

ISSN 2397-5628

JOURNAL OF GERIATRIC CARE AND RESEARCH



2017, Volume 4, No 1

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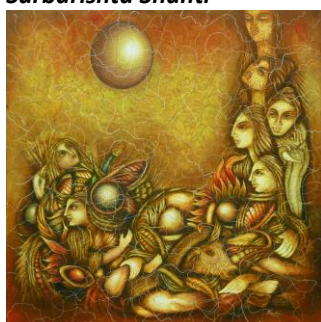
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Towards zero suicide in late-life

Nilamadhab Kar

Abstract

Suicide rates are high in older adults. Besides the usual risk factors, many age related issues contribute to the heightened risk of suicide in late-life. Although these factors are well-known, often they are missed, or not addressed adequately. There is a dearth of focused research on effective preventive and management strategies for suicides in old age. Multidisciplinary efforts at various levels are warranted to progress towards zero suicide in late-life.

Key words

Elderly, management, prevention, risk factors, suicide

Introduction

Suicide is a major public health problem world over and it is well-known that older persons are at heightened risk. Adults aged 70 and older have the highest rates of suicide in most regions in the world.^{1,2,3} Suicide rates of men and women, aged 75 and older, have been estimated to be 50 and 16 per 100,000, respectively.⁴

Multiple factors contribute to the risk; and along with increased physical vulnerability, lack of appropriate support systems add to the complexities in prevention efforts. It is pertinent to discuss the issues related to suicide in elderly and to emphasize the need for more coordinated action to achieve zero suicide in old age.

Risk factors

Compared to suicides in younger people, late-life suicides are associated with increased lethality,¹ higher success rate in an attempt, and they are less likely to seek treatment. Besides the common risk factors of suicide, late-life suicides are associated with various age related risk factors; which usually relate to physical health and social issues. Psychiatric illness are commonly seen, reportedly in 71% to 97% of old age suicides,⁵ depression being the primary diagnosis. Functional impairments, disabilities, physical illnesses, pain, loneliness, bereavement, financial dependence, family conflict and disintegration, isolation, social disconnectedness are some of the commonly reported ones. Often there is a convergence of multiple age related stressful life events at one time.

Some other specific risks which have been reported in late-life suicide include: cognitive deficits,⁵ alcohol dependence, dysfunctional family, family history of suicide, relational problems throughout life, loss of spouse;⁶ perceived health status, sleep quality, and absence of a relative or friend to confide in;⁷ and in patients with dementia: depression, a history of inpatient psychiatric hospitalisation, and prescription fills of antidepressants or anxiolytics.⁸

Continuing gaps

Even though the risk factors are well-known, and a great proportion of older adults are observed to be in touch with health care professionals weeks before suicide, these are not often recognised or acted upon. Sometimes these risks are not appropriately conveyed between services during transition. Moreover, it has also been reported that even individuals with known risk factors often receive inadequate care.²

In spite of the heightened risk of suicide in older adults, there appears to be inadequate focus on old age suicide in research and intervention efforts.^{4,9} Although many national prevention strategies identify these concerns, the management options and programmes appear scant. There is a need to have multipronged approach to tackle this issue which, alarmingly, is showing an increasing trend.

Prevention efforts

At an individual level, identifying the risk factors and taking appropriate action may prevent many suicides. Older adults are less likely to disclose their mental health problems and suicidality. Geriatric depression symptoms may not be prominent, not communicated; and unless specifically enquired, may be missed. It is sometimes difficult to differentiate thoughts of death that are a natural accompaniment of aging and death wishes that are the harbinger of suicidality, reflecting psychopathology.² This would need direct enquiries during routine appointments for various physical or other needs.

Effective treatment of psychiatric illnesses, especially that of late-life depression with antidepressants, cognitive therapy, problem-solving therapy,¹⁰ interpersonal psychotherapy,⁴ electroconvulsive therapy when appropriate, and multidisciplinary approach involving different professionals, carers and family members are

expected to be helpful. Restriction of lethal means,² and making the living environment safer are important as well.

There are reports of specific programmes which have been effective in suicide prevention in older adults. Programmes for depression in primary care,⁴ telephone support,¹¹ community-based programme involving group activity, psychoeducation and self-assessment of depression (which was found to be effective for suicide prevention in elderly females but not for males),¹² and programmes to strengthen protective factors to improve resilience,⁴ have been reported.

Improving social connectedness could be a key strategy for suicide prevention in old age, through positive involvement with family, friends and community.⁵ Such opportunities can be created through social and cultural groups, self-help organisations, and specific programmes such as the Senior Connection.^{13,14}

Improving public awareness of therapeutic possibilities available for old age mental and physical health problems, support services in the community and working more closely with primary care agencies to realise these possibilities,⁹ are extremely important strategies. Often people are not aware of the interventions and supports available, which lead to negative feelings of helplessness, hopelessness, despair and unnecessary suffering. Education of frontline care providers e.g. nurses, general practitioners and other professionals is also important.² It should also be seen that the available services are also accessible and affordable by older persons. Societies and governments have an important role in this regard.

Conclusion

Suicide in old age is a growing concern and multiple contributing factors make the issue more complex in regard to management and prevention. Adequate focus on societal and clinical aspects, research on effective intervention and prevention, and additional resourcing may help in preventing suicides in the elderly and ultimately achieving zero suicide in this vulnerable population.

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Competing interests: The author has declared that no competing interests exist.

Received: 29 April 2017; **Revised:** 21 May 2017; **Accepted:** 22 May 2017

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Citation: Kar N. Towards zero suicide in late-life. *Journal of Geriatric Care and Research* 2017, 4(1): 1-2.

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Systematic review

A systematic review of anxiety disorders among older adults: focus on treatment of generalized anxiety disorder

Jiyeon Baek, Farooq Khan

Abstract

Background: Anxiety disorders typically have insidious onset that begin early in life with relatively few people (<1%) developing an anxiety disorder for the first time after the age of 65 years. However, anxiety disorders often are undetected and untreated in older adults. **Objective:** The aim of this systematic review is to evaluate the medical and psychological treatment for anxiety disorders in older adults with focus on generalized anxiety disorder (GAD). **Methods:** We conducted an electronic database search of Medline, Embase, PsycINFO, and National Health Service Economic Evaluation Databases for studies from October 2005 to October 2015 on anxiety disorders in older adults with a principal attention on GAD, and their management. **Results:** Various medications have been tried for anxiety disorders in older patients. There is evidence to suggest that duloxetine, sertraline, escitalopram, pregabalin, buspirone, quetiapine has been more effective than placebo or usual treatment. The efficacy and safety of duloxetine in the treatment of older patients with GAD have been reported. Pregabalin use in anxiety disorders compared to selective serotonin reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors was associated with a reduction in the utilization of health care resources. Buspirone appeared to be superior to sertraline early in the treatment which became comparable later. Quetiapine has been observed to significantly improve anxiety, sleep parameters and quality of life in elderly patients with GAD compared to placebo. Cognitive behaviour therapy has been observed to be more effective than usual care. **Conclusion:** Although there are supportive evidence about the effectiveness of many medications and cognitive behaviour therapy in the anxiety disorders of older people, there is a need for further studies to improve the evidence base.

Key words

anxiety, cognitive behavior therapy, generalized anxiety disorder, obsessive compulsive disorder, older adults, panic disorder, treatment

Introduction

Anxiety disorders are common mental health problems that can affect any age group.¹ In contrast to the appearance of anxiety that might be experienced during a stressful moment, for instance when taking an exam or appearing for an interview, an anxiety disorder is counterproductive and persists for a longer period of time if not appropriately managed.

Anxiety disorders typically have insidious onset that begin early in life,² with relatively few people (<1%) developing an anxiety disorder for the first time after the age of 65 years.¹ However, anxiety disorders are often undetected and untreated in older adults.² Anxiety disorders, which include obsessive compulsive disorder (OCD), panic disorder, social phobia and generalized anxiety disorder (GAD), are the most prevalent group of psychiatric disorders.¹ These disorders share the psychological and physical symptoms of anxiety, but each disorder has its own set of characteristic symptoms.

Types of anxiety disorder

a. Generalized anxiety disorder

GAD is the most commonly found anxiety disorder in primary care;³ and it is defined as a chronic condition characterized by persistent, excessive and difficult to control worry,⁴ which causes substantial personal distress.⁵ Unlike other anxiety disorders, which have a comparatively early onset, GAD appears to develop after age of 40 years in about a third of individuals, with up to 10% of cases having a first onset after the age of 50.⁶ In one national survey, GAD had a prevalence rate of nearly 12% in adults over the age of 55 years.⁷ Furthermore, a review of epidemiological data from European studies estimated the prevalence rate for GAD was 3.4% for persons more than 65 years of age.⁴ In older adults, GAD tends to be more chronic with poor remission rate,⁶ and it is also associated with poorer quality of life, increased health care utilization and cognitive impairment.³

b. Obsessive compulsive disorder

OCD is an anxiety disorder characterized by intrusive obsession and repetitive, time consuming compulsion.⁸ It

is a disabling condition with significant impairment in daily functioning. The development of OCD after the age of 50 years is considered to be rare and is often associated with structural cerebral damage.⁸

c. Panic disorder

Panic disorder is characterized by recurring attacks of intense anxiety. Panic attacks usually last 15 to 30 minutes, although residual effects may persist much longer. The frequency and severity of acute states of anxiety determine the diagnosis. The prevalence of panic disorder is relatively low compared to other anxiety disorders, with an estimated range from 0.18 (6-month) to 1% (1-month).⁹

Anxiety disorders in older adults

It is estimated that between 3 and 14 out of every 100 older people have an anxiety disorder.¹ Anxiety disorders can be difficult to recognize, particularly in older people.² These difficulties arise in differentiating symptoms of anxiety from physiological and physical changes in elderly,¹ together with the reluctance of many people to acknowledge psychological difficulties. Furthermore, one study reported that older people appear to be more reluctant to discuss mental health issues with others,¹ as there is perception that older people are generally more worried. This possibly contributes to the depleted of help seeking attitude in this age group.²

Anxiety disorders in elderly are associated with significant comorbidity,¹⁰ higher morbidity, disability and significantly impaired quality of life.¹¹ Older adults with an anxiety disorder often find it difficult to manage their daily lives and are at higher risk of having comorbid depression along with physical and functional disability. In addition, the presence of an anxiety disorder is associated with reduced medication adherence. As chronic medical conditions exacerbate, it can result in a further loss of independence and increased reliance on family or carers. Consequently, anxiety disorders can have a considerable detrimental effect on quality of life for both the older person with an anxiety disorder and that of their carers.

There are several therapeutic strategies available for the treatment of anxiety disorder. The specific cause of symptoms in each anxiety disorder is not well established and the underlying aetiology of the disorders is yet to be fully understood. Treatments generally offered for an anxiety disorder are determined by the presumed underlying cause and the presentations. In the beginning the initial treatment usually involve education and active monitoring. However, many people continue to have symptoms of anxiety; and in these people might subsequently be recommended to undergo psychological therapy or be prescribed a pharmacological treatment. Effective treatment options for anxiety disorders include selective serotonin reuptake inhibitors (SSRIs), benzodiazepines, buspirone, venlafaxine, duloxetine, and psychotherapy.³

The course of anxiety disorders in older people is generally chronic in nature, and most disorders are unlikely to remit, even with long-term treatment. However, people are generally considered to be resistant to treatment if they do not respond to or have an insufficient response to their first treatment,¹ regardless of the type of the first line treatment; whether it was psychological or pharmacological intervention.

In light of the prevalence and adverse consequences of anxiety disorders in elderly, having updated clinical information on its management is important. However, many recent studies suggest that there is inadequate data assessing interventions particularly in older adult, as there are only few studies on treatment of GAD in this group. As a result, further study to determine current status of management within the treatment of GAD and other anxiety disorders in elderly was needed.

Objective

The aim of this systematic review is to evaluate the medical and psychological treatment for anxiety disorders in older adults with a focus on GAD.

Methods

There have been a number of studies conducted to evaluate the clinical effectiveness of medications in anxiety disorders in adult population and some focus has also been applied to treatment resistance as well. Unfortunately there is dearth of literature in the specific topic of older adult anxiety management and more so for treatment resistance. Although there is no clear definition of this specific topic this will signify the group of older adult population suffering from a range of anxiety disorder who failed to respond to or have only partially responded to a medication or combination of medication or any other non-pharmacological management of their anxiety disorder. A systematic review of the clinical effectiveness of treatments for anxiety disorders and typically in GAD and also panic disorders and anxiety with or without comorbidities such as depression, in older adults was carried out. Same phrases, words and terminology were used in data search to identify the literature in the various databases as described below in the exclusion criteria. The selection of the studies included into the review was based on methodological strengths of the study (randomised controlled trials (RCT), systematic reviews and meta-analyses) and critical appraisal framework. A quorum flow chart has been included in the results section of the review to demonstrate the rigorous method in filtering the data.

Inclusion criteria

The studies included in this review were double-blind, placebo-controlled RCTs of any duration, published systematic reviews and meta-analyses of RCTs. Studies with a sample of adults older than 55 years of age were included as part of this systematic review.

The inclusion of only these types of studies limited the number of studies into the review but at the same time the specificity of the aim and robustness of the data was not compromised.

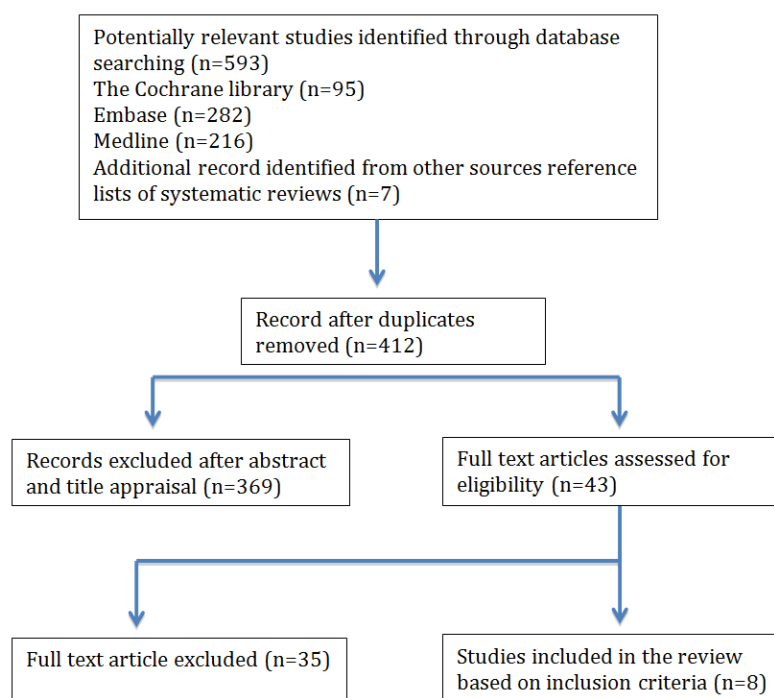
Search Strategy

The data was retrieved for published RCTs, systematic reviews and meta-analyses from October 2005 to October 2015 by conducting a systematic search of mental and general health databases (Medline, Embase, PsycINFO, National Health Service Economic Evaluation Databases) using Data star on the internet, and the Cochrane Database of systematic reviewing using Cochrane library on the internet. A comprehensive search strategy was launched, including terms for anxiety and anxiety disorder, and incorporated specific filters for retrieving RCT, meta-analysis, and systematic reviews in humans. Some of the terms used to search the literature included 'treatment of anxiety disorders in older adults', 'anxiety disorders in older adults' and 'treatment resistance anxiety disorders'. Unpublished studies were not specifically sought but were included if they were identified from the reference lists of published systematic reviews or meta-analyses.

Data Selection

Identified articles were screened to ensure they met predetermined inclusion criteria. Titles, abstracts, or both for all identified citations were reviewed initially, followed by a second review stage of full text publications. The authors used a positive exclusion method, whereby we excluded only those publications that did not meet one or more of the inclusion criteria. Figure 1 shows selection process for articles. The systematic search identified 593 potentially relevant publications; 412 records after duplicates removed. First pass screening eliminated 369, leaving 43 full text articles to be reviewed at the second pass stage. Of these, 8 met the inclusion criteria (table 1) and contained sufficient or appropriate data to be included in the analysis. The data extracted from these 8 publications allowed analyses to be performed for pharmacological and psychological treatment. Reports provided information on GAD (7 studies), anxiety with depression (2 studies), and anxiety disorder (1 study). Two of the trials identified examined duloxetine, one sertraline, one escitalopram, one pregabalin, three cognitive behavior therapy (CBT) and one complementary and alternative medicine intervention.

Figure 1: Quorum flow chart



Results

In the analysis of results, we considered interventions when the treatment was given as either a monotherapy or in combination with another forms of therapy for the treatment of anxiety disorders. Comparisons were made between various interventions and their efficacy. The treatment response, remission, or improvement as primary outcome measure, were considered as measures of efficacy. Baseline to endpoint improvement, in terms of

reduction in symptoms of anxiety in primary outcome measure was considered as "response".

Pharmacological treatment for GAD

a. Duloxetine

Two RCTs capturing the efficacy of duloxetine for GAD met the inclusion criteria. Alaka et al evaluated efficacy and safety of duloxetine in the treatment of GAD in older

adult by carrying out double-blind treatment with either duloxetine (n=151) or placebo (n=140).¹² In this case Hamilton Anxiety Rating Scale (HAM-A) total score was used to measure primary efficacy. At week 10, duloxetine was superior to placebo on mean changes from baseline in HAM-A total score ($p<0.05$). Davidson et al looking at the efficacy of duloxetine in elderly with GAD through a randomized, double-blind, placebo-controlled trial that included 1491 patients in total.¹³ HAM-A was also used in this study and the study demonstrated that compared with placebo treated patients, duloxetine treated patients experienced significantly greater improvements on the HAM-A total ($p<0.05$). However it was also noted that more number of duloxetine treated patients discontinued treatment due to an adverse event ($p<0.05$). In both studies, the results show that patients flexibly dosed with duloxetine 30 to 120 mg once a day versus placebo had significantly reduced anxiety symptoms at 10 week end point. Patients treated with duloxetine also demonstrated superior improvement over placebo treated patients in each of the disease specific secondary measures as well as in global functioning, quality of life, and the patients' impression of feeling better.

b. Pregabalin

We identified one RCT of pregabalin for GAD which investigated 237 patients who underwent double-blind, randomized, placebo-controlled 8-week trial of pregabalin, in flexible doses of 150 to 600 mg/day.⁶ As the primary outcome measure HAM-A, it was observed that pregabalin was associated with a 3-point greater reduction in HAM-A total score than placebo ($p<0.05$.) It is interesting to note that there was a significantly greater decrease from baseline in mean Hamilton Rating Scale for Depression (HAM-D) score with pregabalin compared with placebo (-5.48 vs -4.02, $p<0.05$). Pregabalin was noted to be well tolerated, with almost all adverse events in the mild to moderate range, and self limiting. Discontinuations due to adverse events were similar for pregabalin and placebo.

c. Escitalopram

Lenza et al carried out RCT of 177 participants aged 60 years or older with diagnosis of GAD, randomized to receive either escitalopram or placebo.³ It was found that escitalopram was better than placebo in terms of cumulative response, improvements in anxiety symptoms and self-reported role functioning. However, treatment with escitalopram was associated with a higher rate of several adverse effects, which is likely to be related to lack of efficacy. In this study, intention to treat rates of cumulative incidence of response was also calculated in which participants who dropped out were considered to be non-responders. Interestingly, response rates were not significantly different using an intention to treat analysis.

d. Buspirone

One study compared efficacy of sertraline versus buspirone in GAD. Forty six patients with diagnosis of GAD were randomly assigned to sertraline or buspirone for 8 weeks in a single blind trial.¹⁴ Both medications

showed significant anxiolytic efficacy and showed steady decrease in the total HAM-A scores. Buspirone appears to be slightly superior to sertraline in earlier stage; however, at the end of the study period this difference did not reach statistical significance.

Psychological and alternative therapies for anxiety disorders

CBT versus non active control

This comparison was reported by three studies. Meta-analysis of 12 RCTs in 2012 compared effectiveness of CBT with that of active and non-active control conditions for anxiety disorder in older people.¹⁵ This study included 12 studies (658 participants) which enrolled participants at least 55 years old with a diagnosis of anxiety disorders. It was observed that at immediate post intervention follow up CBT was significantly and modestly more effective at reducing anxiety symptoms than non-active control.

A study reported results for RCT of group-CBT compared to waitlist group.¹⁶ It included 62 participants with both an anxiety disorder and unipolar mood disorder. Group CBT was efficacious in reducing comorbid anxiety and depression and was associated with significantly higher recovery rate (53%) compared to the waitlist condition (11%), which was maintained, and increased (67%) at 3-month post-treatment.

Hundt et al examined predictors of satisfaction with treatment in patients from an RCT of late-life GAD in primary care.¹⁷ The conclusions highlighted a high treatment satisfaction with CBT rather than enhanced usual care. Treatment credibility, treatment expectancies, social support and improvements in depression and anxiety symptoms predicted higher treatment satisfaction in the total sample.

A review of RCTs involving 740 participants has suggested an augmentation strategy to deal with treatment-resistant OCD.¹¹ Out of the 20 short term RCTs, 9 have shown a statistically significant response to the augmentation strategy compared to a placebo.

Comorbid anxiety and depression is not an uncommon phenomenon in older adults. One study looking at Internet based CBT explored the cost effectiveness of such Internet based CBT among older adults with anxiety disorders.¹⁸ Out of 84% participants who completed the iCBT course within the 8 weeks; 90% provided data at post treatment analysis. Significantly lower scores on measures of anxiety and depression were found among the treatment group compared to the control group at post treatment assessment. These lower scores were maintained at 3-month and 12-month follow-up and the treatment group rated the iCBT treatment as acceptable. Although the logistics of this method of iCBT can be argued with pros and cons in terms of access of internet, usability of internet functioning among older adults and availability of resource, this seems to be a novel approach to look forward.

Table 1: Studies included in the systematic review

| Author | Year | Research type | Disorder | Sample size | Age (mean) | Conditions | Length | Primary outcome measures | Findings |
|-------------------------------|------|--|-------------------------------|-------------|--------------|---|------------|--------------------------|---|
| Montgomery et al ⁶ | 2008 | RCT double-blind, placebo-controlled | GAD | 273 | >65 (72) | Pregabalin vs placebo | 8 weeks | HAM-A | Pregabalin > Placebo |
| Davidson et al ¹³ | 2008 | Pooled analysis (4 RCT double blind, placebo controlled) | GAD | 1491 | >65 | Duloxetine vs placebo | 9-10 weeks | HAM-A | Duloxetine > placebo |
| Lenze et al ³ | 2009 | RCT | GAD | 117 | >60 | Escitalopram vs placebo | 12 weeks | CGI-I | Escitalopram > placebo, but response rates not significantly different using intent to treat analysis |
| Mokhber et al ¹⁴ | 2010 | Randomized single blind trial | GAD | 46 | >60 (67) | Sertraline vs buspirone | 8 weeks | HAM-A | Buspirone > sertraline, not significantly different |
| Gould et al ¹⁵ | 2012 | Meta-analysis of RCT (12 studies) | GAD | 658 | >55 (68.2) | CBT vs active control (treatment) vs control (no treatment) | 12 months | | CBT > non treatment CBT = active treatment |
| Wuthrich et al ¹⁶ | 2013 | RCT | Comorbid anxiety + depression | 62 | 60-84 (67.4) | Group CBT vs waitlist condition | 12 weeks | GAI, GDS, CES-D, PSWQ | Treatment group > waitlist |
| Hundt et al ¹⁷ | 2013 | RCT | GAD | 134 | 60-88 (67.3) | CBT vs usual care | 12 weeks | PSWQ, BDI | CBT > usual care |
| Alaka et al ¹² | 2014 | Randomised, double blind, placebo controlled trial | GAD | 291 | >65 (71.7) | Duloxetine vs placebo | 10 weeks | HAM-A CGI-I | Duloxetine > placebo |

BDI: Beck's Depression Inventory; CES-D: Centre for Epidemiological Studies - Depression Scale; CGI-I: Clinical Global Impression - Improvement; GAI: Geriatric Anxiety Inventory; GDS: Geriatric Depression Scale; HAM-A: Hamilton Anxiety Rating Scale; PSWQ: Penn State Worry Questionnaire; > better than

Discussion

The assessment of the effectiveness of treatment of anxiety disorders in older adults is a complex issue due to various factors. There are variations in the inclusion criteria in many systematic reviews or meta-analyses. A number of anxiety disorders actually develop in adult life and progress to old age. Inadequate treatment and adherences complicate the scenario, as well. These may suggest many patients being seen as nonresponsive to interventions in old age. However, the usual treatments include the combination of various medications and psychological input; besides antidepressants and anxiolytics, there is discussion of addition of antipsychotics to the current treatment of anxiety disorders especially in OCD.¹¹

Pharmacological therapy

Although it has been argued as best practice to use single medication for treatment of a disorder or a condition it is not unusual to observe the use of polypharmacy in many medical conditions; which is also true for psychiatric conditions. In our review we found that duloxetine treated patients were significantly more likely to meet treatment response and remission criteria and to experience sustained improvement during acute therapy. There were other medications mainly sertraline, buspirone, escitalopram, pregabalin used which were better than placebo.

There are some advances made in considering the neurochemical and neuroreceptor mechanism in older adults who suffer from intractable anxiety disorders. Some authors also studied the cortisol awakening response in the treatment resistant anxiety disorder in elderly and found that this group of population had a significantly lower cortisol awakening response compared to a group without such a disorder.¹⁹ They drew the conclusion from this that the hypothalamo-pituitary-adrenal axis (HPA) may be downregulated in chronic anxiety disorders. On similar lines of HPA axis the effectiveness of escitalopram has been depicted in betterment of memory and concentration in anxiety disorders compared to placebo.^{3,20}

Sodium valproate and carbamazepine have been used in the treatment of manic episodes in bipolar affective disorders; but it has been interesting to see their anti-anxiety properties as well in some patient populations. Pregabalin has been used as anti-epileptic medication but has been effective in GAD as well. It has been found that pregabalin can improve both the somatic and psychic symptoms of anxiety and moreover the rapidity of response, its tolerability and reduction in risk of tolerance and dependence makes this medication preferable compared to benzodiazepines.⁶ Comparative cost-analysis of pregabalin use in anxiety disorders compared to SSRI or SNRI suggested reduction in medical visits to hospitals and reduction in health care resource in a study conducted in Spain.²¹

Duloxetine has been discussed as one of the effective treatment options for the GAD but specific studies in

treatment resistant GAD are lacking. Alaka et al concluded at 10-week duration that duloxetine was significantly superior to placebo in improving the HAM-A scores and Sheehan Disability Scale (SDS) global scores.¹² Davidson et al reached similar conclusions with duloxetine but with a high discontinuation rate due to adverse effects of medication like nausea being significant problem and loss of weight.¹³

Antipsychotics have also been tried in attempts to alleviate anxiety symptoms in elderly population. Extended release quetiapine (50-300mg/day) has been used in a RCT compared to placebo.²² At week 9, quetiapine extended release significantly improved the HAM-A total score versus placebo. Improvement was also observed in Quality of Life, Enjoyment and Satisfaction Questionnaire (Q-LES-Q) Short Form percentage maximum total score, satisfaction with medication and overall life satisfaction (Q-LES-Q item 15 and 16 respectively) and in sleep parameters measured through Pittsburgh Sleep Quality Index global score, which was significantly more for quetiapine compared to placebo.

Another study compared sertraline and buspirone in the management of anxiety in elderly and found that after 2 and 4 weeks, buspirone was found to be significantly superior to sertraline;¹⁴ but at the end of study period this difference did not reach statistical significance.

Overall, the pharmacological management of treatment anxiety disorders in elderly remains a challenge. However the use of duloxetine, pregabalin, escitalopram and buspirone has been found to be effective in management of treatment anxiety disorders based on current reports. There is still a lack of clarity in defining the treatment resistance.

Psychological and alternative therapies

Two studies showed that CBT was significantly more effective than treatment as usual or being on a waiting list at reducing anxiety symptoms.^{17, 18} Interestingly, in both studies it's observed that when CBT was compared with an active control condition, between groups difference in favor of CBT was not statistically significant and also suggestive of lower efficacy in elderly compared to working age people. There are number of methods explored for delivering cost effective, timely and effective psychotherapy service in various places.

Group CBT has been tried in the elderly to assess the effectiveness of this approach relieving the anxiety and depressive symptoms. Wuthrich and colleagues found that significant improvement based on self-report measures of anxiety and depression and these improvements were maintained at three months.¹⁶ In contrast, no significant differences were found between groups on measures of worry and well-being. In conclusion, group cognitive behavioural therapy was found to be efficacious in reducing comorbid anxiety and depression in geriatric populations and gains maintain for at least three months' duration. Another study evaluating CBT in primary care for older adults suffering from anxiety and depression

observed that the compliance was quite closely related with the belief and rationale of treatment among patient population.¹⁷ This suggests that older patients receiving CBT who believe more strongly in the treatment rationale and follow the therapist's recommendations more closely are likely to report satisfaction at the end of treatment. In addition, this study found that adherence mediated the relationship between treatment credibility and treatment satisfaction. In other words, patients' perceptions that the treatment made sense for them led to greater treatment adherence which then increased their satisfaction with treatment.

Limitation

Lack of specific, focused and targeted research among the older adults for anxiety disorders is a significant issue with this review. Subdivision of anxiety disorders further into specific types is also difficult to compare as there are a number of conditions including phobias at one end to PTSD at the other end being included in the umbrella term of anxiety disorders.

Conclusion

Although there are some studies to suggest the use of duloxetine, escitalopram, and pregabalin in the treatment of longstanding anxiety disorders in the older adult population there is dearth of literature and it is specifically so in treatment of GAD. Psychological treatments such as CBT and iCBT have been found to be useful in the management of treatment anxiety disorders and GAD but again the specificity for older adults is not the focus of all the studies. The combination of pharmacotherapy and psychotherapy has been advocated by some studies. There is need for further focused prospective studies in the areas of specific anxiety disorders where the effectiveness of monotherapy and combination therapies should be evaluated.

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Competing interests: The authors have declared that no competing interests exist.

Received: 24 January 2017; **Revised:** 09 April 2017; **Accepted:** 13 April 2017

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Citation: Baek J, Khan F. A systematic review of anxiety disorders among older adults: focus on treatment of generalized anxiety disorder. *Journal of Geriatric Care and Research* 2017, 4(1): 3-10.

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View point

Clash between traditions and economy in geriatric care in India: observations from a tertiary care hospital

Kumar Himanshu Bhadani, Swagata Tripathy

India is the second most populous country in the world, with an ever-increasing percentage of elderly people (geriatric age group). This population is expected to increase to 300 million by 2050.¹ During a research project that involved the demographic profiling of geriatric patients coming to the emergency room (ER) of a tertiary care university hospital in Eastern India, we got an opportunity to study these patients and their families from close quarters.

The elderly patients more often came with strokes, acute exacerbation of chronic lung disease, heart failure, asthma or trauma due to falls, which could be thought to be attributed to their old age. On close enquiry, however these patients admitted to poor compliance with their specific medications. Merely staying with family did not ensure a good care in all instances. "The sons leave for work and daughters in law are busy with household chores" was a common observation made by many patients, mostly in a non-complaining albeit sorrowful manner. Many of them considered themselves as a burden on their family. We found that a good number of patients were encouraged either directly or indirectly by their family members to overlook the initial symptoms of disease progression by telling them that it was the general effect of their passing age. For example when an elderly man reported persistent fatigue and increasing breathing difficulty, instead of taking him to a doctor he was told to 'take rest and not overexert himself'. Episodes of cough (later diagnosed as tuberculosis or malignancy) had been neglected as being due to 'smoking' or 'change of weather' for a long time. We fear that there may be a larger than reported incidence of neglect and other forms of abuse including emotional and physical abuse. Some patients admitted to feeling isolated even when living with their families. However, as not a single patient reported "abuse", we could only resort to providing information and counselling.

Indian culture and traditions (and now the law) make it the duty of children to take care of their parents.² Family members may take this 'duty' as an obligation. For those elderly who may be feeling neglected or particularly battered at home, the fear of social ostracism of the family precludes the option of old age homes (which in any case, are few and far between). We found a significant

association between the severity of illness (Emergency Severity Index scores) at which a patient presented to the ER and the death of his/her spouse. This may be attributed to poor health support or a psychological aloofness resulting in self-neglect. This effect could be even more pronounced in the poorer section of the society where the elderly are often financially dependent on their children. Majority of the patients coming to our ER belonged to the lower socio economic class. The reason given by many sons when asked about their parents' ill health and sometimes-severe malnourishment was that in an environment of deficiency they are forced to prioritise in a manner wherein the elderly are at a risk of getting neglected. Another interesting observation was that many a times, the family wanted to keep chronically ill albeit stable patients (e.g. stroke) in the hospital for as long as possible: long term home care if available is both cumbersome and expensive. We cannot deny, however the existence of the occasional family where the emotional ties and moral fibre formed a strong base irrespective of the socioeconomic status. There were people who used maximum resources available to support their parents when admitted to ER or the intensive care unit.

We feel that even though people in India keep their parents with them, the benefits of staying with family may not translate into a better quality of life due to socio-cultural issues including economic dependence. In the end, the geriatric patients are at a grave loss. Although India has policies and laws for protection of the elderly, its implementation leaves a lot to be desired. Although laws are in place, in the scenario of relatives bringing an elderly patient to the hospital we felt that amicable resolution of suspected abuse by counselling would be better for obvious reasons. Availability of qualified clinical psychologists or social service personnel may be desirable in these situations.³

Are our moral values and traditions determined by our economic condition or is it a logical sense of an evolutionary process? Reading the prevalent literature on the differences in the cultural values in different parts of the world does not help us reach any particular conclusion.⁴⁻⁷ But one thing is certain, as human beings the quality of care should not be compromised on the

basis of age. We should realise that cultural and social traditions regarding old people are for their better care - upholding the institution of the family is good only as long as it benefits the weakest member therein, which includes the elderly. A priority area for policy makers should be to ensure proper implementation of ongoing welfare schemes in the country. Although the Indian government has various schemes for assistance to the elderly, there appears to be a lack of awareness or coordination. For example, we found that less than 20% of the geriatric patients who arrived to the unit had availed of the well-equipped free ambulance system run by the government. Greater attention to the spread of awareness regarding government policies and analysing the problems in utilisation by regular audits may help in alleviating such problems.

Dignity in life and sickness should be available to all, irrespective of age or the part of the world they come from.

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Competing interests: The authors have declared that no competing interests exist.

Received: 09 January 2017; **Revised:** 08 March 2017; **Accepted:** 10 March 2017

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Citation: Bhadani KH and Tripathy S. Clash between traditions and economy in geriatric care in India: Observations from a tertiary care hospital. *Journal of Geriatric Care and Research* 2017, 4(1): 11-12.

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Insight

Cardio-metabolic syndrome – an intervention framework

Susmit Roy, Surendra P Singh

Introduction

Cardio-metabolic syndrome is a closely clustered group of dysfunctional metabolic parameters, predominantly characterised by a) impaired glucose tolerance or insulin resistance, b) central obesity or intra-abdominal adiposity, c) dyslipidaemia and d) hypertension. Commonly used synonyms are Syndrome X, Beer-belly syndrome, Reaven's syndrome, athero-thrombogenic syndrome etc. The syndrome has gained nosologic acceptance by World Health Organisation (WHO) and the American Society of Endocrinologists, amongst others.

Various parameters of this disease entity, both singly and collectively, confer a high risk of cardio-vascular morbidity and mortality. The assessment or quantification of risk factors that led to the development of this clinical syndrome can be achieved formally using various risk scales and calculators. The most well-known are the Framingham Risk Equation and the Q-RISK2 Calculator.^{1,2} The National Institute for Health and Care Excellence (NICE) recommends the use of the Q-RISK2 in the UK.

Risk factors

Conventionally, the metabolic cardiovascular risk syndrome has been associated with hyperlipidaemia (especially hypercholesterolaemia), hypertension and heavy smoking. In recent years it has become evident that there are other risk factors that affect and influence the aetiopathogenesis of cardio-metabolic syndrome as much as genetic predisposition. Pre-eminent among these factors are reduced insulin sensitivity in peripheral tissues, central obesity, dyslipidaemia, low high density lipoprotein (HDL) cholesterol, increased thrombogenicity, and high blood pressure. It follows that the most important contributing factor is the excessive intake of calories compared to the expenditure of calories by an individual, thereby leading to weight gain which is a common denominator in a vast majority of patients. The association among the risk factors has been known for a long time, as also the fact that these factors can occur together in many patients, hence the term “cardio-metabolic syndrome”.

From an epidemiological perspective, the presence of this syndrome seems to increase the risk of cardio-vascular

disease as well as the risk of developing diabetes in non-diabetic individuals. According to International Diabetes Federation, around a quarter of the world's adult population suffer from cardio-metabolic syndrome.³ Furthermore, the population with this condition are two times more likely to die from coronary heart disease,⁴ and three times more likely to have a heart attack and stroke.⁵ Needless to say, the timely assessment of risk and suitable preventive interventions are of utmost importance in dealing with this modern day health epidemic.

Aging and metabolic syndrome

There is also agreement amongst clinicians that the process of aging is accelerated in the presence of metabolic and cardio-vascular diseases. Many of the predisposing conditions increase in prevalence during aging, such as obesity, insulin resistance, changes in activity of the hypothalamic-pituitary-adrenal (HPA) axis, hypertension etc.; all of which enhance the risk of cardio-metabolic syndrome with increasing age.⁶

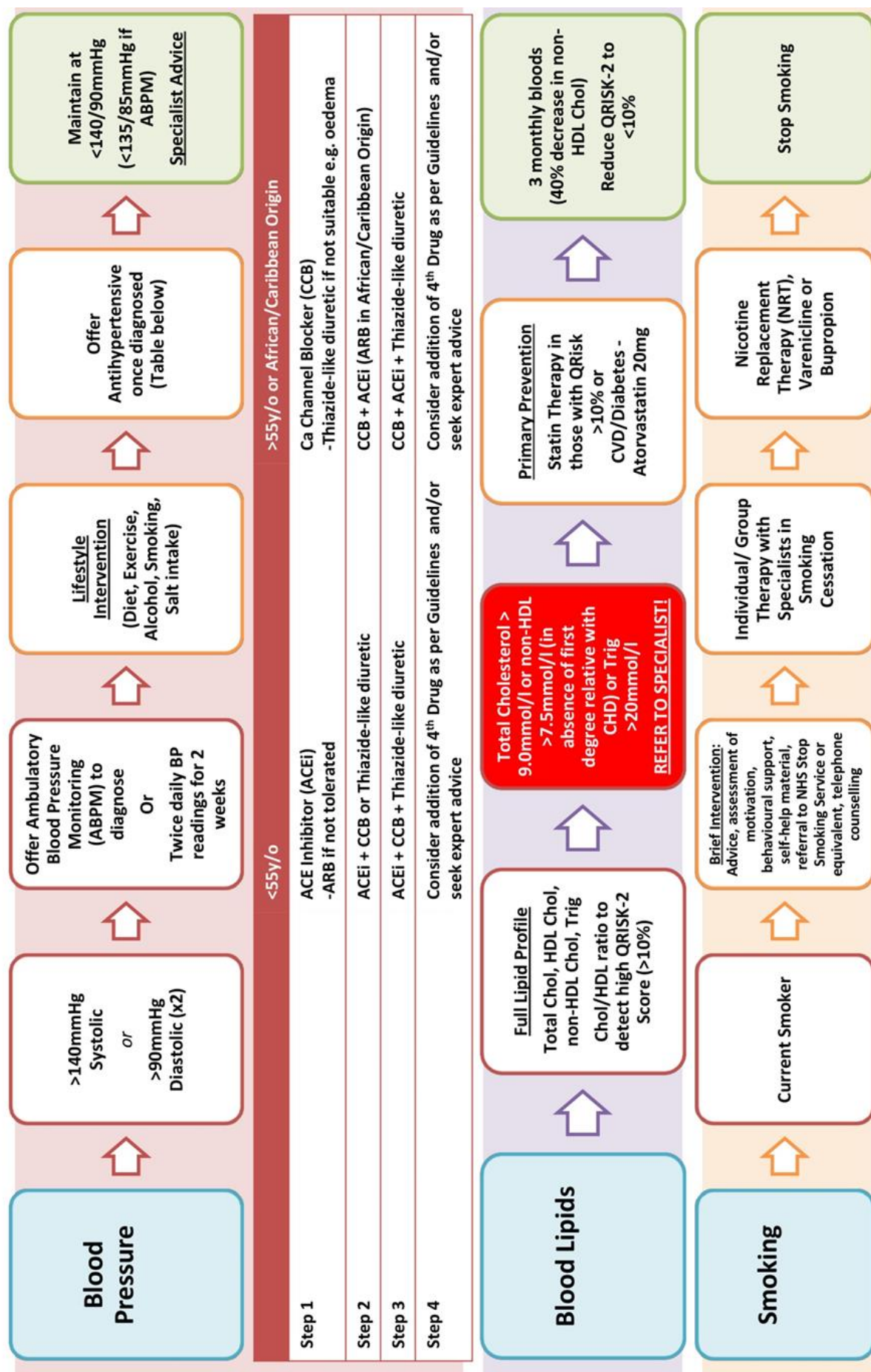
At-risk population

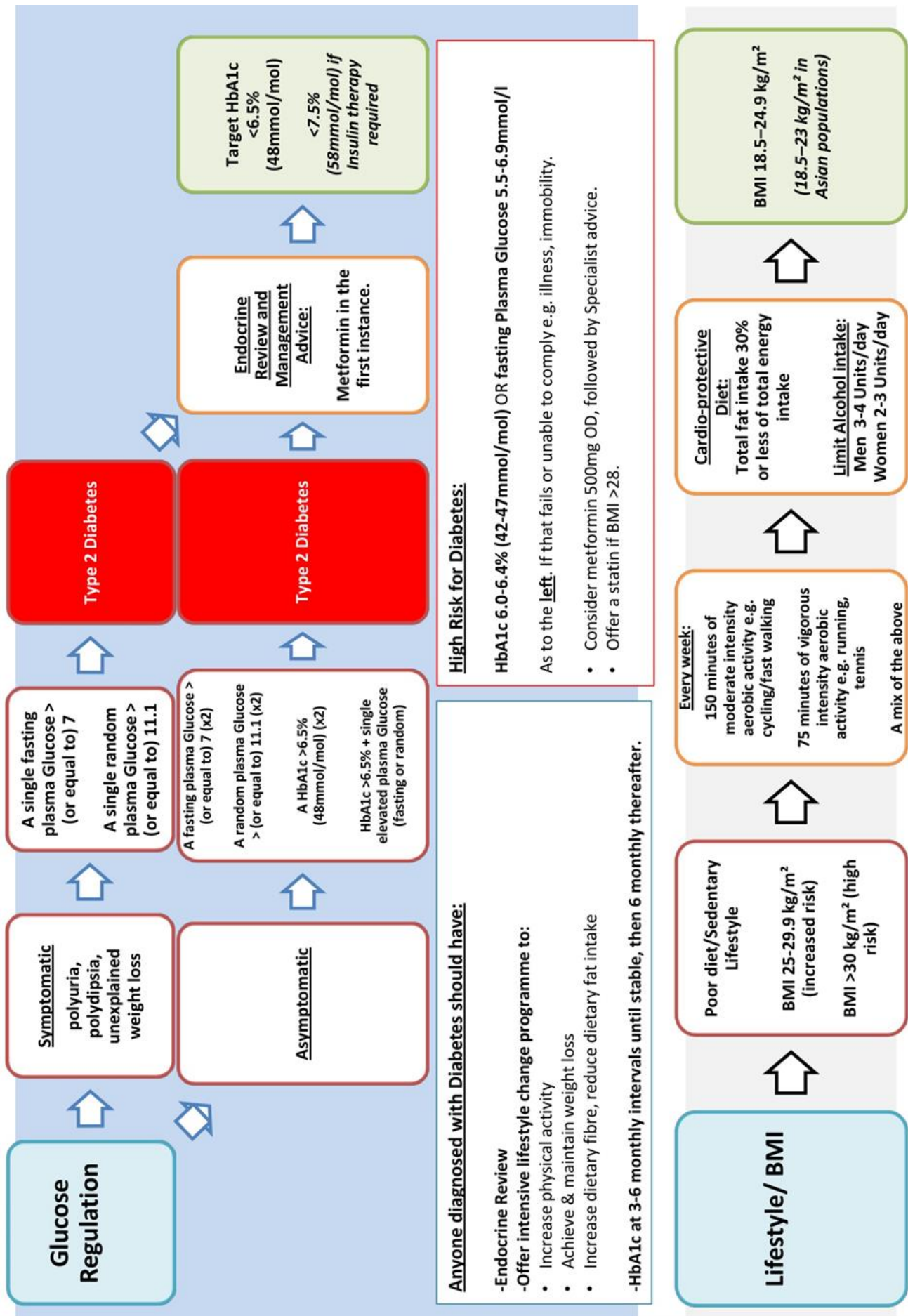
Typically at-risk population would include people with family history of cardiovascular disease, diabetes, obesity, stroke, etc.; people who have one of the many components of cardio-metabolic syndrome and those with sedentary life-style. A commonly encountered cohort of at risk individuals are patients suffering from enduring mental illnesses who are on long-term psychotropic medications which are known to have side effects of weight gain and impaired glucose tolerance.^{7,8}

A clinical framework

There is evidence and clinical wisdom, both, in preventing the development of this syndrome in at-risk individuals, thereby reducing the total risk of cardio-vascular morbidity and mortality as well as decreasing the risk of developing diabetes.⁹ A clinical framework is presented based on current guidance to help clinicians, patients and their carers. This has been prepared using current NICE and WHO guidelines.¹⁰⁻¹⁴ As these guidelines may change, readers are suggested to explore most recent guidelines from these sources.

Cardio-metabolic Health Resource – Adapted from NICE/WHO Guidelines





Box 1: Abbreviation used

| | |
|-------|---|
| ABPM: | Ambulatory Blood Pressure Monitoring |
| ACEi: | Angiotensin-converting-enzyme inhibitor |
| ARB: | Angiotensin receptor blocker |
| BMI: | Body mass index |
| CCB: | Calcium channel blockers |
| CHD: | Coronary heart disease |
| Chol: | Cholesterol |
| CVD: | Cardiovascular disease |
| HDL: | High-density lipoproteins |
| NICE: | National Institute for Health and Care Excellence |

Acknowledgment

The framework was suggested following a clinical audit “Screening and intervention of the cardio-metabolic risk factors” conducted in 2016 by Dr Vaibhav Tripathi, GP trainee; Dr Fatema Walji, Core Trainee in Psychiatry; Dr Raheel Nazir, Foundation Year trainee; Dr Surendra P Singh, Consultant Psychiatrist and Dr Susmit Roy, Consultant Psychiatrist in Black Country Partnership NHS Foundation Trust, Wolverhampton. Authors wish to thank Dr V Tripathy, Dr F Walji and Dr R Nazir for their contribution and Quality of Life Research and Development Foundation for the support.

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Competing interests: The authors have declared that no competing interests exist.

Received: 27 June 2016; **Revised:** 05 May 2017; **Accepted:** 06 May 2017

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Citation: Roy S, Singh SP. Cardio-metabolic syndrome – an intervention framework. *Journal of Geriatric Care and Research* 2017, 4(1): 13-16.

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Review

Clinical concerns of oral health in old age: an Indian perspective

Aditi Ava Rath

Abstract

Background: World Health Organization recognizes the oral health as an integral part of general health. **Aims:** This report attempts to highlight the clinical concerns of geriatric oral health in an Indian scenario. **Methods:** Literature on oral health problem among elderly population was searched both electronically and manually and relevant articles were reviewed. **Results:** There is a consistent increase in elderly population in India over last five decades. Indian elderly are at a heightened risk of chronic oral health problems such as dental caries, periodontitis, tooth loss, edentulism, xerostomia, candidiasis, benign mucosal lesions and oral cancer for various reasons. A description of common oral health problems affecting elderly and the associated concern in management are provided along with suggestions for their mitigation. **Conclusion:** Considering the high volume of oral health problems in elderly and their increasing population, oral health care needs to be prioritized, made accessible and affordable.

Key words

elderly, India, oral health, dental care, management

illness and neurological diseases like Parkinson's disease or paralysis require special attention for their oral health, considering their disabilities affecting self-care.^{10,11} Caregivers have a specific role to play in managing the oral health care of the elderly with disabilities.

The oral healthcare facilities and services are very limited in India, especially in rural areas where over 71% of the total elderly reside.¹² There is a vast difference in oral health status and services between urban and rural populations in India. According to the recommendation of WHO, the ratio of dentist and population should be 1:7500; but presently the ratio in India is 1:10,000. However the ratio is far worse in rural India at 1:250,000.^{12,13} There are concerns regarding funding for health care and affordability of the people for dental ailments where most of the services are in private sector.

Although there is an oral health policy in India, it mostly focuses on health promotion and prevention where geriatric oral health concern is not covered adequately.^{14,15} The real picture of elderly oral health problems and lapses of oral health services are not yet fully understood. There is a need for adequate information on current status of oral health care which is an obvious prerequisite to plan effective programmes for the elderly population; and studies are required to that effect.¹⁶

Methods

Literature on oral health problem among elderly population was searched both electronically and manually. Various key words and their combinations were used for literature search like Indian elderly, oral health, dental care, geriatric oral health, and oral health policy. The articles were reviewed for their relevance related to the topic of this review.

Results

Elderly population experiences a greater burden of a range of ailments and oral health is a particular concern. They possess limited regenerative propensities and become more susceptible to diseases compared to young population. Elderly people are at risk of chronic oral diseases of the mouth like infections, dryness of mouth, edentulism, oral candidiasis and benign and malignant mucosal lesions. Pathogens of oral cavity including teeth can also cause several diseases beyond the oral cavity

Introduction

It is reported that the elderly population of the world is growing in a faster rate, where over 55% is attributed to Asian countries.¹ One out of every nine persons in the world is now aged over 60 years.^{2,3} However for our all practical purposes we define the age over 60 as elderly and over 80 as senior elderly citizen in India.⁴ The elderly population in India has increased markedly from 5.6% in 1961 to 8.6% in 2011.⁵ The percentage of increment may appear small, but it adds remarkably to the population in absolute terms.⁶ Of these elderly about two-third lives in villages.⁷ Nearly fifty percent of rural elders are of poor socioeconomic status whereas a big proportion of them live alone and are vulnerable.^{8,9}

World Health Organization (WHO) recognizes the oral health as an integral part of general health. The systemic oral diseases including dental problems are common in old age. Specific elderly populations, such as residents in old age home or nursing homes, patients with psychiatric

particularly in elder population. These may include cardiac, pulmonary, renal and orthopedic diseases with increase morbidity and mortality. This highlights the importance of addressing the oral health issues in elderly and the task before the health care providers and policy makers. Some of the important and frequently occurred oral health problems in elderly are described below to create general awareness.

Dental diseases

In old age, a lot of changes are observed in teeth and oral cavity. The morphological changes due to ageing include change in colour of teeth, reduced thickness of dentin as well as enamel. Scuff and erosion of the crown are common, caused by different life-style and occlusion. The cementum which covers the root is increased over the age and is found substantially thickened in elderly population. Sweeten food, cold or hot food, corrosive material like tobacco makes the dentine more sensitive leading to oral discomfort. Dental carries occur in almost all age groups due to the interaction of specific bacterial flora, oral pH and sugar substrate; and they are common in elderly as well. The gingival recession is common in elderly age, so the possibility of multiple root caries on one or more than one tooth increases. It is sometimes difficult to preserve those teeth with multiple carries and ultimately situation compel for their extraction.

Plaque formation is a common phenomenon on teeth due to interaction of endotoxin, food particle and gram negative bacterial population in oral environment. Poor oral hygiene frequently promotes the plaque formation; inflames the gingiva and leads to periodontitis in older persons. All these diseases are associated with pain and oral discomfort, and may result in tooth loss. Gradual loss or extraction of teeth makes an elderly person edentulous.

Xerostomia

Dryness of mouth or xerostomia is common among old age population. Many oral and systemic conditions and medication manifest themselves as changes in saliva flow. Saliva forms a seromucosal covering that lubricates and keep the oral cavity moist. A healthy adult produces about 1.0-1.5 liters of saliva per day. Saliva facilitates oral function, digestion, protects oral environment from fungal and bacterial infection and keep teeth healthy by demineralization and remineralization process. Saliva possesses the tissue repair property of oral tissue thus enhance the healing process in oral cavity. The immunological property of the saliva can neutralize viruses, bacterial, and enzyme toxins up to some extent.

Xerostomia may be caused by underlying disease or medication. Commonly, the dehydrated state of the body is reflected by the reduced salivation. Possibilities of degenerative changes in the major and minor salivary glands result in the mouth dryness in elderly. Many medications such as antidepressants, anxiolytics,

antipsychotics, antihistaminics, and antihypertensives may have side effects of dryness of mouth.¹⁷

Changes in oral mucous membrane

The epithelium and connective tissue of oral mucosa protect the oral cavity from entering microorganism and toxic substance and thus plays a greater role in oral hygiene. This mucosal layer becomes more and more thin and smooth with advancing age. Sometimes it loses its elasticity and become edematous.

There are different types of oral mucosal lesions and developmental anomalies. Some of these are described as Fordyce granules, buccal exostosis, torus mandibularis, torus palatinus, lingual varices, and recurrent aphthous ulcerations. Fordyce granules, lingual varices, and buccal exostosis are the most common oral developmental anomalies often reported in elderly patients.¹⁸ Fordyce's granules are generally considered as developmental anomaly rather than a disease which is characterized by heterotopic aggregation of sebaceous glands at various sites in the oral mucosa. Lingual varices are otherwise known as lingual or sublingual varicosities where the veins are subjected to increased hydrostatic pressure but poorly supported by surrounding tissues. Buccal exostosis is usually found on buccal surface of maxilla below the mucobuccal fold in the molar region. Clinically this exostosis appears as small nodular protuberances, in symmetry, over which the mucosa may appear blanched. Oral mucosal lesions are common; in a geriatric Indian population 64% of the patients had one or more lesions.¹⁹ These were associated to tobacco and betel nut use, secondary to trauma and prosthesis.

Candidiasis

Candidiasis is a fungal (yeast) infection. It is commonly known as "thrush" or oropharyngeal candidiasis. The common signs and symptoms of candidiasis include white patches on the tongue or other areas of the oral cavity and pharynx. Although more than 20 species of *Candida* are enlisted among the oral flora, *Candida albicans* is the common infectious organism that increases the risk of overgrowth in elderly population with poor oral hygiene and weak immune system. This is incidental to the use of inhaled steroids in chronic pulmonary diseases. The risk factor of candidiasis increases during post chemotherapy period in elderly cancer patients. Besides, immunosuppressive medications particularly corticosteroids and cytotoxic drugs also enhance the possibilities of candidiasis. It is seen that patients with leukemia, lymphoma or other tumors are more prone to candidiasis. Oral candidiasis usually found as a localized disease but rarely extend to the pharynx or even to lungs and become fatal. Candidiasis is of two types. The primary one is confined to the oral and perioral tissues, whereas the secondary candidiasis is seen as the oral lesions, manifestation of systemic mucocutaneous candidiasis. Candidiasis is one of the most common infections found in the oral cavity in elderly population.²⁰

Glossitis

Glossitis is the soreness of tongue. It is also known as tongue inflammation, tongue infection, smooth tongue, glossodynia and burning tongue syndrome etc.²¹ Lingual inflammation, change in color, loss of the papillae (taste buds) on dorsal surface of the tongue are some of the primary symptoms of glossitis. Several clinical pattern of glossitis are common among the elderly people viz. atrophic, median rhomboid, benign migratory etc. Mostly atrophic glossitis in elderly is caused due to nutritional deficiency such as iron and vitamin B Complex. Other types of glossitis may be caused due to microbial infection (yeast, bacteria or viruses including oral herpes simplex).^{21,22} Such glossitis is treated with antibiotics, antifungal or antimicrobials drugs as it is diagnosed. In the elderly population, rough and sharp end of the teeth or any ill-fitting dental prosthetic may cause glossitis as well. Tobacco, alcohol, hot food, spices are the irritants for glossitis pain.

Halitosis

Halitosis (bad breath) is mostly due to decomposition of the food particle that is lodged on surface of the tongue, between the teeth and other clefts in the oral cavity.²³ Bacteria are generally responsible for the decay of food if oral hygiene is not properly maintained. Other factors those contribute to the bad breath in elderly population are xerostomia (reduced salivary secretion), stomatitis, gingivitis and periodontitis. Diseases like sinusitis, tonsillitis and pharyngitis may also cause the acute or chronic halitosis. Elderly people and patients with Alzheimer's and Parkinson's diseases are more frequently affected. Approaches such as brushing the teeth, tongue-cleaning, flossing, using chewing gum, toothpicks etc. can dislodge the residual food particles and reduces the intensity of bad breath. Besides, specific antimicrobial drugs and mouthwash reduce the proteolytic anaerobic microbial flora found in the oral cavity.²⁴

Burning mouth syndrome

Burning mouth syndrome (BMS) is a chronic oral discomfort with burning sensation in mouth. Often BMS is associated with no visible mucosal changes or lesions in oral cavity, is commonly known as primary BMS. Elderly population mostly reports the secondary BMS which is associated with one or more systemic disorder such as nutritional deficiencies e.g. lack of iron, zinc, folate, thiamin, riboflavin, pyridoxine and cobalamin; hormonal deficiency, menopause, diabetes mellitus, hypothyroidism; gastroesophageal reflux diseases and allergic reaction etc. Jimson et al reported that BMS is more prominent in females above 50 years of age.²⁵ Any treatment of BMS should be done with proper review of current illnesses and medications of the patient, as systemic pathological conditions often play major role.

Oral Cancer

There is no specific age for oral cancers but like many other cancer diseases, the risk of developing oral cancer is more in elderly population. The incidences of oral cancer

is reported remarkably high in elderly population in India.²⁶ Males are more susceptible especially those who have habit of chewing tobacco. It is reported that about 80% of oral cancer incidences in elderly population are caused due to use of tobacco in form of smoking, chewing or nasal douse (inhaling of tobacco dust through nose).²⁷ Human papilloma virus and oral lichen planus are known to have higher risk for oral cancers in elderly people.^{28,29} There are reports of carcinoma in patients with ill-fitting dentures and sore. Specific sores which do not heal after the correction of denture may lead to malignancy. Histologically the oral cancer can be classified as squamous cell carcinoma, verrucous carcinoma, basaloid squamous cell carcinoma, adenoid squamous cell carcinoma, spindle cell carcinoma, adeno-squamous carcinoma and undifferentiated carcinoma. Early detection and treatment of oral cancer reduces the chances of morbidity and mortality.

Discussion

Evidences suggest that poor oral hygiene among the older people is a major concern than is commonly realized.¹⁰ Gonsalves et al²⁷ and Shay³⁰ in their reviews have explained that elderly population are at risk of chronic diseases of the mouth, including dental infections (e.g. caries, periodontitis), tooth loss, benign mucosal lesions, and oral cancer. Other common oral conditions in this population are xerostomia and oral candidiasis, erythematous lesions (denture stomatitis) or angular cheilitis.

There are specific concerns of lack of teeth and dentures in elderly. Painful teeth, teeth in motion or ill-fitting dentures impair food intake, speech and the smiles. Edentulism is common; in a cross sectional study it was found that considerably proportion of the elderly (75%) were completely edentulous; mostly women (81%) than men (69%).³¹ It is also reported that most institutionalized elderly had no prosthesis.¹⁰ It is often observed that those who wear dentures get habituated to wear their dentures throughout the day and night, which leads to oral hygiene problem. Most of the time elderly persons continue to use their old dentures and do not replace them until they are broken. It is suggested to take out the removable denture during night time and to clean that properly before use the next morning. The old removable dentures may exert pressure on bone or gingiva if used for several years leading to resorption, or shrinkage of tissues, which may cause oral discomfort.³² Some suggestions outlining oral health care are given in box 1. These are not exhaustive.

The current demographic trend of growing elderly population needs special consideration to address the geriatric health issues in general and oral health management in particular. This review intended to highlight some of the oral health issues of the elderly population, with a particular focus on India. Some of the key challenges in oral health management have been discussed and enlisted in the National Oral Health Policy (NOHP 1995).¹⁵ There are many well recognized constraints for delivering the oral health care services in India. There is a lack of a well-organized oral health care

delivery system; which has been identified as one of the main reasons for high prevalence of oral diseases especially in rural India. For example, about 95% of oral health professionals work in private sector and congregate around the urban and sub-urban India where only 29% of elderly live.¹³ Besides inaccessibility, many services are considered not affordable; as most of the services are in private sector.

Box 1. Suggestions for oral health care

- Maintain oral hygiene. Specific oral rinse or mouth wash, which keep oral environment aseptic and help remineralization process should be used regularly.
- Adequate oral hygiene is equally important for edentulous older persons.
- Edentulous elderly should use denture to restore the food intake, mastication, speech clarity and smile.
- Elderly using removable partial dentures or complete denture should go for periodical check up to ensure their suitability.
- Take adequate fluid (if not disallowed clinically) to help augment the saliva flow.
- Refrain from chewing tobacco and smoking to avoid many oral complications
- Caregivers and health care professionals should support elders with disabilities to ensure maintenance of oral hygiene.
- Consult the oral health professional for loose tooth, bad breath, oral irritation and restricted mouth opening.

Conclusion

An optimum oral health is essential for various reasons especially for elderly; it is directly linked to the maintenance of physical health and well-being, preventing illnesses and improving quality of life. However, it is obvious that increasing age is associated with a number of oral and dental ailments. Increasing public awareness on oral health is important not only for the general population but also specifically for the elderly and their care givers. Making oral health care available through primary health care centres, capacity building activities to have adequate health professionals, education for the caregivers, and facilities in rural areas are some of the suggestions that can be made. Specific focus on the training about geriatric oral health in dental colleges may help in this process. There is a need to refocus geriatric oral health care through the national oral health policy.

Acknowledgement

This research project was supported by Geriatric Care and Research Organisation (GeriCaRe) and Quality of Life Research and Development Foundation, Bhubaneswar India.

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Competing interests: The author has declared that no competing interests exist.

Received: 09 Jan 2017; **Revised:** 05 May 2017; **Accepted:** 06 May 2017

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Citation: Rath AA. Clinical concerns of oral health in old age: an Indian perspective. *Journal of Geriatric Care and Research* 2017, 4(1): 17-21.

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Article

Views of old age psychiatrists on use of community treatment orders in ageing population in England and Wales - a pilot study

Sarmishtha Bhattacharyya, Jan Bailey, Farooq Khan, Paul Kingston, George Tadros

Abstract

Background: Community Treatment orders (CTO) were introduced in England and Wales during the 2008 reformation of mental health legislation. There is scant research evidence regarding the use of CTOs with older adults (people aged 65 and over). **Aims:** The aims were to explore old age psychiatrists' rationale for using CTOs with older adults and its efficacy. **Method:** A mixed-method approach with a quantitative questionnaire followed by a series of one-to-one semi-structured interviews was utilised. **Results:** About half of respondents had used a CTO with an older adult and more than half reported they would be comfortable using CTOs with older adults. Data showed that CTOs were predominantly used with patients diagnosed with relapsing mental illnesses with few respondents considering its use in people with dementia. There was also evidence that older people were viewed as being compliant with treatment, which may reflect reality or a stereotype of older people. **Conclusions:** Evidence suggested that old age psychiatrists perceived CTOs to have limited efficacy with older people, considering other legislation more appropriate to their care. Further research is recommended to explore whether CTOs are appropriate for older adults and whether respondents' perception of treatment compliance is accurate.

Key words

Community treatment orders, involuntary treatment, mental health act, older adults, old age psychiatry

Introduction

For many years the focus of mental health services has been shifting from inpatient to community and the benchmark of successful patient management now includes reduced admissions.¹ However, once patients are discharged into the community they may disengage with services, refuse medication and relapse. Supervised community treatment (SCT) were introduced in 2008 in England and Wales thorough amendments to the Mental Health Act (MHA) 1983, which allows patients detained under certain sections of the MHA to be discharged under

a community treatment order (CTO). CTOs were already in use in North America,² Australasia,³ and Scotland. Cross-national comparisons are difficult however, due to differences in the structure of community mental health services, legislation, and implementation criteria.⁴

In England and Wales, the MHA 1983, stipulates that a CTO is suitable for patients with mental disorders where medical treatment in the community and provision for recall to hospital is appropriate. While CTOs require patients to accept clinical monitoring and allow for recall for assessment, they do not authorise forcible treatment outside hospital. In England and Wales, psychiatrists generally consider using a CTO on the benefits of the potential for treatment adherence, authority to treat the patient, and ensuring early identification of relapse.^{5,6} Although there is evidence that indicates the potential benefits of CTOs in reducing readmissions and bed occupancy;¹ the Oxford Community Treatment Order Evaluation Trials (OCTETs) found that, compared with supervised hospital leave, CTOs did not reduce readmission rates.⁷ Moreover, as far as we are aware previous research involved adults under 65 years of age, although anecdotal evidence suggests that old age psychiatrists may consider CTOs ineffective in maintaining unwell patients in the community. We therefore aimed to explore old age psychiatrists' perceptions and rationale for use of CTO with older adults, focusing on why they do, or do not use CTOs and whether they find them beneficial for patient care.

Method

The study consisted of two stages. Ethics approval was obtained for the study through Staffordshire University and University of Chester. Stage one was a questionnaire survey – completed either online using Qualtrics or in paper. This explored the usage and rationale for use of CTOs amongst old age psychiatrists and how comfortable they felt using CTOs. The responses were analysed using Qualtrics software. The questionnaire was distributed at the Residential meeting of the Faculty of Old Age Psychiatry, Royal College of Psychiatrists.

Stage two comprised one-to-one telephone interviews with consultant psychiatrists working in four different English geographic regions and one working in Wales.

Participant information sheets and consent forms were emailed to participants in advance and consent was checked before each interview. A total of 12 interviews were undertaken; 11 interviews were recorded, one participant preferred the researcher to take notes. The recorded interviews were transcribed for analysis, which began after the first interview was completed. Interviews were conducted until data saturation was achieved, i.e. no new information emerged from the interviews.⁸

The interview transcripts were analysed thematically; data was compared across interview transcripts, facilitating identification of commonalities and differences within the interviews, which were integrated into categories. The interview transcripts were then evaluated by the principal researcher, who as an old age psychiatrist drew on her professional knowledge and experience to strengthen the validity of the analysis.

Results

Quantitative results

Fifty-four questionnaires were returned. Job roles of the participants are given in Table 1. Information on the use of CTO with older adults is given in Table 2. There were missing data for some of the questions, so the number of responses obtained varies between questions.

| Table 1: Participant job roles | | |
|--|----|----|
| Role | n | % |
| Consultant psychiatrist | 39 | 72 |
| Specialty Trainee in psychiatry (Year 4 – 6) | 8 | 15 |
| Staff grade and associate specialist | 6 | 11 |
| Core Trainee in psychiatry (Year 1 – 3) | 1 | 2 |

Respondents had worked in old age psychiatry for between six months and 15 years with the majority working in the discipline for over five years. The respondents included consultant psychiatrists, trainees and middle grade doctors in Old Age Psychiatry.

About half (51.9%, n=28) of respondents had used CTOs with an older adult and 55.6% (n=30) said they felt comfortable using CTOs with older adults. Of those who had used CTOs (n=28) only 7.1% (n=2) had used CTOs with more than five patients.

Respondents were asked their actual and potential reasons for using CTO. The main reasons for using CTOs were: risk to self, 71.4% (n=20) and risk to others 67.9 % (n=19). Other reasons (n=8, 32%) for use were: self-neglect, disengagement with services, non-compliance and lack of insight about their illness.

Twenty-eight respondents provided potential reasons for using a CTO; the main reasons were, risk to others 96.4% (n=27), risk to self, 85.7% (n=24). Other reasons (n=9, 32%) were non-compliance, deterioration of mental health, risk of wandering and history of abuse.

Common diagnoses for considering a CTO were depression (n=2, 7.1%), schizophrenia (n=8, 28.6%),

bipolar (n=10, 35.7%) and dementia (n=4, 14.2%). Proportion of respondents who said that they would use a CTO with patients with dementia was 16.4% (n=9).

Qualitative results

Four thematic categories emerged during qualitative data analysis; these were: patient profile, influence of age, CTO and dementia, and pros and cons of using a CTO. The following section explores each category in more depth.

Patient profile

Results of one to one interviews with old age psychiatrists about the profiles of patients for whom a CTO is appropriate were consistent with the questionnaire findings. CTOs were viewed as being suitable for people with relapsing and remitting conditions that can be effectively treated, but who were non-compliant. This view was held by psychiatrists who had or had not used a CTO:

“Normally it would be people who are on depot medication who respond well to medication but who have poor insight and don’t want to continue on the medication. And will often have had lots of relapses related to non-compliance”.

Risk to self and/or others was considered an important trigger for using a CTO with an older adult:

“... it would be somebody with an enduring mental illness, an illness that responded to a particular treatment. It has to be a risk associated with that illness, so either a risk to themselves, a risk to others, or a risk of deterioration.”

These patient profiles indicate that respondents understand and are able to apply legislation appropriately. However few actually utilised CTOs with older adults, suggesting a disconnect between theoretical knowledge and practice.

Influence of age

No respondents cited chronological age as influencing their decision-making about using CTOs; most stated they felt comfortable using CTOs with older people. We felt that a stereotype regarding older people may be emerging from the interviews; the perception that older people are easier to manage and more compliant than younger people; however this needs further investigation.

“...certainly I think people’s perceptions of older people is that by then you can’t be that troublesome or that difficult to manage that you need to have a CTO.”

Additionally, older people were viewed as having family who ensure compliance with treatment:

“... So it’s around compliance issues, availabilities for examinations, availabilities for reviews, those sorts of things tend to be a bit better. I think that’s largely coordinated by family members as well, which helps the over 65s..”

Table 2: Old age psychiatrists use of CTO with older adults

| Variables | Response | Categories | n | % |
|---------------------------|----------|--|----|------|
| Consultants | 54 | Used CTO | 28 | 51.9 |
| | | Comfortable using CTO | 30 | 55.6 |
| | | With >5 patients on CTO | 2 | 8.3 |
| | | With <5 patients on CTO | 22 | 91.7 |
| | | Would use with dementia | 9 | 28.1 |
| | | Considered CTO when using Section 17 leave | 17 | 51.5 |
| Patient age range | 23 | 65 - 74 | 16 | 69.6 |
| | | 75 - 84 | 7 | 30.4 |
| | | 85 and more | 0 | 0.0 |
| | | | | |
| Diagnosis* | 23 | Depression | 2 | 8.7 |
| | | Schizophrenia | 8 | 34.8 |
| | | Bipolar | 10 | 43.5 |
| | | Dementia | 4 | 17.4 |
| | | Other | 1 | 4.3 |
| | | | | |
| Actual reason for use* | 25 | Risk to self | 20 | 80.0 |
| | | Risk to others | 19 | 76.0 |
| Potential reason for use* | 28 | Risk to self | 24 | 85.7 |
| | | Risk to others | 27 | 96.4 |

* More than one response per patient could be selected

This may provide insight into why respondents although clearly aware of the appropriate criteria for using CTOs, used them less frequently with older people.

Clinical reasons for not using CTOs with older adults were also cited, i.e. they were less likely to present with acute problems and pre-existing conditions may have “burnt out”, negating a need for intensive treatment or follow up:

“You do have a few of the old, some, if it is schizophrenia, it’s not as severe as it would be in younger people. It would have stabilised by then to some extent.”

CTOs and dementia

CTOs were perceived by the majority as inappropriate for use with a diagnosis of dementia alone but appropriate for use with co-morbid mental health conditions:

“Say if you have schizophrenia or bipolar or another functional illness and you developed dementia as well and there were relapses in your illness, that’s a potential possibility.”

The issue of mental capacity to make decisions in patients with dementia was a key factor for which a majority of respondents asserted that other legislation may be appropriate.

“...the whole purpose of CTO is the patient should be able to understand the purpose of being on a CTO. If a person has got early onset dementia or an organic illness, maybe they are unable to understand the purpose of the CTO ... there could be doubt regarding their ability to understand what a CTO really means.”

This highlights dissonance regarding capacity to consent to treatment; as an individual with schizophrenia may lack capacity to consent to treatment as much as one with dementia. However, no respondent highlighted this, perhaps suggesting inconsistent application of legislative criteria across patient groups.

Only one respondent had used a CTO with dementia; finding it useful:

“...mostly in patients with fronto-temporal dementia whom we felt were a risk to themselves or others ... it worked very well for a couple of years then obviously we’ve taken them off the section because they are more impaired and deteriorating... So the risks were well managed in the CTO for that period.”

The pros and cons of use of CTOs

Respondents highlighted some benefits from using CTOs. These linked to the patient profile, since respondents perceived CTO as addressing issues with non-compliance and engagement with services, thereby preventing admission and facilitating speedy intervention when necessary:

“I think the benefits are: we are ensuring the safety of the patient in the first place and we are also ensuring that they are taking their medication regularly not only for mental but also the physical aspects as well. ... A great benefit of it is that they are still able to stay at home rather than restricting them to care homes or nursing homes.”

CTOs were also perceived as having an all-inclusive impact, helping families by facilitating earlier intervention than other legislation:

“...thinking about the patient holistically, is that it has been helpful for the families. So for example, I’ve had patients’ relatives who have said to me ‘do you know it’s great that she’s on a CTO because I know when she’s unwell we don’t have to go through the distress of setting up a mental health act assessment, several people coming to see my mum’... and it’s a lot easier, the process is a lot easier’.”

“Two of them (CTOs) I have done recently both of them (patients’ families) are very pleased with the way things are happening because they are effected in a big way by the patient’s condition as well. So they are more confident now and they are actually pleased that we are going in regularly and just making sure he is fine and he has also improved and is allowing the family to go in and have a decent conversation with them as well. So there are lots of positive things for the family.”

Thus respondents’ argument regarding the use of CTOs was coherent as patient profiles and the perceived benefits of CTO were interrelated. Nevertheless, consideration should be given to whether the needs of the patient or their family were being prioritised.

A small number of respondents identified negative issues with using CTOs. Some felt CTOs were superfluous:

“I have never used them because if you use section 17, that allows you to send patients on leave and to review. And that’s efficient. You don’t need to do anything else.”

Others were concerned that the restrictive nature of the CTOs could result in patients feeling disempowered and affect the therapeutic relationship, especially rapport with patients, which was deemed essential with older people:

“One of the things, I feel is negative of CTO’s, we lose the rapport with the patient, especially this is more prevalent in old age where there needs to be a rapport between the treating team and the patient.”

This perception that rapport between patient and clinician is more important with older adults may be further indication of stereotypes associated with old age (see category 2 “influence of age”).

Discussion

To the best of our knowledge, it is probably the first study to specifically examine the use of CTO with older adults. A number of issues emerged from the analysis. It was noted that among older adults, the use of CTOs was not diagnostically different from that with younger adults. The questionnaire responses indicated that the most common diagnoses for choosing CTO would be bipolar disorder and schizophrenia.

The mixed method approach facilitated data triangulation, between the qualitative and quantitative data, strengthening the research findings. Interview and survey

results regarding the most appropriate use of CTOs concurred, i.e. with people with relapsing and remitting conditions, who are non-complaint with medication, and/or not engaging with services, and for whom there is an effective treatment.

CTO use (and generally MHA provisions) is not strictly based on diagnoses. Moreover patients with dementias have varying presentations, thus cannot be grouped into one category based on risk and need. Although, old age psychiatrists see a significant number of people with dementia, anecdotal evidence suggests that the use of CTOs in this population has been limited. Our study concurred as only one psychiatrist had used CTO with dementia patients, both of whom had fronto-temporal dementia. While age per se was not openly identified as a reason for non-use of CTOs, most interview participants perceived their use was not helpful with dementia. Furthermore, they suggested that using CTO legislation was not always appropriate for older adults, some preferred utilising section 17 leave for long periods as reported by Burns and Molodynski.⁷ This is in contrast to the report by De Ridder et al where 58% of respondents proposed that CTOs were more appropriate than section 17 leave.⁹ However, this study was conducted with psychiatrists working with adults rather than with old age psychiatrists, which may explain the differing approaches.

Our study was conducted before Cheshire West and Chester Council case law¹⁰ came into play, which provided clarity on the issue of deprivation of liberty and provided a simple test to decide if an individual is deprived of their liberty. We acknowledge that this may change the use of the Mental Capacity Act and MHA by old age psychiatrists and in turn may influence their use of CTOs in dementia patients. Mental capacity to make decisions on accepting, understanding and signing for the conditions of CTO laid down by the responsible clinicians is the key. Nonetheless, the interviews found the two patients with a diagnosis of dementia were successfully managed for a limited time using CTOs.

It is probable that under provisions of the Mental Capacity Act and Deprivation of Liberty safeguards, a considerable proportion of people with dementia may already reside in a 24-hour supervised environment; and in such cases CTOs may not be an appropriate option. Some consultants in our study perceived older people as compliant and as having input and support from their families, thus CTOs were not deemed necessary. We propose two possible explanations for this perception. Firstly, older patients did have support from their families who ensured that they complied with treatment, or secondly, this perception was not based in evidence and is a stereotype of older people. Further research is necessary to resolve this conundrum. We also found some evidence that families’ interests may be superseding those of the patient when a CTO is applied as highlighted in the section labelled pros and cons of CTOs. Heun et al noted that this is an area for concern suggesting that it may result in inappropriate use of CTOs.¹¹ It may be highlighted that Heun et al commented this on the adult population and our research focuses on older people;

however this is interesting as it may suggest that families' interests are given priority irrespective of the patient's age. This is a key ethical issue which warrants further research.

It must also be highlighted that a new case law has emerged where deprivation of liberty without proper legal sanctions has raised concerns; hence there is a view that the use of MHA legislation may increase significantly which may be potentially through the use of CTOs. Law commission has also recently published its final report on mental capacity and deprivation of liberty safeguards in March 2017;¹² and is now waiting for the government response to its proposals. The report urges the government to review Mental Health law in England and Wales with a view to possible introduction of the mental capacity based care and treatment for mental as well as physical disorders (fusion law). However, this was not the specific focus of the current study so a detailed discussion of the area is not included in this paper.

Limitations

We acknowledge that this is a pilot study and further work is essential to fully identify the differential reasons for placing older people under CTOs compared to younger adults. There may be recall biases which can create potential problems with this type of study where questionnaire surveys are involved. The number of consultants who participated in the interviews was small. However, data saturation was achieved after 11 interviews, which suggests that the consultants hold similar opinions about using CTOs with older people. Moreover some older adults with functional illnesses, under a CTO, may be under the care of general adult psychiatrists. This may explain the lower use of CTOs reported among old age psychiatrists and should be explored further.

Conclusions

CTOs were introduced into the England and Wales despite unconvincing international evidence for their effectiveness.⁷ This research explored views of old age psychiatrists on use of CTOs. The findings indicate that old age psychiatrists in this study did not feel CTOs are necessarily effective or appropriate for use with older adults. There was evidence that stereotyping of older people may be affecting the use of legislation, however before drawing definite conclusions this issue must be investigated in a greater depth. Many key themes which emerged in this study warrant for further research as the use of CTOs in older adults remains a challenging and under-researched area.

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Competing interests: The authors have declared that no competing interests exist.

Received: 10 April 2017; **Revised:** 22 May 2017; **Accepted:** 24 May 2017

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Citation: Bhattacharyya S, Bailey J, Khan F, Kingston P, Tadros G. Views of old age psychiatrists on use of community treatment orders in ageing population in England and Wales - a pilot study. *Journal of Geriatric Care and Research* 2017, 4(1): 22-27.

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Short report

Covert administration of medications in old age psychiatry: a reflection

Socorro Barreto

Abstract

Covert administration of medications is often observed as a controversial practice, which is used in psychiatry over the years, particularly for the management of challenging behaviours of patients without mental capacity. This practice is commonly used in children, persons with learning disability and older adults. As a group of patients, older adults with dementia receive covert medications most frequently. This report is a reflection of common case scenarios in the old age inpatient wards, and discusses relevant current literature on the practices of covert administration of medications and best practice guidance on the use of covert medications within the legal framework of the UK.

Key words

administration, covert, guidance, medication, mental capacity act, mental health act, old age

of the covert administration of medication are discussed, through illustration of typical clinical scenarios.

Clinical scenario: an illustration

In recent years it has become common practice on the old age psychiatry wards to prescribe covert medications to inpatients. To highlight the practice, it may be better to describe a typical clinical case scenario.

A common example would be a patient with severe dementia along with BPSD which include a range of psychopathologies and unsettled behaviour including agitation and aggression.

In this type of challenging situation clinicians depend upon detailed clinical history and risk assessment. They use various non-medicinal strategies to deal with the situation e.g. distraction, time out etc. If the patient is in pain or discomfort, constipated, having a urinary tract infection, chest infection etc. these are addressed.

However, if all the psychosocial options are exhausted or are not practicable then medications are considered, in a biopsychosocial approach. Before prescribing any medication, patient's capacity to consent for this form of treatment are checked. Most of the patients with advanced dementia may lack capacity to consent to treatment and the decision to prescribe medications is made in their best interest.

Covert administration of medications can only be done in situations where the patient lacks capacity to consent to treatment. Prior to prescribing medication for covert administration, clinicians go for a best interest meeting involving multidisciplinary team members and family members. If the family or carers are not available, then an independent mental capacity advocate (IMCA) is allocated to the patient. The need for covert administration of medications is discussed and the decisions is made in the best interest of the patient taking into account their wishes, values and also the wishes of family and carers. It is checked if there is a court appointed deputy or lasting power of attorney (LPA) in place; and in such scenarios, they are consulted if appropriate.

Introduction

Covert administration of medications, also known as concealed or surreptitious use of medications, is a debatable practice where medication is given to patients without their knowledge or consent, hidden in food or drink. Medication given covertly to patients who have mental capacity is considered unethical, though this practice of covert administration is described in literature, particularly for patients suffering with schizophrenia where capacity may fluctuate.¹

Patients with learning disabilities and children are sometimes given covert medications but the largest group who are subject to covert medications are older adults with dementia. Most of these patients are voluntary residents of nursing and care homes. Patients with dementia and behavioural and psychological symptoms of dementia (BPSD) are often given antipsychotics covertly to reduce agitation, aggression and other distressing symptoms.² These practices are done in good faith to help the patients, however these are debatable issues and greater clarity is required. In this report, various aspects

The suggestions from the pharmacists are taken whether it is safe to crush the relevant tablet or whether there is a liquid preparation available for the medication which will make it easier to administer it covertly in food or drinks.

Regular reviews are conducted about mental state, risks, side effects, capacity to consent to treatment and above all the need for continuation of covert administration of medications.

The decision making process and the clinical progress are documented. Specifically the lack of capacity to consent to treatment and the decision to administer medication covertly in the patient's best interest are highlighted.

Discussion

Information on practices in the UK and elsewhere

A review suggested that a considerable proportion of nursing homes (43-71%) were administering medicines in food or drink; and 1.5-17% of patients received medications covertly.³ About 12% of inpatients at a tertiary referral centre received covert medications.³ Information on the use of dose-form modification (crushing tablets or opening capsules before mixing with food or drink) ranged from 11-31%.³

Severe cognitive impairment, learning disabilities, low level of functioning in activities of daily living, agitation, aggression and in receipt of antipsychotic medications are factors associated with the use of covert administration of medications.^{4,5} Very few studies have provided data on the type of medications given covertly. In a study done at a tertiary referral centre, antipsychotics followed by anxiolytics and hypnotics were the most frequently prescribed classes of medications administered covertly.³

The practice was documented in patients' notes in 40% of patients in Norwegian nursing homes and 66% in follow up study by the same group,^{4,5} 46% in UK tertiary referral centre³ and 66% in Scottish nursing homes inspection.⁶ The nurse in charge made the decision to administer covert medication in 63% cases while the prescriber made this decision in 20% cases.⁴ In a study conducted at tertiary referral centre, it was observed that covert medications had not been authorised by the prescriber on medication chart in 31% of cases.³

In a survey of 50 carers of dementia patients in the community, 98% carers supported the use of covert administration of medications to relieve severe mental distress and 10% reported administering medications covertly in foodstuff at least weekly to their relative.⁷

Pros and cons of covert administration of medications

There is a case both in favour of and against the use of covert medications. The potential advantages of using covert medications include treating severe mental illness early and preventing further deterioration of mental health, managing serious clinical risks and costs associated with delay in treatment. Covert medications

can also prevent the need for physical restraint and forcible administration of injectable medications.

The disadvantages of covert medications include denying the patient an opportunity to gain insight into their illness. It may serve to reinforce their view that illness is not present and they do not need to take any medications. It is sometimes seen as a cheap way of managing inadequate staffing levels. This practice exposes hospitals and clinicians to litigation. Patients may become angry and refuse further treatment if they learn that their trust was betrayed. Covert administration of medications may also run the risk of overlooking research and stop clinicians from understanding the actual reasons for non-compliance in the first place.⁸

Legal framework for use of covert administration

Informed consent is required to administer any treatment to a patient; and to provide this informed consent the person should have the mental capacity to do that. The legal framework of the country concerned must be adhered to whenever we impose treatment on a person. In England and Wales mental disorders but not physical disorders can be treated using the Mental Health Act (MHA), 1983, amended in 2007. Patients who are not admitted under MHA, but who lack capacity can be treated using the Mental Capacity Act (MCA), 2005. The majority of patients with dementia who are administered covert medications (which often includes medications for physical disorders as well) are residents of nursing homes and involuntary treatment under MHA does not apply to them.³

There is paucity of literature on the legal framework for covert administration of medications outside the UK. There are only a few published studies on the use of covert medications; collection of data has been non-standardised and there is scarcity of information about this practice in other countries.³ In India, it has been commented that while the section 19 of Mental Health Act 1987 allows admission of mentally ill persons, under certain special circumstances, there is no provision under this act that permits covert administration of medications. The need to 'regularise' practices like covert medications by having appropriate provisions in the Mental Health Act legislation in India has been highlighted.⁹

Mental Capacity Act in England and Wales

In England and Wales, the MCA came into force in 2007. It is designed to protect and restore power to those vulnerable people who lack capacity. The MCA is underpinned by five key principles; 1. An individual must be assumed to have capacity unless proved otherwise. 2. An individual should not be treated as unable to make a decision unless all practicable steps to help him to do so have been unsuccessful. 3. An individual is not to be treated as unable to make a decision merely because they make an unwise decision. 4. An act done or decision made under the Act for or on behalf of an individual who lacks capacity must be done or made in their best interest. 5. Before an act is done or decision made, due regard

must be given for the purpose of the act whether it can be effectively achieved in a less restrictive way to the individual's rights and freedom of action.^{10,11}

Assessment of capacity is usually undertaken where a person is unable to make a particular decision at a particular time because their mind or brain is affected by illness or disability. To assess a person's capacity to make a particular decision one must satisfy the 2 stage test of capacity.

Stage 1. Diagnostic test - Is there an impairment of or disturbance in the functioning of a person's mind or brain?

Stage 2. Functional test - As per MCA a person is unable to make their own decision if they cannot do one or more of the following four things: 1. Understand information relevant to the decision. 2. To retain that information long enough. 3. To use or weigh up the information as part of the decision making process. 4. To communicate their decision (by talking, sign language or any other means).¹²

Pharmacy issues in covert administration

To administer medication covertly, it is often required to crush the tablets or open the capsules before mixing with food or drink; it is easier when a liquid form is available. This practice is called dose form modification and is extremely common. This practice of dose form modification can render extended-release formulations to short-acting and can lead to untoward reactions and side-effects; although in practice adverse events are rare.¹³ Crushing tablets should always be authorised by the prescriber who should consult a pharmacist. They should ensure that there is no liquid preparation available and that dose form modification is safe.³

Clinical practice guidance

Covert medication cannot be given to someone who has capacity to make decision regarding their medical treatment. So the first step in the process is to assess the capacity of the person to make a decision regarding their medical treatment. Where covert medication is deemed as the most appropriate option then the following principles should be seen as good practice: covert administration should be used as a last resort when all the other options have been tried and is the least restrictive. It should be medication specific and the need for each medication prescribed should be identified. It should be time limited and should be used for as short a time as possible. The continued need for covert administration should be regularly reviewed within specified time scales and also the person's capacity to consent. The decision making process should be transparent and clearly documented. The decision making process should involve discussion and consultation with all carers and professionals involved in patient's care and should never be made alone. All the decisions must be made in the persons best interest with due consideration to the holistic impact on the person's health and well-being.¹⁴

It is very important to do a detailed clinical and risk assessment before considering covert medications. Best practice guidance suggests a 6 step care pathway for the use of covert administration of medications; assessing mental capacity, best interest decision, the suitability of the medication, record keeping, practical points like maintaining dignity, respect, accountability etc. and review of continued need.¹⁴

Conclusion

The key learning from this reflective exercise is that doctors and other clinical staff require education and training about the legalities and practicalities of covert administration of medication. Good record keeping in case notes is essential. The best practice in administering covert medications is to have a full consultation with the multidisciplinary team, relatives and other interested parties and within the appropriate legal framework.

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Competing interests: The author has declared that no competing interests exist.

Received: 12 April 2017; **Revised:** 21 June 2017; **Accepted:** 24 June 2017

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Citation: Barreto S. Covert administration of medications in old age psychiatry: a reflection. *Journal of Geriatric Care and Research* 2017, 4(1): 28-31.

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Care facilities for elderly people in Odisha

Namita Rath, Prasanta Kumar Biswal, Susen Kumar Panda

Introduction

Like most parts of the world, there is growing concern about the care perspectives of an ever increasing population of elderly in India.¹ While progress is visible in the health care sector in general, however it is mostly targeted for urban, working age adults and children. Supporting systems for older people is still at a rudimentary level in most part of the country. Although the awareness of the need is gradually expanding, the extent and gravity of the current situation remains mostly unclear.

There are many specific programmes, policies and laws which have been put into place in recent years. It remains to be studied how far those initiatives have made any changes in the lives of the elderly. In this article, supporting programmes in India are mentioned with specific discussion about the state of care facilities in Odisha, an Eastern state of India.

Supportive programmes for elderly

Central and State Governments in India have established various programmes for the welfare of the elderly in recent years (Box 1). These actions are providing some framework to ensure financial, health and social support to the vulnerable older persons, to protect and empower them with options.

Box 1: Government initiatives

Maintenance and Welfare of Parents and Senior Citizens Act of 2007.²
National Policy for Older Persons (NPOP), 1999.³
Indira Gandhi National Old Age Pension (IGNOAP)⁴
Indira Gandhi Widow Pension (IGNWP)⁴
Indira Gandhi National Disability Pension (IGNDP)⁴
National Family Benefit Scheme (NFBS)⁴
National Programme for Healthcare of The Elderly (NPHCE)⁵
Integrated Programme For Older Persons (IPOP)⁶
Senior Citizens' Security Cells (SCSC)

Status in Odisha

According to the 2011 Census, 9.5 per cent of Odisha's population consists of the people over 60, compared with 8.6 per cent in India.

Besides higher proportion of elderly population the situation is compounded with greater vulnerability of the population due to various other factors. Odisha is home to frequent natural disasters, which affects its economic status. It is no wonder that most of the elderly are financially compromised; most of them do not have work related pensions or government support. Reportedly almost 80% of elderly continue to work for their subsistence; figures are higher for rural areas (81.2%) compared with that of urban areas (65.5%).⁷ This leads to dependence on others and poverty.

It is known that older persons are vulnerable for abuse, emotional, verbal, physical, and neglect. These are reported to be common in Odisha too.^{8,9} A survey conducted by United Nations Populations Fund, reported that one out of ten people above 60 years of age experience abuse in Odisha.⁷ These abuses are not reported usually; older persons downplay or hide these incidences as it is elsewhere. It is good to learn that there are Senior Citizens' Security Cells (SCSC) in certain police station areas in Odisha, to provide support and security to older persons.¹⁰

Health care for the elderly

Older people are more prone to physical and mental health problems. A range of health care facilities are available in Odisha e.g. the state-funded primary and secondary care including tertiary level hospitals which caters to the general population; in addition, many private hospitals are available mostly in cities. There have been initiatives to open specific health facilities like geriatric outpatients and wards in hospitals; however these are still to make an effective impact at ground level for the larger population throughout the state.

Day care and old age homes

There are many old age homes and day care centres in Odisha which have been established and are primarily being run by Non-Governmental Organisations (NGO), however there are hardly any in Government Sector. Most of these homes are operating in only a few districts. It is apparent that the present number of old age care homes is not enough for the state.

While the facilities are available in neighbouring states, accessing old age homes in other states is fraught with

moving away from native place and relatives, language barrier, and possible cultural differences. Besides, within the state, most facilities are available in the cities and towns, and there is hardly any in villages where most elderly people live.^{11,12} Poor infrastructure and lack of professional carers,¹³ especially in small towns and villages are other reasons. It appears obvious that more number of old age care centres should be established locally, to meet the needs of the elderly closer to home.

Factors affecting care of elderly

Joint family system which was common in India and the elderly enjoyed a respectable position in the family is now disintegrating gradually into nuclear units;¹⁴ the position of the elderly in the household has also eroded. Caring for the old parents, unfortunately, has been considered as a burden by many, both physically and economically.

Many elders live alone in their homes; a common reason for this is the job-related moves of their children which take them away from home. Most of the young people have to go out of home to other states, even abroad for work. Often parents do not accompany children as they cannot cope with the living away from their home in the old age years, they cannot adapt to the lifestyle and the language elsewhere. Often it is also difficult to adjust to the working routine of their children. So in most situations, elderly parents are left at home in the home state, while children move on. This leads to increased concern for their wellbeing and safety which is shared by both the older persons and their children.¹³

Safety of the older persons is a major issue these days. Living alone in their homes may be worrisome; so many family members consider that staying in old age homes would be better for the elderly. Besides there is an issue of access to health care; although services are available, accessing them in right time may not be possible by elderly living alone, especially in far away villages. Many factors such as lack of interest, hopelessness and financial hardship, and even physical mobility issues may play a role.¹² People consider that old age homes may be better as they will take care of these aspects.

Conclusion

There is a growing concern of managing the old age related issues in developing states like Odisha. There is a need to provide greater emphasis on this by the government, NGO, including the family and elderly themselves. Financial security in old age is to be looked into and the process should start much earlier in life. Although it may be still difficult for many, available support from government may be explored. Financial independence of the elderly people is an essential aspect as the economic security will also enhance their decision making power in the family.

Specific facilities for geriatric health care are needed. These should be available in the community rather than only at tertiary level of health care system.

There should be a process of assessing the possibility of abuse and means to prevent this from happening in the first place. Support systems for the abuse victims should be robust.

Old age homes for elderly people should be a later option when other options and care at home are not possible. However to achieve this, proper evaluation of care needs and multi-agency support to address these in the homes and locally are essential. In addition, as a proportion of older people will need care in an old age home setting, there is a felt need for more such facilities in the state, with good quality services.

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Competing interests: The authors have declared that no competing interests exist.

Received: 25 May 2017; **Revised:** 27 June 2017; **Accepted:** 28 June 2017

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Citation: Rath N, Biswal PK, Panda SK. Care facilities for elderly people in Odisha. *Journal of Geriatric Care and Research* 2017, 4(1): 32-34.

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Creative Expressions

Shanti

Kailash Chandra Meher



This picture depicts struggles and turmoil people go through their whole life, bringing in stress and strain. In the process, often successes are beclouded with worries and anxieties, little joys of life are lost; and in the pursuit of achieving certainty in future, the present is sacrificed. People keep searching for peace (*Shanti*); however, it remains elusive mostly. Some people probably realise it through greater understanding of self, spirituality and having a philosophical attitude.

Artist information: Kailash Chandra Meher. Artistic Style: Contemporary modern art and traditional Tussar Pattachitra paintings of Odisha. Recipient of Padma Shri Award by the Government of India.

Correspondence: Kalabhavan, Rajendra College Chowk, Bolangir, 767002, Odisha, India. Email: meher1954@gmail.com

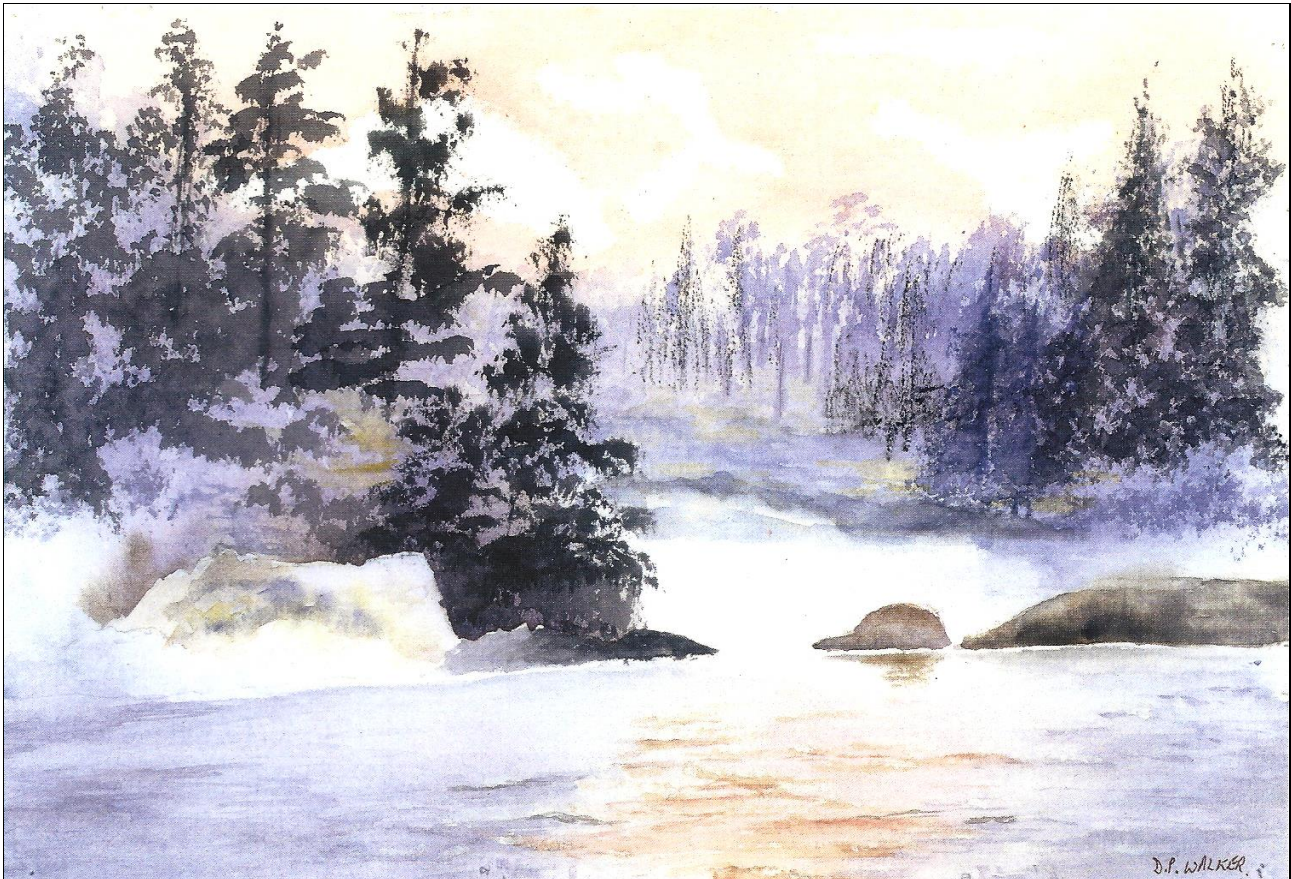
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Citation: Meher KC. Shanti. Journal of Geriatric Care and Research, 2017, 4(1): 35.

Creative Expressions

Winter lake

Doreen Patricia Walker



Painted in watercolour, this scene, after an original by Gordon McKenzie, gives a gentle, peaceful look to winter. It was the subject of a Christmas card I painted two or three years ago after attending a workshop with Stephen Coates.

My interest in painting started when my physical activities became limited and it has encouraged

concentration in developing a skill which you can immerse yourself in to create something tangible.

Artist information: Doreen Patricia Walker, England.

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Citation: Walker DP. Winter lake. Journal of Geriatric Care and Research, 2017, 4(1):36.

Instructions for authors

Introduction

The *Journal of Geriatric Care and Research (JGCR)* is the official publication of Geriatric Care and Research Organisation (GeriCaRe). The *JGCR* publishes original work in all fields of geriatrics, contributing to the care of elderly. Theme based special issues focusing one aspect of care are also published periodically. Manuscripts for publication should be submitted via email <jgcr.gericare@gmail.com>.

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- drafting the article or revising it critically for important intellectual content, and
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2. Murray PR, Rosenthal KS, Kobayashi GS, Pfaffler MA. *Medical microbiology*. 4th ed. St. Louis: Mosby; 2002.

3. Meltzer PS, Kallioniemi A, Trent JM. Chromosome alterations in human solid tumors. In: Vogelstein B, Kinzler KW, editors. *The genetic basis of human cancer*. New York: McGraw-Hill; 2002. p. 93-113.

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