

A Needs Assessment of Family Physicians to Inform Development of Educational Resources on Antipsychotic Use in Dementia

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Ryan M. Carnahan¹, Jeanette M. Daly¹, Sarah Minion¹,
Brian Gryzlak¹, Michelle T. Weckmann¹ , Barcey T. Levy¹,
and Camden P. Bay¹

Abstract

Objectives: Objectives of this study were to (1) assess the needs and preferred resources of Iowa physicians to inform the development of educational resources for best practice dementia care and (2) compare the responses of nursing home medical directors with nonmedical directors. **Methods:** Of 498 physicians, 101 (20%) completed and returned the survey. Family physicians were obtained from a list of family physicians from the Iowa Board of Medical Examiners. Respondent answers were summarized and presented as total numbers and percentages in tables. Significant differences between medical directors and nonmedical directors were evaluated using chi-square tests, Fisher exact tests, and Wilcoxon rank-sum tests. **Results:** Medical directors and nonmedical directors had similar preferences for resources used and information needs. Online resources, pocket guides, a handbook, consulting pharmacists, and facility in-services were the most commonly preferred sources of new information. Medical directors were significantly more aware of the Food and Drug Administration warning on antipsychotic use in dementia and treated more nursing home patients. No differences were observed between groups related to confidence in and use of nondrug strategies instead of antipsychotics to manage behavioral symptoms of dementia. **Conclusion:** The results of this survey illustrate physician preferences for information and resources on the management of behavioral and psychological symptoms in dementia. Information was used to inform the development of resources to aid physicians and other health care providers in making decisions about managing these symptoms.

Keywords

needs assessment, antipsychotics, long-term care, medical director, dementia

Background

Antipsychotics are widely used to treat symptoms of dementia. A nationwide study revealed that 22% of residents in nursing homes were prescribed antipsychotics.¹ The Centers for Medicare & Medicaid Services (CMS) found that in 2010, almost 40% of nursing home residents with signs of dementia received at least 1 antipsychotic.² However, the increased risk of serious adverse outcomes associated with antipsychotic use prompted the Food and Drug Administration (FDA) to issue a black box warning highlighting increased mortality risk when they are used for dementia-related psychosis.³ Despite the evidence of serious risks and the Omnibus Budget Reconciliation Act of 1987 regulations (OBRA-87) targeting inappropriate psychotropic drug use in nursing homes, a chart review by the

Department of Health and Human Services Office of Inspector General estimated that 22% of antipsychotics prescribed to nursing home residents were used without proper indication, monitoring, or dosing.^{4,5} The American Medical Directors Association (AMDA) and the American Geriatric Society (AGS) highlighted antipsychotic use in dementia in their Choosing Wisely campaigns.⁶ They recommended that

¹The University of Iowa, Iowa City, IA, USA

Corresponding Author:

Jeanette M. Daly, Department of Family Medicine, University of Iowa Carver College of Medicine, 200 Hawkins Drive, Iowa City, IA 52242, USA.

Email: jeanette-daly@uiowa.edu



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antipsychotics should not be used as first-line treatments for behavioral and psychological symptoms and should not be prescribed without an assessment for an underlying cause of behavior.⁶ In response to the increased use of antipsychotics in people with dementia, the CMS implemented an initiative in 2012 to reduce antipsychotic use in nursing homes by 15%, a target that was met in 2014.⁷ The goal was updated to a 25% reduction by the end of 2015 and a 30% reduction by the end of 2016.⁸

Educational interventions that target inappropriate prescribing practices of antipsychotics in nursing homes have shown some success in reducing antipsychotic use, particularly when they have targeted nursing home staff in addition to prescribers.^{9,10} Recent efforts by CMS and others to reduce antipsychotic use have focused largely on the use of nondrug approaches, including person-centered care instead of antipsychotics to manage behavioral symptoms.⁷ Another focus has been on identifying potential environmental, physical, or psychological causes leading to behavioral symptoms, such that interventions can directly target these causes. Implementation of these best practices may prevent unnecessary antipsychotic use and potentially improve the well-being and safety of individuals with dementia, but education is necessary to support physicians who are less familiar with these approaches to care. Understanding physician preferences and needs is the first step in developing targeted educational resources for this group that aim to have a meaningful impact on practice.

Previous work has explored physician preferences for information. A meta-analysis from 1997 found that books, journals, meetings, drug companies, workshops and courses were among the most preferred sources of information.¹¹ Other work showed that primary care providers in another rural state used print resources more often than online resources, though both were commonly used. Colleagues were also common sources of information.¹² This is consistent with a review from 2006 concluding that colleagues and paper-based resources were the primary information sources for physicians.¹³ More recent studies have highlighted increasing use of web-based sources,^{14,15} which may relate to the ubiquity and easy access to computers and portable digital devices in the current practice environment. Source preferences may also vary by digital literacy and trust in the information provided, and specific information needs.¹⁶

The purpose of this study was to assess the needs and preferred resources of Iowa family physicians to inform the development of educational resources aimed at supporting appropriate use of antipsychotics in people with dementia. A secondary goal was to analyze the differences and similarities in the responses of family physicians that were nursing home medical directors to those who were not medical directors (nonmedical directors). We anticipated that medical directors would report greater use of and confidence in

nondrug management strategies and greater satisfaction with training and knowledge regarding dementia care, given their higher level of involvement in the provision of nursing home care. We also examined whether medical directors reported different patterns of antipsychotic prescribing in their patients or different levels of awareness of safety issues with antipsychotics, anticipating that they may have greater awareness of risks and choose evidence-based treatments more often. Finally, we explored whether medical directors and nonmedical directors had different preferences for information sources. We considered the possibility that medical director experience or greater interactions with nursing home staff could influence their preferences for information sources, though we had no particular expectations about what differences might exist.

Methods

This study was reviewed and approved by the Institutional Review Board at The University of Iowa. A list of names and addresses of 1256 family practice physicians licensed in Iowa was obtained from the Iowa Board of Medical Examiners. A cover letter, prepaid return envelope, and questionnaire were mailed to 500 randomly selected physicians. One follow-up questionnaire was mailed to nonresponders 3 weeks after the initial mailing.

Instrument

A 17-item questionnaire (see the appendix) titled, "Needs Assessment: Caring for People with Dementia and Challenging Behaviors" was developed by the research team to assess physician needs in caring for patients with dementia and dementia-associated behavioral symptoms. The survey included items on the following: the current techniques and resources used to care for patients with dementia, knowledge and satisfaction with dementia training, which potential resources and types of information would be helpful when caring for patients with dementia, and useful means to communicate with family members about approaches to care. Questions relating to satisfaction with training, awareness of the black box warning for antipsychotics, and confidence in managing patients with nondrug approaches were answered using a 7-point Likert-like scale. Demographic information, including age, gender, ethnicity, race, as well as medical director status was also queried. The questionnaire was not piloted due to overall project timelines but was reviewed by a large research team, including a number of physicians.

Statistical Analysis

Two research team members entered questionnaire responses into separate Excel files, and a verification

Table 1. Medical Directors and Nonmedical Directors Respondent Characteristics and Nursing Home Patients Cared for.

Characteristic	Nonmedical Directors (n = 61), n (%)	Medical Directors (n = 40), n (%)	P
Gender			.231
Male	44 (72)	33 (83)	
Female	17 (28)	7 (18)	
Race			.615
White	60 (98)	36 (97)	
Asian	1 (2)	0 (0)	
American Indian or Alaska Native	0 (0)	1 (3)	
Ethnicity ^a			1.000
Non-Hispanic or Latino	38 (93)	21 (95)	
Hispanic or Latino	3 (7)	1 (5)	
Use of nondrug approaches as compared with medication			0.76
More than ¾ of your patients	15 (26)	13 (33)	
More than ½ but less than ¾ of patients	10 (17)	9 (23)	
About ½ of patients	15 (26)	10 (25)	
Less than ½ but more than ¼ of patients	8 (14)	3 (8)	
Less than ¼ of patients	10 (17)	5 (13)	
	Mean (SD)	Mean (SD)	
Age	50 (10)	54 (8)	.019*
Total years in practice	20 (10)	24 (9)	.062
Number nursing home patients cared for	11 (10)	46 (39)	<.001*
Number of nursing homes in which their patients reside	2.3 (1.7)	3.2 (1.3)	<.01*
Number of patients with dementia	17 (18)	43 (32)	<.001*

^a Percentages based on those who responded to this question (38 missing).

* $P < .05$.

program was run to check for errors. Data were analyzed in SAS 9.3 (SAS Institute, Cary NC). For demographic and qualitative survey questions, the number and percentage of physicians selecting each answer were calculated. Responses were stratified by medical director status. Differences in the 2 groups' responses were evaluated by performing chi-squared tests, Fisher exact tests, and Wilcoxon rank-sum tests as appropriate.

Results

A total of 101 (20%) completed questionnaires were returned and 2 were undeliverable of the 500 mailed questionnaires. The mean age of responding physicians was 52 years ranging from 33 to 75 years. The majority were white (98%), non-Hispanic (94%), and male (76%). All the physicians reported they cared for a mean of 25 (SD = 30.5) nursing home patients ranging from 0 to 200 patients in an average of 3 nursing homes (see Table 1). These physicians had a mean of 21 years in practice ranging 3 to 50 years.

Forty (40%) of the physicians were nursing home medical directors. They were significantly older than physicians who did not serve as medical directors. The medical directors cared for significantly more patients with dementia and

cared for more nursing home patients at a larger number of nursing homes compared with the nonmedical directors (see Table 1).

Both medical directors and nonmedical directors reported moderate satisfaction with training in managing challenging behaviors, felt nursing staff and family influence on use of specific medications was moderate, and had moderate confidence in use of nondrug management strategies, with no statistically significant differences between groups. Medical directors were significantly more aware of the black box warning for antipsychotics as compared with nonmedical directors ($P = .03$). Substantial variability in the use of nondrug approaches instead of medications was observed, with medical directors more likely to be using nondrug approaches (see Table 1).

Physicians obtained information about challenging behaviors in patients with dementia from a variety of sources. UpToDate and consulting pharmacists were the most frequent resources used (see Table 2). Medical directors were less likely to use the online resource UpToDate to get information on challenging behaviors associated with dementia. Forty-four percent of the physicians used a consulting pharmacist. Eighty-two percent of the participants wanted to learn more about managing difficult behaviors

Table 2. Sources Used and Additional Information Wanting to Learn on Challenging Behaviors Associated With Dementia.

Sources of Information	Nonmedical Directors, n (%)	Medical Directors, n (%)
UpToDate*	39 (65)	16 (40)
Consulting pharmacist	26 (43)	18 (45)
Other ^a	24 (41)	12 (30)
Physician Desk Reference	17 (28)	12 (30)
Drug company representative	13 (22)	11 (28)
Internet source	10 (17)	10 (25)
Drug book	8 (13)	10 (25)
Facility in-service	8 (13)	7 (18)
Consulting nurse	4 (7)	4 (10)
Topics wanting more information		
Managing difficult behaviors without drugs	52 (87)	30 (75)
Caring for difficult patients	44 (73)	24 (60)
Medications	38 (63)	29 (73)
Tools for family members	37 (62)	22 (55)
Types of dementia	20 (33)	12 (30)
Staff consistency	18 (30)	14 (35)
Dementia in hospice/when to stop medications	21 (35)	10 (25)
Differentiating between dementia and delirium	16 (27)	14 (35)
Measuring pain	15 (25)	6 (15)
Preferred sources ^b		
Online source	37 (62)	17 (43)
Pocket guides	24 (40)	13 (33)
Handbook	20 (33)	14 (35)
Consulting pharmacist	21 (35)	11 (28)
Facility in-service	19 (32)	12 (30)
Mail	19 (32)	10 (25)
Application for PDA device or smart phone	17 (28)	9 (23)
E-mail	12 (20)	9 (23)
CD-ROM	12 (20)	6 (15)
Short online videos	8 (13)	6 (15)
iPhone app	7 (12)	7 (18)
Consulting nurse	8 (13)	3 (8)

Abbreviation: PDA, personal digital assistant.

^a Other sources of information listed were Epocrates, American Academy of Family Physicians, Dynamed, Medline, Medscape, and Google.

^b Table restricted to responses endorsed by greater than 10 physicians. Other options endorsed by at least one physician included informational poster and other. Screensavers and Facebook or other social media were not endorsed by anyone.

* $P = .01$.

without drugs, 68% about caring for difficult patients, 67% about medications, and 59% about tools for family members. Other topics and kinds of information the participants wanted to learn about are listed in Table 2. The preferred sources of new information or clinical tools to help them and their staff deal with challenging behaviors associated with dementia included online resources (54%), pocket guides (37%), handbooks (34%), consulting pharmacists (32%), and facility in-services (31%). Additional preferred sources of new information or clinical tools are listed in Table 2.

To facilitate communication with the families of people with dementia regarding medications and nondrug approaches, participants primarily preferred 1-page handouts (76%), followed by brochures (39%), easier-to-read materials (38%),

and booklets (34%) (Table 3). No significant differences were noted between medical directors and nonmedical directors regarding communication with families.

The antipsychotics most often used in practice by respondents were risperidone (88%), quetiapine (86%), and haloperidol (78%) (Table 4). Significantly more medical directors used haloperidol compared with nonmedical directors, while significantly more nonmedical directors used ziprasidone compared to medical directors.

Discussion

The results of this study highlight the educational needs and resource preferences of Iowa family physicians regarding

Table 3. Preferred Resource/Source of Information to Help Communicate With Families About Medications and Nondrug Approaches.^a

	Nonmedical Directors, n (%)	Medical directors, n (%)
1-page handouts	48 (80)	28 (70)
Brochures	23 (38)	16 (40)
Easier-to-read materials	24 (40)	14 (35)
Booklets	19 (32)	15 (38)
Web-based patient information	19 (32)	6 (15)
Materials in other languages	7 (12)	4 (10)
Short online videos	3 (5)	4 (10)

^a There were no statistically significant differences between groups.

Table 4. Antipsychotics Used in Practice by Surveyed Physicians.^a

Medication	Nonmedical Directors, n (%)	Medical Directors, n (%)	P
Risperidone	54 (89)	35 (88)	1.0
Quetiapine	51 (84)	36 (90)	.36
Haloperidol	42 (69)	37 (93)	<.01*
Olanzapine	40 (66)	27 (68)	.84
Aripiprazole	26 (43)	14 (35)	.44
Ziprasidone	18 (30)	5 (13)	.046*
Clozapine	6 (10)	5 (13)	.75

^a Table includes antipsychotics used by at least 10 respondents. Other antipsychotics used in at least one respondent's patients included paliperidone, thioridazine, fluphenazine, thiothixene, chlorpromazine, trifluoperazine, asenapine, perphenazine.

*P < .05.

the care of people with dementia and challenging behavioral symptoms. There were no statistically significant differences in the types of resources used or requested by medical directors and nonmedical directors, with the exception of more use of UpToDate by nonmedical directors. UpToDate is a popular resource for getting current information about diagnosis and management of health conditions. Nonmedical directors may have used it more often for this purpose because of less familiarity with management of behavioral symptoms. However, this mirrored preferences for online resources, which could also relate to differences in age distributions and experiences using these sources in training.

Our findings highlight that participating nursing home medical directors were significantly older, worked with more patients who have dementia, and were more aware of the FDA warnings on antipsychotic use in patients with dementia than physicians who were not medical directors. However, they were not necessarily more confident in their abilities to treat and manage challenging behaviors associated with dementia without drugs and were not more likely to use nondrug approaches instead of medication to manage behavioral symptoms of dementia than physicians who were not medical directors. Levels of confidence in nondrug management strategies were moderate among both

medical directors and nonmedical directors. Previous work has consistently identified management of behavioral and psychological symptoms in people with dementia as a challenge for primary care providers.¹⁷⁻²² Only about a third of providers expressed confidence in managing these symptoms in one study from the United Kingdom.¹⁷ Over 50% of nonmedical directors reported using nondrug approaches instead of medications in half or fewer of their patients with dementia and behavioral symptoms, and 45% of medical directors responded the same. The survey did not explore the process by which physicians made decisions to use medications to manage symptoms, such as the use of nondrug interventions prior to or concurrent with prescribing medications, or the duration of time for which medications were prescribed. This information would have been useful to provide more context about medication use. As medical directors reported they have more nursing home patients and patients with dementia and provide assistance at more nursing homes than nonmedical directors, a higher level of confidence among medical directors was expected. These moderate confidence levels may reflect the perception that nondrug management of behavioral symptoms is a nursing task, and nursing home staff contacts physicians when nondrug approaches have failed. They may also reflect the severity of symptoms in the patients for whom they care, as

neuropsychiatric disturbances are frequent causes of nursing home placement.²³ However, other responses indicate these physicians were interested in learning more about nondrug management of behavioral symptoms, suggesting a need for education for both medical director and nonmedical director family physicians.

A majority of surveyed physicians also wanted more information on medications used for the treatment of dementia. Our survey showed medical directors were more likely to use haloperidol and nonmedical directors were more likely to use ziprasidone. This may suggest that medical directors are more informed about evidence on antipsychotic efficacy in dementia. Clinical trials have shown a reduction in patient aggression with the use of haloperidol in dementia, whereas no randomized controlled trials have evaluated the safety and efficacy of ziprasidone in patients with dementia. It may also reflect the medical director's older age, as they may be more likely to have used haloperidol, an older antipsychotic, in their training.²⁴ Alternatively, it could reflect a more cost-conscious approach to prescribing, given that haloperidol is a relatively low-cost generic drug. With regard to ziprasidone, nonmedical directors were younger and may have had more experience with ziprasidone in their training or been influenced by sales representatives, as it is a newer medication. It is also possible that they find some value in its use. It is not clear that it does not work for this indication even though evidence from randomized controlled trials is lacking. Regardless, we believe our findings suggest that continuing education on antipsychotic selection was needed even among medical directors, as evidenced by the common use of quetiapine. In 4 randomized controlled trials, quetiapine showed no greater efficacy than placebo in treating neuropsychiatric symptoms of dementia.²⁵ One trial did demonstrate evidence of benefit in a secondary analysis at a dose 200 mg/d, which is higher than the CMS allowable dose for chronic use in nursing home residents with dementia.^{26,27} Various sources suggest quetiapine is the most commonly used antipsychotic in US nursing homes.¹⁻⁴ It is difficult to resolve its frequent use given that so much evidence suggests it is not effective for management of neuropsychiatric symptoms of dementia.²⁵

The information provided by this survey on the sources of information preferred by physicians is somewhat unique, in part because technology has changed the way that healthcare providers can access information. While this survey did not directly evaluate preferences for in-person meetings, workshops, and conferences, historically among the commonly preferred sources of information,¹¹ the results show that online resources such as UpToDate are commonly used to obtain information, and that online resources were the most preferred source of new information among the options provided. This is consistent with research highlighting a shift toward electronic resource utilization.^{14,15} About a quarter of

respondents included mobile device applications among their preferred sources. Many physicians also endorsed paper-based tools such as pocket guides and handbooks, however, as well as obtaining information from colleagues such as consultant pharmacists. The frequent endorsement of pocket guides as a preferred source of information may reflect the condensed but useful information such sources can provide. Prior work on printed education materials found that primary care providers preferred simple concise documents with links to sources that provide detailed information. This survey did not directly evaluate whether physician colleagues were a preferred source of information. It is interesting that consulting nurses were not commonly used sources of information or preferred as sources of new information, given that consulting nurses practicing in the nursing home setting might be expected to be knowledgeable about managing dementia symptoms without drugs. The results could simply reflect that responding physicians had limited experience working directly with consulting nurses. This could relate to infrequent use of consulting nurses. Another possibility is that consulting nurses interact more often with nursing home staff delivering behavioral interventions than with medical staff. Nursing home staff may involve physicians primarily when they perceive a need for a medical assessment or medication and involve them less in decisions about nondrug interventions. About a quarter of respondents reported receiving information on managing challenging behaviors from drug company representatives, which on the surface seems less than ideal but could reflect discussions of risks. Finally, physicians also indicated that 1-page handouts for were their most preferred source of information to provide to patients.

Limitations of this study include a relatively small sample size of 101 physicians with only a 20% response rate. Results may not be representative for family practice physicians in Iowa as a whole, or generalizable to other states. Those who chose to complete the survey may have been more interested in the topic. Respondents may have had difficulty interpreting some questions.

Conclusions

The responses to this survey were used to help inform the development of the Improving Antipsychotic Appropriateness in Dementia Patients (IA-ADAPT) educational program and resources.²⁸ This program provides information through online lectures, pocket guides, a web-based mobile device application, evidence reviews, and other resources to assist health care providers involved in management of behavioral and psychological symptoms of dementia. It also includes a reader-friendly shared decision-making guide for patients and families who may be involved in decisions about antipsychotic use and symptom management. Participants did not strongly endorse all these sources in the formats provided, but the pocket guides supported by

more detailed information provided on the website are consistent with preferences for printed materials, and the program as a whole is consistent with preferences for online information. These resources are available at no cost at <https://www.healthcare.uiowa.edu/igec/iaadapt/>. Although

this survey was specific to the care of patients with dementia, the preferences for sources and types of information may also be informative when developing educational resources and interventions to promote best practices in caring for other conditions.

Appendix

Physician Needs Assessment: Caring for People With Dementia and Challenging Behaviors

1. Please use a check mark to indicate the antipsychotics that are used in your patients with dementia or delirium, then circle the 3 that are most commonly used in your patients. Those that are not used should be left blank.

<input type="checkbox"/> Risperidone (Risperdal)	<input type="checkbox"/> Clozapine (Clozaril)	<input type="checkbox"/> Perphenazine (Trilafon)
<input type="checkbox"/> Olanzapine (Zyprexa)	<input type="checkbox"/> Paliperidone (Invega)	<input type="checkbox"/> Thioridazine (Mellaril)
<input type="checkbox"/> Quetiapine (Seroquel)	<input type="checkbox"/> Fluphenazine (Prolixin, Permitil)	<input type="checkbox"/> Thiothixene (Navane)
<input type="checkbox"/> Aripiprazole (Abilify)	<input type="checkbox"/> Chlorpromazine (Thorazine)	<input type="checkbox"/> Trifluoperazine (Stelazine)
<input type="checkbox"/> Haloperidol (Haldol)	<input type="checkbox"/> Iloperidone (Fanapt)	<input type="checkbox"/> Other (please list) _____
<input type="checkbox"/> Ziprasidone (Geodon)	<input type="checkbox"/> Asenapine (Saphris)	

2. How satisfied are you with the training that you and your staff currently receive regarding managing challenging behaviors in people with dementia? (Please circle ONE number, 1-5)

Not at all satisfied 1 2 3 4 5 Very satisfied

3. Would it help you to receive training on how to use tools to assess cognition (e.g., delirium), behavioral symptoms (e.g., Behavior Monitoring Form), or movement disorders related to antipsychotics (e.g., the AIMS)?

Yes. Please list tools or topics you'd like training on: _____
 No. I know how to use these tools

4. About how many nursing home patients do you care for at a given time? _____
 5. How many nursing homes do you have patients in? _____
 6. Do you serve as the medical director of any nursing homes? Yes No
 6a. If yes, how many? _____

7. About how many patients with dementia do you care for at a given time? _____
 8. When one of your patients:

- a) in a nursing home is prescribed an antipsychotic medication, how much does input from the nursing staff influence the selection of the medication that is prescribed? (Please circle ONE number, 1-5)

Not at all 1 2 3 4 5 Very much

- b) in the community is prescribed an antipsychotic, how much does input from the family influence the selection of the medication prescribed?

Not at all 1 2 3 4 5 Very much

9. How aware are you of the warnings from the Food and Drug Administration on antipsychotic risks in dementia? (Please circle ONE number, 1-5)

Not aware 1 2 3 4 5 Very aware

We are interested in how often you use non-drug approaches instead of medications to manage challenging behaviors in people with dementia.

10. **Would you say you use non-drug approaches instead of medications for . . .**

- a. More than 3/4 of your patients with challenging behaviors
- b. More than 1/2 but less than 3/4 of patients
- c. About 1/2 of patients
- d. Less than 1/2 but more than 1/4 of patients
- e. Less than 1/4 of patients

11. **How confident are you that you can manage challenging patient behaviors with non-drug approaches? (Please circle ONE number, 1-5)**

Not at all confident 1 2 3 4 5 Totally confident

12. **How do you now get information or clinical tools to help you and your staff address challenging behaviors with persons who have dementia? Please check all that apply.**

Consulting pharmacist Consulting nurse Facility inservice
 Physician Desk Reference Drug Book Drug company representative
 UpToDate Internet resource, please specify: _____
 Other, please specify: _____

13. **What kind of information would you most like to learn more about to help care for your patients with dementia? Please check all that apply.**

Measuring pain Types of dementia Managing difficult behaviors without drugs
 Staff consistency in caregiving Medications Dementia in hospice/When to stop medications
 Tools for family members Caring for difficult patients Differentiating between dementia and delirium
 Other, please specify: _____

14. **How would you prefer to get new information or clinical tools to help you and your staff address challenging behaviors with persons who have dementia? Please check all that apply, then circle the 3 items that you would be the most likely to use.**

Consulting pharmacist Consulting nurse Facility inservice E-mail
 Informational Poster On-line resource Mail Screensavers
 CD-ROM Handbook Pocket guides Facebook or other social media
 Short online videos (i.e., YouTube-style)
 Application for iPhone with treatment algorithms and further information on topics
 Application for other PDA device or 'smart phone' (please list type, e.g., Windows, Blackberry, Android) _____
 Other (please list): _____

15. **How often do you involve patient family members in decisions to use medications for challenging behaviors in dementia? (Please circle ONE number, 1-5)**

Almost never 1 2 3 4 5 Almost always

16. **What kind of information or resource would you most like to help communicate with families about medications and non-drug approaches used for challenging behaviors? Please check all that apply.**

1-page handouts Brochures Web-based patient information
 Booklets Easier-to-read materials Short online videos (i.e., YouTube-style)
 Materials in languages other than English (e.g., Spanish; please specify language(s)): _____
 Other (please list): _____

17. **What is your age:** _____
18. **Gender:** ___ Female ___ Male
19. **Race(s):**
 ___ American Indian or Alaska Native ___ Asian ___ Black or African-American
 ___ Native Hawaiian or Other Pacific Islander ___ White ___ Other
20. **Ethnicity:** ___ Hispanic or Latino ___ Non Hispanic or Latino
21. **Total years in practice:** _____

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ORCID iD

Michelle T. Weckmann  <https://orcid.org/0000-0002-3172-3733>

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for treating problem behaviors in dementia. *J Gerontol Nurs*. 2013;39:24-37.

Author Biographies

Ryan M. Carnahan, PharmD, MS, is an associate professor in the Department of Epidemiology, College of Public Health, University of Iowa. He is a pharmacoepidemiologist and psychiatric pharmacist focused on improving medication use and safety in older adults and people with mental health conditions.

Jeanette M. Daly, PhD, is a research scientist in the Department of Family Medicine in the Roy J. and Lucille A. Carver College of Medicine. She is the associate director of the Iowa Research Network, a practice-based research network.

Sarah Minion, MS, was a student in the College of Public Health, University of Iowa when working on this manuscript and currently is a PhD candidate in epidemiology at The University of Pittsburgh. Her research focuses include maternal and child health, but she has a diverse background in epidemiology research working with patient-centered outcomes research, trajectory analyses, longitudinal data, and GIS applications.

Brian Gryzlak, MSW, is a research specialist in the Department of Epidemiology at the University of Iowa. He has supported, coordinated, and implemented a wide range of research topics and study designs, including observational comparative effectiveness research, pharmacist-managed cardiovascular risk service interventions, surveys of cancer survivors, and UIOWA's participation in a PCORnet clinical data research network.

Michelle T. Weckmann, MS, MD, is a clinical associate professor in Family Medicine and Psychiatry in the Roy J. and Lucille A. Carver College of Medicine. She is program director of the family medicine/psychiatry combined residency program.

Barcey T. Levy, PhD, MD, is a professor of Family Medicine in the Roy J. and Lucille A. Carver College of Medicine and Epidemiology in the College of Public Health at the University of Iowa. She is the director of the Iowa Research Network, a practice-based family medicine research network.

Camden P. Bay, PhD, received his MS in biostatistics and PhD in epidemiology from the University of Iowa. He currently works for Brigham & Women's Hospital in Boston as a biostatistician in the Center for Clinical Investigation and the Department of Radiology.