Reasons for Psychiatric Medication Prescription for New Nursing Home Residents

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Executive Summary

Background

Appropriate mental health services provided to nursing home (NH) residents has been a topic of some controversy over the past few years. This report focuses on the prescription of psychoactive medication to newly-admitted NH residents during their first three months of admission.

Methodology

The methodology involved extraction of information from 73 charts drawn from a convenience sample of seven NHs to determine the presence and rationale for psychoactive medication use. Six focus groups with NH staff were conducted to explore the rationale for psychoactive medication usage documented in the record abstractions.

Results

A number of findings suggest that NH residents with mental health problems receive attention and treatment:

- The old lore that there is limited treatment for addressing the mental health problems of NH residents can safely be put to rest, at least in Florida! On a very broad ‘big picture’ level, many residents have mental health problems and most receive treatment in the hospital prior to placement and during their NH residence. Eighty-nine percent of the residents who receive psychoactive medications have a psychiatric diagnosis, and all residents who are on psychoactive medications have a written physician’s order.

- Mental status is monitored by the staff when psychoactive medications are added or dropped. Nearly three-fourths of NH residents on psychoactive medications have at least one note in the chart justifying psychoactive medication prescription. Over 92% of the residents have at least one note in the chart regarding a behavior that merited attention; 83% of those residents who had a psychoactive medication added or dropped had a specific target symptom identified; and 63% of those residents who had a psychoactive
medication added or dropped had some behavioral monitoring prior to psychoactive medication prescription. Impressively, half of the residents received additional mental health consultation, and 59% of the NH residents had at least one note reflecting the monitoring of side-effects.

- Focus group data suggest that the NH staff seems reasonably knowledgeable of how to address the mental health problems of residents (i.e., to individualize treatment, be flexible, and avoid using psychopharmacology as a first resort). However, they are concerned about how to remedy the medication regimens administered to new residents upon being discharged from the hospital to the NH, and they recognize the need for more communication/teamwork and training to address the mental health needs of the residents.

Several of the findings, however, raise the following concerns:

- No PASRR 2’s were completed. Almost all the PASRR 1’s in the charts indicated that the incoming NH residents did not have a mental disorder (despite the fact that 70% of the residents were admitted with a psychoactive medication and a rule states that behavior problems should trigger a PASRR 2). In informal discussions with NH administrators regarding this matter, it appears that there is a genuine difference of interpretation regarding when a PASRR 2 is needed. Their belief appears to be that PASRR 2’s are triggered by longstanding diagnoses of Serious Mental Illness, rather than the more common psychiatric problems reflected in mental status changes related to dementia. It also should be noted that NH administrators appear to be concerned about the mental health problems of their residents, often resorting to referrals regarding mental health consultation rather than the PASRR system to evaluate mental status changes of residents. The PASRR process appears to be viewed as a bureaucratic hurdle rather than a way of assuring adequate mental health assessment of all NH residents who need it. Perhaps these different interpretations of PASRR justify continuing education on this issue, some further specification in guidelines, or even a complete evaluation of the outcomes of the PASRR 2 process and whether the outcomes are consistent with the original goals.

- Over 85% of the NH residents were on a psychoactive medication within three months of admission, and 13.7% were on four or more psychoactive medications. This is consistent with our prior research suggesting high use of psychoactive medications and highlights continued concerns with adverse side-effects and untoward medical events. It should be noted that 68% of the NH residents were admitted with at least one psychoactive medication. However, perhaps more striking is the fact that 84% of the NH residents were admitted from the hospital, and 84% of these residents were admitted on at least one psychoactive medication. These results strongly suggest that
NH residents are on a psychoactive trajectory prior to and upon admission to the NH from the hospital and that a point of entry for interventions regarding psychoactive medication usage could be at discharge from the hospital and upon NH entry to determine the absolute necessity for each resident’s psychoactive regimen. Indeed, one member of the focus group indicated the NH staff often has to “clean up” the situation they inherit from the hospitals that do not have strict rules and regulations regarding psychoactive medications. As noted previously, another point of intervention might be a broader interpretation of the need for PASRR 2’s so that on the front end an extended mental health assessment can be conducted and yoked to a mental health treatment plan that is regularly monitored.

- Although over half of the residents had notes in their charts regarding non-psychopharmacological strategies to address problem behaviors, this number is dwarfed by the 85% who received psychopharmacological treatment. The intent of OBRA was to promote non-psychopharmacological strategies as a first-line treatment to address psychiatric problems of NH residents, and this goal has yet to be achieved. Even though there may be other non-psychopharmacological strategies that are informally utilized that are not noted in the charts, the non-psychopharmacological strategies mentioned in the charts are basic, general interventions. It is worthy of mention that there do not appear to be any notes regarding interventions delivered by trained licensed mental health professionals, although our data collection process was unable to provide definitive evidence. On the basis of these chart reviews, it appears that psychoactive medication usage remains the primary strategy to address the mental health problems of NH residents.

**Conclusions/Policy Recommendations**

Overall, our study suggests there is a good deal of mental health care that occurs in NHs. The question remains, how optimal and effective is this care? In this study, it appears that a high percentage of NH residents are being treated for specific mental health problems that involve diagnosis and monitoring of treatment effects. Approximately one-half receive outside mental health consultation. Most residents receive psychoactive medications, and over half receive non-psychopharmacological care broadly defined. The big question is whether there is an over-reliance on medication-based mental health interventions, which is a concern particularly for those ~15% of the residents found in the current and prior study of Florida NHs who take four or more psychoactive medications.

It appears that psychopharmacological care continues to be a major strategy used by NHs to address the mental health problems of residents. NH staff and administrators appear sensitive to the mental health needs of their residents, but they are faced with residents who have multiple medical and psychiatric problems. The need for continued mental health training of staff, the lack of available geriatric
mental health professionals, and perceptions that PASRR rules may hinder rather than assist in targeting mental health problems may encourage NHs to resort to psychopharmacological care as a primary way of attempting to resolve a NH resident’s distress.

A major question raised by the results is whether there are cost-efficient mechanisms that can be implemented to assure that the spirit and intent of OBRA is realized in all Florida NHs. A second question is whether a variety of valid, evidence-based mental health interventions can be tailored to the unique psychiatric circumstances of each resident. It is possible that with more clarity in the interpretation of PASRR rules triggering evaluations (or other mandatory non-PASRR type mental health evaluations), more optimal mental health treatment will occur. The requirement for a comprehensive evaluation of the need for psychiatric medications upon entry into the NH (at least for those from hospital settings) by qualified geropsychiatrists or geriatricians should also be considered.
Introduction

Background

Reports concerning the mental health of residents in NHs are sobering. As many as two-thirds of NH residents are reported to have a mental disorder (Burns et al., 1993; Grabowski et al., 2009), as many as 40% suffer from depression (Randall, 1993), and 3.5 to 20% suffer from symptoms of anxiety (Parmelee, Katz, & Lawton, 1993).

Despite the documentation of such high rates of psychiatric problems, early studies suggested that there was very little mental health treatment provided in NHs by mental health professionals, with most treatment provided on an ad hoc basis. Indeed, NHs have been called de facto psychiatric institutions, but ones that lack the requisite trained staff (Rovner et al., 1990). In one study, only 4.5% of NH residents with a psychiatric diagnosis received treatment during a one-month period (Burns et al., 1993). Even though most NH treatment for mental health disorders is psychopharmacological, half of all NHs do not have access to a psychiatrist and three-quarters of NHs don’t have access to behavioral consultants (Reichman et al., 1998).

Commensurate with longstanding concerns over the lack of mental health treatment in NH settings (Burns et al., 1993; Reichman et al., 1998; Rovner et al., 1990) are concerns about the appropriate use of psychotropic medications. An early study by Avorn, Dreyer, Connelly, and Soumerai (1989) found that 55% of a random sample of residents of 55 NHs in the state of Massachusetts took at least one psychiatric medication. Thirty-nine percent of the residents were receiving antipsychotic medication, and 18% of these were receiving two or more antipsychotic medications. Surprisingly, half of these cases had no evidence of a physician participating in mental health decisions during the year of the study. Further, approximately one-third of the residents had serious cognitive impairment, and 6% showed evidence of moderate or severe tardive dyskinesia. The authors concluded that psychoactive drugs often were used in NHs with little medical supervision. These findings are congruent with more recent Scandinavian research. One Danish study found that staff perceptions of psychiatric need outweighed standard diagnostic criteria as the basis for prescription of psychotropic medications (Sorensen, Foldspan, Gulmann, & Munk-Jorgensen, 2001). Holmquist, Svensson & Hoglund (2003) discovered that 73% of a sample of Swedish NH residents used at least one psychoactive drug, and 50% of these received psychiatric treatment without a psychiatric diagnosis.

The Omnibus Budget Reconciliation Act of 1987 (OBRA-87) authorized that new residents be screened for mental health problems via the Preadmission Screening and Annual Resident Review (PASRR) process so that a plan either is in place for their mental health needs to be addressed or else they should not be accepted into the
NH. The act also provided guidelines to reduce inappropriate medication usage and physical restraints and encouraged non-pharmacological approaches via more favorable reimbursement under Medicare (Norris, 2008). Since its passage, there have been some reports of more judicious use of psychoactive medications (Ryan, Kidder, Daiello, & Tariot, 2002) with reductions in certain types of psychoactive medication (e.g., anxiolytics, sedative-hypnotics, and anti-psychotics) and increases in other types, especially anti-depressants (Datto, Oslin, Streim, et al. 2002; Lantz, Giambanco, & Buchalter, 1996; Semla, Palla, Podgig, & Brauner, 1994).

Other research suggests little recent change in the usage of antipsychotic drugs or in behavior management programs (Hawes, Mor, Phillips, et al., 1997). One investigation indicated that there has been an increase in prescribed anti-psychotic medication usage to levels not seen in a decade, with over one quarter of all Medicare beneficiaries receiving at least one prescription for an anti-psychotic drug in the 2000-2001 study period. The authors suggest that this increase may be associated with the emergence of the newer atypical anti-psychotics. While the latter use may or may not be warranted, less than half of the treated residents received these newer medications in compliance with NH guidelines (Briesacher, Limcangco, Simoni-Wastila et al., 2005).

Despite OBRA rules intended to promote suitable monitoring of psychoactive medication usage and PASRR requirements to assure adequate mental health treatment planning, our recent study of Florida NHs documents significant staff concerns over lack of training to address the mental health needs of residents with Serious Mental Illness (Molinari et al., 2009). Indeed, it appears that professional geriatric organizations are concerned about the lack of competent mental health care in NHs. In their joint American Geriatrics Society and American Association of Geriatric Psychiatry position statement on psychotherapeutic medication in the NHs (http://www.americangeriatrics.org/products/positionpapers/psychot.shtml) on psychotherapeutic medication in the NHs, the distinction between the appropriate and inappropriate use of psychoactive medications is highlighted.

As the authors of a recent AHCA technical report and peer-reviewed publication that investigated the provision of mental health services in Florida NHs (Molinari et al., 2008; Molinari et al., 2010), we have been surprised to find evidence that over 70% of the newly admitted NH residents were placed on some psychotropic medication within three months of their admission. Most of these residents appeared to have had neither a previous mental health diagnosis nor previous mental health treatment. However, we were unable to obtain a valid estimate of current diagnoses with the Medicaid database in our prior study because psychiatric services in NHs are a bundled service and the physicians are not required to complete claims forms to prescribe psychiatric medications. This past research laid the basis for the present study, which involved reviewing resident charts in seven facilities.
Study Aims

This study followed up on the above-noted AHCA technical report findings of high psychoactive medication usage in Florida NHs. Its intent was to conduct intensive chart reviews of residents in select NHs to determine if such use of psychoactive medication is justified. Justification was documented either through assignment of a current psychiatric diagnosis or at least a stated rationale indicating psychoactive medications were used to target specific symptoms or problem behaviors. Our plan was to ascertain whether there was specific evidence-based documentation in the charts of the need for psychopharmacological interventions and to determine the effect of PASRR evaluation on mental health treatment. Finally, focus groups were conducted to identify reasons for the use of psychoactive medications, to generate some specific hypotheses regarding the possible failure of PASRR to assure adequate mental health treatment of NH residents, and to establish why the non-pharmacological interventions specified by OBRA-87 may not be used as a first-line of treatment.

Research Questions

1. Based on chart reviews, how many new NH residents are placed on psychiatric medications (i.e., were prescribed psychoactive medications within three months after NH admission)?

2. Based on chart reviews, how many new NH residents who are placed on psychiatric medications are currently diagnosed with a mental health problem?
   a. How many new NH residents who are placed on psychiatric medications have been previously diagnosed with a mental health problem?
   b. How many new NH residents who are placed on psychiatric medications are admitted with the same psychiatric medications?

3. Based on chart reviews, what is the rationale for use of psychotropic medications?
   a. What problems are being addressed?
   b. Were other non-pharmacological strategies tried?
   c. Were published guidelines regarding psychoactive medications usage adhered to?

4. Based on chart reviews, how does the PASRR process affect psychotropic medication usage?
   a. Specifically, how many and what types of mental health diagnoses are identified through PASRR?
   b. How many and what types of mental health diagnoses did PASRR not identify, and what evidence was there in the charts to suggest a
mental health diagnosis?

c. Did the residents with a mental health diagnosis who PASRR identified receive appropriate psychopharmacological treatment immediately or not?

d. Did the residents with mental health diagnoses who PASRR did not identify receive appropriate psychopharmacological treatment?

5. Based on data from focus groups, what are the reasons why a great majority of new NH residents receive psychopharmacological interventions without:
   a) adequate diagnosis, rationale, and documentation; b) adhering to the parameters of best practices for prescription of psychoactive medications for NH residents; and/or c) adherence to PASRR rules and regulations?
We conducted chart reviews of 73 NH residents who were over the age of 21 in seven small to mid-size, for-profit NHs in the Tampa Bay area, who had been admitted to the NH between January 1-June 30, 2009, and who had been residents for at least three months to perform a validity check on our previous findings of high psychoactive medication usage and to determine the reasons for their placement on medications. We also conducted six focus groups largely composed of nurses, licensed practical nurses, and certified nursing assistants selected from the same NHs in the Tampa Bay area where we conducted the chart reviews. Two focus groups were conducted in the same NH with different levels of nursing staff members. In the focus groups, discussion centered on the use of psychoactive medications in NHs. The first group was composed of two LPNs, three CNAs, and three RNs. The second group was composed of eight CNAs. The third group was held at the same facility as the second and consisted of three RNs, two LPNs, and one MDSc. The fourth group consisted of two RNs, two LPNs, and four CNAs. The fifth focus group consisted of three RNs, one LPN, and two CNAs. The sixth group was comprised of two social workers, two RNs, three CNAs, and one LPN.

Analyses

- A chart review checklist form was developed to provide descriptive statistics of the quantitative data for research questions 1 through 3 and to provide qualitative thematic analyses of the subjective entries for research question 2. We conducted a sensitivity and specificity analysis to determine the degree to which the predictor (i.e., psychoactive medications) correctly predicts the standard (i.e., the presence of an adequate diagnosis and/or psychiatric symptomatology). (See Appendix 1)

- For research question 4, (referring to how the PASRR process affects medication usage), a second chart review form was developed to follow-up on the plan to note:
  - those residents with significant mental health problems identified through PASRR;
  - those residents with significant mental health problems PASRR missed identifying and the evidence to suggest mental health concerns;
  - if the residents with mental health concerns who PASRR identified received appropriate psychopharmacological treatment immediately or not (what type of medication and what dosage);
  - and if the resident with significant mental health problems PASRR missed identifying received appropriate psychopharmacological treatment (what type of medication and what dosage).
To answer research question 5, focus groups were conducted and audio-taped to assure fidelity of interpretation of responses (see Appendix 2 for questions). Preliminary themes of the focus group regarding the reasons why there are discrepancies between the guidelines and actual psychopharmacological practice in NHs were generated via data entry into the qualitative analysis program ATLAS.ti version 5.0.
Demographics

Of the 73 residents’ charts reviewed in the 7 NHs, 55% were female (Table 1). There was wide variability in age range (35 to 100 years of age); 74% were over the age of 60, 23% were between 40 and 59, and 3% were in their thirties (Table 2). There was also wide variability in marital status with the majority widowed or divorced (60%), but a significant number still married (21%) and single (16%) (Table 3). Regarding race, 84% were White and 15% were Black (Table 4). Regarding ethnicity, 11% considered themselves Hispanic. The great majority of the NH residents whose charts were reviewed were on Medicare/Medicaid, with just a few residents representing private pay or on private insurance (Table 5).

The six focus groups were comprised of 15 White, 13 Black and 12 Hispanic participants. There were 4 men and 36 women. Among the men, one was Hispanic and the rest were White. Among the women, 13 were Black, 12 were White, and 11 were Hispanic.

Research Questions 1 and 2

Based on chart reviews, how many new NH residents are placed on psychiatric medications (i.e., within three months after NH admission)?

Based on chart reviews, how many new NH residents who are placed on psychiatric medications are currently diagnosed with a mental health problem?

a. How many new NH residents who are placed on psychiatric medications have been previously diagnosed with a mental health problem?

b. How many new NH residents who are placed on psychiatric medications are admitted with the same psychiatric medications?

- Eighty-four percent of the NH residents were admitted from a hospital.
- Seventy-three percent of the NH residents had a psychiatric diagnosis on admission; 25% of these residents had a diagnosis of dementia on admission.
- Seventy-nine percent of the residents with a psychiatric diagnosis upon admission were admitted with psychoactive medications.
- Overall, 68% of the NH residents were admitted with at least one psychoactive medication (Table 6); 84% of the NH residents from the hospital were admitted with at least one psychoactive medication.
- Eighty-five percent of the NH residents were on at least one psychoactive medication after three months, 13.7% were on four or more psychoactive medications. Among the 73 cases, only five (6.8%) were never on
psychoactive medications at any point during the three-month period. For the remaining 68 cases, 23 (33.8%) were on the exact same medications upon admission as they were at three months.

- Sixty percent of the NH residents had at least one new psychoactive medication within the three months following admission (Table 7).
- Thirty-six percent of the NH residents had at least one psychoactive medication dropped within the three months following admission (Table 8).
- Forty-nine percent of the NH residents received a mental health consultation, often including an extended mental health assessment; one person received a psychiatric consultation. Among the 36 patients who received a mental health consultation, only five had no medication changes during the three-month period after admission.

Research Question 3

Based on chart reviews, what is the rationale for use of psychotropic medications?

a. What problems are being addressed?
   b. Were other non-pharmacological strategies tried?
   c. Were published guidelines regarding psychoactive medications usage adhered to?

- Eighty-nine percent of the NH residents who received a psychoactive medication received a mental health diagnosis; 83% (45/54) of the residents who had a psychoactive medication added or dropped had a target symptom identified.
- Sixty-three percent (34/54) of the residents who had a psychoactive medication added or dropped had some type of behavioral monitoring documented before a medication was prescribed.
- Forty-seven percent (32/68) of the residents who had psychoactive medication added had a non-psychopharmacological intervention prior to being prescribed psychoactive medications (Table 9).
- One hundred percent of the NH residents who received a psychoactive medication had a written physician’s order for the psychoactive meds.
- At least 59% of those on psychoactive medications had one attempt noted to monitor side effects (Table 10).
- In 74% (50/68) of the charts, there was documentation of at least one note justifying psychoactive medication prescription.
- Sub-analyses of 52 charts indicated that 92% (48/52) had some notation regarding one or more behaviors that merited attention (but not necessarily a ‘behavior problem’ per se).
Sub-analyses of 52 charts reveals that 54% (28/52) had at least one note regarding non-psychotherapeutic strategies used, including one-on-one (n = 18); involvement in activities (n = 7); sensory stimulation (n = 4); soothing conversation &/or speaking slowly (n = 4); orientation & re-orientation (n = 6); validation/listening to the resident (n = 4).

Research Question 4

Based on chart reviews, how does the PASRR process affect psychotropic medication usage?

a. Specifically, how many and what types of mental health diagnoses are identified through PASRR?
b. How many and what types of mental health diagnoses did PASRR not identify and what evidence was there in the charts to suggest a mental health diagnosis?
c. Did the residents with a mental health diagnosis who PASRR identified receive appropriate pharmacological treatment immediately or not?
d. Did the residents with mental health diagnoses who PASRR did not identify receive appropriate pharmacological treatment?

Almost all the residents had a completed PASRR 1 form with a checked box stating that the individual had “no indications of a major mental illness.” No residents received an extended PASRR 2 evaluation prior to or during the first three months of admission. It is clear from these results that the PASRR process has a negligible effect on psychotropic medication usage for those admitted to NHs, although it may indeed restrict entry for those with Serious Mental Illness who are more appropriately placed elsewhere (Linkins, Lucca, Housman, & Smith, 2006).

Research Question 5

Based on data from focus groups, what are the reasons why some NH residents receive pharmacological interventions a) without adequate diagnosis, rationale, and documentation; b) without adhering to the parameters of best practices for prescription of psychoactive medications for NH residents; and/or c) without adherence to PASRR rules and regulations? [n. b. 5e could not be answered because no NH resident received a PASRR 2 evaluation].

Content analysis of the transcripts revealed four broad themes emerging from the focus groups. First, many of the NH staff responses regarding use of psychoactive medication seemed relatively sophisticated and closely aligned with current research findings. The nurses perceived themselves as advocates for the resident’s well-being. Some viewed medications as a last resort, while others suggested that in crisis situations one has to be flexible.
Second, there was at least one comment in almost all of the groups regarding the perception that some of the NH residents were admittedly on too much psychiatric medication and that it was their job “to clean up the situation.” One member noted, “We often get dementia patients doped up from the hospital. It’s convenient for them.”

Third, there are several innovative non-psychopharmacological programs in place. One NH has a Guardian Angel program where staff have scheduled visits with their residents; the same NH has an Autumn Leaves program that provides activities for sundowners; another NH mentioned Merry Companions relaxation/aromatherapy and Starlight (Montessori-type) programs. Almost all focus groups had at least one participant comment that engagement in activities with residents helped reduce behavioral and mental health problems.

Fourth, the consistent response to an open ended question regarding, “What will help you do your job well regarding dealing with those mental health and behavior problems?” was better communication between different staff members and doctors. One focus group member noted that, “Teamwork is key.” A secondary theme was staff education.

A more thorough content analysis using the ATLAS.ti qualitative analysis program yielded the following themes for a set of nine open ended questions used to guide the focus group discussions.

**Question 1: In your experience, what are the typical mental health or behavioral problems that you encounter?**

Participants cited a variety of behavioral and mental health problems that they regularly encounter. Most salient among these issues was violent behavior, including verbal and physical abuse toward staff, other residents, and self. Another common problem was residents’ resisting care, including refusing therapy, spitting out medication, verbally threatening the staff, and clawing at staff. The participants felt that many of these problem behaviors resulted from residents not understanding the intentions of the staff members when the latter attempted to provide routine care. Depression and anxiety were also common among residents as evidenced by crying and isolation in their room. Focus group participants felt that these problems were most likely a result of adjusting to a new environment and experiencing loss of control.

Residents also engaged in attention-seeking behaviors, including yelling and pushing nurse call buttons, and most participants felt that their residents were lonely. Sundowning among residents with Alzheimer’s disease was also common and led to anxiety, restlessness, exit-seeking, and wandering. Delusions and hallucinations among residents presented another challenge to participants. Possible Serious Mental Illness (particularly bipolar disorder and schizophrenia) was often not diagnosed or disclosed prior to admission to the facility, which became a problem for staff.
members as the symptoms began to appear. In general, participants felt that residents are scared and emotional, with their behaviors apparently linked to adjusting to their "difficult" new circumstances and "embarrassing" loss of independence.

**Question 2: In your experience, how do you handle these types of mental health or behavioral problems?**

Participants reported a variety of strategies to handle disruptive or disturbed behavior. These strategies often represented variations on established approaches. One participant stated, “In school, we were taught to readjust the resident’s reality, but it’s about making them comfortable. I had a resident who saw snakes under her bed, and I stomped them out every night just to get her to fall asleep. The books aren’t exactly right.” For the participants, the most important way to deal with problem behaviors was to get to know the resident and adjust their response according to individual needs. By knowing the resident’s history, routines, and likes/dislikes, the staff are able to avoid triggers or quickly redirect the behavior. Also, participants felt that the more staff knows about a resident, the less they perceive many behaviors as a “problem.”

More than one participant mentioned Autumn Leaves [a program at one of the facilities studied] as an effective program for dealing with residents expressing sundowning behaviors. Merry Companions aromatherapy/relaxation, quiet rooms, and Starlight ‘Montessori – like’ programs were also mentioned. Other common activities included gardening, eating, walking, and talking with the residents to calm the situation. Most important when talking with the resident was being sure to show support and caring while finding a way to defuse the situation. Often, participants reported just “going with the flow” of the situation, including ignoring verbal abuse while smiling and continuing to work or playing along with hallucinations. If the situation cannot be calmed, staff often have success leaving the resident alone and then re-approaching later.

Most of the participants reported using medication as a last resort. However, one participant painted a slightly contradictory picture: “I think we like to think that it’s a last resort, but when you place that call to the doctor, the doctor isn’t going to say, ‘Well, did you take them on a walk in the courtyard?’ No, they say ‘Okay, start them on Ativan every four hours as needed if the behavior doesn’t go away.’ And then what is the nurse going to do? Follow the order.” Anecdotally, one participant claimed that a full moon brought out behavior problems in the residents and stated “we hand out Ativan like they are Tic-Tacs.”
Question 3: In your experience, have you ever recommended certain treatments for these problems? To whom? If so, what is the typical response?

When recommending treatments for problem behaviors, some participants reported that their NH had a specific chain of command to be followed while others described discussing these issues at team meeting each morning. Others felt comfortable making suggestions directly to physicians or psychiatric professionals. It was clear that there was no typical protocol for handling resident behaviors; however, in general, the participants felt that their recommendations were positively received and prompt action was taken. A few participants reported that they experienced difficulty in getting responses from doctors or those higher in their chain of command, which was reported to be frustrating.

Although participants reported recommending redirection as a treatment strategy, most of their discussion focused on recommending medications. NH staff intent was to use medication to handle escalating problem behaviors, claiming that by calming the resident, they are then able to address the root of the behavior. Prior to recommending medications, participants noted that staff often conducted medical testing to rule out other causes of the behaviors. They do not want residents drugged, but desire treatment plans that recommend “appropriate combinations of drugs and therapy.”

Question 4: In your experience, how does a resident typically get placed on medications for mental health/behavior problems?

Responses to open ended questions about medication initiation indicated that participants generally followed a professional pathway. These responses indicated that typically, residents are placed on medications for problems after a referral is made for a psychiatric consultation and the physician agrees to the recommendation. In many — but not all — cases, the resident and/or the family is involved in the decision.

The greatest challenge that the participants appear to face regarding placing residents on medication is a lack of communication between all parties involved. Part of the challenge relates to undiagnosed or undisclosed information when the resident is admitted to the facility, which leads to new residents “going crazy” and the staff having to determine the cause. Another issue is lack of information about the residents available to the CNAs, including lack of communication during shift changes. Staff has to “piece it together” to make sense of what is happening. Some participants reported that CNAs are not included in the decision-making regarding medications and may not even know what medication a resident is receiving. However, for the most part participants reported that the usual procedure involved the inclusion of large teams during decision-making or providing “behavior monitoring sheets” to describe behaviors and document why residents are receiving medications.
Question 5: In your experience, what are the most frequent mental health or behavior problems that lead residents to be prescribed medication?

No single behavior stood out as the leading cause of residents being prescribed medication. Anxiety, aggressive/violent behavior, depression, and Serious Mental Illness were mostly equally represented in the participants’ discussions. Other problem behaviors mentioned were suicidal behaviors, manic behavior, and sexually inappropriate behavior. One participant said that symptoms of urinary tract infections are often mistaken for more permanent confusion, warranting closer inspection.

Question 6: In your experience, do you think there are residents not receiving enough psychiatric medications for their mental health or behavior problems?

Overall, participants believed that NH staff faced challenges getting residents on the appropriate amount of psychiatric medications for their mental health or behavior problems. One individual responded, “We address it well, but other places…just let people be zombies.” Further discussion revealed instances of residents in their own facilities receiving too much medication. One participant claimed to “see residents laying there with a blank stare – nothing there” while another talked about a category of residents who are “all hyped up, then [after medication] they are zombies.” Hospital transfers and receiving medication to treat the side effects of other medication were common culprits in residents receiving too much medication. Participants claimed that they monitored residents’ medication levels and worked to lower the frequency to provide a good quality of life.

Questions 7 and 8: In your experience, are residents receiving too many medications for their mental health or behavior problems? In your experience, what types of medications are used too much? What types of patients are receiving too much medication?

In general, participants felt that many residents were receiving too many medications and wanted to work toward reducing the number and frequency of unnecessary medications. One individual responded, “In our facility, 90% are overmedicated; they receive nine or more medications. They should regulate them and see what they are.” Another said, “Just because they are mentally ill, they should not be comatose.” Ativan, Xanax, and Risperdal were most commonly cited as the medications that were used too often in their facilities. Other medications mentioned included Ambien, Benadryl (for sleep), and Tylenol. It was claimed that a lot of overmedication was apparent in new residents and in those who had entered the facility from the hospital and even from mental health clinics.

Medication is not regulated the same way in hospitals and NHs as illustrated by this response: “We have strict rules and regulations. Hospitals, frankly, don’t. We are left to clean up the situation.” As a result of the different regulations,
participants claim they are continually monitoring resident medication and working
to reduce the number. Communication was reported to be an essential component to
achieve this goal. “We should ask, ‘How therapeutic is their medication?’ Doctors
sometimes don’t want to readjust because they don’t have the time and it is too time
consuming.” If there are barriers to communication with doctors, the plan to reduce
medication can be delayed.

**Question 9: What will help you do your job well regarding dealing with these
mental health and behavior problems?**

The most salient issue participants identified in terms of doing their job well
regarding mental health and behavior problems was communication. Participants
desired more dialogue with primary care physicians, more contact with families and
mental health professionals, and increased communication with hospitals. Staff
members also clearly desired more information regarding resident backgrounds,
particularly in terms of medical and psychiatric histories. In addition, greater team
work and cooperation among staff members and enhanced information-sharing
among the different hierarchies of staff were desired within the facilities. Further
education regarding mental health was perceived as an important issue, as were on
the job stress reduction and the “ability to vent to other staff.”
Discussion

This study is a follow-up to a large Medicaid database study that the present research team conducted in 2008 regarding mental health care in NHs. In general, the present findings show both consistency and inconsistency with our prior results. Whether this is due to the different methodologies employed (chart review vs. Medicaid database) or the selection of just a small sample of Florida NHs compared with the whole population in the prior study is unclear. The results of this study highlight the amount of psychoactive medications administered to NH residents, with evidence for even more psychopharmacological treatment than in our prior study (85% vs. 72% after three months of admission). However, the number of those who are taking four or more psychoactive medications are very similar (14% vs. 15%). Our current data also suggests a large increase in non-psychopharmacological care (54% vs. 12%) for mental health problems occurred in these seven NHs than was found in the previous study. One explanation is that this type of mental health care is not necessarily reimbursed and therefore not captured by the Medicaid B data set and only in progress notes.

Interestingly, the number of residents with a hospital admission diagnosis in this study (73%) and prior psychoactive treatment (68%) dramatically differs from the 29% we determined in the published study (Molnari et al., 2010) who had a prior psychiatric diagnosis and the 36% who had received psychopharmacological treatment. It appears that in the 2010 study, the Medicaid Part B database did not capture the hospital mental health data just prior to NH admission. Our current study corrects this oversight. It also provides an important indication that the hospital stay just prior to admission may be a site of origin whereby NH residents are diagnosed with psychological problems and placed on psychoactive medications.

As a means of organizing the findings, they will be presented with respect to whether they appear to represent either positive or negative aspects of the care provided in the NHs.

Positives:

- Results suggested that the belief that there is limited mental health treatment in addressing the mental health problems of NH residents may no longer apply. On a very broad, ‘big picture’ level, many residents have mental health problems and most receive treatment at least in the hospital prior to placement and during their NH residence. Eight-nine percent of the residents who receive psychoactive medications have a psychiatric diagnosis, and all residents who are on psychoactive medications have a physician’s order. Mental status is monitored when psychoactive medications are added and dropped. Nearly three-fourths of NH residents on psychoactive medications have at least one note in the chart justifying psychoactive medication prescription. Over 92% of the residents have at
least one note in the chart regarding a behavior that merited attention; 83% of those who had a psychoactive medication added or dropped had a specific target symptom identified; and 63% of those who had a psychoactive medication added or dropped had some behavioral monitoring prior to psychoactive medication prescription. Impressively, half of the residents received additional mental health consultation, and 59% of the NH residents had at least one note reflecting the monitoring of side-effects. Focus group data suggest that the NH staff seem reasonably knowledgeable of how to address the mental health problems of residents (i.e., to individualize treatment, be flexible, and avoid using psychopharmacology as a first resort).

Concerns

- No PASRR 2’s were completed. Almost all the PASRR 1’s in the charts indicated that the incoming NH resident did not have a mental disorder (despite the fact that 70% of the residents were admitted with a psychoactive medication and a rule stating that behavior problems should trigger a PASRR 2). In informal discussions with NH administrators regarding this matter, it appears that there is a genuine difference of interpretation regarding when a PASRR 2 is needed. Their belief appears to be that PASRR 2’s are triggered by longstanding diagnoses of Serious Mental Illness rather than the more common psychiatric problems reflected in mental status changes related to dementia. It also should be noted that NH administrators appear to be concerned about the mental health problems of their residents, often resorting to referrals for mental health consultation rather than the PASRR system to evaluate mental status changes of residents. The PASRR process appears to be viewed as a bureaucratic hurdle rather than a way to assure adequate mental health assessment of all NH residents who need it. Perhaps these different interpretations of PASRR justify continuing education on this issue, some further specification in guidelines, or even a complete evaluation of the outcomes of the PASRR 2 process and whether the outcomes are consistent with the original goals.

- Over 85% of the NH residents were on a psychoactive medication within three months following admission, and 13.7% of the residents were on four or more psychoactive medications. These findings are consistent with our prior research suggesting high use of psychoactive medications and highlight continued concerns with adverse side-effects and untoward medical events. It should be noted that 68% of the NH residents were admitted with at least one psychoactive medication. However, perhaps more striking is the fact that 84% of the NH residents were admitted from the hospital and 84% of these residents were admitted on at least one psychoactive medication. Indeed, focus group data reveals that NH staff are concerned about how to remedy the medication regimens with which new residents are discharged from the hospital. These results strongly suggest that NH residents are on a
psychoactive trajectory prior to and upon admission to the NH from the hospital and that a point of intervention regarding psychoactive medication usage could be upon discharge from the hospital to determine the absolute necessity of each resident’s psychoactive regimen upon NH entry. Indeed, one of the focus group participants indicated the NH staff often have to “clean up” the situation they inherit from the hospitals that do not have strict rules and regulations. As noted earlier, another point of intervention might be a broader interpretation of the need for PASRR 2’s so that on the front end an extended mental health assessment can be conducted and yoked to a mental health treatment plan that is regularly monitored.

- Although over-half of the residents had notes in their charts regarding non-psychopharmacological strategies to address problem behaviors, this number is dwarfed by the 85% who receive psychopharmacological treatment. The intent of OBRA was to use non-psychopharmacological strategies as a first-line treatment to address psychiatric problems of NH residents, and this goal has yet to be achieved. Although there may be other non-psychopharmacological strategies that are informally utilized that are not noted in the charts, the non-psychopharmacological strategies identified in the charts are basic, general interventions. It is worthy of mention that there do not appear to be any notes regarding interventions delivered by trained licensed mental health professionals, although our data collection process was unable to provide definitive evidence. On the basis of this chart review, it appears that psychoactive medication usage remains the primary strategy to address the mental health problems of NH residents.

The main question regarding our study findings is whether the amount of psychoactive medications found is justified given the nature of the NH resident population and their attendant mental health needs. On the one hand, as noted in the literature review, the typical NH resident frequently has serious psychiatric problems. Almost half merit a diagnosis of dementia (Magaziner et al., 2000) and thereby may require an Alzheimer disease medication like Aricept in the early stage or Remeron in the middle or late stages. In addition, depression and behavior problems are often associated with dementia (Alexopoulos & Abrams, 1991; Kohn & Surti, 2008) and may need to be treated by anti-depressant and anti-psychotic medications. Pain (Ferrell & Ferrell, 1995) and fragmented sleep (Jacobs, Ancoli-Israel, Parker, & Kripke, 1989) are also rife in NHs and should be addressed.

Given this multitude of psychiatric co-morbidities, perhaps it is no surprise that NH residents are on multiple psychiatric medications. Indeed, upon admission, 21% of the new NH residents who carried a psychiatric diagnosis were not on psychoactive medications, suggesting that NHs might be treating residents who prior to admission were not adequately treated.
Conversely, and given the intent of the OBRA rules and regulations, a major issue is whether there are non-psychopharmacological alternatives to medications which can address mental health problems without the side-effects that have been associated with poly-pharmacy. As noted previously, this intent has not been realized. Indeed, there are well-validated, longstanding behavioral programs aimed to treat late-life insomnia (Stone, Booth & Lichstein, 2008), to reduce the disruptive behavior of residents with cognitive impairment (Burgio & Burgio, 1990; Camp, Cohen-Mansfield, & Capezuti, 2002; Camp et al., 1997; Cohen-Mansfield, et al., 2010; Cohen-Mansfield, Marx, Thein, & Dakheel-Ali, 2010), and some recently developed treatments for depression (Hyer, Yeager, Hilton & Sacks, 2009; Meeks, Teri, Van Haitsma, & Looney, 2006) and pain (Clifford, Cipher, Roper, Snow, & Molinari, 2008) in NH settings. Many of these programs intervene by providing training for the NH staff to assist with the implementation of specific protocols to manage the difficult behavior of residents.

Given the feedback from the NH focus groups, this training should include modules on how to improve staff communication and teamwork on all staffing levels. Unfortunately, given the high turnover of NH staff, such training must be ongoing, and such interventions appear to be under-utilized in most NHs. NHs often operate on shoe-string budgets, and few can pay to employ a full-time or even part-time mental health professional on staff or to provide the kind of continuous mental health training necessary for optimal care. To compound the problem, even if NH resources were available, there continues to be a dearth of qualified geriatric mental health long-term care professionals who can provide the type of interventions needed.

There are a number of limitations to the methodology used in this study that must be acknowledged:

- This is only a small convenience sample of NHs in the Tampa Bay area, and the results may not be generalizable to other NHs in Florida or across the country. Indeed, the NH administrators self-selected their NHs to be included in this study and appeared to be interested in the issues of mental health, suggesting that these NHs are higher quality NHs regarding attentiveness to resident concerns.
- As noted earlier, there may be an under-estimate of the non-psychopharmacological attempts to address mental health problems because notes in the charts do not necessarily reflect everything that occurs in the NH.
- Reviewing all the notes in NH charts is a tedious business, and we were unable to conduct reliability checks to determine the accuracy of the data collection. Indeed, the definitions for certain variables were not as clear on the front end as one would have liked, largely because we were unsure of the form the data would take in the charts.
Conclusions and Policy Recommendations

Although we recognize the limitations of the convenience sample used in this study, our results highlight the large amount of psychoactive medications administered to NH residents and provide evidence of even more psychopharmacological treatment than our prior study (85% vs. 72% after three months of admission). However, the numbers of those who are taking four or more psychoactive medications are very similar (14% vs. 15%). Our current data also suggest much more non-psychopharmacological care (54% vs. 12%) for mental health problems occurring in these seven NHs. One explanation is that this informal type of mental health care is not necessarily reimbursed and therefore not captured by the Medicaid dataset and only in progress notes.

Interestingly, the number of residents with a hospital admission-based diagnosis (73%) and prior psychoactive treatment (68%) dramatically differs from the findings of a previous study by the same research team (Molinari et al., 2010) where 29% had a prior psychiatric diagnosis and 36% received prior psychopharmacological treatment. We suspect that the Medicaid database we used in our 2010 study did not capture the hospital data and thereby underrepresented prior psychiatric diagnosis and prior treatment.

Our study findings and a review of the literature suggest that there is a good deal of mental health care that occurs in NHs. The question remains, how optimal is this care? In this study, it appears that a high percentage of NH residents are being treated for specific mental health problems for which they are diagnosed and then monitored regarding the effects of the treatment. Approximately one-half receive outside mental health consultation. Most residents receive psychoactive medications, and over-half receive non-psychopharmacological care broadly defined. The big question is whether there is an over-reliance on psychopharmacological interventions, a concern particularly for those ~15% of the residents who we have found in this and a prior study of Florida NHs who are taking four or more psychoactive medications.

It appears that psychopharmacological care continues to be a major strategy used by NHs to address the mental health problems of residents. NH staff and administrators seem sensitive to the mental health needs of their residents. However, faced with residents with multiple medical and psychiatric problems, the need for continued mental health training of staff, the lack of available geriatric mental health professionals, and perceptions that PASRR rules hinder rather than assist in targeting mental health problems, they appear to resort to psychopharmacological care as a primary way of attempting to resolve a NH resident’s distress.
A major issue is whether there are cost-efficient mechanisms that can be utilized to assure that the spirit and intent of OBRA is realized in all Florida NHs. One possible solution is to educate staff on an ongoing basis regarding how best to assist with the implementation of a variety of valid, evidence-based mental health programs available that can be tailored to the unique psychiatric circumstances of each resident. Such training should certainly include material on communication between staff members at all levels in the NH (e.g., how does a CNA express her concerns to the treatment team regarding a resident’s increasing psychological distress), and how to improve teamwork within and across disciplines. It is also possible that with more extensive assessments of mental health problems via strict interpretation of PASRR rules triggering evaluations based on resident’s mental status changes (regardless of diagnosis, as has been recommended by AHCA) or other mandatory non-PASRR type mental health evaluations, then perhaps more optimal mental health treatment will occur. To further this worthwhile goal, an authorized, comprehensive evaluation of the need for psychiatric medications upon admission into the NH should be considered for all residents or at least for those from hospital settings. This evaluation should be conducted by qualified geropsychiatrists, geriatricians, or geriatric psychopharmacologists.


Reasons for Psychiatric Medication Prescription for new Nursing Home Residents


### Table 1. Gender of NH Residents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>55%</td>
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### Table 2. Age of NH Residents

<table>
<thead>
<tr>
<th>Age Ranges</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>40-49</td>
<td>8</td>
<td>11%</td>
</tr>
<tr>
<td>50-59</td>
<td>9</td>
<td>12%</td>
</tr>
<tr>
<td>60-69</td>
<td>15</td>
<td>21%</td>
</tr>
<tr>
<td>70-79</td>
<td>6</td>
<td>8%</td>
</tr>
<tr>
<td>80-89</td>
<td>20</td>
<td>27%</td>
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<tr>
<td>90-99</td>
<td>12</td>
<td>16%</td>
</tr>
<tr>
<td>100</td>
<td>1</td>
<td>1%</td>
</tr>
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### Table 3. Marital Status of NH Residents

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>15</td>
<td>21%</td>
</tr>
<tr>
<td>Widowed/Divorced</td>
<td>44</td>
<td>60%</td>
</tr>
<tr>
<td>Single</td>
<td>12</td>
<td>16%</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Unknown</td>
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<td>0%</td>
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</table>
### Table 4. Race and Ethnicity of NH Residents

<table>
<thead>
<tr>
<th>Race</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>11</td>
<td>15%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Two or more Races</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>White</td>
<td>61</td>
<td>84%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Number</td>
<td>(%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8</td>
<td>11%</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>65</td>
<td>89%</td>
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### Table 5. Payment Source for NH Residents

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<th>Payment Source</th>
<th>Number</th>
<th>(%)</th>
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<tbody>
<tr>
<td>Medicare/Medicaid</td>
<td>67</td>
<td>92%</td>
</tr>
<tr>
<td>Private Pay</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3%</td>
</tr>
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### Table 6. Psychoactive Medications upon NH Admission (n = 73)

<table>
<thead>
<tr>
<th>Number of Psychoactive Meds</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>23</td>
<td>31.5</td>
</tr>
<tr>
<td>1.00</td>
<td>16</td>
<td>21.9</td>
</tr>
<tr>
<td>2.00</td>
<td>17</td>
<td>23.3</td>
</tr>
<tr>
<td>3.00</td>
<td>8</td>
<td>11.0</td>
</tr>
<tr>
<td>4.00</td>
<td>7</td>
<td>9.6</td>
</tr>
<tr>
<td>5.00</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>6.00</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
</tr>
</tbody>
</table>
### Table 7. Psychoactive Medications Added while in NH (n = 73)

<table>
<thead>
<tr>
<th>Number of Psychoactive Meds</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>30</td>
<td>41.1</td>
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<tr>
<td>1.00</td>
<td>22</td>
<td>30.1</td>
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<tr>
<td>2.00</td>
<td>13</td>
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<tr>
<td>3.00</td>
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<tr>
<td>4.00</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
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</table>

### Table 8. Psychoactive Medications Dropped while in NH (n = 73)

<table>
<thead>
<tr>
<th>Number of Psychoactive Meds</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>47</td>
<td>64.4</td>
</tr>
<tr>
<td>1.00</td>
<td>16</td>
<td>21.9</td>
</tr>
<tr>
<td>2.00</td>
<td>7</td>
<td>9.6</td>
</tr>
<tr>
<td>3.00</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>4.00</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>5.00</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
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</tbody>
</table>

### Table 9. Trial of Nonpsychopharmacology before Psychoactive Medication Usage

<table>
<thead>
<tr>
<th>Trial of Non-Psychopharmacology</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1 = Yes</td>
<td>32</td>
</tr>
<tr>
<td>2 = No</td>
<td>23</td>
<td>31.5</td>
</tr>
<tr>
<td>3 = None Listed</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>5 = N/A</td>
<td>17</td>
<td>23.3</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Please note that only 68 residents took psychoactive medications.

### Table 10. Attempts to Monitor Side-effects of Psychoactive Medications

<table>
<thead>
<tr>
<th>Attempt to Monitor Side Effects</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Yes</td>
<td>40</td>
<td>54.8</td>
</tr>
<tr>
<td>2 = No</td>
<td>5</td>
<td>6.8</td>
</tr>
<tr>
<td>3 = None Listed</td>
<td>21</td>
<td>28.8</td>
</tr>
<tr>
<td>5 = Not Applicable</td>
<td>7</td>
<td>9.6</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Please note that only 68 residents took psychoactive medications.
## Appendix 1: Chart Review Variables

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<thead>
<tr>
<th>Demographics</th>
<th>Study ID</th>
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<tr>
<td></td>
<td>NH ID</td>
</tr>
<tr>
<td></td>
<td>Admit Date</td>
</tr>
<tr>
<td></td>
<td>DOB</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
</tr>
<tr>
<td></td>
<td>Race</td>
</tr>
<tr>
<td></td>
<td>Marital Status</td>
</tr>
<tr>
<td>Payment</td>
<td>Payment Source</td>
</tr>
<tr>
<td></td>
<td>Payment Source Change Date</td>
</tr>
<tr>
<td>PASRR</td>
<td>PASRR Diagnosis 1</td>
</tr>
<tr>
<td></td>
<td>PASRR Diagnosis 2</td>
</tr>
<tr>
<td></td>
<td>PASRR Diagnosis 3</td>
</tr>
<tr>
<td></td>
<td>Date</td>
</tr>
<tr>
<td></td>
<td>PASRR - Date Medications Started</td>
</tr>
<tr>
<td>Admitting diagnosis</td>
<td>Admitting Diagnosis Dementia 1</td>
</tr>
<tr>
<td></td>
<td>Admitting Diagnosis Psychosis 1</td>
</tr>
<tr>
<td></td>
<td>Admitting Diagnosis Mood 1</td>
</tr>
<tr>
<td></td>
<td>Admitting Diagnosis Anxiety 1</td>
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<tr>
<td></td>
<td>Admitting Diagnosis Sleep 1</td>
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Appendix 2: Focus Group Questions

Preamble: This focus group is part of a larger study to see what happens in nursing homes when residents have mental health (e.g., depression, psychosis) or behavior (e.g., fighting) problems. We are interested in your experiences with such residents and what you feel works or doesn’t work in helping these residents. For this study, there are no right or wrong answers; we just want you to give us your honest thoughts!

1. In your experience, what are the typical mental health or behavioral problems that you encounter? Prompt: What are the most frequent?

2. In your experience, how do you handle these types of mental health or behavioral problems?

3. In your experience, have you ever recommended certain treatments for these problems? To whom? If so, what is the typical response?

4. In your experience, how does a resident typically get placed on medications for mental health/behavior problems?

5. In your experience, what are the most frequent mental health or behavior problems that lead residents to be prescribed medications?

6. In your experience, do you think there are residents not receiving enough psychiatric medications for their mental health or behavior problems?

7. In your experience, are residents receiving too many medications for their mental health or behavior problems?

8. In your experience, what types of medications are used too much? What types of patients are receiving too much medication?

9. What will help you do your job well regarding dealing with these mental health and behavior problems?