

Final Report

The MCI Sentinel Program™: “Improving the Diagnostic Approach to MCI in the Primary Care Setting”

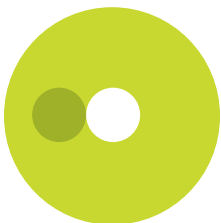
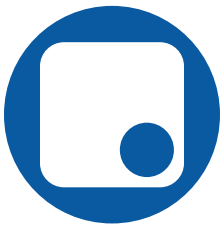
Pre-education Needs Assessment:
Two Nominal Group Sessions September 2006

Post-education Assessment:
One Printed Monograph
Distributed June 2007

Monograph created and developed by
The BioContinuum Group

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Executive Summary

The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting

Overview

Outcomes, Inc. collaborated with The BioContinuum Group in an initiative to understand and address the learning needs of primary care physicians in the assessment and monitoring of mild cognitive impairment (MCI) in elderly patients. This assessment included two sessions utilizing Nominal Group Technique for primary care (family practice and geriatric medicine) physicians. To further understand learning needs and preferences, a brief survey was administered to approximately 600 family practice and geriatric medicine practitioners. (See the results in appendix A).

The results of both the Nominal Group sessions and the survey were used by The BioContinuum Group to refine the educational objectives and content for the monograph entitled: *The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting* supported through an unrestricted educational grant from Pfizer Inc. The monograph was distributed in June 2007 to 5,000 physicians selected from the following states: California, Florida, New York, Pennsylvania, and Texas.

Effectiveness of the education was measured using a case-based survey designed to assess whether the diagnostic and therapeutic choices of program participants were consistent with the evidence-based content of the educational activity. The survey was also administered to a representative control group of physicians who did not participate in the educational program (non-participants) in order to assess differences in practice choices associated with program participation.

Who Participated?

This educational activity was intended for primary care physicians; however, the study included the target audience of primary care physicians as well as specialists who were exposed to the monograph. On average, participants in this educational activity have been in practice for almost 22 years and see 20 patients per week who are older and have some degree of cognitive impairment.

Educational Impact

Physician Quality of Education Index™



Based on the evidence-based clinical case vignette questions, an effect size was calculated. Effect size refers to the strength of the relationship between performance and participation in the educational intervention. The effect size for this educational intervention was .37. Relative to results from a meta-analysis, which indicates passive educational methods to have an effect size of .20¹, the effect size of .37 equates to a slightly moderate positive educational effect.

¹ Mansouri M and Lockyer J: A meta-analysis of continuing medical education effectiveness. *J Contin Educ Health Prof.* 2007; 27(1): p. 6-15.

Key Findings

Clinical Decision Making

For a hypertensive patient who is taking ACEI/diuretic, who has difficulty in remembering recent events, participants were more likely than non-participants to:

- Screen for cognitive impairment (74% participants vs. 61% non-participants)
- Identify the significant beneficial impact of early diagnosis of minimal cognitive impairment (54% participants vs. 36% non-participants)
- Administer the Montreal Cognitive Assessment (18% participants vs. 4% non-participants)

For a patient with amnesic mild cognitive impairment, participants were more likely than non-participants to:

- Identify her high risk for progressing to dementia (62% participants vs. 42% non-participants)
- Select an acetylcholinesterase inhibitor to improve her symptoms and delay progression to Alzheimer's disease (41% participants vs. 18% non-participants)

For a patient with cognitive impairment severe enough to affect her social life, participants and non-participants were equally as likely to:

- Identify prodromal symptoms of Alzheimer's disease (66% participants vs. 66% non-participants)
- Diagnose her with mild dementia (55% participants vs. 59% non-participants)
- Select Mini-Cog as a rapid dementia screening tool (76% participants vs. 68% non-participants)

Barrier to Optimal Management

Inadequate time to assess cognitive function was identified as the most significant practice-related barrier to the early detection of MCI (34% participants and 43% non-participants).

Delayed presentation due to low patient awareness of cognitive changes was identified by non-participants (41%) and *social stigma of cognitive impairment* was identified by participants (44%) as the most significant patient-related barrier to the early detection of MCI.

Confidence in Being Up-to-Date

On a scale of 1 to 10, with 1 being not at all confident and 10 being very confident, participants in "The MCI Sentinel Program" rated their confidence level 6.9 and non-participants rated their confidence level 5.5, demonstrating potential influence in being up-to-date as a result of the participation.

Focus of Future Education

Based on both participant and non-participant responses to case vignettes, future educational programs on the topic of MCI should continue to address:

- Utilization of an appropriate screening tool for minimal cognitive impairment (the Montreal Cognitive Assessment)
- Presentation of beneficial effects of screening and early diagnosis of MCI on patients' lives
- Differentiating between dementia and MCI
- Illustrating the role of acetylcholinesterase inhibitors in improving symptoms and delaying progression to AD in patients with MCI

Outcomes, Inc. Educational Metrics

The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting

Project Overview

Outcomes, Inc. collaborated with The BioContinuum Group in an initiative to understand and address the learning needs of primary care physicians in the assessment and monitoring of mild cognitive impairment (MCI) in elderly patients. This collaboration was conducted in two phases.

Outcomes, Inc. worked with The BioContinuum Group to determine learning needs by conducting two Nominal Group Technique sessions with primary care (family practice and geriatric medicine) physicians. To further understand learning needs and preferences, a brief survey was administered to approximately 600 family practice and geriatric medicine practitioners.

The goals of the pre-education needs assessment were to answer the following questions:

- What do primary care physicians want to know regarding MCI management?
- What is the preferred manner in which primary care physicians want to receive information regarding MCI?
- What are the barriers to managing MCI patients?

The results of the Nominal Group sessions were used by The BioContinuum Group to refine the educational objectives and content for the Monograph entitled: *The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting*, supported by an unrestricted educational grant from Pfizer Inc. The monograph was distributed in June 2007 to 5,000 primary care physicians selected from the following states: California, Florida, New York, Pennsylvania, and Texas.

Following the educational initiative, Outcomes, Inc. collaborated with the BioContinuum Group to assess the impact of the intervention. Effectiveness of the education was measured using a survey comprised of evidence-based case vignettes, questions about physician confidence, and questions about barriers to the optimal early detection of MCI. Surveys were administered to a group of participants and a similar group of non-participants, allowing for assessment and reporting based on the following questions:

- How do practice approaches to the diagnosis and management of dementia and MCI, by program participants, compare with those of non-participants?
- Does adherence to clinical practice guidelines and clinical evidence differ between participant and non-participant groups?
- Were there differences in perceived barriers to the optimal diagnosis and management of dementia and MCI associated with educational activity participation?
- Was there a difference in the confidence in diagnosis and managing dementia and MCI between educational activity participants and non-participants?

Phase I: Pre-education needs assessment

Nominal Group Technique

The Nominal Group Technique session is a one-hour structured synchronous session conducted by a health research moderator who administers the following steps: 1) silent generation of responses to a question; 2) round-robin recording of the generated ideas; 3) serial discussion for clarification; and 4) prioritization of responses. Participants of the session use a phone and internet connection to participate in the session.

Nominal Group Technique (NGT) is a well-established group approach to systematically elicit and prioritize participant responses to specific questions that address a complex set of issues^{2,3}. The highly structured format of the session promotes equal involvement of participants and controls extraneous and evaluative discussion that can occur during group sessions when controversial issues are addressed or when real or perceived power differentials exist among participants. By minimizing the effects of process loss, the NGT session tends to elicit a greater volume of information regarding some specified issue, compared to unstructured focus group meetings. Because the session tends to promote even rates of participation and equally weighs the input from all group members, the results are assumed to provide a direct reflection of the implicit views held by a group.

Question development: Outcomes, Inc. collaborated with The BioContinuum Group and Dr. Richard M. Shewchuk, Ph.D., a health services researcher at the University of Alabama at Birmingham, to set the research objectives and formulate questions to be used during the Nominal Group Technique session.

Physician Participation: Two mixed panels of U.S. family practice and geriatric medicine practitioners were convened using a synchronous Internet-based virtual meeting room and basic toll-free teleconference calling. Participants accessed the Internet site and were “seated” at a virtual table, where they were able to see the names of other participants. Participants were informed of the purpose of the meeting and given a brief explanation of the structured process and how to navigate within the virtual meeting room.

The Session: To promote open disclosure and increased response volume, participants stated a single response to a question without rationale, justification, or explanation for the response. The session moderator recorded each response on a virtual flip chart posted online so that participants could view previously nominated responses. The process continued until all participants presented their entire list of key attributes. Participants in each group were given an opportunity to briefly discuss the nominated responses for the purpose of clarification, not evaluation, to ensure that every response was understood from a common perspective. The final step consisted of a structured prioritization exercise in which each participant anonymously selected, from the list of responses, three attributes or criteria that he personally considered to be most important, and then participants ranked the attributes in order of their relative importance. Each participant’s item of highest importance received three votes, the item of second highest importance received two votes, and the item of third highest importance received one vote.

² Miller D, Shewchuk R, Elliott TR, Richards S. Nominal group technique: a process for identifying diabetes self-care issues among patients and caregivers. *Diabetes Educ* 2000; 26(2):305–314.

³ Elliott TR, Shewchuk R. Using the nominal group technique to identify problems experienced by persons living with severe physical disability. *J Clin Psych Med Settings* 2002; 9(2):65–76.

Information generation question: What sorts of structures and processes can be put into place to increase the likelihood that family practice physicians will routinely assess the cognitive or mental status of elderly patients?

The entire list of generated responses appears below.

1. It would be helpful to have flyers at large health fairs for patients to read.
2. If training/residency programs placed more emphasis on cognitive screening of geriatric patients, family practice physicians may be more likely to assess mental status regularly.
3. Screenings put on by community groups or health fairs with mini mental status exams, where the elderly are screened at discounted price and encouraged to bring the results to physicians, could help ensure that mental status is being checked.
4. CME for primary care to provide updates on advances in treatment and screening for MCI would be useful.
5. Senior citizen centers should be involved in the screening of the elderly.
6. City or county health departments could be a useful resource and could address MCI programmatically.
7. Direct-to-consumer advertising or commercials put on by health organizations (as opposed to pharmaceutical companies) could be used to disseminate information about memory loss and to encourage people to talk with their doctor.
8. Physicians could send a flyer out to families of patients, asking them to accompany their elderly relatives on a yearly/bi-yearly basis to give input on cognitive status.
9. It would help if insurance companies reimbursed for screening.
10. Physician waiting rooms could display a simple placard targeting a family member's concern about the cognitive status of elderly relatives or to serve as a reminder for patients to talk to their doctor.
11. A computer program could be used by nurses to conduct a mini mental status exam. This could be administered in the office or online.
12. Screening questionnaires should be put in waiting rooms for family and patients prior to visit.
13. It would be helpful to have a set protocol—to conduct a mini mental status exam on all patients over the age of 60, for example.
14. More emphasis should be placed on mental status by the AAFP, taking a preventive mental status approach.
15. Office staff could be trained to do a mini mental status exam, so that the doctor would be more likely to see it and could supervise mental status more, making treatment decisions.
16. If more efficacious drugs were available, it would be easier to convince physicians to screen and treat cognitive impairment.

Information Prioritization: September 13, 2006








After generating the list of structures and processes that could be put into place to increase the likelihood that family practice physicians would routinely assess the cognitive status of elderly patients, participants prioritized their top three responses in answer to the two prioritization criteria below.

For each set of prioritized results, the column entitled *# of votes* reflects the number of participants who assigned a vote to that item. The column *Votes assigned* reflects the weight of each assigned vote (a ranking of *most practical* receives three votes, a ranking of *least practical* receives one vote, and the remaining response receives two votes). The column *Sum of votes* indicates the sum of the weighted votes from the *Votes assigned* column.

These tables show only those items from the generated list that were selected by at least one participant as one of the top three ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.

Prioritization criterion #1:
 From the list of responses generated by the panel, please select three that you think are the most practical ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.











- 1) Of these three strategies, which do you consider to be the most practical way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?
- 2) Of the two remaining responses, which would you consider the least practical way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?

Physician panel: the most <i>practical</i> ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients		# of votes	Votes assigned	Sum of votes
Office staff could be trained to do a mini mental status exam, so that the doctor would be more likely to see it and could supervise mental status more, making treatment decisions.		2	3, 3	6
A computer program could be used by nurses to conduct a mini mental status exam—this could be administered in the office or online.		3	3, 2, 1	6
Direct-to-consumer advertising or commercials put on by health organizations (as opposed to pharmaceutical companies) could be used to disseminate information about memory loss and to encourage people to talk with their doctor.		2	3, 3	6
Screening questionnaires should be put in waiting rooms for family and patients prior to visit.		3	2, 1, 2	5
If more efficacious drugs were available, it would be easier to convince physicians to screen and treat cognitive impairment.		2	2, 2	4
It would be helpful to have a set protocol, to conduct a mini mental status exam on all patients over the age of 60, for example.		2	1, 1	2
Physician waiting rooms could display a simple placard targeting a family member's concern about the cognitive status of elderly relatives or to serve as a reminder for patients to talk to their doctor.		1	1	1

Prioritization criterion #2:

From the list of responses generated by the panel, please select three that you think would be the most effective ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.

- 1) Of these three strategies, which do you consider to be the most effective way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?
- 2) Of the remaining strategies, which do you consider to be the least effective way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?

Physician panel: the most <i>effective</i> ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients		# of votes	Votes assigned	Vote sum
It would help if insurance companies reimbursed for screening.		3	1, 3, 3	7
Office staff could be trained to do a mini mental status exam, so that the doctor would be more likely to see it and could supervise mental status more, making treatment decisions.		2	2, 3	5
It would be helpful to have a set protocol, to conduct a mini mental status exam on all patients over the age of 60, for example.		2	3, 1	4
Screening questionnaires should be put in waiting rooms for family and patients prior to visit.		2	2, 2	4
A computer program could be used by nurses to conduct a mini mental status exam. This could be administered in the office or online.		1	3	3
Screenings put on by community groups or health fairs with mini mental status exams, where the elderly are screened at discounted price and encouraged to bring the results to physicians, could help ensure that mental status is being checked.		1	2	2
If more efficacious drugs were available, it would be easier to convince physicians to screen and treat cognitive impairment.		1	2	2
If training/residency programs placed more emphasis on cognitive screening of geriatric patients, family practice physicians may be more likely to assess mental status regularly.		1	1	1
Direct-to-consumer advertising or commercials put on by health organizations (as opposed to pharmaceutical companies) could be used to disseminate information about memory loss and to encourage people to talk with their doctor.		1	1	1
CME for primary care to provide updates on advances in treatment and screening for MCI would be useful.		1	1	1

Information generation question: What sorts of structures and processes can be put into place to increase the likelihood that family practice physicians will routinely assess the cognitive or mental status of elderly patients?

The entire list of generated responses appears below.

1. Primary care physicians should be involved in the community (through churches or community centers, for example) to provide screening assistance to the elderly.
2. Improve the teaching of cognition evaluation to medical students before they go to practice to instill its importance while physicians are learning.
3. Public health fairs could be used as a screening venue, and patients could receive their results to give to their physician.
4. Since many elderly patients are in nursing homes, attention should be directed to these patients.
5. Physicians should have samples of drugs available for treatment of cognitive impairment, since physicians are less likely to screen if treatments are not present.
6. It would help if primary care physicians were oriented to community resources and plugged into information that could be passed onto patients about local programs and support groups.
7. Pharmaceutical-sponsored lunch and learn programs would help physicians to become more aware of cognitive impairment and screening techniques.
8. The front desk office staff that call patients before the exam could be given a set of orientation questions to ask elderly patients.
9. MCI is routinely dismissed, but awareness of the condition could be increased through the media.
10. Nurses could make an assessment of cognition and include it in their nurse's notes.
11. Community hospitals and local societies could be used as a resource to increase awareness about cognitive impairment.
12. More articles in medical journals could be dedicated to the subject of mental status and cognitive impairment in the elderly.
13. Taking a thorough history of drug and alcohol use could help in MCI screening.
14. Cognition could be considered a vital sign to be checked at every visit.
15. Pharmaceutical companies could sponsor a toll-free number as part of their direct-to-consumer marketing, providing a screening test and advising patients to see their doctor, depending on their cognition score.
16. Home health nursing could administer mental status exams at home and reimbursement could be provided for this service.
17. Mental status criteria and screening tools could be built into electronic health records.
18. A self-administered test could be devised to bring out cognition status information from the patient.
19. For Medicare patients or patients over 80 years of age, a family member could be invited to the annual physical for an interview.
20. Adult day cares and churches could be provided with mental status screening tools.

21. Spending more time with the patient and the family to obtain a history would allow for better screening.
22. A public web-based simple screening tool, that patients or families could e-mail before coming into the office, could improve mental status screening.
23. A standard mental status assessment form, which patients can be given to bring in at their next visit, could be devised.
24. Evidence-based guidelines, suggesting appropriate timeframes for screening and monitoring, would be useful.
25. Systems to monitor the patient's behavior and social interactions objectively would be useful in assessing cognition.
26. Given that there's not a definitive diagnosis, doctors should be reimbursed (through Medicare, for example) for interpreting mental assessments.
27. Online CME to increase physician awareness of screening approaches would be beneficial.
28. Screening tools could be placed in the charts of all elderly patients, to be filled out during their appointment.
29. State licensing boards should require CME on dementia to increase awareness of the problem.
30. The mini mental status exam should be made a routine part of the yearly physical in patients over 70 years of age.
31. An easy standard form for families to complete would increase screening and monitoring of mental status.
32. A standard cognition assessment tool for nurses to administer could help the screening process.
33. Cognition screening pamphlets could be placed in the waiting room or office.
34. Use an Activities of Daily Living (ADL) assessment to assess cognitive status.
35. Devise a better screening tool to assess MCI.

Information Prioritization: September 20, 2006

After generating the list of structures and processes that could be put into place to increase the likelihood that family practice physicians would routinely assess the cognitive status of elderly patients, participants prioritized their top three responses in answer to the two prioritization criteria below.







For each set of prioritized results, the column entitled *# of votes* reflects the number of participants who assigned a vote to that item. The column *Votes assigned* reflects the weight of each assigned vote (a ranking of *most practical* receives three votes, a ranking of *least practical* receives one vote, and the remaining response receives two votes). The column *Sum of votes* indicates the sum of the weighted votes from the *Votes assigned* column.

These tables show only those items from the generated list that were selected by at least one participant as one of the top three ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.

Prioritization criterion #1:

From the list of responses generated by the panel, please select three that you think are the most practical ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.

- 1) Of these three strategies, which do you consider to be the most practical way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?
- 2) Of the two remaining responses, which would you consider the least practical way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?

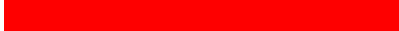










Physician panel: the most <i>practical</i> ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients		# of votes	Votes assigned	Sum of votes
Given that there's not a definitive diagnosis, doctors should be reimbursed (through Medicare, for example) for interpreting mental assessments.		5	1, 2, 3, 3, 2	11
Nurses could make an assessment of cognition and include it in their nurse's notes.		2	3, 3	6
For Medicare patients or patients over 80 years of age, a family member could be invited to the annual physical for an interview.		3	2, 2, 1	5
Devise a better screening tool to assess MCI.		2	3, 1	4
Cognition could be considered a vital sign to be checked at every visit.		1	3	3
Evidence-based guidelines suggesting appropriate timeframes for screening and monitoring would be useful.		1	3	3

Spending more time with the patient and the family to obtain a history would allow for better screening.	██████████	1	3	3
It would help if primary care physicians were oriented to community resources and plugged into information that could be passed onto patients about local programs and support groups.	██████████	3	1, 1, 1	3
Physicians should have samples of drugs available for treatment of cognitive impairment, since physicians are less likely to screen if treatments are not present.	██████████	1	3	3
Public health fairs could be used as a screening venue, and patients could receive their results to give to their physician.	██████████	1	2	2
Cognition screening pamphlets could be placed in the waiting room or office.	██████████	1	2	2
An easy standard form for families to complete would increase screening and monitoring of mental status.	██████████	1	2	2
The mini mental status exam should be made a routine part of the yearly physical in patients over 70 years of age	██████████	1	2	2
State licensing boards should require CME on dementia to increase awareness of the problem.	██████████	1	2	2
More articles in medical journals could be dedicated to the subject of mental status and cognitive impairment in the elderly.	██████████	1	1	1
Improve the teaching of cognition evaluation to medical students before they go to practice, to instill its importance while physicians are learning.	██████████	1	1	1
MCI is routinely dismissed, but awareness of the condition could be increased through the media.	██████████	1	1	1

Prioritization criterion #2:

From the list of responses generated by the panel, please select three that you think would be the most effective ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients.

- 1) Of these three strategies, which do you consider to be the most effective way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?
- 2) Of the remaining strategies, which do you consider to be the least effective way to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients?

Physician panel: the most <i>effective</i> ways to encourage family practice physicians to routinely assess and monitor the cognitive status of their elderly patients		# of votes	Votes assigned	Sum of votes
Given that there's not a definitive diagnosis, doctors should be reimbursed (through Medicare, for example) for interpreting mental assessments.		4	3, 3, 3, 2	11
Cognition could be considered a vital sign to be checked at every visit.		4	2, 1, 3, 2	8
For Medicare patients or patients over 80 years of age, a family member could be invited to the annual physical for an interview.		4	1, 1, 3, 3	8
Devise a better screening tool to assess MCI.		2	3, 3	6
A self-administered test could be devised to bring out cognition status information from the patient.		2	3, 1	4
MCI is routinely dismissed, but awareness of the condition could be increased through the media.		1	3	3
Public health fairs could be used as a screening venue, and patients could receive their results to give to their physician.		2	2, 1	3
Primary care physicians should be involved in the community (through churches or community centers, for example) to provide screening assistance to the elderly.		1	2	2
Pharmaceutical-sponsored lunch and learn programs would help physicians to become more aware of cognitive impairment and screening techniques.		1	2	2
Nurses could make an assessment of cognition and include it in their nurse's notes.		1	2	2
A standard mental status assessment form could be devised that patients can be given to bring in at their next visit.		1	2	2

2. Deliver regular summaries of the peer-reviewed literature that outlines new information and developments (please circle one number)

1 2 3 4 5 6 7 8 9 10

Of no value

Of considerable value

Response	N	%
5	3	8.3
6	2	5.6
7	11	30.6
8	7	19.4
9	5	13.9
10	8	22.2

Mean value = 7.9

3. Employ interactive, round-table discussions led by leaders of general practitioners to address “practical issues” associated with different management approaches (please circle one number)

1 2 3 4 5 6 7 8 9 10

Of no value

Of considerable value

Response	N	%
2	1	2.8
3	2	5.6
5	9	25.0
6	3	8.3
7	9	25.0
8	6	16.7
9	4	11.1
10	2	5.6

Mean value = 6.6

Live meeting

Response	N	%
1	1	2.8
2	4	11.1
3	5	13.9
4	14	38.9
5	12	33.3

Mean value = 3.9

Online resource

Response	N	%
2	7	19.4
3	11	30.6
4	13	36.1
5	5	13.9

Mean value = 3.4

Print material

Response	N	%
2	5	13.9
3	7	19.4
4	17	47.2
5	7	19.4

Mean value = 3.7

iPod / Podcasts

Response	N	%
1	13	36.1
2	9	25.0
3	8	22.2
4	3	8.3
5	3	8.3

Mean value = 2.3

PDA / Handheld

Response	N	%
1	14	40.0
2	4	11.4
3	6	17.1
4	9	25.7
5	2	5.7

Mean value = 2.5

12. How many physicians are in your practice (including yourself)?

Response	N	%
Solo	19	52.8
2 - 5	11	30.6
6 - 10	2	5.6
More than 10	4	11.1

Mean value = 6.9

13. Physician Specialty

Response	N	%
Family Practice	31	86.1
Internal Medicine	1	2.8
Geriatric Medicine	4	11.1

Phase II: Post-education evaluation

Survey Development for the Monograph

Outcomes, Inc. reviewed the educational content of the monograph entitled *The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting* to define a series of key measurement indicators. Key measurement indicators are individual evidence-based statements that outline the expectations associated with content of an educational activity. Key measurement indicators were used in framing questions related to case vignettes, which were presented (in survey format) to program participants and a demographically similar group of non-participants. These case vignettes were designed to assess whether the diagnostic and therapeutic choice responses of participants were consistent with the content of the educational activity, as well as whether practice choices of participants were different from practice choices of non-participants.

Key Measurement Indicators

The key measurement indicators identified for this program include the following:

- Patients want to know their cognitive status and they desire treatment when availableⁱ
- The Montreal Cognitive Assessment (MoCA) appears to be the only screening test that has demonstrated a high enough sensitivity for MCI to be used reliably for diagnosis in the primary care setting. Using a cutoff score of 26, the MMSE had a sensitivity of 18% to detect MCI. The sensitivity of the MoCA using the same cutoff score was 90%.ⁱⁱ
- Diagnosis of MCI may prompt appropriate laboratory investigations, possible consultations with other specialists, and clinical monitoring for conversion to dementia. For patients in whom MCI is a precursor to AD, early detection.ⁱⁱⁱ
 - Ensures that a treatment plan can be put into place as soon as possible after conversion to avoid delaying any potential benefits that might be gained from therapeutic interventions (e.g., acetylcholinesterase inhibitors).
 - Empowers patients to make plans for their estates and provisions for their families, and to
 - Take measures to maintain a satisfying level of function and quality of life for as long as possible, as well as to seek resources such as support groups, if desired.
- The initial phase of AD is marked by a progressive loss of memory for new events. When this process advances, impairment next spreads to other domains of cognition, such as executive function, language, or visuospatial ability.^{iv}
- Mild cognitive impairment (MCI) can be defined as cognitive impairment without major impairment in activities of daily living (ADL) or instrumental activities of daily living (IADL). Dementia may be defined as a departure from previous cognitive function that involves multiple cognitive domains and is severe enough to affect social or occupational function and/or activities of daily living (ADLs).^v
- The Mini-Cog is a screening tool incorporating testing of memory for new events, visuospatial representation, and executive function that is highly sensitive for dementia, requires about 3 minutes to administer, and requires no test form. It is not sufficiently sensitive to detect MCI. The test consists of a three-item recall and a clock drawing test. The patient is first asked to repeat three unrelated words and then to draw a clock. The patient is then asked to recall the three words. If the patient is unable to recall any of the three words, he or she is categorized as probably having dementia.^{vi}
- MCI is a prodrome of Alzheimer's disease (AD), especially in the case of amnesic MCI which "converts" to AD at a higher rate than that of non-amnesic MCI.^{vii}

- MCI can be considered as a generally progressive condition with a high probability of conversion to dementia^{viii}
- Although PCPs should expect to play a key role in the diagnosis and management of MCI, there are situations in which consultation with a specialist is warranted. This may be the case when presentation or history is atypical or complex, onset occurs before age 60, or when there is uncertainty regarding the diagnosis.^{ix}
- Although there is no FDA approved treatment for MCI, clinical trials have suggested efficacy and safety of acetylcholinesterase inhibitors for patients with this condition. These drugs can be administered in the primary care setting, and have been shown to improve symptoms and delay progression to AD in patients with MCI.^x

Survey items were designed to measure clinical practice choices based on adherence to evidence cited in the key measurement indicators on the diagnosis and management of dementia and MCI. Additional survey items were included to assess attitudes toward management of patients with dementia and MCI.

Case Vignettes

Case vignettes have gained considerable support for their value in predicting physician practice patterns. Results from recent research demonstrate that case vignettes (as compared to chart review and standardized patients) are a valid and comprehensive method to measure a physician's process of care in actual clinical practice. Furthermore, case vignettes are more cost-effective and less invasive than other means of measurement.⁴⁵

Survey Implementation

Outcomes Inc. distributed a case-based survey instrument to 5,000 U.S. physicians who received the Monograph entitled *The MCI Sentinel Program: Improving the Diagnostic Approach to MCI in the Primary Care Setting* by fax at least thirty days after the distribution of the June 2007 monograph. Responses to the same case-based survey instrument were gathered from a demographically similar group of physicians who did not read the supplement. Non-participant survey responses were gathered from the distribution list, from those physicians that indicated that they did not read the monograph. This sample was gathered during the same time period in which the participant responses were gathered.

Educational Effectiveness



The Outcomes, Inc. Quality of Education Index™ measures differences between participant and non-participant diagnostic and therapeutic choices. Case vignette responses are compared to clinical evidence for this educational activity. The Outcomes, Inc. Quality of Education Index™ calculates the difference between the average scores of participants and non-participants.

⁴ Peabody JW, Luck J, Glassman P, Dresselhaus TR, and Lee M: Comparison of vignettes, standardized patients, and chart abstraction: a prospective validation study of 3 methods for measuring quality. *Jama*. 2000; 283(13): p. 1715-22.

⁵ Luck J, Peabody JW, and Lewis BL: An automated scoring algorithm for computerized clinical vignettes: evaluating physician performance against explicit quality criteria. *Int J Med Inform*. 2006; 75(10-11): p. 701-7.

Results and Analysis

The monograph overall participant and overall non-participant group responses to the measurement instrument are provided below. A *sub-analysis of ONLY primary care physician* responses is also provided for each question. To maintain confidentiality, all data and reporting are furnished in aggregate. An asterisk (*) denotes an evidence-based choice. *The graphs display the data from the overall group responses.*

Case #1: During a routine hypertension follow-up visit, a 62-year-old man expresses concern that he might be “losing his mind.” During the past week, he has been late to work twice because he couldn’t find his keys and he forgot completely about an important client meeting, even though he had arranged the appointment just two days earlier. These events would be less concerning if he hadn’t noticed other subtle changes during the past few months. His wife has been increasingly stating that he’s repeating himself. He has also been embarrassed at weekly management meetings because he has failed to follow-up on assigned tasks. Although no harm has come from these oversights, he wonders whether he will be able to continue in his job until his planned retirement date.

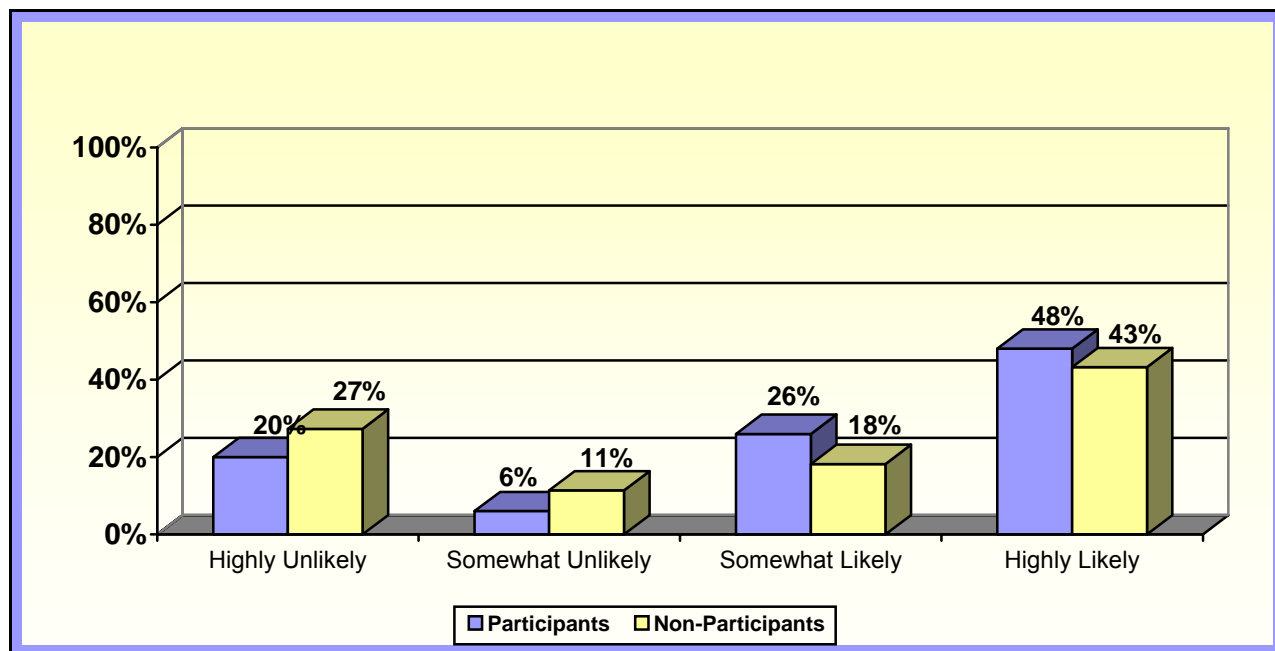
The patient’s BP has been well controlled with an ACEI/diuretic combination, and he has otherwise felt healthy. He quit smoking 20 years ago and uses his gardening activities to stay physically active. Nursing notes show BP 132/78; BMI 27.9 kg/m².

1. How likely are you to formally screen this patient for cognitive impairment? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Highly Unlikely	20.0%	27.3%	24.2%	29.6%
Somewhat Unlikely	6.0%	11.4%	6.1%	11.1%
Somewhat Likely	26.0%	18.2%	18.2%	14.8%
Highly Likely	48.0%	43.2%	51.5%	44.4%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27



Case #1: During a routine hypertension follow-up visit, a 62-year-old man expresses concern that he might be “losing his mind.” During the past week, he has been late to work twice because he couldn’t find his keys and he forgot completely about an important client meeting, even though he had arranged the appointment just two days earlier. These events would be less concerning if he hadn’t noticed other subtle changes during the past few months. His wife has been increasingly stating that he’s repeating himself. He has also been embarrassed at weekly management meetings because he has failed to follow-up on assigned tasks. Although no harm has come from these oversights, he wonders whether he will be able to continue in his job until his planned retirement date.

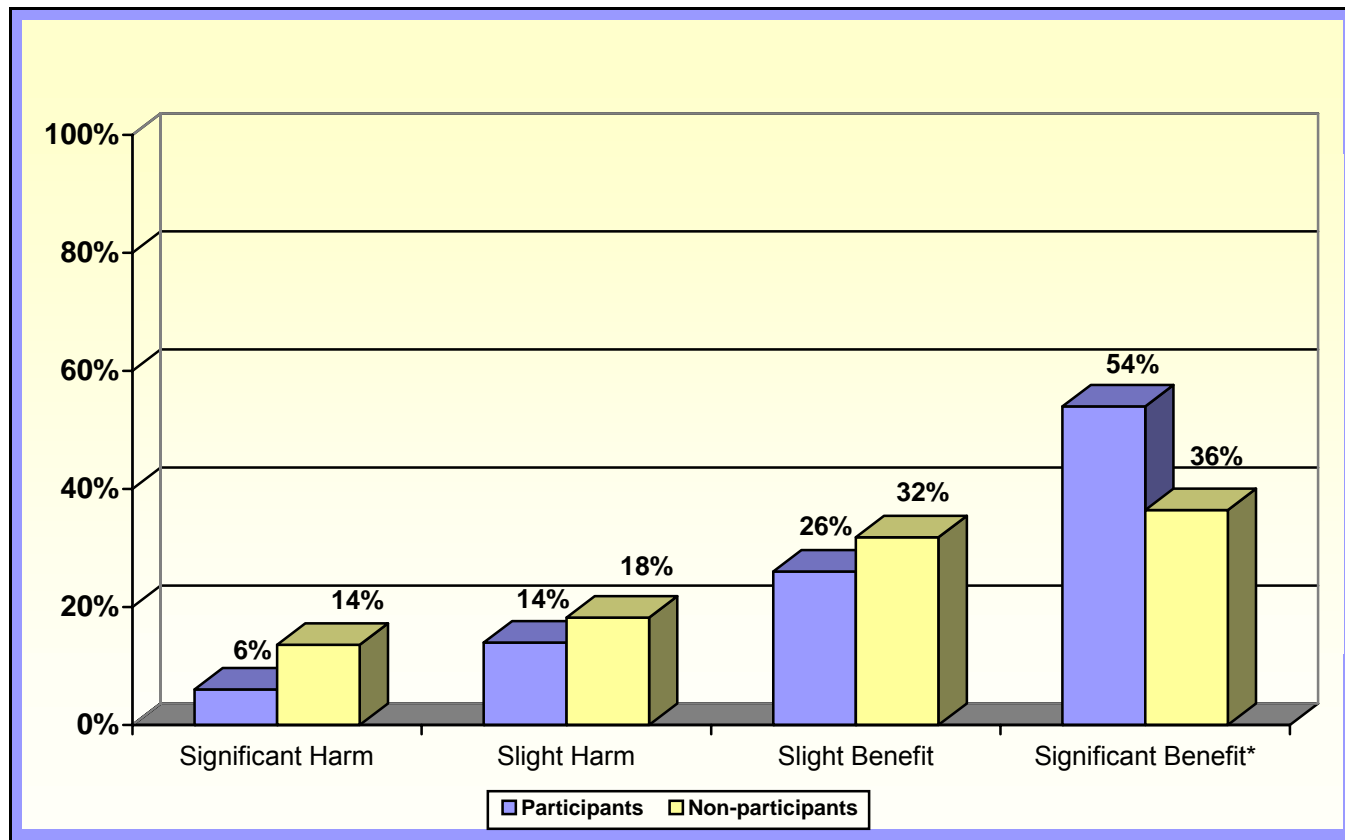
The patient’s BP has been well controlled with an ACEI/diuretic combination, and he has otherwise felt healthy. He quit smoking 20 years ago and uses his gardening activities to stay physically active. Nursing notes show BP 132/78; BMI 27.9 kg/m².

2. What would be the impact on this patient if, on screening, you found that he had early cognitive impairment? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Significant Harm	6.0%	13.6%	6.1%	14.8%
Slight Harm	14.0%	18.2%	12.1%	18.5%
Slight Benefit	26.0%	31.8%	21.2%	22.2%
Significant Benefit*	54.0%	36.4%	60.6%	44.4%

Overall Participant n=50, Overall Non-Participant n=44; p=.087

PCP Participant n=33, PCP Non-Participant n=27; p=.212



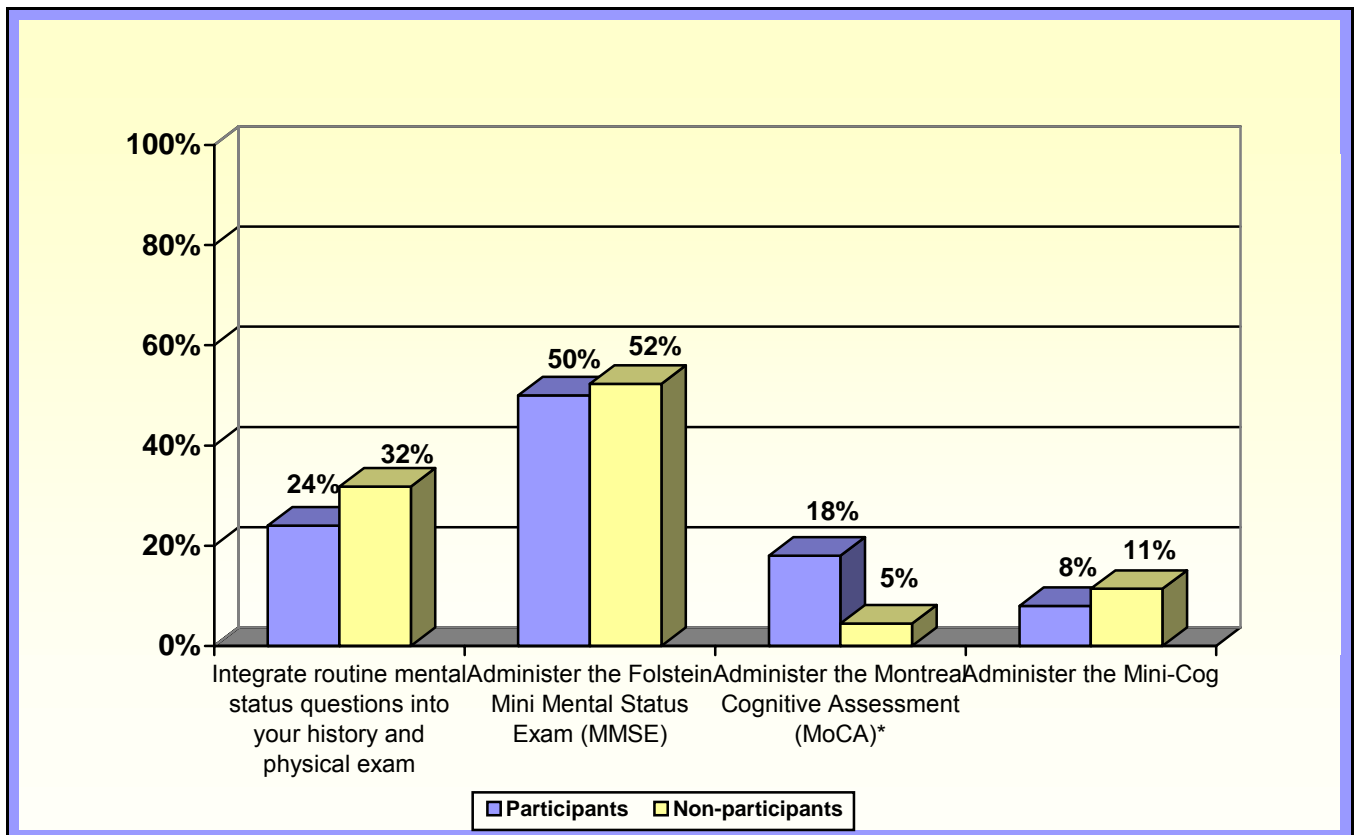
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The patient’s BP has been well controlled with an ACEI/diuretic combination, and he has otherwise felt healthy. He quit smoking 20 years ago and uses his gardening activities to stay physically active. Nursing notes show BP 132/78; BMI 27.9 kg/m².

3. If you were to elect to assess this patient’s cognitive status, which of the following approaches would you use? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Integrate routine mental status questions into your history and physical exam	24.0%	31.8%	15.2%	18.5%
Administer the Folstein Mini Mental Status Exam (MMSE)	50.0%	52.3%	51.5%	66.7%
Administer the Montreal Cognitive Assessment (MoCA)*	18.0%	4.5%	27.3%	3.7%
Administer the Mini-Cog	8.0%	11.4%	6.1%	11.1%

Overall Participant n=50, Overall Non-Participant n=44; p=.043
PCP Participant n=33, PCP Non-Participant n=27; p=.015

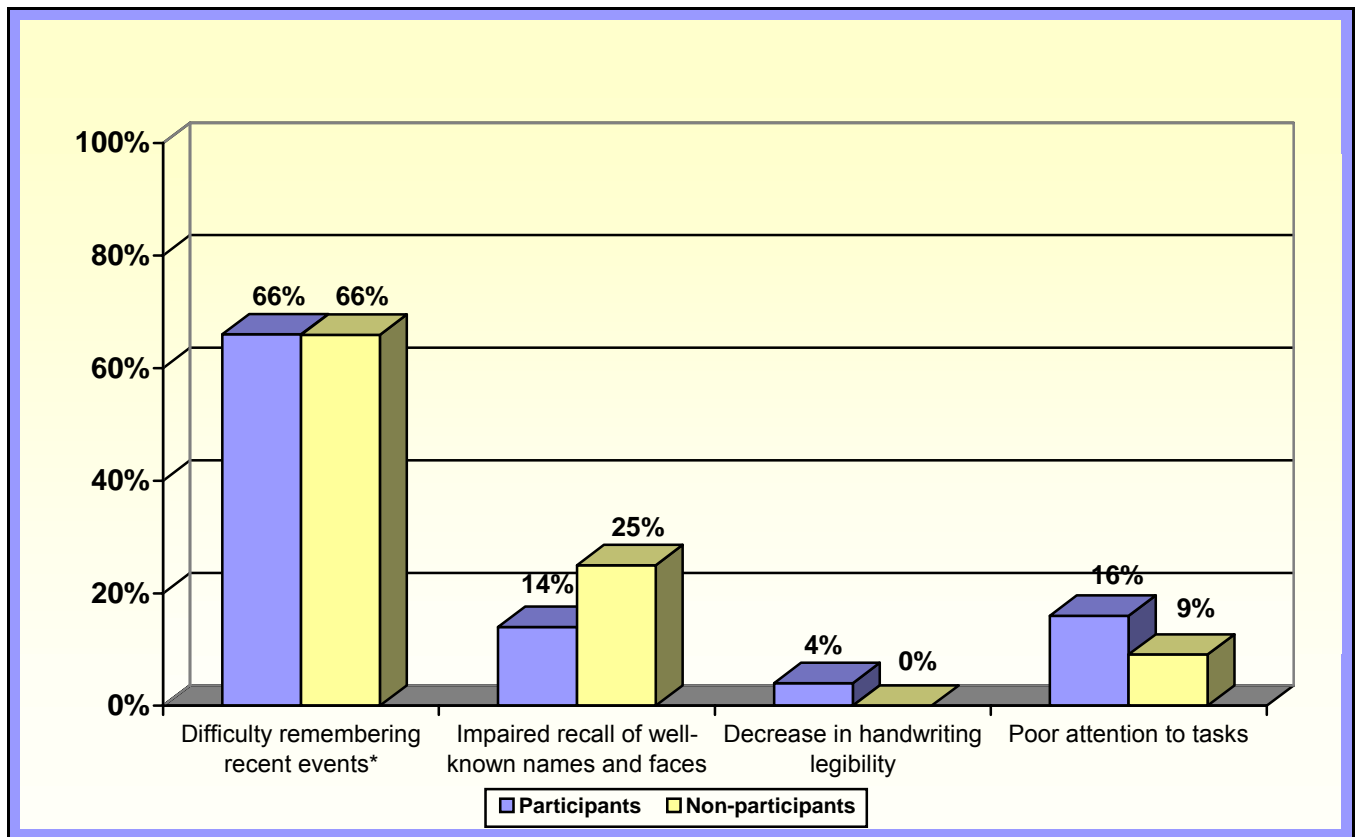


Case #2: A 72-year-old woman presents for a routine six-month visit for osteoporosis and arthritis. She is accompanied by her daughter. Aside from the usual aches and pains, the patient states she is fine and in good spirits. Her daughter, however, is concerned that her mother is becoming “senile,” recalling that her maternal grandmother developed Alzheimer’s disease in her later years.

4. If this patient has prodromal symptoms of Alzheimer’s disease, which of the following symptoms would you expect her to exhibit? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Difficulty remembering recent events*	66.0%	65.9%	66.7%	70.4%
Impaired recall of well-known names and faces	14.0%	25.0%	15.2%	14.8%
Decrease in handwriting legibility	4.0%	0%	3.0%	0%
Poor attention to tasks	16.0%	9.1%	15.2%	14.8%

Overall Participant n=50, Overall Non-Participant n=44; p=.993
PCP Participant n=33, PCP Non-Participant n=27; p=.759



Case #2: A 72-year-old woman presents for a routine six-month visit for osteoporosis and arthritis. She is accompanied by her daughter. Aside from the usual aches and pains, the patient states she is fine and in good spirits. Her daughter, however, is concerned that her mother is becoming “senile,” recalling that her maternal grandmother developed Alzheimer’s disease in her later years.

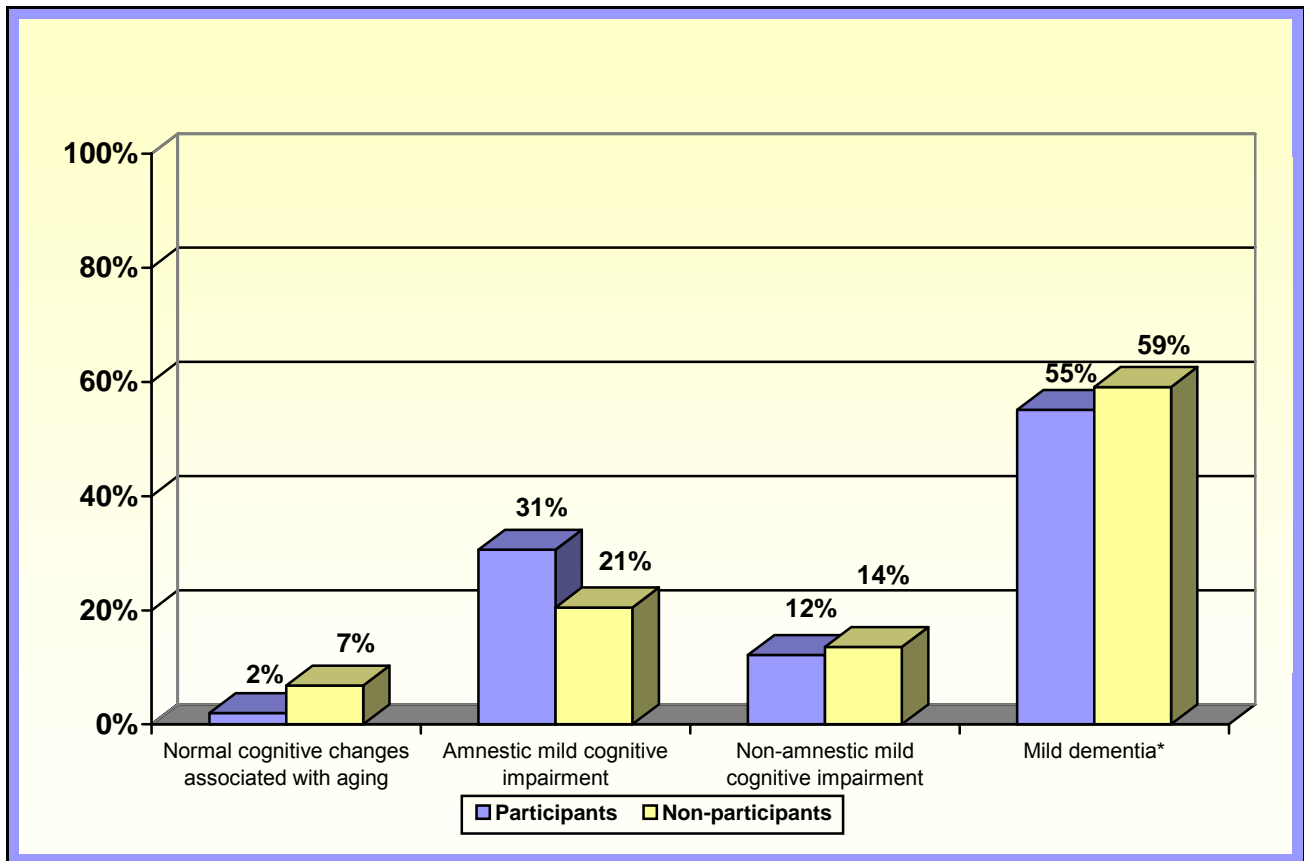
Case #2 (continued): With further discussion, you learn that the patient has lived alone since her husband died eight years ago. In previous years, she had been active in her choir and joined the weekly outings at the senior center, but she’s gradually withdrawn from these activities. She is fun and energetic with her great grandchildren, but her three children have noticed that she’s not as sharp as she used to be. Although she’s had no problem driving to the store or to their nearby homes, the patient recently got lost after taking a friend home on a familiar route. She also left the house while food was cooking on the stove, ruining several pans. Two months ago, her daughter began supervising the bills after discovering several delinquent payment notices.

5. Which of the following would be your preliminary diagnosis of this patient? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Normal cognitive changes associated with aging	2.0%	6.8%	0%	0%
Amnesic mild cognitive impairment	30.6%	20.5%	28.1%	22.2%
Non-amnesic mild cognitive impairment	12.2%	13.6%	9.4%	11.1%
Mild dementia*	55.1%	59.1%	62.5%	66.7%

Overall Participant n=50, Overall Non-Participant n=44; p=.698

PCP Participant n=33, PCP Non-Participant n=27; p=.739



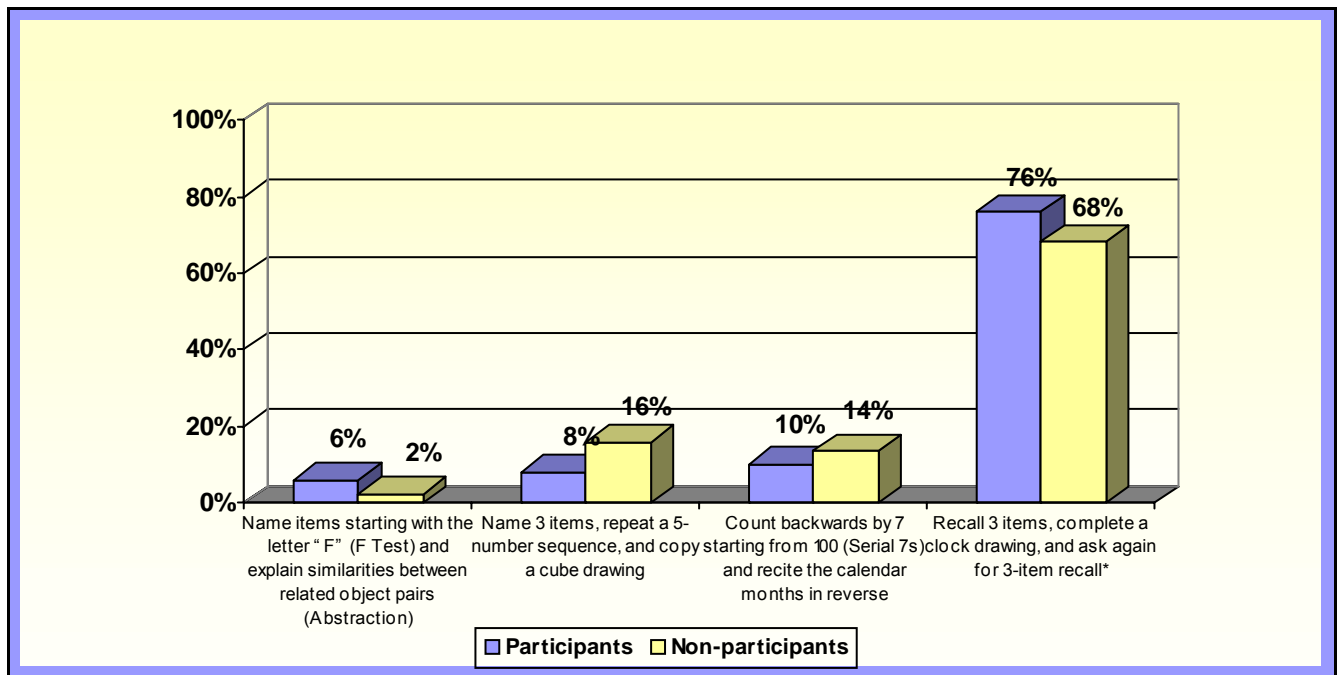
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6. Which of the following would you ask the patient to do as a rapid dementia screen? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Name items starting with the letter “F” (F Test) and explain similarities between related object pairs (Abstraction)	6.0%	2.3%	6.1%	3.7%
Name 3 items, repeat a 5-number sequence, and copy a cube drawing	8.0%	15.9%	9.1%	11.1%
Count backwards by 7 starting from 100 (Serial 7s) and recite the calendar months in reverse	10.0%	13.6%	9.1%	14.8%
Recall 3 items, complete a clock drawing, and ask again for 3-item recall*	76.0%	68.2%	75.8%	70.4%

Overall Participant n=50, Overall Non-Participant n=44; p=.398
PCP Participant n=33, PCP Non-Participant n=27; p=.639



Case #3: A 58-year-old woman presents to discuss her concern about possible early dementia. She is an attorney and routinely processes a large amount of information. Lately, she's found it difficult to keep up with details at depositions and hearings and has had trouble remembering the names of acquaintances at social events. Although no one else seems to have noticed any of these changes, she feels that her work performance has decreased, and she has recently requested a second assistant to help manage her case load. The patient admits that she often works long hours, has a glass of wine most evenings, and doesn't have the healthiest lifestyle habits, but also thinks she's too young to be having these types of difficulties. The patient has hypothyroidism and has been on a stable dose of levothyroxine for several years.

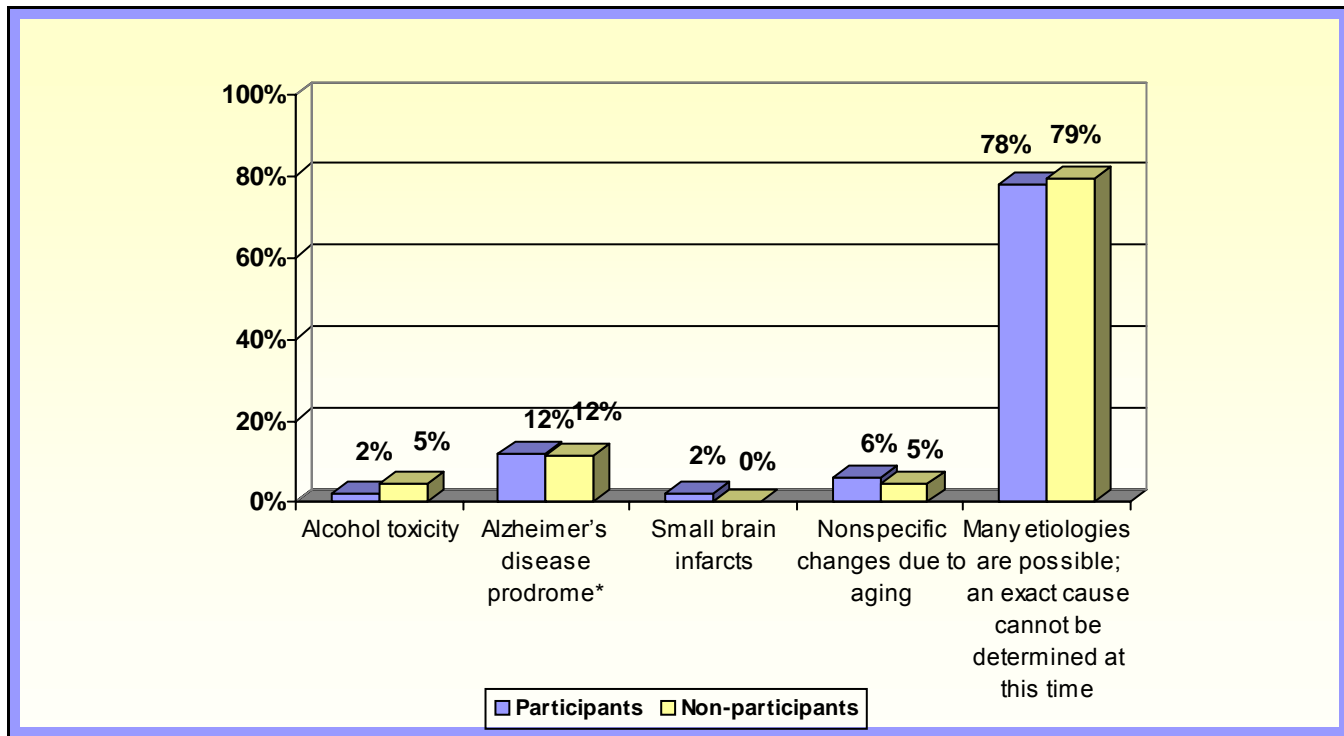
During questioning, the patient appears anxious, but seems to answer questions appropriately. She is given a brief cognitive assessment screening instrument (MoCA) and scores 24 (normal ≥ 26). Physical exam reveals an increased BMI (28.2 kg/m^2) and a blood pressure of 136/88, but is otherwise unremarkable. Labs including a CBC, basic metabolic profile, liver function tests, vitamin B₁₂, and TSH are within normal limits. You inform the patient that she appears to have amnesic mild cognitive impairment (MCI).

7. Which of the following would be the most appropriate explanation for this patient's cognitive symptoms? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Alcohol toxicity	2.0%	4.7%	3.0%	3.8%
Alzheimer's disease prodrome*	12.0%	11.6%	15.2%	15.4%
Small brain infarcts	2.0%	0%	3.0%	0%
Nonspecific changes due to aging	6.0%	4.7%	6.1%	3.8%
Many etiologies are possible; an exact cause cannot be determined at this time	78.0%	79.1%	72.7%	76.9%

Overall Participant n=50, Overall Non-Participant n=44; p=.956

PCP Participant n=33, PCP Non-Participant n=27; p=.980



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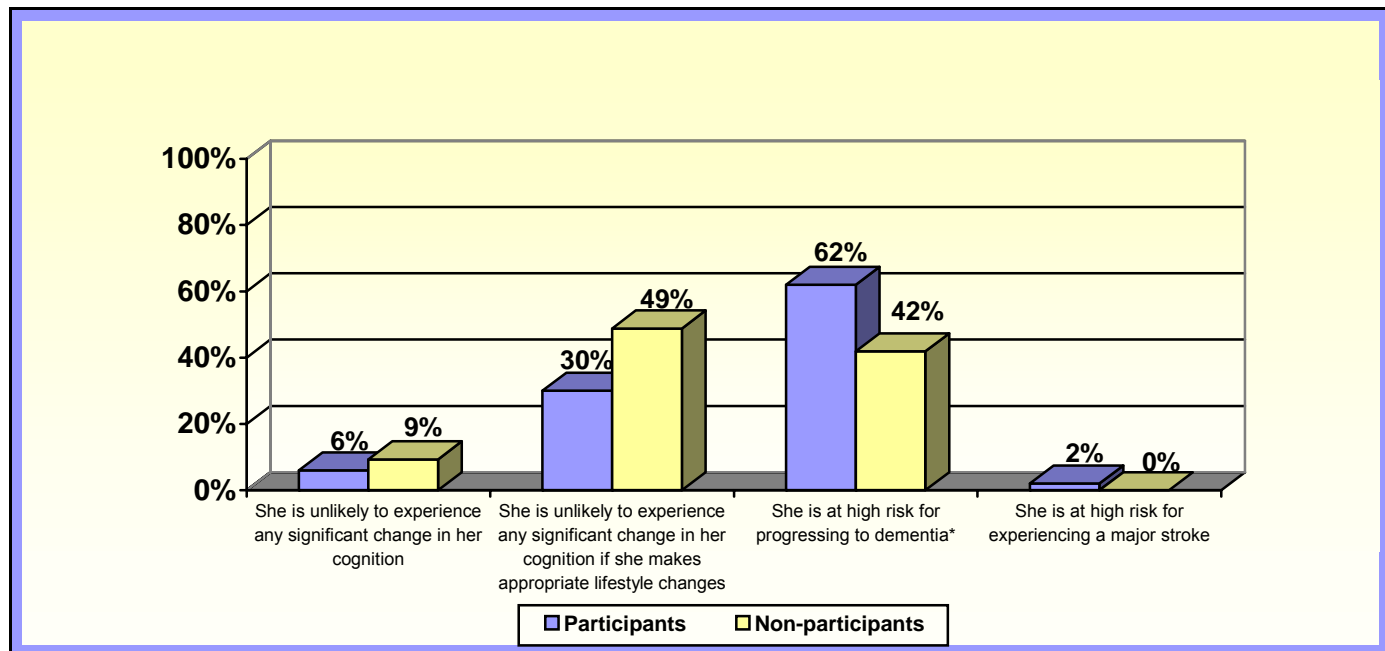
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8. Based on the MoCA results, which of the following best characterizes her 5-year outlook?
(select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
She is unlikely to experience any significant change in her cognition	6.0%	9.3%	9.1%	7.4%
She is unlikely to experience any significant change in her cognition if she makes appropriate lifestyle changes	30.0%	48.8%	30.3%	55.6%
She is at high risk for progressing to dementia*	62.0%	41.9%	60.6%	37.0%
She is at high risk for experiencing a major stroke	2.0%	0%	0%	0%

Overall Participant n=50, Overall Non-Participant n=44; p=.052

PCP Participant n=33, PCP Non-Participant n=27; p=.069



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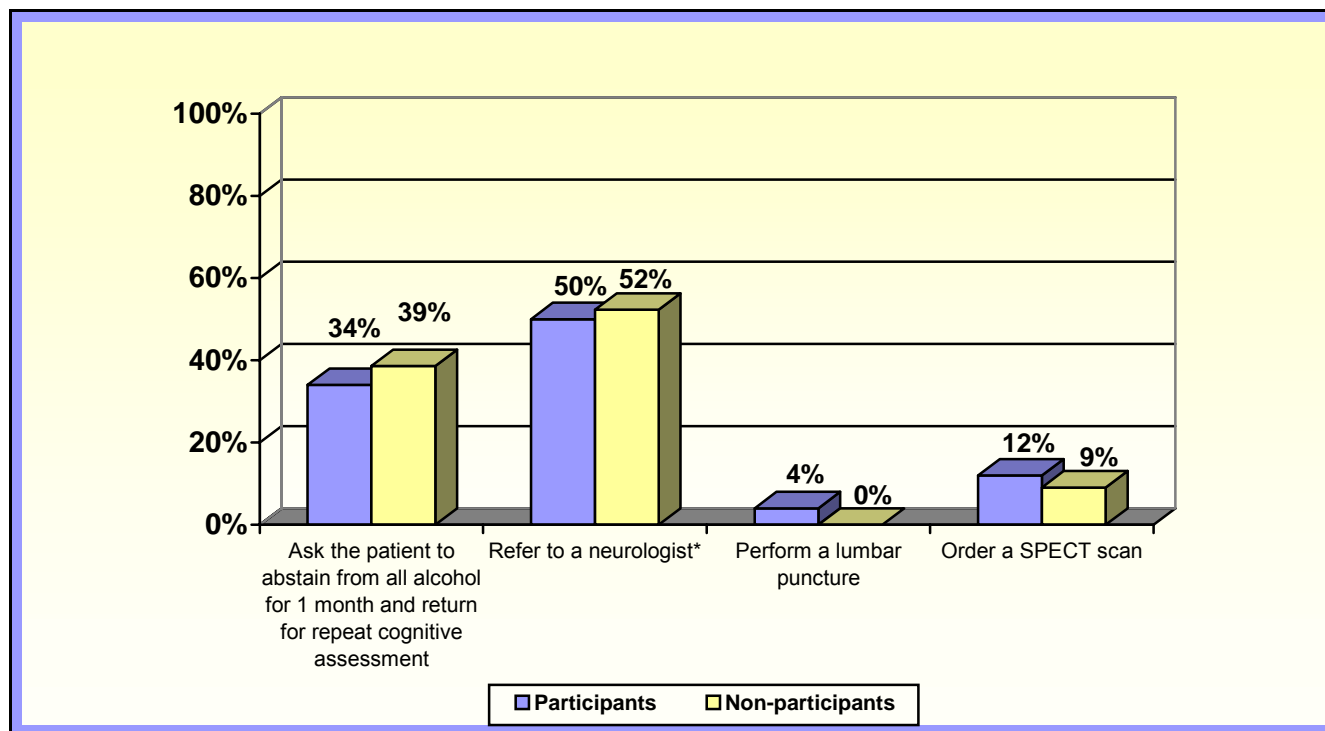
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9. Which of the following would you do next for further assessment? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Ask the patient to abstain from all alcohol for one month and return for repeat cognitive assessment	34.0%	38.6%	39.4%	44.4%
Refer to a neurologist*	50.0%	52.3%	42.4%	44.4%
Perform a lumbar puncture	4.0%	0%	3.0%	0%
Order a SPECT scan	12.0%	9.1%	15.2%	11.1%

Overall Participant n=50, Overall Non-Participant n=44; p=.826

PCP Participant n=33, PCP Non-Participant n=27; p=.875



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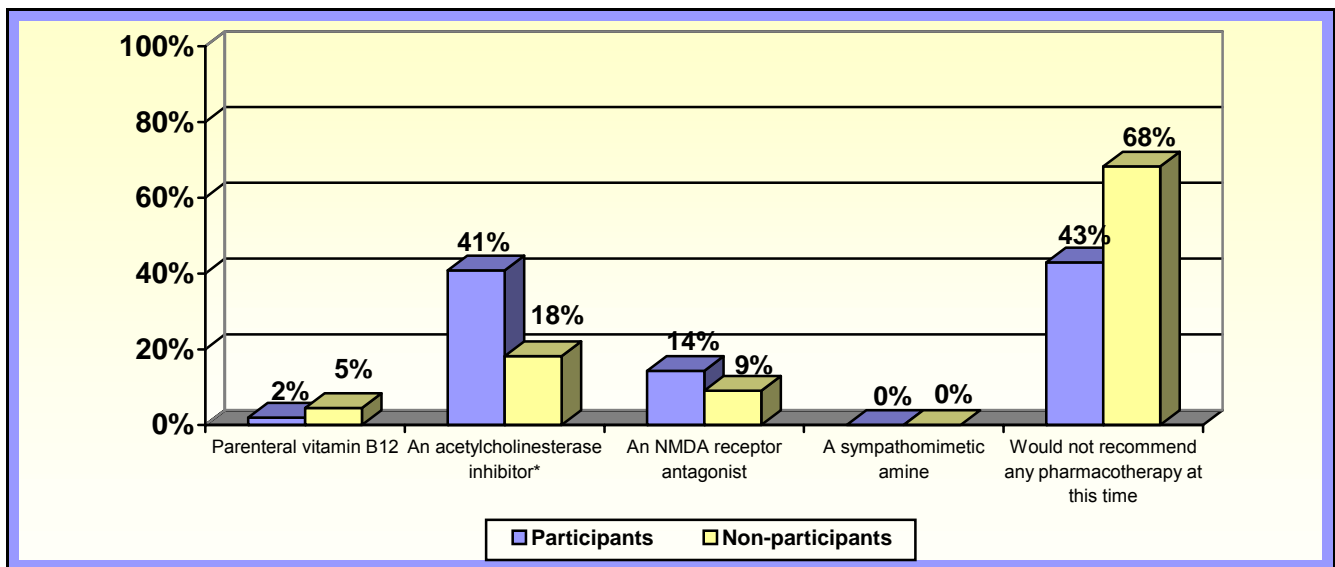
Case #3 (continued): The patient returns six months later for follow-up. She did not follow your recommendation, but instead sought consultation from a psychiatrist she knew personally who agreed with your assessment. She has reduced her work hours and is seriously considering early retirement. She has started exercising and eating a healthier diet and is taking an antioxidant supplement. Although she has not noticed further changes, she is anxious to know if her cognitive status has worsened. The MoCA is repeated and is unchanged. Physical exam is remarkable only for reduced BMI of 27.9 kg/m² and BP of 134/82. The patient asks if any medications might be helpful to improve or maintain her cognitive function.

10. Which of the following initial therapies should you order for this patient? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Parenteral vitamin B12	2.0%	4.5%	3.1%	0%
An acetylcholinesterase inhibitor*	40.8%	18.2%	46.9%	25.9%
An NMDA receptor antagonist	14.3%	9.1%	12.5%	11.1%
A sympathomimetic amine	0%	0%	0%	0%
Would not recommend any pharmacotherapy at this time	42.9%	68.2%	37.5%	63.0%

Overall Participant n=50, Overall Non-Participant n=44; p=.018

PCP Participant n=33, PCP Non-Participant n=27; p=.097



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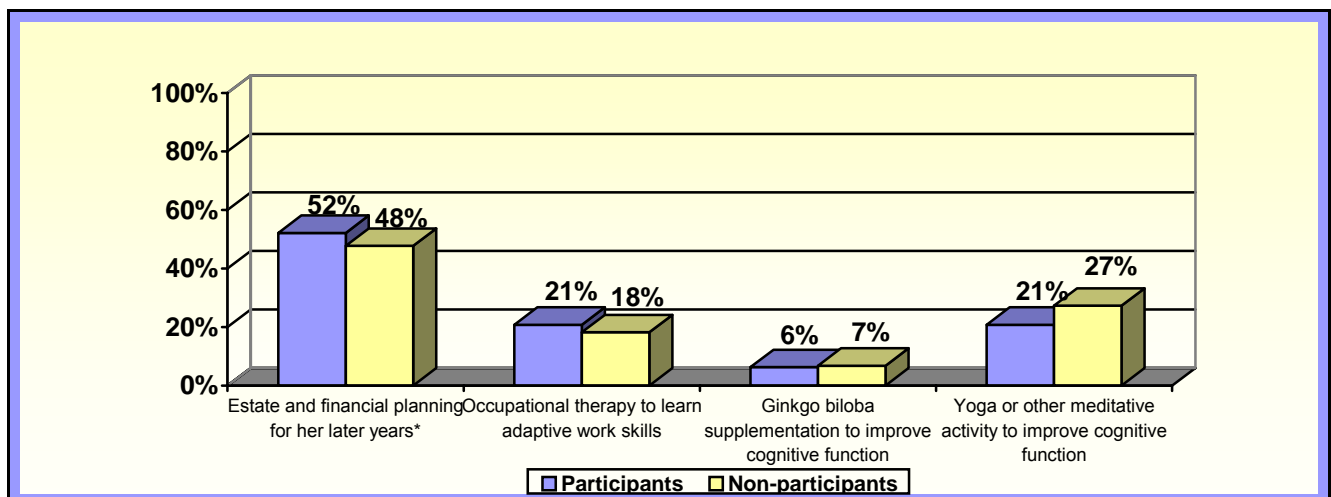
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11. At this time, which of the following would be most appropriate to have the patient consider? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Estate and financial planning for her later years*	52.1%	47.7%	64.5%	44.4%
Occupational therapy to learn adaptive work skills	20.8%	18.2%	9.7%	18.5%
Ginkgo biloba supplementation to improve cognitive function	6.3%	6.8%	6.5%	7.4%
Yoga or other meditative activity to improve cognitive function	20.8%	27.3%	19.4%	29.6%

Overall Participant n=50, Overall Non-Participant n=44; p=.676
PCP Participant n=33, PCP Non-Participant n=27; p=.125



12. In your experience, which of the following is the most significant practice-related barrier to the early detection of MCI? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Lack of tools to evaluate cognitive function	12.0%	15.9%	9.1%	11.1%
Inadequate time to assess cognitive function	34.0%	43.2%	33.3%	51.9%
Concern about potential harm from early MCI detection	8.0%	11.4%	12.1%	11.1%
Lack of effective therapies for treating MCI	22.0%	11.4%	21.2%	14.8%
Inability to distinguish pathological cognitive changes from those of normal aging	24.0%	18.2%	24.2%	11.1%

**Overall Participant n=50, Overall Non-Participant n=44
PCP Participant n=33, PCP Non-Participant n=27**

13. In your experience, which of the following is the most significant patient-related barrier to the early detection of MCI? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Delayed presentation due to low patient awareness of cognitive changes	18.0%	40.9%	24.2%	48.1%
Patient resistance to having cognitive status assessed	30.0%	31.8%	21.2%	33.3%
Social stigma of cognitive impairment	44.0%	22.7%	42.4%	18.5%
Lack of educational and supportive resources for patients found to have MCI	8.0%	4.5%	12.1%	0%

**Overall Participant n=50, Overall Non-Participant n=44
Participant n=33, Non-Participant n=27**

14. How confident are you in your ability to assess and monitor cognitive impairment in older patients? (circle only one)

1 2 3 4 5 6 7 8 9 10
Not confident at all Somewhat confident Very confident

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Mean	6.90	5.52	6.97	6.19

**Overall Participant n=50, Overall Non-Participant n=44; p=.001
PCP Participant n=33, PCP Non-Participant n=27; p=.105**

15. Which of the following would be most helpful in enhancing the frequency of cognitive assessment and monitoring among older patients? (select only one)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Protocols and training enabling staff to routinely perform brief cognitive testing	38.0%	25.0%	36.4%	25.9%
Paper or computer-based assessment tools that can be easily administered to patients	30.0%	43.2%	33.3%	51.9%
Prompting by patients as the result of public health messages or direct-to-consumer advertising	2.0%	6.8%	3.0%	7.4%
Designating cognitive status in older patients as a vital sign – to be assessed at every visit	16.0%	6.8%	9.1%	0%
Having a family member routinely present when seeing older patients	14.0%	18.2%	18.2%	14.8%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27

16. When providing care for older adults, which of the following is currently done in your practice? (select yes or no for each item)

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Maintain alertness for cues to early cognitive impairment	90.0%	88.4%	87.9%	92.3%
Screen older adults for cognitive impairment	70.0%	32.6%	69.7%	46.2%
Authorize staff to perform a brief cognitive assessment on older adults	48.0%	13.6%	48.5%	14.8%
Use the Mini-Cog to assess cognitive function	51.0%	26.2%	62.5%	36.0%
Use the Montreal Cognitive Assessment (MoCA) to assess cognitive function	22.4%	14.0%	18.8%	15.4%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27

17. What is the minimal level of evidence you accept as the basis for determining an appropriate treatment regimen? (circle one number)**

**AFP Level of Evidence in AFP www.aafp.org/afp/afpauthors.xml

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Anecdotal evidence	7.0%	0%	6.7%	0%
Level C Consensus or expert opinion	23.3%	16.7%	16.7%	18.5%
Level B Well-designed non-randomized trial	18.6%	11.9%	26.7%	11.1%
Level A Randomized controlled trial or meta-analysis	27.9%	38.1%	23.3%	40.7%
Clinical Practice Guidelines	23.3%	33.3%	26.7%	29.6%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27

18. Approximately how many patients do you see each week that are older than age 65?

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Mean	38.98	39.54	41.23	38.35

Overall Participant n=50, Overall Non-Participant n=44; p=.921

PCP Participant n=33, PCP Non-Participant n=27; p=.692

19. Approximately how many of your older patients seen per week have some degree of cognitive impairment?

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Mean	20.34	14.84	21.00	14.44

Overall Participant n=50, Overall Non-Participant n=44; p=.115

PCP Participant n=33, PCP Non-Participant n=27; p=.111

20. How many years have you been in practice?

	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Mean	21.12	21.23	21.12	20.33

Overall Participant n=50, Overall Non-Participant n=44; p=.931

PCP Participant n=33, PCP Non-Participant n=27; p=.540

Specialty	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
Family Medicine	34.7%	23.3%	51.5%	37.0%
Geriatric Medicine	8.2%	2.3%	12.1%	3.7%
Internal Medicine	24.5%	37.2%	36.4%	59.3%
Other	32.7%	37.2%	0%	0%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27

Degree	Overall Participant	Overall Non-Participant	PCP Participant	PCP Non-Participant
MD	91.7%	93.2%	90.3%	88.9%
DO	8.3%	6.8%	9.7%	11.1%
Other	0%	0%	0%	0%

Overall Participant n=50, Overall Non-Participant n=44

PCP Participant n=33, PCP Non-Participant n=27

Summary of Findings

Clinical Decision Making

For a hypertensive patient who is taking ACEI/diuretic, who has difficulty in remembering recent events, participants were more likely than non-participants to:

- Screen for cognitive impairment (74% participants vs. 61% non-participants)
- Identify the significant beneficial impact of early diagnosis of minimal cognitive impairment (54% participants vs. 36% non-participants)
- Administer the Montreal Cognitive Assessment (18% participants vs. 4% non-participants)

For a patient with amnesic mild cognitive impairment, participants were more likely than non-participants to:

- Identify her high risk for progressing to dementia (62% participants vs. 42% non-participants)
- Select an acetylcholinesterase inhibitor to improve her symptoms and delay progression to Alzheimer's disease (41% participants vs. 18% non-participants)

For a patient with cognitive impairment severe enough to affect her social life, participants and non-participants were equally as likely to:

- Identify prodromal symptoms of Alzheimer's disease (66% participants vs. 66% non-participants)
- Diagnose her with mild dementia (55% participants vs. 59% non-participants)
- Select Mini-Cog as a rapid dementia screening tool (76% participants vs. 68% non-participants)

Barrier to Optimal Management

Inadequate time to assess cognitive function was identified as the most significant practice-related barrier to the early detection of MCI (34% participants and 43% non-participants).

Delayed presentation due to low patient awareness of cognitive changes was identified by non-participants (41%) and *social stigma of cognitive impairment* was identified by participants (44%) as the most significant patient-related barrier to the early detection of MCI.

Confidence in Being Up-to-Date

On a scale of 1 to 10, with 1 being not at all confident and 10 being very confident, participants in "The MCI Sentinel Program" rated their confidence level 6.9 and non-participants rated their confidence level 5.5, demonstrating potential influence in being up-to-date as a result of participation.

Focus of Future Education

Based on both participant and non-participant responses to case vignettes, future educational programs on the topic of MCI should continue to address:

- Utilization of an appropriate screening tool for minimal cognitive impairment (the Montreal Cognitive Assessment)
- Presentation of beneficial effects of screening and early diagnosis of MCI on patients' lives
- Differentiating between dementia and MCI
- Illustrating the role of acetylcholinesterase inhibitors in improving symptoms and delaying progression to AD in patients with MCI

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