Pakzad et al. J Geriatr Med Gerontol 2017, 3:023
DOI: 10.23937/2469-5858/1510023
Volume 3 | Issue 1

Journal of
Geriatric Medicine and Gerontology

ISSN: 2469-5858

Research Article: Open Access

Help-Seeking in Older Adults with Subjective Memory Complaints

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Abstract

Background: Evidence shows that subjective memory complaints (SMCs) could represent an important therapeutic period for people at risk for sustaining future cognitive decline, but current knowledge on the behaviour profile of the SMCs is scarce. Thus, to better understand the SMCs' help-seeking behaviour from health care professionals, a cross-sectional study using a correlational and comparative model was implemented. A total of 56 community dwelling SMC older adults (age 42 to 90 years) from South-eastern New Brunswick, Canada, were recruited and studied.

Methods: Help-seeking behaviours of individuals with SMCs were explored using memory, global cognition, physical and mental health measures to discern potential differences between those help-seeking and not for their current SMCs.

Results: The large majority of participants (81.3%) indicated their intention to seek help from a general physician for future SMCs. Those who had more negative perceptions of their memory performance were less likely to seek future help and more likely to delay help seeking for future SMCs (15.4% vs. 12.5%). No significant group differences were found on all socio-demographic variables, cognitive, physical and mental health measures, but a significant group difference was observed at the Prospective and Retrospective Memory Questionnaire (PRMQ) subscales.

Conclusion: Despite many expressed intentions to seek help from health care professionals for future SMCs, few seem actually to seek help when faced with SMCs. In light of the potential clinical value of SMCs, it is important to encourage health care professionals to consider the SMC of their patients. Clinicians should be mindful of the potential hesitancy of patients to reveal their memory problems and concerns.

Keywords

Help-Seeking, Older adults, Memory, Cross-Sectional

Introduction

Subjective memory complaints (SMCs) are common among Older adults, and the prevalence rate varies from 25 and 50% [1], or higher depending on multiple factors including nosology [2]. Recent studies suggest that certain SMCs seem to represent a preclinical stage of a mild cognitive deficit (MCD) or Alzheimer's Disease (AD) [3-5], thus showing a continuum. Results of the longitudinal studies suggest that certain individuals with SMCs are at a greater risk for developing neuropathological disorder [1,3,4]. This being said, SMCs are associated with several factors including ageing, physical and psychological distress (e.g., depression, anxiety) [6], personality traits (e.g., neuroticism) [7] and the presence of various chronic diseases [8-10].

The identification of early stages of neuropathological disorders remains of paramount importance [11,12] for prognostic and early diagnosis implications, and optimal management. Thus, the initial stages of the disease is a margin of opportunity for intervention in order to achieve a desired outcome [13]. Evidence, although still controversial, shows that SMCs could represent an important therapeutic period for people at risk for sustaining a future cognitive decline [14]. Thus better understanding of the SMCs is a crucial step, before confirming the potential benefits of interventions for this population.

Despite the high prevalence of SMCs, it remains that few people seek help for their memory problems [2] and this behaviour is a challenge for the early diagnosis

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Citation: Pakzad S, Bourque P, Tahir L, Bhalla D, French C, et al. (2017) Help-Seeking in Older Adults with Subjective Memory Complaints. J Geriatr Med Gerontol 3:023. doi.org/10.23937/2469-5858/1510023

Received: October 12, 2016: **Accepted:** March 01, 2017: **Published:** March 03, 2017

Table 1: Frequencies and percentages of the descriptive statistics for population sample, depending on help-seeking group.

Variables	NHS[a] (%) N = 40	HS[b] (%) N = 16	Total n (%) N = 56	*p*[c]
Age (42-90) [X (SD)]	70.45 (9.72)	69.25 (8.87)	70.10 (9.42)	0.45
< 45	1 (2.50)	0 (0)	1 (1.79)	-
45-55	1 (2.50)	2 (12.50)	3 (5.36)	-
56-65	9 (22.50)	4 (25)	13 (23.21)	-
66-75	17 (42.50)	7 (43.75)	24 (42.86)	-
76-85	10 (25)	3 (18.75)	13 (23.21)	-
> 85	2 (5)	0	2 (3.57)	-
Sex				0.35
Male	17 (42.5)	9 (56.3)	26 (46.43)	-
Female	23 (57.5)	7 (43.8)	30 (53.57)	-
Education level				0.07
Primary or Secondary	18 (45)	3 (18.8)	21 (37.50)	-
Post-secondary	22 (55)	13 (81.3)	35 (62.50)	-
First language				0.29
English	26 (76.5)	8 (50)	34 (60.71)	-
French	14 (63.6)	8 (50)	22 (39.29)	-
Residency				0.26
Urban	33 (82.5)	11 (68.8)	44 (78.57)	-
Rural	7 (17.5)	5 (31.3)	12 (21.43)	-
Marital status				0.44
Married	23 (57.50)	11 (68.75)	34 (60.72)	-
Other	17 (42.50)	5 (31.25)	22 (39.28)	-
Dementia experience[d]				0.53
Yes	29 (72.50)	10 (62.5)	39 (69.64)	-
No	11 (27.50)	6 (37.5)	17 (30.36)	-
Heart disease				0.85
No	11 (72.5)	12 (75)	23 (41.07)	-
Yes	29 (27.5)	4 (25)	33 (58.93)	-

Note: [a]NHS = No Help-Seeking; [b]HS = Help-Seeking; [c]*p* values for Pearson's Chi-square test, except for the variable of age which is the *p* value for independent samples T test, and [d]the variable of Spouse (dementia experience) which is a *p* value of Fisher's Exact Test.

of a MCD or AD, knowing that these disorders are under-diagnosed [15-17]. Just as the etiology of SMC is complex [2], factors affecting the seeking health care for SMC are liable to be multifactorial [2,18]. Studies have tried to better understand factors influencing help-seeking for SMCs [18], yet they are scarce, which warrants further deepening of the knowledge in this field [19]. Additionally, better understanding of the SMC may improve our prognosis and allow better early diagnosis, and delivery of optimal treatment for prevention of dementia, given that SMC is associated with personality traits [7,20-22], and has overlap with late-life depression symptoms [6]. This seems to be a very important next step in allowing optimal differential in clinical settings, at prodromal stage of dementia, and facilitating early prevention treatment implementation and policy.

In light of recent studies indicating that SMCs are part of the same continuum as a MCD and AD [3-5] and that factors associated with help-seeking are complex, thus our goal with this cross-sectional study design were to: 1) examine help-seeking intentions for SMCs, 2) determine, among the memory, cognitive, physical and mental health variables, those which are associated with seeking health care and resources, and 3) identify factors distinguishing those who have sought help of health professionals following SMCs.

Methods

Participants

Individuals were invited to participate in the study through various community organizations and local newspapers. The solicitation letter and advertisements invited individuals over the age of 40 with or without memory problems to participate in the research study. The study sample included 56 SMC adults aged between 42 and 90 years, living in the community, within New Brunswick, and having no clinically apparent cognitive deficit, i.e. with a score over 23 on the Mini-Mental State Examination (MMSE) [23]. Of these, 30 (53.57%) were women and 26 (46.43%) were men, 62.50% had completed post-secondary studies, and 60.71% identified themselves as Anglophone and 39.29% as Francophone. Also, 21.43% lived in a rural setting and 78.57% in an urban area. (Table 1 and Table 2) provides detailed analyses on descriptive group differences and disparity, specifically table 1 presents the frequencies and percentages of the descriptive variables for total sample and of each help-seeking groups (NHS and HS).

Table 2: Descriptive statistics for the study variables (n = 56).

Variables	X	SD	Min	Max	Skewness (Std Err)	Kurtosis (Std Err)
Cognitive						
MMSE[a]	27.85	2.28	22	30	0.90 (0.32)	-0.20 (0.63)
MoC[b]	24.67	3.19	17	30	-0.40 (0.32)	-0.35 (0.63)
PRMQ-GS[c]	49.61	9.11	24	67	-0.48 (0.32)	0.15 (0.63)
PRMQ-GS	39.73	8.13	24	58	0.30 (0.32)	-0.41 (0.63)
PRMQ-P[d]	21.25	4.76	28	66	0.29 (0.32)	0.54 (0.63)
PRMQ-R[e]	18.39	4.35	23	65	0.85 (0.32)	1.05 (0.63)
Physical health						
ADL[f]	5.84	0.37	5	6	**-1.90 (0.32)***	1.67 (0.63)
#Chronic diseases	5.67	1.72	2	10	0.17 (0.32)	0.36 (0.63)
Mental health						
BDI	9.21	7.21	0	27	0.91 (0.32)	0.16 (0.63)
BAI[h]	7.80	7.67	0	27	0.99 (0.32)	0.01 (0.63

Note: [a]MMSE = Mini Mental State Examination Questionnaire; [b]MoCA = Montreal Cognitive Assessment; [c]PRMQ-GBL = Prospective and Retrospective Memory Questionnaire Global Score; [d]PRMQ-P = Prospective Memory Subscale of the PRMQ; [e]PRMQ-R = Retrospective Memory Subscale of the PRMQ; [f]ADL = Activities of Daily Living; [g]BDI = Beck Depression Inventory; [h]BAI = Beck Anxiety Inventory.

(Table 2) presents the descriptive statistics for the study variables for the total sample.

Procedure: After attainment of ethical approval from the Université de Moncton's research ethic board, a trained research assistant (RA) arranged an individual meeting with interested individuals to obtain research consent and explaining the research protocol. Given that seniors can have difficulty understanding and answering questionnaire items [24], the RA read the questionnaire and recorded the responses for each participant, and administered all scales at one time-point. For each individual, we have either used the validated, English or the French version of the tests as appropriate; and that the participants were interviewed in their native language.

Contact information for psychological resources/services were given to the participants in case they have experienced discomfort by taking part in the study. The data were entered and processed in the SPSS software, version 19.

Measures

SMCs and help seeking classification

This study used a dichotomic-choice question to determine the presence or absence of SMCs. The question asked the respondent: "*Do you have memory problems or difficulties?*" the choice of responses being *yes* or *no*. This criteria is commonly used for the screening of SMCs [25]. In the presence of self-identifying as SMC, the participant had to indicate if they had previously sought professional help for SMC through the following question: "*Following your memory problems, have you ever consulted a physician or other professional in this regard?*", the choice of responses being *yes* or *no*.

Measuring of help-seeking intentions

The General Help-Seeking Questionnaire (GHSQ) [26] measures help-seeking intentions through various sources for a specific medical condition. Here, the condition in question was memory problems. The GHSQ included the following question: «*If you felt that you were forgetting more and more and that you were worried about it being a sign of early dementia, how likely is it that you would seek help from the following people?*". The GHSQ include 7 items representing potential help sources. The items were rated based on a five point Likert-type scale, where 1 represents "*very unlikely*" and 5 "*very likely*". For the purposes of this study, the items were grouped into three categories: *Unlikely* (very unlikely and unlikely), *Likely* (very likely and likely) and *Neither likely nor unlikely*. Furthermore, help seeking intention was expanded into four categories of help providers, seeking help from Physician, Psychologist or no-consultation, or delayed-consultation. The psychometric properties of the GHSQ, reliability and validity, are adequate for the purposes of this study [26].

Cognitive measures

The MMSE [23] also known as the Folstein test is a 30-point rapid screening tool for evaluating severity of the global cognitive functioning (including, orientation in time and place, registration, attention and calculation, recall, language, repetition, and complex command). A low score indicates the need for further evaluation. The MMSE is extensively used in clinical and research settings, and is an instrument with adequate psychometric properties for the purposes of this study [23].

Developed in 1996, the Montreal Cognitive Assessment (MoCA) [27], a one-page 30-point test, was designed for the screening of mild cognitive dysfunctions and was used to measure the overall cognitive dysfunction with items evaluating orientation for time and place, short-term memory recall, visuospatial and executive abilities, language, phonemic fluency, verbal abstraction, attention, concentration and working memory. The MoCA has acceptable validity and reliability [27].

The Prospective and Retrospective Memory Questionnaire (PRMQ) [28] is a brief 16-item self-report questionnaire used to measure the perception of prospective and retrospective memory performance (slips in everyday life), including the assessment of short-and long-term, self-cued and environmentally cued memory. The items are presented in a five point Likert-type scale, where the higher score represent greater memory impairment [28]. This instrument has acceptable psychometric properties [28-31].

Health status measures

The presence of chronic illnesses was established using 17 main pathologies items list where participants had to indicate if they ever had or if they presently have the medical condition [32,33].

In addition to evaluating functional independence, the inventory of activities of daily living was used (ADL), that is consisting of questions pertaining to self-care tasks (e.g., bathing, dressing, personal hygiene, functional mobility) [34].

Psychological distress measures

The Beck Depression Inventory-II (BDI-II) [35] created by Aaron T. Beck, was used to evaluate the severity of depression. The multiple-choice self-report inventory consists of 21-items relating to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss, and lack of interest in sex. The Beck Anxiety Inventory (BDI) [36,37] was used to measure the level of anxiety symptoms. The BDI-II and BAI are widely used in clinical and research settings. The psychometric properties of these instruments are adequate for this study [35-38].

Analyses

Participants were divided into two categories (HNS and HN) at onset depending on their answer to the dichotomic-choice question to allow group comparison. Frequencies are presented for sex, education level, first language, area of residency, marital status, having had the experience of having a family member, spouse of friend diagnosed with AD or dementia, and the presence of heart disease. Furthermore, the age category was divided into six groups and the frequencies of population sample within each group are presented. Pearson's chi-square test was used to evaluate how likely that any observed difference between groups arose by chance, except for the continuous variable of age where a Fisher's Exact Test was performed. The different subscale scores were obtained by adding up the scores to each question pertaining to a specific subscale. Means and Standard deviations were calculated for each variable, as well as the maximum and the minimum value. Skewness and kurtosis was also analyzed to assure normality of the sampling distribution. Independent samples t-Test were performed to analyze the differences between groups, and the table presents the *p* value obtained for each test. The magnitude of group differences was further examined by standardized mean difference (Cohen's d) with associated standard error of the mean [39].

Pearson correlations between study variables and intention to seek future help from specific source were performed. The 'Consultation for SMC' variable is a dichotomous variable (No = 0, 1 = Yes). The cut-off point for statistical significance was *a priori* set to alpha 0.05; for all first-order correlations the cut-off point was set to 0.5 (large magnitude effect-size according to Cohen) [39] to show clinical significance.

Results

A trend was observed in the behaviour of SMC NHS, in that they intended to seek support initially from general practitioner, followed by psychologist, family member and friend, (97.4, 66.7, 61.5, and 53.8% respectively). This trend was also observed in the HS (81.3, 75, 43.8, and 31.3% respectively). There was a noticeable difference between SMC groups in terms of intention to seek psychologist, and when they won't seek anyone (Table 3). In essence, majority of the SMCs (92.7%) intended on seeking help from the general practitioner first.

No significant difference was observed between groups [HN (n = 16) vs. NHS (n = 40)] on age, sex, level of educational (primary/secondary education, and post-secondary), maternal (first) language (Francophone, Anglophone), residency (rural, urban), marital status

Table 3: Percentage of help-seeking intention (GHSQ) for different sources of help (n = 55).

	% of affirmative help-seeking intention[a] (very probable or probable)		
Source	**SMC-NHS (n = 39)[b]**	**SMC-HS[c] (n = 16)**	**Total**
Family member	61.5	43.8	38.2
Friend	53.8	31.3	47.3
Psychologist	66.7	75.0	69.1
General practitioner	97.4	81.3	92.7
Delay help seeking as long as possible	15.4	12.5	14.5
Would not seek help from anyone	2.6	12.5	5.5

Note: [a]percentage of affirmative help-seeking intention is based on percentage of answers corresponding to 'very probable' or 'probable'; [b]SMC-NHS = Subjective Memory Complaints with No Help Seeking; [c]SMC-HS = Subjective Memory Complaints with Help-Seeking. Data from one participant of the SMC-NHS is missing for this variable.

Table 4: Descriptive Statistics for the scores obtained on each of the study's continuous variables depending on the Help-seeking Group (n = 56).

Variables	NHS[i] (n = 40)			HS[j] (n = 16)			Group difference		
	X (SD)	*Skew.*	*Kurt.*	*X (SD)*	*Skew.*	*Kurt.*	*p*[k]	*Std diff in means (d)*	*Std Err*
Cognitive									
MMSE[a]	27.79 (2.19)	-0.75	-0.38	28 (2.56)	-1.28	0.53	0.77	-0.0914	0.2959
MoCA[b]	25.03 (2.96)	-0.26	-0.44	23.75 (3.66)	-0.41	-0.72	0.18	0.4038	0.2983
PRMQ-GS[c]	38.4 (6.82)	0.15	-0.40	43.06 (10.26)	-0.15	-0.99	0.11	0.5879	0.3010
PRMQ-P[d]	20.35 (3.83)	0.63	0.75	23.50 (6.12)	-0.68	-0.80	0.07	0.6874	0.3029
PRMQ-R[e]	17.8 (3.65)	0.38	-0.10	19.88 (5.62)	-0.77	0.24	0.11	0.4850	0.2993
Physical health									
ADL[f]	5.88 (0.33)	**-2.36**	**3.74**	5.75 (0.45)	-1.28	-0.44	-	-0.3539	0.2977
# Chronic diseases	5.43 (1.66)	-0.02	-0.98	6.25 (1.77)	0.56	0.33	0.11	0.4848	0.2993
Mental health									
BDI[g]	8.60 (6.05)	0.72	0.27	10.75 (9.57)	0.74	-1.05	0.41	0.2985	0.2971
BAI[h]	7.03 (6.58)	0.15	0.34	9.75 (9.88)	0.65	-1.14	0.32	0.3560	0.2977

Note: [a]MMSE = Mini Mental State Examination questionnaire; [b]MoCA = Montreal Cognitive Assessment; [c]PRMQ-GBL = Prospective and Retrospective Memory Questionnaire Global Score; [d]PRMQ-P = Prospective Memory Subscale of the PRMQ; [e]PRMQ-R = Retrospective Memory Subscale of the PRMQ; [f]ADL = Activities of Daily Living; [g]BDI = Beck Depression Inventory; [h]BAI = Beck Anxiety Inventory; [i]NHS = Non Help-seeking; [j]HS = Help-seeking; p values for Test T with independent samples; [k]HS = Help Seeking.

Table 5: Descriptive statistics for scores obtained on the different subscales of the Prospective and Retrospective Memory Questionnaire (PRMQ), depending on the Help-seeking group (n = 56).

	NHS[a] (n = 40)			HS[b] (n = 16)			*Group differences*		
	M (SD)	*Skewness (SE)*	*Kurtosis (SE)*	*M (SD)*	*Skew. (SE)*	*Kurt. (SE)*	*p*[i]	*Std diff in means (d)*	*Std Err*
Prospective[c]									
STSC[d]	5.38 (1.44)	-0.06 (0.37)	0.24 (0.73)	6.50 (1.67)	-0.34 (0.56)	-1.27(1.09)	**0.015**	-0.743	0.304
STEC[e]	5.45 (1.47)	0.64 (0.37)	1.16	6.31 (1.85)	-0.21	-0.35	0.071	-0.543	0.33
LTSC[f]	4.50 (1.20)	0.42 (0.37)	1.24	5.38 (1.59)	0.2	1.45	**0.029**	-0.667	0.302
LTEC[g]	4.98 (1.14)	-0.38 (0.37)	1.81	5.19 (2.04)	-0.34	-0.98	0.7	-0.145	0.296
Retrospective[h]									
STSC	5.55 (1.48)	0.15 (0.37)	-0.76	6.44 (1.21)	0.04	0.66	**0.04**	-0.631	0.302
STEC	3.85 (1.12)	0.31 (0.37)	-0.89	4.13 (1.75)	0.3	-1.06	0.57	-0.211	0.296
LTSC	4.27 (1.55)	0.60 (0.37)	-0.28	4.94 (1.98)	0.39	-0.41	0.19	-0.399	0.298
LTEC	4.18 (1.26)	0.14 (0.37)	0.14	4.50 (1.75)	0.56	0.47	0.44	-0.226	0.297

Note: [a]NHS = No Help-Seeking; [b]HS = Help-Seeking; [c]Prospective = Prospective Memory Subscale of the PRMQ; [d]STSC = Short Term Self-Cued; [e]STEC = Short Term Environmentally Cued; [f]LTSC = Long Term Self-Cued; [g]LTEC = Long Term-Environmentally Cued; [h]Retrospective = Retrospective Memory Subscale of the PRMQ; [i]p values for independent samples T-test.

(married, other), dementia experience, and heart disease (P-value > 0.05). In terms of normality of data distribution, negligible abnormality was observed for frequency of distribution as well as skewness of tests scores across cognition, physical and mental health tests (Table 1 and Table 2), indicating a balanced distribution among groups on socio-demographic variables. Also, no significant difference was observed between SMC groups in terms of mean scores for all tests (Table 4). Table 4 presents the descriptive statistics for study variables for the NHS and the HS groups.

No significant difference was obtained for the total subscale of the PRMQ (Table 4). But a significant difference (P-value < 0.05) was observed between groups within PRMQ subscales, particularly for STSC and LTSC, where the NHS under reported memory complaints in contrast to the HS on both prospective and retrospective short-term self-cued test component, and for prospective long-terms self-cued (Table 5). Table 5 presents the descriptive statistics for score obtained on the different subscales of the prospective and retrospective memory questionnaire, depending on the Help-Seeking source.

For HS, the largest correlations meeting our cut-off score were observed between the "Would not seek help from anyone" (None) variable of the GHSQ, MoCA, BDI, and BAI (r = -0.5, 0.54, and 0.63, respectively), and they were statistically significant (Table 6). No large correlation was observed meeting our cut-off score for the NHS; however, several moderate size and statistically significant relationships were observed, including the relation between seeking psychologist and prospective STTEC, and ADL; and Delay component and prospective STEC. It is noteworthy that the direction of the relationship between prospective STEC and psychologist was negative.

Discussion

First, we showed that the majority of participants intend to consult a physician following SMCs, which supports the results of Werner [40] and Phillipson *and colleagues* [41]. However, 81.3% of the individuals in the group with SMCs have intention to consult a general practitioner and 75% have intention to consult a psychologist for their current SMCs. This help-seeking rate concurs with that reported by others [9]. In addition, there was no significant difference with respect to cognitive, mental health and physical health measures among those who had or not consulted a physician for their SMCs. Furthermore, the individuals who showed more negative perception of their memory performance were less likely to have the intention of consulting a physician for future SMCs and more likely to delay help-seeking as much as possible. Therefore, few individuals seem to actually seek help for these memory problems, which supports previous studies [2,9,19,42]. This result is important as it depicts the avoidance/denial of the symptoms in this population, which has deep impact on both the individual and proxy. Elderly individuals are possibly afraid of dementia-related diagnosis (e.g., MCI) because of the perceived stigma and knowledge that they may lose their driver license, being placed in nursing home, and eventually loose autonomy. By the same token, this perception leads to feeling of burden to family members or primary caregiver, and change in relationship (e.g., maybe divorce) [43], or loss of job (e.g., financial cost) and reliability (face-value). Sometime, this results in shame, pity, and feeling being cut-off from society (e.g., social isolation) [44], suicide [45], in other words, symptoms of depression. Also, this can lead into expecting the symptoms to get worse [44].

Also, given that the early diagnosis of AD is a priority for early symptom management [11,12] and that SMCs could represent a preclinical stage of the disease, [1,4] the results have implications for primary care. For example, the early diagnosis of AD in primary care facilitate access to early treatment and the maintenance of quality of life of patients. Therefore, the examination of the preferences in help-seeking resources must be pursued to identify the obstacles to the establishment of good communications between physicians and their patients [40]. As noted by Waldorf and colleagues [42], it is important that physicians question their patients directly with regard to their memory concerns, as few people seem to spontaneously reveal their SMCs. Since SMCs are common in older people, and can represent a preclinical stage of a future cognitive decline [1,4,5] their presence should not be neglected. Now, the role of family physicians becomes crucial in the screening of cognitive disorders, [42,46] since they are the most liable to be consulted for SMCs [41]. Nevertheless, the SMCs indications used by physician will have to be established in order to better define the nature of SMCs in primary care and the need for follow-up [46].

An interesting observation within our study is the frequency of SMCs intention to seek general practitioners and the absence of a significant relationship between this

Table 6: Pearson correlations between study variables and intention to seek future help from specific source[a] (n = 55).

	NHS (*n* = 39[b])				**HS (*n* = 16)**			
Measures	Physician r_p	Psychologist r_p	None r_p	Delay r_p	Physician r_p	Psychologist r_p	None r_p	Delay r_p
Cognitive								
MMSE[1]	0.31	-0.05	0.07	-0.02	-0.03	-0.29	0.28	-0.08
MoCA[2]	0.02	-0.09	0.07	-0.05	-0.45	-0.20	**0.50***	0.17
PRMQ[3]								
PSTSC	-0.23	-0.20	0.23	0.13	-0.25	0.14	0.36	0.00
PSTEC	-0.02	**-0.32***	0.13	**0.33***	-0.26	0.14	0.37	0.33
PLTSC	-0.04	0.18	0.16	-0.17	-0.01	0.33	-0.10	0.03
PLTEC	-0.19	-0.15	0.26	0.10	-0.21	0.32	0.42	0.22
RSTSC	-0.15	0.02	0.11	0.20	-0.09	0.46	0.30	0.21
RSTEC	-0.28	0.32	-0.10	-0.05	-0.23	0.17	0.47	-0.21
RLTSC	0.07	-0.07	-0.18	-0.06	0.05	0.30	0.32	0.10
RLTEC	-0.01	0.09	-0.09	-0.29	-0.12	0.25	0.44	0.15
Physical health								
ADL[4]	0.02	**0.34***	-0.21	-0.29	0.08	0.08	-0.25	0.18
#disease	0.02	-0.13	-0.25	0.16	0.33	0.16	0.09	-0.28
Age	-0.05	-0.27	0.16	0.28	-0.10	-0.09	0.24	-0.20
Mental health								
BDI[5]	0.12	-0.05	0.12	0.05	-0.14	0.28	**0.54***	0.04
BAI[6]	0.06	-0.01	-0.18	-0.07	-0.19	0.13	**0.63****	0.18

Note: *p < 0.05,*[1]Mini Mental State Examination, [2]Montreal Cognitive Assessment, [3]Prospective and Retrospective Memory Questionnaire, P = Prospective Memory; R = Retrospective Memory; LT = Long Term; ST = Short Term; SC = Self-Cued; EC = Environmentally Cued [4]Activities of Daily Living, [5]Beck Depression Inventory, [6]Beck Anxiety Inventory; [a]The scores are based on the participant's response to their intention to seek future help from specific source (1= very improbable; 5 = very probable) [b]Data from one participant is missing for the Help-Seeking source variable.

variable and other measure utilized, as seen in table 6. One reason for this lack of association is potentially the limited sample size of our study. A second possibility is the potential sensitivity of the help seeking measure in relationship to other measures we have used in assessing cognitive, physical and mental health status. And a third, is the specificity of the sample we included, that they were unique and did not seem to need seeking help.

Limitations

Certain methodological limitations must be considered in the interpretation of our results. First, the size of the sample does not allow for generalization of the results to the population as a whole. Thus, it could be that this study's statistical power was insufficient as the variance on the measures used was insufficient to detect differences among groups of subjects with SMCs. A second limitation relates to the definition of SMCs. In fact, no consensus has yet been reached on a specific definition of SMCs [25]. Also, it would be hard to suggest whether these patients were SMCs or patients with feigned cognitive impairment, as the literature highlights given that we did not control for personality disorders, such as neuroticism or hypochondria.

At the recruitment level, it is possible that there was a sampling bias, since we included mostly people that were interested in this issue and responded to the invitation. Obviously, certain measures were self-reported and this may impose a limitation. Other limitations that may have affected our results includes the education and the marital status of the groups, where at onset, we have found a significant difference between groups. Given the lack of significant statistical difference between groups on tests of memory, mental and physical health, it is hard to interpret the impact of education or marital status on the current results.

Conclusion

Knowing that family physicians are the most consulted with respect to SMCs, it is crucial to better prepare them regarding their SMC patients [40]. Evidence shows that a structured management approach was suggested for family physicians dealing with SMC patients [46]. However, these efforts can only be useful if the SMCs are identified. The work on the perception that individuals have of their SMCs is a promising avenue [47] and future studies should therefore be aimed at exploring the beliefs regarding SMCs in order to clarify the nature of the reluctance (avoidance, or denial of symptoms) of the patients with SMCs towards seeking professional help [2,42,48]. Future research needs to be conducted to establish the usefulness of SMC in the screening process for those potentially leading to prodromal stage of dementia and beyond.

Acknowledgment

The New Brunswick Health Research Foundation (NBHRF) and Le Consortium national de la formation en santé (CNFS) provided financial support for this study. The principal author and co-authors have no conflicts of interest to declare. This study was a collaborative effort between researchers from the University of Moncton. Dr. Pakzad, Dr. Bourque, Dr. Tahir, Dr. Bhalla, Mrs. French and Mrs. Savoie contributed to the elaboration of the research protocol, the data entry and analysis, as well as the writing of the manuscript.

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