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LETTERS

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Is there a need to study behavioral and psychological signs and symptoms of dementia across cultures?

Behavioral and psychological symptoms of dementia (BPSD) include disorders of behavior, mood, thought content and perception (Foli and Shah, 2000). They cause distress to patients, relatives and carers, result in institutional care and long-term hospitalization, and lead to physical restraint and over-medication.

Traditionally, BPSD have been poorly studied for several reasons (Fairburn and Hope, 1988): 1) the importance attached to cognition in the diagnosis of dementia; 2) the assumption that BPSD are secondary to cognitive and personality changes in dementia; 3) the difficulty with accurately defining BPSD; and, 4) the paucity of standardized instruments to measure BPSD. This latter reason is further amplified in developing countries and for ethnic minority groups in developed countries, because instruments measuring BPSD have only recently emerged in languages other than English.

Population-based cross-cultural epidemiological studies of dementia have largely concentrated on cognitive impairment and neglected BPSD. Most single-country studies of BPSD are from developed countries (Foli and Shah, 2000). However, studies are emerging from developing countries including Hong Kong (Lam *et al.*, 1997; 2001; Choy *et al.*, 2001; Leung *et al.*, 2001), Taiwan (Hwang *et al.*, 1997; Fuh *et al.*, 1999; 2001), Japan (Schreiner *et al.*, 2000; Schreiner, 2001), India (Kar and Sharma, 2001; Shaji *et al.*, 2003), Turkey (Eker and Ertan, 2000), Poland (Kloszewska, 1998), Nigeria (Baiyewu *et al.*, 2003) and Korea (Suh, 2004; Shah *et al.*, 2004; Suh and Kim, 2004). There are only a few cross-cultural studies of BPSD: between Italy and U.S.A, (Binetti *et al.*, 1998); between Nigeria, Jamaica and African Americans (Hendrie *et al.*, 1996; 2000); between Korea and the UK (Shah *et al.*, 2004); between Hong Kong, Taiwan and America (Chow *et al.*, 2002); and, a large preliminary cross-national study between Argentina, Cuba, Brazil, Chile, Dominican Republic, Guatemala, Mexico, Panama, Peru, Uruguay, Venezuela, India, China, Hong Kong and Nigeria (The 10/66 Dementia Research Group, 2005). There are a few U.S. studies (Fabrega *et al.*, 1988; Akpaffiong *et al.*, 1999; Cohen and Carlin, 1993; Cohen and Magai, 1999; Cohen *et al.*, 1998a; 1998b; Mintzer *et al.*, 1996; Harwood *et al.*, 2000; 2001; Chen *et al.*, 2000; Bassiony *et al.*, 2002), one Argentine study (Mangone, 1996), and one U.K. study (Haider and Shah, 2004) of BPSD in specific ethnic minority groups within a given country. U.S. studies

have largely involved African Americans, Hispanics and American Indians, and those of Asians and Pacific Islanders are emerging.

These studies have largely been of convenience samples of outpatients, dementia research-center attenders, dementia day-hospital attenders, referrals to psychogeriatric services, geriatric psychiatry inpatients, nursing-home residents, community-dwelling subjects and case-reports. However, population-based epidemiological studies of BPSD have emerged from Nigeria (Hendrie *et al.*, 1996; 2000; Baiyewu *et al.*, 2003). Most studies have either examined undifferentiated dementias or Alzheimer's disease.

Instruments measuring BPSD in languages other than English are being developed with conventional translation and back-translation techniques and subsequent evaluation of psychometric properties. Aggression and agitation have been measured with the Rating Scale for Aggression in the Elderly (RAGE) (Patel and Hope, 1992), developed in Chinese (Lam *et al.*, 1997), and the Cohen-Mansfield Agitation Inventory (CMAI) (Cohen-Mansfield, 1996), developed in Chinese (Choy *et al.*, 2001), Korean (Suh, 2004) and Japanese (Schreiner, 2001). The CMAI also has been formally evaluated in black Americans in nursing homes (Cohen *et al.*, 1998b) and geriatric psychiatry inpatients (Akpaffiong *et al.*, 1999). The Cornell Scale for Depression in Dementia (Alexopoulos *et al.*, 1988) has been developed in Korean (Shah *et al.*, 2004) and Japanese post-stroke patients (Schreiner and Morimoto, 2002), and for use in African American nursing homes (Cohen *et al.*, 1998b). The Geriatric Depression Scale (Yesavage *et al.*, 1983) and the Gestalt Depression Scale (Abrahams and Alexopoulos, 1994) have been developed for use with African Americans in nursing homes. The Behavioral Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD) (Reisberg *et al.*, 1987) has been developed in Chinese (Lam *et al.*, 2001), Korean (Suh *et al.*, 2001; Suh and Park, 2001), Japanese (Asada *et al.*, 1999), Malayalam (an Indian language) (Shaji *et al.*, 2003), and Spanish, for use in U.S. Hispanics (Harwood *et al.*, 1998; 2000). The Neuropsychiatric Inventory (NPI) (Cummings *et al.*, 1994) has been developed in Chinese (Fuh *et al.*, 2001; Leung *et al.*, 2001), Italian (Binetti *et al.*, 1998), Yoruba (Nigeria) (Baiyewu *et al.*, 2003) and Japanese (Hirono *et al.*, 1997). The Revised Memory and Behavior Checklist (Teri *et al.*, 1992) has been developed in Chinese (Fuh *et al.*, 1999), and Spanish for use with U.S. Hispanics (Harwood *et al.*, 2001).

The general population in developing countries is aging rapidly and in many countries ethnic minority populations are also aging rapidly. This will result in increasing numbers of persons with dementia. Therefore, there is a need to study BPSD in order to 1) identify its prevalence, incidence, precipitants and correlates, 2) develop management strategies, and 3) determine carer burden. Comparisons between the existing studies are problematic, because differing samples, clinical settings, diagnostic groups, data collection methods

and measurement instruments have been used. Studies examining BPSD in convenience samples of those accessing services are important because they provide preliminary information, allow development of appropriate methodology and allow researchers to gain experience, and such studies should be encouraged. However, where possible, future studies of BPSD should ideally be population-based epidemiological studies utilizing biological, social and psychological axis with a cross-sectional and a longitudinal component. Moreover, these studies of BPSD should be closely linked to population-based epidemiological studies of cognitive impairment in dementia which have been and are currently being conducted more widely in developing countries and ethnic minority groups in individual countries (Shah and Lindesay, 2000).

A range of instruments, measuring different aspects of BPSD, has been developed in a number of different languages. If comparable instruments are used in methodologically similar studies then comparison of data from different countries or across different ethnic groups will be easier and more meaningful. Thus, comparisons of the same ethnic group in different communities, at different stages of economic development and in differing environments, whilst maintaining genetic homogeneity, may allow identification of both genetic and environmental risk factors and the interaction between the two (Shah and Lindesay, 2000). If the risk of BPSD were solely due to genetic factors, then migrants would have the same prevalence and incidence of BPSD as in their country of origin. This strategy has been successfully employed in examining the etiology of cognitive impairment in dementia (Shah and Lindesay, 2000).

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Geriatric psychiatry 2050?

Hi David,

Congratulations on yet another re-appointment as Editor-in-Chief of International Psychogeriatrics. The first issue of volume 62 was outstanding; I enjoyed especially the RCT of existential therapy and the systematic review of interventions for sexual disorders after 100. I understand that the Journal's Impact Factor is now 27 and that it has gained ground on the New England Journal of Medicine. Well done!

Last week my wife and I celebrated our 80th wedding anniversary. It was a modest affair but family and friends (including 3 great-great grandchildren) managed to attend. Fortunately, we are still in good health, even though I received a second set of new hips last year. We are now living in a small one-bedroom condominium on the south side of Mt. Royal, one of the many built in Montreal in the 20s to accommodate seniors.

This spring I increased my clinical work to15 hours per week in a local health center. I supervise nurse specialists who organize mental health prevention and

treatment intervention packages for seniors. This seems to be the most common model of service delivery here these days. I continue to do some writing and attend a weekly research seminar at the University. There are usually 6–10 people of different disciplines in the room (I'm now the second oldest) and we have links with 10–20 others from around the world. Even after 70 years, it's still exciting, almost unbelievably so, to participate in these discussions about ongoing and future projects. In fact, it actually seems to be getting easier to find the tree in the forest. With the average life expectancy of Canadian men now 112, I look forward to continuing these discussions for another 10 or 20 years.

Of course, we still speculate wildly about findings, even though the EBM movement at the turn of the century instructed us to pay much more attention to research methods. In this respect, the recent method of blending the findings of trials and observational studies is a significant advance. Interestingly, a new movement, Research Methods Appraisal (RMA), reminiscent of critical appraisal in the late 20th century, is gathering momentum in Canada.

The most recent Canadian census indicates that the proportion of older people in Canada has declined yet again; it is now about 7% of the population, although the absolute number of older people (85+) is growing. In a sense, geriatric psychiatry's time here has come and gone, if it ever came. There is less urgency to train geriatric psychiatrists, develop basic services or create formal associations to meet demands for treatment of the major psychiatric disorders. In fact, during the past 40 years there has been increasing demand in Montreal for gero-cosmetic psychiatry, a new sub-sub-specialty that involves optimizing cognitive and emotional life after 90.

New cases of Alzheimer's disease have all but disappeared here since the widespread consumption of the special yogurts in the 30s. However, other types of disorders have appeared with increasing frequency in the past two or three years, particularly among those over 100. There seems to be a new type of cognitive disorder characterized only by attention deficits, and a late-onset disinhibition disorder characterized by hyperactivity and antisocial behavior that is not responsive to any of our medications, including anti-convulsants (Senile Delinquency?).

Of course, the most common disorder is still grief. Life is ever a veil of tears and longer life means more tears in the face of a relentless accumulation of losses. We lose, we mourn and hopefully, we begin anew. Despite the progress we have made in managing the anger syndromes and the changes in cognitive structure with aging, we have not been able to modify the grieving process or make it less painful. Perhaps we should be teaching children to grieve more successfully or perhaps grieving is just too essentially human and immutable.

In recent years, I reflect more on our failures and accomplishments in geriatric psychiatry and wonder about our contributions to the body of general psychiatric

knowledge. We failed to find ways to mitigate the effects of loss. We failed to prevent the erosion of professional integrity by big money (i.e. pharmaceutical companies). We failed to develop effective and inexpensive interventions for older people in the slowly developing world. We have yet to make good clinical use of genetic markers. On the other hand, the recognition that most serious affective disorders in old age were the result of mycoplasma infections that now respond well to antibiotics was a major step forward, and has given rise to a whole new field of study, psycho-microbiology, that is now being applied to the assessment and management of affective disorders in younger adults. How could we have poisoned so many people for so long with antidepressants?

We have made remarkable strides in prevention. I have already mentioned our success with Alzheimer's disease. Reducing the frequency of milder anxiety and affective disorders in old age involved relatively simple techniques of education and empowerment. Fifty years ago, who would have thought that the use of focal frontal-cortical stimulating molecules, albeit very expensive ones, could reduce so dramatically the frequency of late-onset psychoses in those at risk.

The most important contribution of geriatric psychiatry was probably the development of reliable and valid life-stage-specific competency tests in the early 20s. In Montreal, these tests have since been extended for use across the lifespan. The reduced principles of learning theory and cognitive competency have even had a substantial impact on pedagogic methods in primary and secondary schools here.

I'm beginning to ramble.

My best wishes to you and your family. See you at the IPA meeting in Mumbai in '51.

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