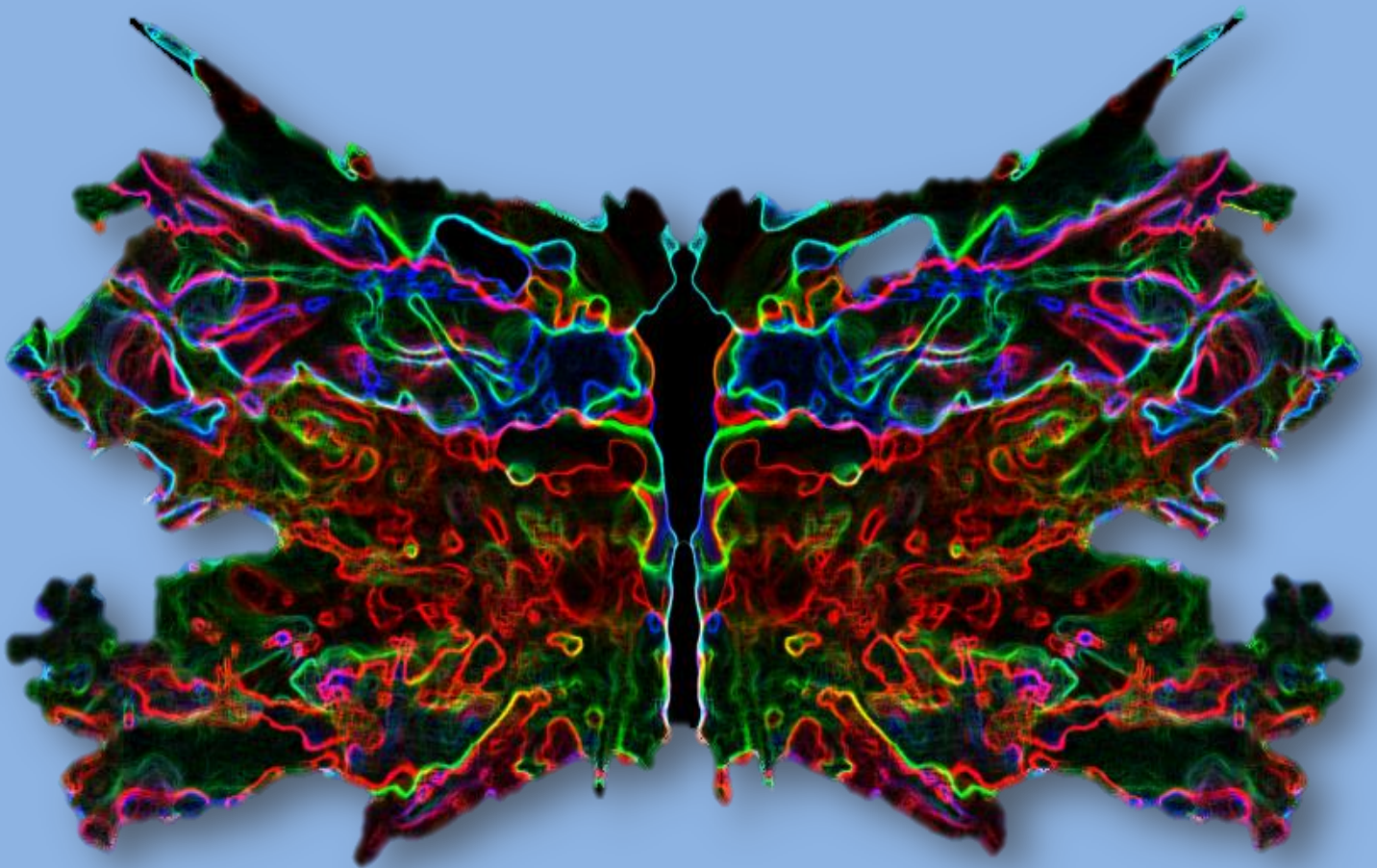


JGCR JOURNAL OF GERIATRIC CARE AND RESEARCH



2014, Volume 1, No 1

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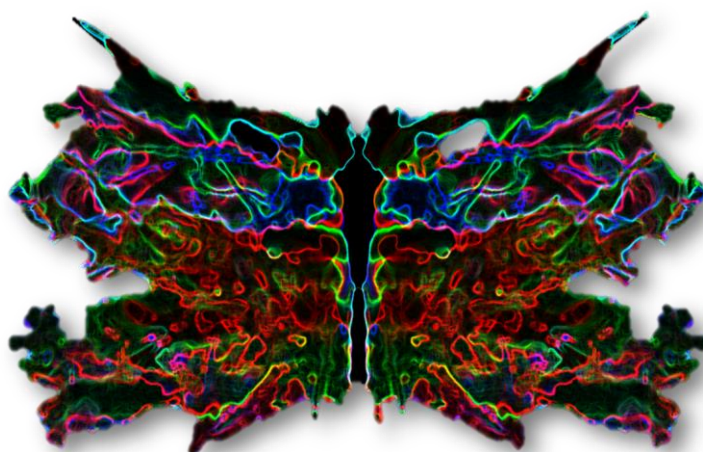
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Cover Reinventing one-self as a butterfly



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Editorial

For elderly, care is the key

Nilamadhab Kar

There is a rapid expansion of the population of older persons in both the developed and developing world. The total worldwide aged population (aged 60 and older) is projected to rise to 1.2 billion in 2025 and to nearly 2 billion in 2050.¹ Both the absolute number and proportion of older people are increasing worldwide.² The ratio of old to young people has already surpassed 100% in many countries.¹ With ever increasing elderly population in almost all countries, the impact on the burden of care is being felt mostly in the developing ones where most elderly of the world live and where the support systems for elderly is abysmally low or non-existent. These populations are in urgent need for support both in the know-how, methods and infrastructure.

As the needs become multifaceted and complex with growing age, care of the elderly population has become a challenge, both for their families and the states. Most of the elderly people are taken care of in their own homes and that remains the wish of most of the elderly and their carers. Care homes cannot provide all the solutions to various issues involved in the care of the elderly; not all elderly can be cared in old-age homes, nor is that an option for the most. Whether in their own homes or care-homes, there are complex care issues that need to be dealt with.

While there is a lot of know-how and information about the care of the elderly available, these do not necessarily percolate to the carers and professionals in many parts of the world, and the disparity is rather obvious. The new journal wishes to bridge the gap and share the knowledge-base. There are many journals on the subjects e.g. geriatrics, gerontology, geriatric psychiatry and related themes. Is there a need for another journal? The concept behind the Journal of Geriatric Care and Research is to provide evidence based knowledge specifically about the 'care of elderly' for the older people, their family members, carers, clinicians and professionals.

The journal also intends to encourage publication of research on care of the elderly, which are cost-effective, culture appropriate and acceptable. While there are more research on the elderly and their issues being conducted in Western or high economic countries, it is much less in low and medium economic countries where most of the older people of the world live. There are interesting examples of encouraging and supporting collaborative

research in the developing world;³ and that trend should continue in different areas of care of elderly. A multidisciplinary emphasis is essential while discussing holistic care.

There are many areas that are expected to be the focus of this journal besides the care per se. These could be the good practice in care, standards of care, end-of-life care, care for various specific conditions, disorders or disability, elder abuse, legal aspects, etc. There are specific issues related to the elderly who live in rural or urban areas, alone or with family, old-age care homes and several specific situations. Cultural and ethical issues are important aspects of care and these are expected to be covered. Most sublime objective of the journal is to empower the carers with the knowledge-base, improving the quality of care for the elderly.

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Citation: Kar N. For elderly, care is the key. Journal of Geriatric Care and Research, 2014, 1(1): 1.

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Review

Cultural practices in India towards healthy ageing

Raveesh B N

Abstract

Culture involves sharing values, traditions and lifestyles within a group or community. The study of culture contributes to our understanding of human behavior and mental processes. Culture changes continuously and dynamically through the generations in response to environmental demands. Culture affects the construction of clinical reality in five ways: 1. Culture-based subjective experience. 2. Culture-based idioms of distress. 3. Culture-based diagnosis. 4. Culture-based treatment and 5. Culture-based outcome.

In India it used to be common for couples to have large families in order to ensure survival and care of the elderly. Economic conditions support the cultural values which greatly influence family size. The Indian Vedic inscriptions gave deep thoughts to the problems of old age and evolved a social order, which provided security and respect to the elders. The Upanishads cryptically and the Puranas at length support the four-fold ashram system. The Smritis of Manu and others describe the ashram and Varna systems in their religious instructions.

A society is most likely to increase in vitality, prosperity and strength, when the beliefs, institutions and individuals by which it is ruled, join to offer fair levels of respect, security, education, opportunity, liberty and peace to people at all of its levels. Cultural adaptation, changes in customs and traditions, reinforce genetic adaptation to promote lifestyles which are thought to enhance health. This paper tries to utilise this old knowledge to a wholesome form that can be adapted for recent times.

Key words

Hindu Culture, Health, Aging

Introduction

This is truly the age of ageing. We are on the leading edge of a demographic and health revolution which will globally reshape almost all aspects of life, such as perceptions of the life cycle, the organization of health care systems; intergenerational relations; the nature of family life; the structure of communities and attitude towards death.¹

Culture involves sharing values, traditions and lifestyles within a group or community. Our *customs* are the ways in which we do things in our everyday life. Often these are determined by tradition, or the historical ways we have developed of doing things. People who share a culture tend to associate with each other. The degree of commitment to cultural values varies from person to person and is particularly influenced by age, gender, social layer and peer group influences.²

Health implications of culture

In many cultures health is not attributable to human intervention but is seen as an act of God or spirits. Cultural adaptation, changes in customs and traditions, reinforce genetic adaptation to promote lifestyles which are thought to enhance health. In India it used to be common for couples to have large families in order to ensure survival and care of the elderly. Economic conditions supported the cultural values of which influenced family size. Unwanted isolation appears to be a common problem for many elders, irrespective of cultural background. Traditional cultural practices do not negatively affect the health and functioning of older individuals.³

Old age & Indian culture

The Vedic rishis gave deep thought to the problems of old age and evolved a social order, which provided security and respect to the elders. On one hand dharma (religion) emphasized worship and service of the parents and grandparents with love and reverence and on the other the elders were encouraged to leave their homes to become Vanaprastis and Sanyasins and specific duties were laid out for them.⁴

The ancient Indian texts about the way of life (Ayurveda) explain the method of rejuvenation treatment which is like another nectar, having incomprehensible miraculous effects, promoting life span, providing health, sustaining youthfulness, relieving sleepiness, drowsiness, exertion, exhaustion, lassitude and debility, restoring equilibrium of the doshas, bringing stability, alleviating laxity of muscles, kindling the internal fire and producing of excellent luster, complexion and voice".⁵

The objectives of life Dharma are: - one's duty unto oneself, to the family, society, and nation i.e. one's duty

unto humanity which includes, Artha: - Reaping of the benefits of duty. Kama: - Satisfaction of desires and Moksha: - Attainment of salvation. A healthy long life is essential for the achievement of these four fold objectives which are achieved by the principles of Niyama and Yama wherein, Niyama consists of cleanliness, contentment, austerity, study, and self-surrender to God and Yama consists of nonviolence, truthfulness, nonstealing, chastity or celibacy, and the nonreceiving of gifts.⁶ The qualitative and quantitative balance of the seven basic tissues (dhathus) is essential for maintaining the body in a healthy condition.⁷ In our life span we need to consider the following three stages:

1. Childhood: - The time of maximum nourishment, in which the nourishment of the dhathus takes place. 2. Middle ages: - The generative and degenerative process balances each other in this period. 3. Old age: - In the period of ageing, the degenerative process overrides the generative process. Indian preventive medicine is called Svasthavrtta 'establishing oneself in good habits', and its main principle is that one must reject excess in everything. Harmony and health are possible only when everything in life is enjoyed at the proper moment in the proper amount.

Indian medicinal practice proposes three stages in the quest for good health.^{5,8}

1. Daily routine and seasonal activities to prevent illness.

Daily and seasonal routines try to ensure that the body's needs are satisfied no matter where the mind may roam, since most people are unable to develop this perception which is necessary to know what is happening within their bodies. Neither activity nor rest should be excessive, the body requires moderation in all things. A healthy routine establishes moderation and order in both body and mind. Examples are, to awaken before sunrise, to evacuate bowels and bladder after awakening and to bathe every day to create a sense of bodily freshness and Exercise moderately (preferably Yoga).

2. Purification therapy and medications for diseases

Even after strictly following the above mentioned precautions, it is natural that some toxins may accumulate in the body as a result of various metabolic activities. It is necessary to eliminate these toxins from the body, which the body would be producing to a great extent. But some toxins may still remain in the body and may cause many diseases when their quantity increases beyond a certain limit.⁹ To maintain proper functioning of different body systems and to stay healthy, a regular elimination of these toxins is required. Indian system gives an elimination therapy called 'Panchakarma'.

3. Rejuvenation of the system to enhance health and quality of life.

Another important factor for maintaining good health and staying active even in the old age is called the

rejuvenation therapy. So a healthy person should take rejuvenating preparations to maintain good health and stay young. There are many such preparations available, which can be taken according to the season and ones personal constitution. Good social conduct, morality, good manners and good character are some other factors, which are necessary to stay away from diseases. Thus the Indian system of medicine approaches the complete individual while giving instructions about maintaining the health which in turn helps towards healthy ageing of an individual.

Discussion

Enough is told of periods in which societies grew to prosperity to acquaint us with the wisdom that favours such growth. A society is most likely to increase in vitality, prosperity and strength when the beliefs, institutions and individuals by which it is ruled, join to offer fair levels of respect, security, education, opportunity, liberty and peace to people at all of its levels.

The way we think about health and disease is culturally shaped. As Stewart points out, "The bio-medical model one-culture system of North American health care service is based on the assumption that one can take a piece of a person and mend it, without reference to the whole person, much less the social environment."¹⁰ Good health means more than the absence of disease or illness but rather emphasizes the whole person and the harmonious functioning of body, mind, emotions and spirit.¹¹ This view of health is only now coming to be accepted by the modern health care establishment which was recognized long back in the cultural practices of India which help in health ageing.

Conclusion

"Ageing well has the same basic meaning regardless of a person's cultural background." Civilization – is not what our ancestor has given but also what we follow, maintain & gift to our younger generation. There is richness in Indian cultural practices which at least are modified to modern day conditions so that the basics of healthy living are maintained. "To Age well is to feel whole." A scientific appraisal of such cultural practices can throw light about its importance in modern health care.

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

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Citation: Raveesh B N. Cultural practices in India towards healthy ageing. Journal of Geriatric Care and Research 2014, 1(1): 2-4.

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Research Article

A neuropsychological study of near infrared spectroscopy hemoencephalography neurofeedback treatment in amnesic mild cognitive impairment

TM Dannhauser, T Qassem, S Bhan-Kotwal, KA Saddik, L Lee, Z Walker

Abstract

Background: Cognitive impairment in amnesic mild cognitive impairment (AMCI) appears associated with decreased brain activation in prefrontal cortex (PFC). Near infrared spectroscopy hemoencephalography applied to cortex can be used to provide biofeedback signals enabling voluntary control of brain activation, this is known as neurofeedback training (NT). **Aims:** We conducted a pilot study of NT of the PFC in AMCI in order to establish tolerability and treatment protocols. **Method:** Ten patients completed 12 weekly NT sessions. **Results:** All patients were able to obtain voluntary control of PFC activation. NT was well tolerated and only mild self-limiting headache was reported in two patients. In this small preliminary sample repeated behavioural measures revealed near significant trends for improved immediate and episodic memory and medium effect size for the same variables. **Conclusions:** These initial results indicate that NT of relevant cortical areas in AMCI warrants further investigation.

Key words

amnesia, hemoencephalography, infrared spectroscopy, mild cognitive impairment, neurofeedback, treatment

Introduction

There is increasing evidence that vascular impairment plays a significant role in Alzheimer's disease pathology.¹ Vascular impairment; abnormal cerebral blood flow, metabolism and activation occur in AD and in those with normal cognition who are at increased genetic risk of AD,² along with Amnesic Mild Cognitive Impairment (AMCI).³

The degree of decreased activation in the prefrontal cortex (PFC) is thought to be correlated to the degree of impaired task performance in AMCI.^{4,5}

Regional brain blood flow changes in response to neuronal activation can be measured using non-invasive

bed-side techniques.⁶ Near-infrared spectroscopy hemoencephalography (NIRS-HEG) utilises the differential light frequency absorption of oxyhaemoglobin and deoxyhaemoglobin to measure changes in cortical blood oxygenation, thereby providing a proxy measure of brain metabolism and activity.^{7,8} The technique involves placing light sources (red and infrared) and a sensor some distance apart on the skin overlying an area of interest. Light penetrates the cortex via the skin, skull and brain membranes and scattered light reaches the sensor via the reverse path.

NIRS-HEG can be used to provide real-time biofeedback of cortical activation to a person who can then learn to gain voluntary control of activation in a specific cortical area. This technique is known as neurofeedback training (NT). During NT the individual voluntarily increases and maintains blood flow to a cortical area and this has been associated with symptomatic improvement of some conditions.⁹

We conducted a pilot study to (i) assess the tolerability and feasibility of neurofeedback training in patients with AMCI, (ii) to establish optimal treatment protocols and to (iii) collect sufficient data for a power calculation for a randomised controlled study.

Methods

Patients with AMCI were recruited from the UCL Essex Memory Clinic. All patients fulfilled operationalised diagnostic criteria for AMCI.¹⁰ Detailed psychiatric assessments including history, mental state examination and physical examination were completed for all participants. Routine neuropsychological testing included the National Adult Reading Test (NART), Mini-Mental State Examination (MMSE), Revised Cambridge Cognitive Examination (CAMCOG-R), Logical Memory Test, and Halstead Trail Making test (TMT)

Neurofeedback training

Subjects received 12-weekly supervised NT sessions during which left and right prefrontal cortical sites were trained for 10 min each. Frontal sites were identified as F3 (left prefrontal) and F4 (right prefrontal) of the 10-20

international EEG system. Prior to commencing the treatment, subjects spent five minutes listening to binaural beats in the beta range (16-24 Hz) to encourage a stable repeatable mental state at the end of which a baseline oxy-deoxyhaemoglobin ratio (HEG ratio) was captured. Continuous feedback signals were provided by visual analogue scales and digital readouts of the HEG ratio. Increases in the HEG ratio, as measured against a 30 second delayed moving average, received positive reinforcement. Positive reinforcement comprised of an emotionally neutral film clip with sound that played when the real-time HEG ratio was above the delayed moving average ratio. When the HEG ratio went below the moving average ratio, a monotonous low-pitched auditory tone (200Hz) was presented and the film was paused.

Near infrared spectroscopy

Monochromatic light pulses at two near-infrared frequencies (660nm, 880nm) were emitted on the skin overlying a cortical area and detected 4.6 cm away in a horizontal plane (sampling rate 122Hz). The difference in light frequency absorption between oxy- and deoxyhaemoglobin was expressed as the HEG ratio ($\text{Red} \times 200 / \text{Infrared light at the sensor}$) and used to measure changes in blood oxygenation from which changes in neuronal activation and local blood flow were inferred.

Statistical analysis

Data were compared using dependent t-tests. We conducted an explorative analysis of memory and attention related measures. Effect sizes were calculated for each dependent variable tested.¹¹ Analysis of data was done on SPSS-V14 on Windows-XP.

Results

Eleven patients with AMCI were recruited ten (7 females) completed treatment and one was lost to follow-up. The mean age of the AMCI sample was 64.1 with standard deviation 13.3 years. The mean pre-morbid IQ was 112.1; standard-deviation 9.3.

In total 120 NT sessions were completed and all participants were able to gain control over PFC activation. NT was generally well tolerated. Side effects occurred infrequent, were mild and self-limiting: headache lasting less than 3 hours was reported by two patients after the first training session.

Difference scores (baseline *minus* follow-up) on the cognitive measures revealed improved performance on remote memory, new learning, logical memory immediate and delayed recall, verbal fluency and trail making parts A and B. Larger effect sizes were observed for differences on new learning, logical memory immediate recall and orientation although none of the differences reached statistical significance.

Table 1. Behavioural results following neurofeedback training in AMCI.

T1 –T2 pair	Mean	SD	Lower CI	Upper CI	t	df	p	Effect size
CAMCOG-R	2.11	5.88	-2.41	6.63	1.08	8	0.31	0.36
Orientation	.89	1.54	-0.29	2.07	1.74	8	0.12	0.52
Remote memory	-.33	1.23	-1.28	0.61	-0.82	8	0.44	0.28
Recent memory	1.00	2.35	-0.80	2.80	1.28	8	0.24	0.41
Attention/Calculation	.22	1.09	-0.618	1.06	0.61	8	0.56	0.21
New Learning	-.78	1.20	-1.70	0.15	-1.94	8	0.09	0.57
Logical memory immediate	-6.22	9.27	-13.35	0.90	-2.01	8	0.08	0.58
Logical memory delayed	-3.44	8.29	-9.82	2.93	-1.25	8	0.25	0.40
Verbal fluency	-4.33	11.42	-13.11	4.45	-1.14	8	0.29	0.37
Categorical Fluency	.22	4.02	-2.871	3.316	0.17	8	0.87	0.06
TMTA	-6.78	30.55	-30.26	16.70	-0.67	8	0.52	0.23
TMTB	-16.88	40.12	-50.42	16.67	-1.19	7	0.27	0.41

CI: 95% Confidence Interval

The table 1 shows the difference scores (follow-up *minus* baseline) on cognitive measures indicating the treatment effects of neurofeedback training in AMCI. Scores are mean (SD) and effect sizes.

Discussion

The results from this pilot study indicate that neurofeedback training is feasible, safe and well tolerated in AMCI. We were able to establish a treatment protocol that was well tolerated as indicated by high treatment

compliance rates. No serious adverse effects were reported.

Our explorative analysis of behavioural measures indicates overall trends towards improvement on measures of attention and executive functioning (TMT A and B) and episodic memory.

The results have enabled us to perform a power calculation for a randomised controlled trial. A sample size calculation, based on effect sizes for new learning

and logical memory immediate recall, indicates 27 participants will be required in each treatment arm.

NT of the PFC may improve attention and memory in AMCI and therefore provide an additional or alternative treatment option. The cost, size and portability of the NIRS-HEG device makes NT a practical treatment and our results indicate that it should be investigated to determine its efficacy in improving cognition in AMCI. We now aim to conduct a randomised double-blind sham-controlled NT treatment trial.

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

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Citation: Dannhauser TM, Qassem T, Bhan-Kotwal S, Saddik KA, Lee L, Walker Z. A neuropsychological study of near infrared spectroscopy hemoencephalography neurofeedback treatment in amnesic mild cognitive impairment. *Journal of Geriatric Care and Research*, 2014, 1(1):5-7.

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Short Report

Visual impairment and depression

Ankur Barua, Kumaraswamy Kademane, Biswadeep Das, M. A. Basilio

Abstract

Depression can occur regardless of the level of visual impairment. However, it remains unclear why some people with visual impairment experience co-morbid depression. This retrospective review study was conducted to address this issue. Majority of the available clinical evidence indicated that there exists a strong association between depression and visual impairment. However, these evidences were poor in nature due to their relatively small sample size and cross-sectional study designs. Hence, it is important to prospectively investigate the development, progression and persistence of depression in the visually challenged individuals. An early assessment of vision-specific distress is essential among those in need of early intervention in eye care or rehabilitation settings to identify those at risk of depression. It is also important to examine the distinction or overlap between depression and vision-specific distress. Depression is least likely to be screened and recognized by the primary physicians among individuals with visual impairment. As compared to them, the eye specialists and rehabilitation staff may be best health care personnel to undertake this activity.

Keywords

Evidence, co-morbid, vision-specific, distress, prevention

Introduction

Several chronic co-morbid conditions are identified as risk factors of depression in the general population. Visual impairment is a significant risk factor among these.^{1,2,3} A greater proportion of individuals with visual impairment often experience depression.⁴⁻⁶ Scientific evidence suggests an association between depression and visual loss. Though depression can occur regardless of the level of visual impairment, but it remains unclear why some people with visual impairment experience co-morbid depression. Very little is known about the independent risk factors of depression in people with visual impairment.⁷⁻¹⁰ Some studies conducted in the United States revealed that nearly one third of the people with visual impairment had clinically significant depressive symptoms.⁶ However, depression was not an

inevitable consequence of vision loss in these studies. Emotional distress produced by functional decline often contributed to depressive symptoms in these individuals.

Vision-specific distress may be an important predictor of depressive symptoms in people with visual impairment. Only a few studies have been conducted to investigate this possibility. Subjective emotional reactions to visual impairment include worry, frustration, isolation and embarrassment. These emotional reactions are a response to the impact of vision loss on daily activities.^{11,12,13} Hence, understanding the contributors to depression has important implications for the detection, prevention and treatment of emotional problems in people with visual impairment.

Clinical evidence of depression and visual impairment

Vision-specific distress is reported to be the strongest unique predictor of depressive symptoms in many studies. The emotional consequence of visual impairment contributes most significantly to depressive symptoms regardless of the degree or duration of vision loss, vision-specific functioning and participation in daily living.^{7,9,10,14}

The relations between disability, vision-specific distress and depression are likely to be complex and reciprocal. It is possible that depression influences vision-specific distress. There is also a possibility that both are confounded by personality traits such as negative affectivity, trait anxiety and neuroticism. Such dispositional tendencies have been shown to reflect differences in negative emotionality.¹⁵ Individuals with high levels of these traits are often distressed, upset and pessimistic. Hence, they may experience higher levels of both depressive symptoms and vision-specific distress.

Poor physical health and a negative life event in the past year are also predictors of depressive symptoms in people with visual impairment. However, social support variables or the restricted participation in activities of daily living are not found to be significant predictors.^{7,9} Demographic factors such as sex and educational level are also not always associated with depression in individuals with visual impairment.^{7,9,10}

The role of age in depression in the general population is unclear, with some studies finding age to be a risk factor and others finding age to be protective against depression. However, age at which individuals deal with visual impairment is critical, rather than the duration of vision loss. Younger age is an independent predictor of depressive symptoms in visually challenged individuals and is also significantly associated with greater vision-specific distress. Individuals with visual impairment at a relatively young age may experience more distress due to a greater disruption in their various roles of social life such as family commitment and work. There is also a possibility that young people have less coping skills than those of their older counterparts.^{2,12,13}

Majority of the studies related to various chronic co-morbid conditions associated with depression in the elderly population revealed a strong association of depression with arthritis, cognitive impairment, visual impairment, functional impairment and restricted Activities of Daily Living (ADL). However, less frequent significant association of depression was found with diabetes, hypertension, cardiac disorders, bronchial asthma/COPD, cerebro-vascular accidents (CVA) and hearing impairment.^{16,17,18} The prevalence of depression in elderly population often follows an increasing trend with an increase in the number of co-morbid chronic conditions. Hence, chances of depression are more in the people with other chronic co-morbid conditions associated with visual impairment.^{18,19}

Recommendations

The strong association between vision-specific distress and depression holds important implications. It is a challenge to correctly identify the patients with high levels of vision-specific distress who are at risk of depression and in need of early intervention. Researchers on diabetic retinopathy have recommended the use of condition-specific distress assessment tools for this purpose. These may be more appropriate for use in clinical settings rather than screening instruments for depression.¹⁶ Many depression screening tools include a range of affective symptoms that are not a part of the diagnostic criteria for depression. This may falsely diagnose negative affectivity as clinical depression.²⁰

Many studies reported that majority of individuals with visual impairment associated with clinically significant depressive symptoms are left untreated. Treatments for depression in people with visual impairment may enrich by integrating a focus on vision-specific distress.²⁰ A significant proportion of people may benefit from early interventions focused on coping and dealing with vision-specific distress rather than being treated for depression.^{21,22} Therefore, it is important that eye specialists should take up a more active role in identifying clinical depression and vision-specific distress while prescribing treatment options for people with visual impairment.^{23,24,25}

Conclusion

Majority of the available clinical evidence suggests a strong association existing between depression and visual impairment. However, the relatively small sample size and cross-sectional design in most of these studies are clear limitations. There is also a need to examine the distinction or overlap between depression and vision-specific distress. Further research with a longitudinal design is needed to explore the relationships between visual impairment, functional ability, vision-specific distress and depression. Multi-centric studies with larger sample sizes will add greater depth in exploring the interrelationships between visual impairment and depression.^{2,25} The depression prevention strategies and depression treatment approaches can be highly beneficial for people with visual impairment.^{23,24} An early assessment of vision-specific distress is essential among those in need of early intervention in eye care or rehabilitation settings to identify those at risk of depression.

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Authors' contributions: AB and MAB had conceived this project and developed the decision making tools. KK and BD collected the relevant research articles and summarized the findings. AB and MAB had compiled and finalized this report. All authors had read and approved this final draft.

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

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Citation: Barua A, Kademane K, Das B, Basilio MA. Visual impairment and depression. *Journal of Geriatric Care and Research*, 2014, 1(1):8-10.

Acknowledgements

The author would like to extend his sincere and heartfelt gratitude to Mr. Shanker Ram, Senior Lecturer, Department of Psychiatry at the Melaka-Manipal Medical College (MMMC), Melaka, Malaysia for providing their intellectual inputs and valuable guidance for this project.

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Short report

The impact of migration on elderly care in developing countries: The hard truth

Devavrata Soni, Michael Manarkattu, Suvanthy Subbarayan

Abstract

Migration is a social phenomenon that has been increasing over the last few decades and has specifically become more complex due to globalisation. Apart from the substantial positive gains, migration also has potential negative implications on the physical and mental health of both the migrants and the elderly parents who have been left behind. In many developing countries, the traditional family hierarchy of dependence on the male child for support has destabilised due to migration. In addition, the lack of proper infrastructure for social care and pension system has had a devastating impact on the general well-being of elderly population in these countries. Migrants also tend to usually adopt the local culture of the place they have emigrated to. The emotional impact on the elderly in seeing their children and grandchildren moving away from their traditional culture also has a secondary detrimental effect on their mental health. There is an urgent need at both local and international level to highlight these issues so that policies can be implemented to promote infrastructure improvement, efficient healthcare delivery and social support systems for this group of the population.

Key words

effect, elderly care, developing country, mental health, migration

Migration and its impact on human wellbeing remain a complex issue and are influenced by globalisation, modernisation and improved technology. In general, the process of migration has its undeniable merits as a boost of economic growth, a symbol of cultural diversity and an enhancement of trade, skill mix and education around the world.¹ However, this transformation can be a difficult experience for both the immigrant and the close relatives left behind in the source country. Over the last century, the population of the world has increased in an exponential manner but not equally in terms of its age demographics. Due to the decreasing birth rate and the increased life expectancy, there is an increasing proportion of people over the age of 65 in the present world.² The mortality reduction due to improvement in

health care especially in developing countries and the effect of rigorous anti-natalist policies has caused a mounting pressure on governments and on the common man to care for this ever growing age group.

In most developing countries, the difficulties in supporting the elderly are partially mitigated by the cohesive family structure within the community. The inherent duty of children to support their parents later on in their life has been an intrinsic part of their cultures for many centuries.³ Family traditions and lineage are especially important in countries such as India, Nepal and China with a responsibility for the male children (the so called heads of the household) to care for their parents, thus creating a strong extended family unit. However, difficulties arise when the male child does not have the sufficient funds to support the parents financially or even worse refuses to do so. Furthermore when young people leave their country of birth searching for better job opportunities and lifestyle,⁴ there is no legal obligation for them to economically support the family unit. Situations like these destabilise the system resulting in ageing parents facing many crippling socioeconomic issues.

Further problems due to a poor infrastructure for social care in the community and the lack of a social pension system have caused unforeseen chaos in these developing countries.² For many years the Chinese government had enforced a law making it a legal obligation for children to look after their families. This may sound beneficial for elderly care; however, the system failed radically when the One Child Policy was implemented in 1979. The primary problem was the ageing population due to the decrease in birth rate that eventually led to the 4-2-1 effect.⁵ One child became ultimately responsible for their two parents and four grandparents at the same time. Money for food or decent housing became scarce leaving many of the frail on the street, famished and homeless.

Another major issue is the increase in the healthcare costs of the ageing population.² Around fifty percent of lifetime health care expenditure per capita occurs after the age of 65.⁶ In developing countries, this percentage can be potentially higher. Due to the poorly equipped government-funded health care institutes, the expensive private health sector thrives in these countries. Only financial support or health insurance schemes can provide

proper treatment for people at risk. However this is not the case for many elderly people living in rural areas. Some groups may often resort to cheaper alternative treatments such as herbal treatments or traditional treatments which can potentially have harmful effects. In these situations, the absence of guidance and support from their children illustrates the fundamental downfalls of migration.

In the last few decades, chronic diseases have become more widespread in the elderly population than the infectious diseases that plagued the world in the previous era. About 80% of the ageing population have at least one chronic condition and 50% have at least two including heart disease, cancer and dementia.⁷ This requires extensive support and advice including education on leading a healthy lifestyle and the opportunity to receive regular checkups and cancer screenings. However there are limited prospects for this in the poorer parts of the world. The emigration of the younger population has left the elderly isolated, helpless and affected by these problems. In addition, there are limited supply of carers or health workers who have professional training in identifying and tending to these dire needs.² The combination of the lack of a significant pension system or community support and an absence of a close family relative can cause grief and seclusion which could ultimately lead to avoidable morbidity and mortality.

After emigration to foreign countries, people have less opportunity to visit their country of origin again. This is primarily because of the high transportation costs and the lack of paid vacation given by employers.⁸ Even if a strong desire to visit one's home and culture exists, it may not be possible in the current economic climate. Nevertheless, elderly relatives do not perceive these struggles in the same way and may feel unfairly abandoned by their own family.⁹ This could lead to constant feelings of loneliness and social isolation.¹⁰ These feelings could potentially herald the onset of depression and without any emotional support from family members or carers and no-one to talk to, their mental health can further deteriorate.

As one might expect in migration, the process of changing lifestyles tend to significantly impact on the culture of a person's origin.⁸ Adopting new cultures may be useful for the migrant but can be detrimental for the traditional generation in the source country. Elderly people, who see their children or grandchildren gradually moving away from their culture, can be affected emotionally. They would prefer that their heritage, traditions and language are imparted to their descendants. This emotional impact can cause secondary detrimental effect on their mental health. Thus it is apparent that the effects of globalization which eventually could lead to worldwide cultural homogenization has an agonizing effect on this vulnerable elderly population.

The magnitude of the impact of migration on elderly parents left behind has not been adequately researched and not yet fully understood. Antman et al has reported that the parents of Mexican children who had migrated to

USA are more likely to suffer from both physical and mental health problems.⁴ In this context, it has been suggested that the poor mental health due to social isolation may be responsible for the deteriorating physical health. Studies from Thailand have shown that older people whose children had migrated suffered poor mental health rather than poor physical health.¹¹ In contrast, another study found that parents who were well educated and married were associated with less depression when their children migrate.¹²

The growth in world economy can also potentially have a positive impact on this issue. When emigrants establish a better lifestyle in their new country and when accompanied by an increase in wages, they usually remit a part of their income to their elderly parents at home.⁴ These remittances can minimise the economic risk and make healthcare affordable, which eventually can be highly associated with treatment seeking behaviour and greater utilisation of health care facilities.¹¹ This health care-seeking behaviour can improve their general wellbeing and lifestyle. Besides, remittances can reduce social isolation by providing financial stability, thus promoting frequent communication through telephone and internet.¹³ Moreover, health knowledge transfers can psycho-educate elderly parents and increase their awareness and help-seeking behaviour, which ultimately improves their psychosocial wellbeing.

Conclusion

The complex and dynamic relationship between migration and its impact on the physical and mental health of the elderly population needs more attention and urgent intervention. Local and international efforts have been inadequate and deficient. There is a critical need for swift government intervention so that policy changes can be instituted to tackle the serious consequences of migration. The basic fundamental change needed is the restructuring of a social and healthcare system that is effective and durable in the long term and one that entitles the poorest people to benefits and an income at an elderly age. Further detailed research is needed to define and elaborate on the effects of migration on health outcomes of the elderly population.

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Authors' contributions: DS and SS conducted the review of literature and wrote the manuscript. MM contributed to manuscript.

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

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Citation: Soni D, Manarkattu M, Subbarayan S. The impact of

migration on elderly care in developing countries: the hard truth. *Journal of Geriatric Care and Research* 2014, 1(1): 11-13.

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Insight

Suicide in Black and Minority Ethnic elderly in UK

Sarmishtha Bhattacharyya, Nilamadhab Kar

Suicide rates in most industrialised nations increase with age with the highest rates of all occurring in elderly men.¹ In spite of this, this remains a much neglected area of research. The notion that most elderly suicides are 'rational' acts in response to irreversible, understandable situations is not supported by available clinical research.¹

A method known as 'psychological autopsy' is used in studies relating to suicide. This method generally involves establishing a detailed profile of the mental state of the individual, personal circumstances and concerns of the person before suicide through structured interviews with surviving relatives, friends and supplemented by additional information from primary and secondary care services where relevant.²⁻⁴ According to psychological autopsy studies of suicides in elderly people, 71-95% had a psychiatric disorder at the time of death.⁵

However as suicide is a relatively rare event, these studies are limited in size. Cross-cultural differences clearly influence suicide rates too.¹ For example, in the UK, rates in elderly first-generation immigrants from the Indian subcontinent are low compared with the indigenous elderly population.⁶ Local variations may occur too as shown in a study from a deprived inner city area where rates among young White men exceeded those among elderly men.⁷ In the USA, the highest suicide rates occur among elderly White men, although rates among Black men are higher in younger age groups.

Several studies have focused specifically on suicide in the elderly in recent years.⁸⁻¹² However very few studies have examined suicides in BME populations.^{6,7,13-16} In fact, some of these studies,^{6,7,14} were not specifically targeted for older adults too.

In UK the migrant population is referred to either as "black and minority ethnic" (BME), "ethnic minority" (ME), and "ethnic groups". The Royal College of Psychiatrists' report on services for BME elders¹⁷ accepts a working definition of BME individuals as "those with a cultural heritage distinct from the majority population".¹⁸ It is important to note that this group is not homogenous and differences exist between members even in a similar ethnic group.

There is evidence to show that BME elderly population is increasing with 7.1% of all elderly individuals in England and Wales from BME groups as reported in 2001 census. The proportion of BME population has increased from

1% in 1981 to 3% in 1991 to 8.2% in 2001 population census in England and Wales.¹⁹ The latest Office for National Statistics figures suggest that people from BME backgrounds currently make up approximately 12 per cent of the UK population.²⁰

There is a paucity of research in BME elderly especially in terms of mental illnesses and suicide. However, existence of inequalities in their presentation, help seeking and access to services has been well reported.²¹

Existing literature suggest that numbers of BME elderly with mental illnesses such as depression and dementia is increasing.²²⁻²⁶ Hence an increasing number of BME elderly could develop depression which is a significant risk factor for suicides.²⁷

Catell and Jolly report that many elderly people who commit suicide are not in close contact with primary care services; those who are may not be prescribed appropriate treatment and only a few are referred for specialist care.⁹ They suggested that specialist services will fail to reduce suicide rates unless they embark upon programmes to increase public awareness of therapeutic possibilities and work more closely with primary care agencies to realise these possibilities. Suicide prevention has been in focus with a specific strategy by the government in UK,²⁸ however there is concern regarding appropriate implementation and applicability to the BME elderly groups.

In recent years there has been some interest in research on BME elders however this has been predominantly around dementia and access to services for BME elders.^{29,30} Research on Suicide in this age group and this population however has been particularly scanty.²⁷ There is no doubt that this is a difficult to access population and myths exist either way to prevent access to services and vice versa.²⁹ Diagnostic difficulties also remain within this population due to different and late presentation and the stigma associated with having a mental illness.

A recent Royal College of Psychiatrists publication raises concerns that although there is evidence in UK that suicide rates are higher in older people from some BME groups there is no action plan specifically targeted to these groups.²⁷ It is mentioned as a genuine public health issue and further research is necessary in this area to understand the similarities or differences in presentation and risks in BME population and indigenous ones.

There is no doubt more research is required in the area of suicide and suicide prevention in general, more so in the BME elderly in UK. However if person centred approach is the backbone for any care, management, prevention or treatment strategy we should emphasize holistic assessment of mental health needs for any prevention strategy be it for indigenous or minority ethnic groups.

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

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Citation: Bhattacharyya S and Kar N. Suicide in Black and Minority Ethnic elderly in UK. *Journal of Geriatric Care and Research* 2014, 1(1): 14-16.

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Manuscript Preparation

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>.

All published articles are peer reviewed. Contributions are accepted for publication on the condition that their substance has not been published or submitted for publication elsewhere, including internet.

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Type of Articles

- Research article
- Reviews
- Short report
- Case report
- Editorials
- Letters to editor
- First person account
- Insight
- Viewpoint
- Filler

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Authorship credit should be based only on substantial contribution to:

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All submissions to the *JGCR* (including editorials and letters to the Editor) require a declaration of interest. This should list fees and grants from, employment by, consultancy for, shared ownership in, or any close relationship with, at any time over the preceding three years, an organisation whose interests may be affected by the publication of the paper.

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These are personal opinion pieces which may reflect an individual perception, involvement, or contribution to geriatric care and should be prepared like a Review.

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References

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The authors' names are followed by the full title of the article; the journal title abbreviated according to the PubMed; the year of publication; the volume number; (issue number in bracket); and the first and last page numbers.

1 Singh SP, Singh V, Kar N, Chan K. Efficacy of antidepressants in treating the negative symptoms of chronic schizophrenia: meta-analysis. *Br J Psychiatry*. 2010; 197(3): 174-9.

References to books should give the names of any editors, place of publication, editor, and year. Examples are shown below.

2 Murray PR, Rosenthal KS, Kobayashi GS, Pfaller 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.

4 Foley KM, Gelband H, editors. *Improving palliative care for cancer* [Internet]. Washington: National Academy Press; 2001 [cited 2002 Jul 9]. Available from: <http://www.nap.edu/books/0309074029/html/>.

5 Cancer-Pain.org [Internet]. New York: Association of Cancer Online Resources, Inc.; c2000-01 [updated 2002 May 16; cited 2002 Jul 9]. Available from: <http://www.cancer-pain.org/>.

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