

## Article

# Behavioural and psychological symptoms of dementia in primary care: a survey of general practitioners in Ireland

Kurt Buhagiar

Academic Clinical Fellow, Department of Mental Health Sciences, University College London Medical School, London, UK

Neelam Afzal

Research Fellow

Mary Cosgrave

Consultant Psychiatrist

Department of Psychiatry – Section of Old Age Psychiatry, Beaumont Hospital, Dublin, Ireland

## ABSTRACT

**Background** Management of neuropsychiatric symptoms is a challenging task in primary care.

**Aims** To assess self-reported confidence and knowledge of general practitioners (GPs) regarding the identification and management of behavioural and psychological symptoms of dementia (BPSD).

**Methods** A self-designed two-page paper questionnaire was sent to a random sample of 160 GPs practising in north Dublin. They were asked to evaluate their confidence and knowledge on several aspects of diagnosis and management of BPSD.

**Results** Completed questionnaires were returned from 109 GPs (response rate = 68%), of which 106 were usable. In general, GPs were somewhat critical of their self-reported skills in diagnosing (76.4%) and managing (77.4%) BPSD, as well as in discriminating BPSD from other behavioural disturbances (71.7%). Many of them (67.9%) also encountered difficulty accessing specialist services. There was no correlation between demographic

characteristics of GPs or patient caseload with respect to their responses to questionnaire items. Although many GPs (92.5%) highly valued the important role of non-pharmacological interventions in BPSD, none of them reported recommending these in their daily practice.

**Conclusions** Despite the fact that GPs have a wealth of knowledge about BPSD, they are largely critical of their knowledge and management skills of these symptoms. Efforts should be focused on supporting GPs by means of educational interventions that consider all aspects of dementia, but additionally highlight the more challenging neuropsychiatric components of the illness. Health services need to be structured in a way that promotes collaboration between GPs and mental health professionals for a seamless delivery of care.

**Keywords:** diagnosis, family medicine, general practitioner, health services, neuropsychiatric symptoms

## Background

Dementia is often accompanied by a wide range of neuropsychiatric symptoms, commonly referred to as behavioural and psychological symptoms of de-

mentia (BPSD) that take the form of disturbed behaviour, thought, mood and perception.<sup>1</sup> Clinically significant symptoms are relatively common and

may be present in ~ 30% of individuals suffering from mild dementia<sup>2</sup> and in 90% of those at the more severe end of the spectrum.<sup>3</sup> BPSD often also pose great management challenges and contribute to a worse prognosis across a wide range of domains<sup>4</sup> as well as an increased burden of care.<sup>5</sup>

With a rising incidence of dementia, general practitioners (GPs) have come to deal more frequently with people presenting with cognitive decline for the first time.<sup>6</sup> For instance, data from the seminal AgeCoDe study, suggests that mild cognitive impairment, which is highly predictive of dementia, is present in more than one quarter of people aged over 75 presenting to their GPs.<sup>7</sup> It is likely that the onset of crises as a result of BPSD would prompt similarly frequent consultation with GPs, albeit more likely to be initiated by carers.

As a result of the nature of their work and the long-term relationship they often have with patients, GPs are in an extremely favourable position to facilitate effective preventive and supportive measures for BPSD to both sufferers and caregivers – measures that have been associated with an improved quality-of-life.<sup>5</sup> Such early interventions at primary care can have a further pivotal impact on healthcare costs and society.<sup>8</sup> Given the ubiquity and the serious implications of BPSD, providing an optimal quality of care to people with BPSD would thus be of utmost importance. However, the intrinsic nature of primary care can sometimes preclude the provision of optimal dementia care.<sup>9</sup> As BPSD present in a more dramatic form than the more familiar cognitive symptoms of dementia, their management can be even more daunting. The latter is further complicated by conflicting research evidence<sup>10</sup> and a weak evidence base for specific pharmacological<sup>11</sup> and non-pharmacological treatments.<sup>12,13</sup> For non-psychiatric specialists like GPs, this lack of clarity can provide even greater clinical dilemmas.<sup>14</sup>

Although several studies have successfully explored a wide range of aspects related to dementia in primary care,<sup>15</sup> there has been little focus on BPSD *per se*. Within the geographical setting of this study, namely Ireland, a recent nationwide exploration of GPs' attitudes and knowledge has similarly focused on the broader aspects of dementia care.<sup>16</sup> Hence our study set out to provide some initial data aimed at specifically exploring the diagnosis and management of BPSD by GPs. We aimed to explore how GPs self-evaluate their confidence and knowledge regarding the detection and management of BPSD.

## Methods

The study took the form of an anonymous postal questionnaire amongst GPs in north Dublin, Ireland in October 2008. Peer piloting was carried out with psychiatrists in our department and subsequent amendments to enhance clarity were made accordingly.

## Sample

The names and contact details of GPs in one of the health boards in north Dublin were obtained from the Irish College of General Practitioners' database, which includes up to 95% of all GPs working in Ireland.<sup>16</sup> A self-designed, structured questionnaire was mailed to 160 GPs practising within this circumscribed area in a single wave in October 2008, accompanied by a covering letter and a return self-addressed envelope. Owing to limited funding, non-responders were not pursued. The questionnaire had no coding system that would lead to retrospective tracking of respondents. Ethical approval was obtained from Beaumont Hospital research ethics committee.

## Questionnaire

The self-report questionnaire consisted of two sections presented on separate pages. The first section aimed to collect demographic data. The second section contained nine questions directly evaluating GPs' confidence and general aspects of management of BPSD anchored by a five-point Likert-scale as described in Table 1.

The Likert-scale options were 'totally agree', 'somewhat agree', 'neither agree nor disagree', 'somewhat disagree' and 'totally disagree'. For analysis, terms containing 'agree' and 'disagree' were combined.

## Analysis

Means, ranges and standard deviations (SD) are presented. Classified cross-tabulation and two-tailed Chi-square tests were initially carried out as appropriate to evaluate GPs' responses with respect to demographic variables. Multivariate analysis using binary logistic regression was used to adjust for potential confounding demographic factors, namely age, years of clinical practice and gender. Pearsons product moment correlation analysis was conducted to explore the relationship between the number of people presenting with BPSD per month to GPs and responses. Stata v. 10 for Macintosh was employed.

**Table 1** Section of the questionnaire, exploring self-confidence and beliefs about the treatment of behavioural and psychological symptoms of dementia\*

## A. Self-confidence/skills:

'I have sufficient skills to identify behavioural and psychological symptoms of dementia'

'I have sufficient skills to manage behavioural and psychological symptoms of dementia'

'I have sufficient skills to distinguish between behavioural and psychological symptoms of dementia and other behavioural disturbance not related to dementia'

## B. Beliefs about management:

'I believe that non-pharmacological interventions have a major role in the management of behavioural and psychological symptoms of dementia'

'I believe that non-pharmacological interventions should ideally be trialled prior to pharmacological treatment'

'I find it relatively easy to implement non-pharmacological interventions, or to refer patients to external services for these interventions'

'I prefer to recommend non-pharmacological interventions rather than pharmacological interventions'

'When I use medications, I prefer to use time-limited interventions rather than long-term or indefinite interventions'

'I find it relatively easy to consult and refer to secondary care specialist services if required'

\* Responses were 'strongly agree', 'somewhat agree', 'do not know', 'somewhat disagree' and 'strongly disagree'.

**Table 2** Demographic data of respondents according to gender

	Male ( <i>n</i> = 62)	Female ( <i>n</i> = 44)	All ( <i>n</i> = 106)	<i>P</i> -value
Gender proportion, %	58	42	100	N/A
Age, years				
Mean ± SD (range)	42 ± 8 (29–61)	41 ± 9 (29–58)	42 ± 8 (29–61)	0.9
Experience in primary care				
Less than 10 years	26	19	45	
More than 10 years	36	25	61	0.9
Received specific training in old age psychiatry or geriatric medicine, <i>n</i> (%)	4 (4.9)	3 (2.4)	7 (7.3)	0.6
Patients with BPSD seen every year				
Mean ± SD (range)	3.6 ± 2 (1–5)	3.2 ± 1 (1–6)	3.4 ± 1 (1–6)	0.9

## Results

### Sample

Of 160 questionnaires, 109 were returned, a response rate of 68.1%. Three were completed in-

correctly and largely unfilled, leaving 106 usable questionnaires. Data are summarised in Table 2.

All GPs reported having diagnosed and managed patients presenting with new-onset BPSD during the previous year (mean number of cases ± SD = 3.4 ± 1.4; range 1–6).

## Confidence and general aspects of diagnosis and management

Findings are summarised in Table 3.

The respondents were somewhat critical of their perceived skills in the diagnosis and management of BPSD, with only a small minority reporting feeling confident on these items. Nearly all respondents ( $n = 98$ , 92.5%) thought that non-pharmacological approaches had a role in the management of BPSD, and the majority ( $n = 77$ , 72.6%) believed that such interventions should ideally be attempted prior to medications. However, none of the GPs reported recommending any form of non-pharmacological interventions in their daily practice. Nearly all GPs ( $n = 104$ , 98%) prefer to use time-limited pharmacological interventions as opposed to indefinite prescription of psychotropic medications.

### Factors associated with confidence

Analysis showed that gender, age and years in clinical practice did not have any significant influence on any of the nine items of the questionnaire. Results remained unchanged after adjusting for potential confounding variables accordingly. Likewise, there

was no correlation between the number of patients with BPSD seen in clinical practice per year and responses to the questionnaire.

## Discussion

This study, although small, is unique in being the first to specifically explore issues pertaining to the diagnostic and management practices of GPs with respect to BPSD. The response rate of 68.3% is modest, but is typical of surveys with this professional group<sup>17</sup> and is consistent with the response rate of a nationwide survey of Irish GPs exploring mental health issues, including general aspects of dementia care<sup>16</sup> and schizophrenia.<sup>18</sup> Although our sample of GPs is small and circumscribed, its demographic characteristics are similar to the national population of Irish GPs.<sup>16,18</sup> Irrespective of their gender and clinical experience, GPs reported their confidence in identifying and managing BPSD to be rather low, which is yet not consistent with their higher level of understanding of general approaches to management (e.g. the role of non-pharmacological interventions and use of time-limited drug treatments).

**Table 3** GPs' self-evaluation of their skills and practices in seven aspects of the management of BPSD

Statements	Agree* ( <i>n</i> , %)	Neither agree nor disagree ( <i>n</i> , %)	Disagree* ( <i>n</i> , %)
Confidence in making diagnosis	21 (19.8)	4 (3.8)	81 (76.4)
Confidence in management	19 (17.9)	5 (4.7)	82 (77.4)
Distinguishing BPSD from non-dementia behavioural disturbance	20 (18.9)	10 (9.4)	76 (71.7)
Non-pharmacological interventions are important	98 (92.5)	3 (2.8)	5 (4.7)
Non-pharmacological interventions to start before medications	77 (72.6)	10 (9.4)	19 (17.9)
Ease of implementing non-pharmacological interventions	0	2 (1.9)	104 (98.1)
Preference for non-pharmacological treatment vs. medications	0	2 (1.9)	104 (98.1)
Use of time-limited medications	103 (97.1)	1 (1.0)	2 (1.9)
Ease of consulting with specialist services	25 (23.4)	9 (8.7)	72 (67.9)

\*The original Likert-scale options 'totally agree' and 'somewhat agree' were combined to 'agree', while the options 'somewhat disagree' and 'totally disagree' were combined to 'disagree'.

In the absence of similar studies looking specifically at BPSD in primary care, a plausible compromise is to draw some comparisons with those evaluating dementia at large. In general, although GPs report an average ability to detect new-onset dementia,<sup>19</sup> their overall confidence in subsequent management is even lower.<sup>15</sup> However, our respondents appear equally self-critical of both their diagnostic and management skills with respect to BPSD. Many of them expressed reservations in their skills to differentiate BPSD from non-dementia behavioural changes, concordant with the difficulty highlighted previously by Irish GPs in their ability to discriminate between cognitive impairment and age-related memory problems.<sup>16</sup>

None of the GP demographic characteristics in our sample had any significant influence on responses. This contrasts with findings among Irish<sup>16</sup> and Scottish GPs<sup>20</sup> suggesting that female and younger GPs may be less confident across various aspects of dementia care. A gender bias towards female GPs expressing lower confidence in the management of mental health problems in the older population has also been reported by UK GPs with respect to depression.<sup>21</sup> Similarly, in our sample, the number of patients seen by GPs did not influence questionnaire responses, which contrasts with findings from the Netherlands showing a positive correlation between clinical experience of dementia and the ability to establish the right diagnosis.<sup>22</sup> GPs' apprehension of BPSD may indeed be greater than that demonstrated towards dementia.

We failed to encourage GPs to give their reasons for their perceived level of confidence, for instance by providing room for free text. Challenges to dementia care reported by GPs in advanced healthcare systems have included depreciation of confidence arising from pressure imposed by caregivers against the diagnosis,<sup>23</sup> negative attitudes towards dementia,<sup>9</sup> difficulty using diagnostic instruments,<sup>24</sup> concern about making the wrong diagnosis<sup>25</sup> and limited professional training in the psychiatry of older people.<sup>26</sup> It is postulated that our respondents may encounter similar obstacles to diagnosis and management of BPSD given the intrinsic relationship between dementia and BPSD. Of note is that only a minority of our respondents (7.3%) had undergone postgraduate training in geriatric psychiatry or medicine, although this appears to be a universal trend.<sup>27</sup> It also appears that GPs tend to primarily associate dementia with memory loss rather than behavioural disturbance,<sup>28</sup> a shortcoming which may have significant implications on the subsequent recognition and management of the more explicit BPSD. This would also have great implications on the design of potential educational strategies for GPs.

Although the exact nature of educational strategies for effective care for mental health problems in older people within the primary care settings is unknown,<sup>29</sup> multifaceted programmes should be available to GPs with the aim of enhancing their confidence in providing a comprehensive approach to providing care for people with dementia, that simultaneously emphasises the highly challenging presentations of BPSD. Rather than lack of knowledge, it is the GPs' level of confidence that needs to be bolstered. A large UK study suggested that computer-based decision support systems and practice-based educational interventions did improve outcomes by increasing GPs' level of confidence in dementia care.<sup>30</sup> Focused education initiatives provided by secondary services have also proved beneficial to the primary care management of depression in older people.<sup>31</sup> Similar interventions focusing on dementia that place additional emphasis on BPSD may likewise be of benefit.

A substantial number of GPs (67.9%) appear to encounter major difficulty in accessing secondary care services whenever they need support with the management of BPSD. Nevertheless, it is acknowledged that there is generally a poor onward referral rate of patients with mental health problems from primary care to mental health professionals.<sup>32</sup> In dementia, this reluctance may arise due to a lack of familiarity with the local secondary care and other support services,<sup>9,30</sup> lack of availability of local services<sup>15</sup> and a fear of attaching the 'stigmatising diagnosis' of dementia.<sup>33</sup> Similarly, carers may act as barriers to such referrals<sup>15</sup> based on these same fears surrounding stigma. It also appears that GPs most often turn to specialist services for the first time only when they are faced with more acute crises like BPSD.<sup>34</sup> In this setting, the development of structured shared-care frameworks between primary care and specialist services would be advantageous, as highlighted by the National Service Framework for Older People<sup>35</sup> in the UK. Moreover, a study conducted in England showed that GPs underwent an attitudinal shift towards early detection of dementia when specialist services increased their accessibility and health service frameworks were restructured.<sup>36</sup> These shared-care approaches would thus potentially bring about increased confidence in GPs with respect to other aspects of dementia care, such as BPSD.

There is a discrepancy between actual clinical practice and the beliefs of GPs about the usefulness of non-pharmacological approaches. While nearly all of them believed that non-pharmacological interventions should be implemented in the management of BPSD, none of the GPs reported putting this belief into clinical practice. Indeed, all of our respondents reported a preference for the use of phar-

macological interventions. A range of non-pharmacological treatments tailored to the patient's needs and circumstances can play a major first-line role, particularly in the presence of milder BPSD and medications should be only be used after appropriate evaluation of the risk–benefit balance, given the high risk of adverse effects these may have in the older population.<sup>13</sup>

In our sample, GPs may feel they are left to deal with the crisis on their own without the back-up they would require from specialist services. Hence, they may be forced to resort to medications given their better likelihood of immediate gratification compared with a non-pharmacological approach. GPs may also have a preference to use medications – tools they are highly more familiar with, compared with the more alien non-pharmacological methods. Additionally, pressure from caregivers may force GPs to reluctantly prescribe medications in order to alleviate tensions. Specialist services can therefore play a major role in assisting GPs with the implementation of non-pharmacological interventions, and encourage them to prescribe drugs for BPSD in a time-limited manner and only when absolutely necessary.

An encouraging finding is that nearly all GPs (97.1%) reported that they were inclined to institute time-limited prescriptions. In a way, this may be indicative of their awareness of the negative physical and psychological effects of psychotropic medications on the older population. However, management of BPSD can be understandably challenging for GPs. Treatment of BPSD even in secondary care services is not as straightforward, partly due to lack of general consensus and partly due to the confounding evidence base.<sup>11,12,37</sup> Evidence-based clinical practice guidelines targeted specifically at the management of BPSD in primary care could therefore be beneficial.

## Limitations

Our study is limited by the small circumscribed geographical location of its sample size, which only represents one health board in Dublin. Hence, one cannot be confident that the findings are generalisable, not only to Ireland, but even more so to primary care services worldwide. However, limited financial resources precluded us from conducting the survey with a bigger sample, so future research may need to address this shortcoming. While the response rate of 68.3% was reasonable, no attempt was made to follow non-responders with a second wave of reminder letters, again due to limited re-

sources. Moreover, as the survey was entirely anonymous we were unable to evaluate how potential differences between the responding and non-responding groups differed in terms of their demographic variables. Non-response and group differences are sources of bias in survey studies. Furthermore, our findings are based on cross-sectional self-evaluation – a subjective and arbitrary exercise, which may have led GPs to inadvertently misjudge their competence.<sup>38</sup>

Our study was conducted against the prospect of conducting a larger study in the near future. To date, very little work has been carried out to understand management practices of BPSD in primary care. It is hoped that this study would stimulate future research focusing on bigger samples, wider geographical settings and broader areas of inquiry with GPs.

## Conclusions

With an ever increasing prevalence of dementia, GPs are expected to offer comprehensive management for individuals with dementia presenting with BPSD, particularly because of their pivotal position within the delivery of health care. However, there is a discrepancy between what is expected of them and their potential for delivery. In general, GPs appear critical of their clinical skills with respect to BPSD, and yet they have a very high level of potential, as evidenced by their knowledge base. Their confidence is likely to be compromised by lack of clear-cut guidance and evidence base for management, limited resources and a health service framework that does not necessarily promote support from specialist services. Therefore, GPs need to be supported by educational programmes that bolster their confidence in the care of people with dementia at large. In turn, this can provide them with further confidence in the management of the more specific and challenging aspects of the illness, like BPSD. Collaboration with specialist services may also facilitate GPs to translate their wealth of clinical knowledge into clinical practice. The total measure of BPSD at baseline appears to be an extremely important predictor of patient institutionalisation<sup>39</sup> and burn-out of caregivers.<sup>5</sup> Providing GPs with a structured setting that allows prompt alleviation of BPSD at the outset by means of sound non-pharmacological approaches and judicious use of medications, could potentially improve outcomes of patients and caregivers alike.

## CONFLICTS OF INTEREST

The authors disclose no financial or ethical conflicts of interest regarding the submission of this article.

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ADDRESS FOR CORRESPONDENCE

Kurt Buhagiar, Department of Mental Health Sciences, University College London Medical School, Charles Bell House, 67–73 Riding House Street, London W1W 7EJ, UK. Tel: +44 (0) 207472 6177; fax: +44 (0) 20 7472 6168; email: [k.buhagiar@ucl.ac.uk](mailto:k.buhagiar@ucl.ac.uk)

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