures. Many facilities hire an MDS nurse to take responsibility of carrying out all assessments, whereas others utilize more clinically involved personnel who know the resident well. Issues of inter-rater reliability based on amount of clinical observation, time to complete required forms, presence and degree of first-hand knowledge of the residents, clinical background, and experience can all impact on the completion of the MDS and limit the generalizability of our findings.

This study took place in a large, urban, LTC facility. Previous research has demonstrated higher rates of psychotropic use in smaller nursing homes, for-profit facilities, and homes located in counties with lower population densities and higher percentages of older people. These demographic factors may also limit the generalizability of our findings.
We did not examine changes among individual residents’ MDS and quality indicator data. Our goal was to examine how these forms are being completed on a facility-wide basis and offer broad educational interventions that can be applied to all residents. Our facility maintains an “on-site” mental health team that has daily interaction with LTC staff. Our interest lay in exploring who the quality indicator, depression without treatment, was capturing given the high level of ongoing mental health interventions. We hope this initial exploration can lead to controlled studies.

Without further refinement of the mood and behavior categories and without accurate documentation in conjunction with adequate treatment team follow through, the MDS mood and behavioral items and quality indicators will not be the basis for promoting and monitoring effective mental health treatment interventions.

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REFERENCES