Assessing the Educational Needs of Wisconsin Primary Care Clinicians Caring for Persons Living With Dementia

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ABSTRACT

Background: Nearly 90% of persons living with dementia experience behavioral and psychological symptoms of dementia (BPSD). Primary care clinicians may require more training to address these symptoms.

Methods: We surveyed Wisconsin primary care clinicians to assess their current approaches, needs, and interest in future educational interventions related to managing BPSD.

Results: Over 60% of clinicians reported lack of ability or training in managing BPSD, while over 75% expressed interest in educational interventions that included discussion of treatment algorithms or virtual didactics.

Discussion: Given the apparent widespread demand and need for educational interventions on BPSD for primary care clinicians, future studies are needed to assess the efficacy of such interventions in improving clinicians' preparedness to care for patients with BPSD.

BACKGROUND

By 2060, there are projected to be 13.9 million people with Alzheimer's disease or related dementias in the United States.[1] As many as 90% of people living with dementia will experience behavioral and psychological symptoms of dementia (BPSD), such as depression, anxiety, psychosis, and sleep disturbances, among other symptoms.[2] Managing BPSD is complex and involves assessing patients' symptoms, evaluating underlying medical conditions, and considering pharmacologic and nonpharmacologic treatment options.[2] Primary care clinicians provide the majority of outpatient care to people living with dementia, with 1 study suggesting that 80% of fee-for-service Medicare beneficiaries with dementia receive most of their outpatient care from a primary care clinician.[3] Yet, clinicians may lack the training needed to appropriately manage BPSD experienced by these patients.[4] To tailor future educational intervention strategies on BPSD management for clinicians, we conducted a brief survey among Wisconsin primary care clinicians to learn current approaches, potential gaps, and continuing education preferences in the care of patients with BPSD.

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METHODS

Sample

As part of a larger effort by our research group to create educational interventions on BPSD management for primary care teams,[5,6] we conducted a survey using a convenience sample of primary care clinicians caring for patients ages 65 and above, primarily in the Wisconsin Research and Education Network, as well as the Wisconsin Medical Society, Wisconsin Academy of Family Physicians, and colleagues of members of the Wisconsin Alzheimer's Institute Dementia Diagnostic Clinic Network.[7] The survey was administered via an anonymous link shared through email and e-newsletters, with all survey data collected using REDCap (Research Electronic Data Capture) software[8] hosted by the Department of Medicine at the University of Wisconsin School of Medicine and Public Health.

Measures

The survey included items assessing clinicians' demographic and

clinical practice characteristics, prior training in dementia and/or BPSD management (yes/no), and perceived gaps in their or their clinic's ability to care for patients with BPSD (yes/no/maybe). Clinicians' current approaches for managing BPSD were assessed by asking if they used pharmacologic approaches, nonpharmacologic approaches, or patient referral, with follow-up questions regarding the specific approaches within those 3 categories as applicable. Confidence in clinical ability to manage BPSD was assessed using a modified confidence subscale from the General Practitioner Attitudes and Confidence Scale for Dementia.[9] Continuing education preferences were assessed via a list of potential educational interventions: onsite or virtual discussion of treatment algorithms; virtual lectures or seminars; onsite or virtual discussion of generic cases; case discussion without patient present; listening to podcasts, reading suggested literature on my own; case consultation with patient present; online didactics without case discussion; and in-person lectures or seminars held on the University of Wisconsin-Madison campus. For each intervention, respondents indicated their likelihood of participating on a 5-point Likert scale from 1 (extremely unlikely to participate) to 5 (extremely likely).

Analyses

Because the focus for this project was to assess the educational needs of primary care clinicians, only those survey respondents who indicated they were physicians or advanced practice providers were included in the study. To facilitate interpretation of continuing education preferences, responses to the 5-point Likert scales assessing the likelihood to participate were collapsed to "willing" (Likert responses 4 or 5), "neutral" (3), and "unwilling" (1 or 2). Descriptive statistics were calculated overall and by BPSD preparedness. Difference in mean confidence was tested via a 2-sided *t* test with statistical significance established as $P<0.05$. Fisher exact tests were used for comparing distributions of categorical variables between low and high BPSD preparedness respondents. Spearman rank correlation coefficients were determined across continuing educational preferences for low and high BPSD preparedness respondents.

The project was approved by the University of Wisconsin-Madison Institutional Review Board.

RESULTS

Clinician Respondents

Seventy-eight individuals reviewed the study's webpage and 56 completed the survey. Of these respondents, 46 indicated they were physicians or advanced practice providers and were the focus of our analyses. The 10 remaining respondents worked in other health professions or had missing data for profession and were excluded. Due to a low number of clinician respondents who stated there were no gaps in care and to prioritize future training targets, we split respondents into 2 groups: "low BPSD preparedness clinicians" (clinicians who reported both "yes" to perceived gaps in ability to provide care and "no" to prior training in dementia/BPSD management) and "high BPSD preparedness" clinicians (clinicians who reported "yes" to having prior training and/or reported "maybe" or "no" to gaps in ability to provide care).

Table 1. Clinician Demographic and Clinical Practice Characteristics by BPSD Preparedness

	BPSD Preparedness		
	Low (N = 22)	High (N = 24)	Overall (N = 46)
Demographics			
Profession			
Physician	19 (86.4%)	20 (83.3%)	39 (84.8%)
Advanced practice provider	3 (13.6%)	4 (16.7%)	7 (15.2%)
Specialty[a]			
Family medicine	17 (77.3%)	16 (66.7%)	33 (71.7%)
Internal medicine	5 (22.7%)	1 (4.2%)	6 (13.0%)
Geriatrics	–	6 (25.0%)	6 (13.0%)
Missing	–	1 (4.2%)	1 (2.2%)
Years practicing in primary care			
<5 years	6 (27.3%)	5 (20.8%)	11 (23.9%)
5–10 years	5 (22.7%)	5 (20.8%)	10 (21.7%)
11+ years	11 (50.0%)	13 (54.2%)	24 (52.2%)
Missing	–	1 (4.2%)	1 (2.2%)
Race			
Asian or Asian American	3 (13.6%)	2 (8.3%)	5 (10.9%)
Black or African American	–	–	–
White	16 (72.7%)	18 (75.0%)	34 (73.9%)
Other	1 (4.5%)	–	1 (2.2%)
Missing/prefer not to answer	2 (9.1%)	4 (16.7%)	6 (13.0%)
Ethnicity			
Hispanic or Latino	–	–	–
Not Hispanic or Latino	19 (86.4%)	20 (83.3%)	39 (84.8%)
Missing/prefer not to answer	3 (13.6%)	4 (16.7%)	7 (15.2%)
Gender			
Female	16 (72.7%)	15 (62.5%)	31 (67.4%)
Male	4 (18.2%)	5 (20.8%)	9 (19.6%)
Missing/prefer not to answer/don't know	2 (9.1%)	4 (16.7%)	6 (13.0%)
Clinical Practice Characteristics			
Patients 65 years and older			
0–5/week	3 (13.6%)	2 (8.3%)	5 (10.9%)
6–10/week	7 (31.8%)	9 (37.5%)	16 (34.8%)
11–20/week	5 (22.7%)	6 (25.0%)	11 (23.9%)
21+/week	7 (31.8%)	7 (29.2%)	14 (30.4%)
Patients with dementia			
0–5/week	18 (81.8%)	16 (66.7%)	34 (73.9%)
6–10/week	3 (13.6%)	5 (20.8%)	8 (17.4%)
11–20/week	–	2 (8.3%)	2 (4.3%)
21+/week	–	1 (4.2%)	1 (2.2%)
Missing	1 (4.5%)	–	1 (2.2%)
Patients with BPSD			
0–5/week	19 (86.4%)	18 (75.0%)	37 (80.4%)
6–10/week	3 (13.6%)	6 (25.0%)	9 (19.6%)

Abbreviations: BPSD, behavioral and psychological symptoms of dementia.
[a]$P=0.01$ by Fisher exact test.
See text for description of "low BPSD preparedness" and "high BPSD preparedness" categories.

The 46 clinician respondents had similar demographic and clinical practice characteristics across levels of BPSD preparedness

(Table 1), except for clinical specialty (all geriatricians had high BPSD preparedness). Among all clinicians, 67% reported "yes" to gaps in care, 61% reported no prior training, and 48% reported both (ie, low BPSD preparedness). Three clinicians had missing confidence data. Low BPSD preparedness clinicians reported less confidence in their clinical ability to manage BPSD than high BPSD preparedness clinicians (mean [SD] = 2.84 [0.5] vs 3.53 [0.7], *t* test $P < 0.001$).

Current BPSD Management Approaches

The pharmacologic, nonpharmacologic, and referral approaches used to manage BPSD are summarized in Table 2. Antipsychotic and antidepressants were the most common pharmacologic approaches among both low and high BPSD clinicians; antidepressant use appeared to be more common and antipsychotic use less common among low BPSD preparedness clinicians; however, the differences were not significant ($P > 0.2$). Low BPSD preparedness clinicians descriptively appeared less likely to use most nonpharmacologic approaches than high BPSD preparedness clinicians, although for both groups, the most selected nonpharmacologic approach was education of patients and/or caregivers. Low BPSD preparedness clinicians were more likely to refer patients to Aging and Disability Resource Centers and other governmental agencies than high BPSD preparedness clinicians.

Continuing Education Preferences

Three clinicians had missing data for the continuing education questions, as they completed a pilot version of these questions. Figure 1 displays preferences for willingness to participate in potential future educational interventions by BPSD preparedness status. The majority of both low and high BPSD preparedness clinicians were willing to participate in discussion of treatment algorithms, virtual lectures or seminars, case discussion without patient present, and listening to podcasts. Clinicians with low BPSD preparedness appeared less willing to read suggested literature on their own than clinicians with high BPSD preparedness (40% vs 74% willing, $P = 0.06$) and more willing to participate in discussion of generic cases than clinicians with high BPSD preparedness (75% vs 48% willing, $P = 0.09$), although the differences were not statistically significant. When exploring correlations of preferred teaching methods, we found that participants who favored generic case discussions also favored discussing treatment algorithms ($\rho = 0.62$, $P < 0.001$). We also noted that low BPSD preparedness participants who prefer discussions of generic cases or discussing treatment algorithms also value virtual lectures ($\rho = 0.53$, $P = 0.019$ and $\rho = 0.49$, $P = 0.038$, respectively).

Table 2. Current BPSD Management Approaches

	BPSD Preparedness		
	Low (N=22)	High (N=24)	Overall (N=46)
Pharmacologic			
Antipsychotics	16 (72.7%)	21 (87.5%)	37 (80.4%)
Antidepressants	21 (95.5%)	20 (83.3%)	41 (89.1%)
Sedative-hypnotics	2 (9.1%)	5 (20.8%)	7 (15.2%)
Stimulants	–	2 (8.3%)	2 (4.3%)
Anticonvulsants	7 (31.8%)	7 (29.2%)	14 (30.4%)
Analgesics	12 (54.5%)	15 (62.5%)	27 (58.7%)
Complementary/alternative	7 (31.8%)	12 (50%)	19 (41.3%)
Other	1 (4.5%)	1 (4.2%)	2 (4.3%)
Missing	1 (4.5%)	2 (8.3%)	3 (6.5%)
Nonpharmacologic			
Education of patients and/or caregivers	21 (95.5%)	23 (95.8%)	44 (95.7%)
Support groups for patients and/or caregivers	12 (54.5%)	13 (54.2%)	25 (54.3%)
Behavioral management plan (ie, strategies for how caregivers should respond to behaviors)	17 (77.3%)	20 (83.3%)	37 (80.4%)
Changes to patients' environment	15 (68.2%)	19 (79.2%)	34 (73.9%)
Other	–	1 (4.2%)	1 (2.2%)
Missing	–	1 (4.2%)	1 (2.2%)
Referral Locations			
Geriatrics	14 (63.6%)	9 (37.5%)	23 (50.0%)
Psychiatry	9 (40.9%)	10 (41.7%)	19 (41.3%)
Psychology/behavioral medicine	8 (36.4%)	6 (25.0%)	14 (30.4%)
Social work	14 (63.6%)	9 (37.5%)	23 (50%)
Aging and disability resource Center or other government agency[a]	17 (77.3%)	10 (41.7%)	27 (58.7%)
Other	5 (22.7%)	2 (8.3%)	7 (15.2%)
Missing	1 (4.5%)	8 (33.3%)	9 (19.6%)

Abbreviation: BPSD, behavioral and psychological symptoms of dementia.

[a] $P = 0.02$ by Fisher exact test.

Number of low BPSD preparedness clinicians and high BPSD preparedness clinicians currently using pharmacologic, nonpharmacologic and referral approaches to manage BPSD.

DISCUSSION

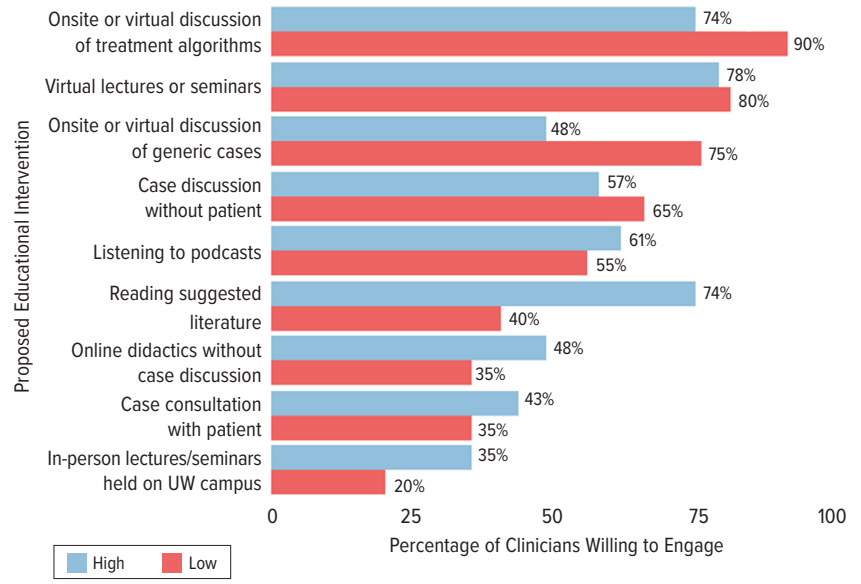
Gaps in care and training indicate a need to improve primary care clinicians' preparedness to treat patients with BPSD. Nearly 50% of clinicians, who reported both gaps in care and no prior training, indicated less confidence in their ability to manage BPSD. Clinicians' current practices in managing BPSD and their willingness to engage in BPSD educational interventions may vary by their BPSD preparedness, suggesting that educational interventions should be tailored to experiences and interests.

A limitation of the present study is a lack of respondents who identified as Black/African American or Hispanic/Latino. This is consistent with national data demonstrating underrepresentation of Black and Hispanic clinicians among physicians and advance practice providers and with state data indicating Black and Hispanic clinicians comprise just 2.9% and 3.2% of the physician workforce in Wisconsin, respectively.[10] Purposeful sampling to reach underrepresented clinicians may have been necessary to recruit a more representative sample.

The results of this study will inform our research group's

ongoing efforts to create and revise educational interventions focused on training all members of primary care clinic teams to better manage BPSD. Our model uses empirically supported methodologies, including academic detailing, to train primary care clinicians in diagnosis and treatment strategies for BPSD,[5] and the DICE Approach, to train nurses, social workers, and other dementia care professionals to assist family caregivers of people living with dementia to intervene at the level of patient and caregiver behaviors and environments to manage BPSD.[6] The results of this study suggest possible strategies to tailor educational interventions to the BPSD preparedness level and interest of the clinician, eg, discussion of treatment algorithms, virtual lectures/seminars, discussion of generic cases, case discussion without a patient present, and listening to podcasts for low BPSD preparedness clinicians; recommendations for literature to review for high BPSP preparedness clinicians; and applied, case-based approaches for all clinicians.

Figure. Willingness to Engage in Future Continuing Education



Abbreviations: BPSD, behavioral and psychological symptoms of dementia.

Percent of low BPSD preparedness and high BPSD preparedness clinicians who indicated they were "extremely likely" or "likely" to participate in each of the 9 educational interventions proposed in the survey. The educational interventions are listed first to last by the percent of low BPSD preparedness clinicians willing to participate in that intervention. See text for description of "low BPSD preparedness" and "high BPSD preparedness" categories.

CONCLUSIONS

This study demonstrated that among Wisconsin primary care clinicians across a range of specialties and years of clinical experience, there is a need to increase clinicians' preparedness to treat patients with BPSD, and there is an expressed willingness by clinicians to engage in a variety of continuing education interventions on managing BPSD.

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