Aging is a progressive state, beginning with conception and ending with death. The old age is the stage that generally refers to above 60 years, and is associated with physical, social and psychological changes. Depression is common in the elderly and can be associated with reduced functional ability, dependence, social isolation, and loneliness. Older people suffer from depression due to childlessness, inability to live independently after bereavement, inability to get along with daughter-in-law, absence of day time care giver, failing health and fear of crime.

For the promotion of a positive mindset and to create a feeling of wellbeing of the older adult, meditation, prayer and relaxation strategies are important. Mindfulness is the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmental to unfolding of experience moment to moment. Mindfulness-based Stress Reduction (MBSR) is a simple way of relating to all experience that can reduce suffering and set the stage for positive personal information. This practice might be a useful approach for stress reduction and alleviate suffering of the elderly thus improving their quality of life.

Objectives
Objectives of the study were:
1. To assess the level of depression among elderly residing in residential homes
2. To determine the effectiveness of MBSR as measured by Mindfulness Attention Awareness Scale (MAAS) and find the association between (a) depression score and (b) mindfulness score with selected baseline characteristics.

Review of literature
A study by Choulagai et al (2013) in Kathmandu (Nepal) on 78 elderly showed the prevalence of the depression among elderly to be 51.3 percent with severe depression in 15.4 percent and mild depression in 35.9 percent. The study concluded that poverty, presence of physical illness and lack of social and family support contribute to depression.

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In a cross-sectional study, in Briddashram (i.e. old age home), Nepal among 185 elderly aged 60 years and above, Chalise (2013) found that prevalence of depression was 57.8 percent. Among them 46.7 percent had mild, 8.9 percent had moderate, and 2.2 percent had severe depression. The study suggested some intervention from the concerned authorities so that depression among elderly can be reduced and quality of life is improved.

Kitsumban et al (2009) conducted an experimental study in Chiang Mai communities to examine the effect of a cognitive mindfulness practice programme among 30 elderly (15 each in experimental and control group) between the ages of 60-80 years with mild to moderate depression. Only the experimental group received the cognitive mindfulness intervention. The results showed that participants in the cognitive mindfulness practice programme had a greater decrease in depression scores than those who did not participate in the programme.

**Methodology**

The conceptual framework for this study was based on Theory of Comfort by Katharine Kolcaba. The study adopted an evaluative approach with a quasi experimental pre-test and post-test control group design with non-random assignment. Sample size was 60 elderly, 30 each in experimental and control group and they were selected from different residential homes located in Bangalore by non-probability convenience sampling technique.

Data collection tool used were semi-structured interview schedule on socio demographic proforma of elderly, Geriatric Depression Scale (short version). It is a standardised self report assessment tool containing 15 items using Yes-No response format. Scoring of this tool was done based on the scoring system given in the standardised tool. Of the 15 items, 10 items indicated the presence of depression when participants answered positively. The question numbers 1, 5, 7, 11, and 13 indicated depression when participants answered negatively. Mindful Attention Awareness Scale is a 15-item self report on 6-point rating scale ranging from almost always, very frequently, somewhat frequently, somewhat infrequently, very infrequently and almost never. Scoring of this tool was done based on the scoring system given in the standardised tool. The reliability of the tool was established using Geriatric Depression Scale (r=0.90), Mindful Attention Awareness Scale (r=0.90) by test-retest method using the Cronbach’s alpha formula. The content and language validity were established. The pilot study conducted on 10 elderly in each group revealed it to be feasible.

For main study formal administrative permission was obtained. The purpose of the research study was explained to the participants and informed consent was obtained. Experimental group participants were provided intervention on MBSR, which was five weeks programme with five sessions over five days (Day 1 to Day 5) beginning with observation of breathing, body scan, mindfulness of sound and thoughts and feelings. Each session lasted for 20-30 minutes. On following days participants were encouraged to practice MBSR therapy in the presence of researcher (Day 6 to Day 30). It took 20-30 minutes daily for 10 days. Control group did not receive intervention. Descriptive and inferential statistics like paired and unpaired ‘t’ test were used in the form of SPSS 16.0 version software for statistical analysis of the data.

**Results**

Maximum number of elderly in the experimental group, i.e. 22 (73.33%) and in control group, i.e. 17 (56.67%) were in the age group of 60-64 years. In the experimental group 16 (53.33%) were male, 14 (46.67%) were female, whereas in control group 18 (60%) were male and 12 (40%) were female. With regard to marital status all elderly (n=60, 100%) were married. Among them three (10%) elderly each in experimental and control group were widowed. Majority of elderly in experimental group (n=20, 66.67%) and in the control group (n=23, 76.67%) were Christian. In experimental group 14 (46.67%) elderly had secondary education whereas in control group 17 (56.67%) elderly had secondary education.

As for previous occupation, half of elderly i.e. 8 out of 16 (50%) in experimental group among male were self employed and in control group majority of elderly i.e. 8 out of 18 (44.44%) were self employed. Among female, in experimental group 10 out of 14 (71.42%) and in control group 10 out of 12 (83.33%) were housewives. Majority of elderly in experimental group, i.e. 26 (86.67%) in control group, 25 (83.33%) were children. All elderly (100%) in experimental group and in control group were receiving financial aid. As for previous living status majority of elderly in control group, 29 (96.67%) had been with their family members. Concerning health problems, majority of elderly in the experimental group i.e. 23 (76.67%) and in control group 28 (93.33%) reported that they had health problems. In experimental group 7 out of 30 (30.43%) and in control group 9 out of 30 (32.14%) were having diabetes with hypertension.
Majority of elderly in experimental group (n=15, 50%) and in control group (n=22, 73.33%) were living in the residential home since less than two years. In experimental group 26 (86.67%) and in control group 25 (83.33%) reported that safety and security was the reason for moving to the residential home. With regard to most likely people visited by, in experimental group and control group 11 out of 30 (36.67%) reported that mostly their sons and daughters visit them. With regard to family contact in experimental group 10 (33.33%) and in control group 6 (20%) reported, they don’t have contact with family members. In both groups 4 out of 30 (13.33%) elderly were practicing yoga for less than one year. In both groups none of them (0%) had attended mindfulness programme previously.

Figures 1 and 2 show frequency and percentage distribution of elderly according to the pre-test and post-test depression score and mindfulness awareness score in experimental and control group respectively.

Table 1 depicts that in the experimental group mean post-test depression score (M=5.167, SD=1.206) was lower than the control group mean post-test depression score (M=6.133, SD=1.252). There was a significant reduction in depression ($t_{(58)} = 6.149, p<0.001$) among elderly in the experimental group. Table 2 reveals that experimental group mean post-test mindfulness score (M=71.033, SD=6.054) was higher than the control group mean post-test mindfulness score (M=61.233, SD=5.917). Hence there was a significant increase in mindfulness among elderly in the experimental group after MBSR therapy ($t_{(58)} = 9.886, p<0.001$). With regards to association between depression and mindfulness scores with selected demographic variables, there was significant association between depression scores and yoga practice. Significant association was found between mindfulness and age, yoga practice, and no significant association with other selected baseline characteristics.

### Discussion

Depression is a common mental health problem with advancing years. This study reveals that depression was very common among elderly residing in residential home. Etemadi & Ahmadi (2009) also noticed that anxiety and depression are more prevalent in elderly living at geriatric homes than those at their own homes and going to geriatric clubs regularly. Fahey et al (2003) found that about 62 percent of the residents of old age homes had at least one symptom of psychological disorders. The most frequent symptom was depression (32.5%). The study conducted by Mc Dougall et al (2007) found prevalence of depression quite high (27.1%) among those living in institution compared to 9.3 percent in those living at home. Rahman (2006) reported that elderly living at geriatric homes and age group of 60-70 are independent risk factors for depression and anxiety.

The present study reveals that there was significant reduction in depression and increased mindfulness of elderly in the experimental group who received MBSR. Erns et al (2008) also found that mindfulness meditation was an effective intervention to reduce the symptoms of depression of older adults ($p< 0.01$). Young & Baime (2009) reported that MBSR was an effective intervention to reduce perceived stress, depression and anxiety among older adults ($p=0.05$). On the other hand Moynihan et al (2013) found that mindfulness improved among older adults who attended intervention on MBSR.
Implications

Nursing education: Nurses can be given opportunity to learn MBSR by conducting continuing education programme, to update their knowledge in this area. So they can deliver cost effective quality care to all people including vulnerable groups like the elderly. This is being recognised worldwide.

Nursing research: The health care environment today is dynamic and more demanding. There is a need to promote research-based practice on MBSR and the use of evaluation methods to measure outcome and document the quality and cost effective care.

Nursing administration: Nursing administrators should encourage, involvement of families, communities and elderly themselves for practicing MBSR in tackling their physical and mental health problems with the concept ‘people’s health in people’s hands’. Nursing administrators should provide necessary facilities and opportunities for nursing staff to learn MBSR and equip themselves with knowledge to deal with geriatric people in physical, psychological and social perspective.

Nursing practice: The existing health services have mainly placed emphasis on curative aspects but more comprehensive care is required to improve health of the people and increase their quality of life. MBSR is quite economic, harmless and still effective to certain extent in improving their health.

Recommendations

Similar study can be undertaken with focus on other psychological problems of the elderly. Research can be conducted on MBSR among patients with various disease conditions.

Table 1: Overall depression score of elderly

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t-value (df=58)</th>
<th>p</th>
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<tbody>
<tr>
<td>Experimental Group</td>
<td>30</td>
<td>5.167</td>
<td>1.206</td>
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<td>0.966</td>
<td>6.149</td>
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<tr>
<td>Control Group</td>
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<td>1.252</td>
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</table>

Table 2: Overall mindfulness score of elderly

<table>
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<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>t value (df=58)</th>
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<tbody>
<tr>
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<td>30</td>
<td>71.033</td>
<td>6.054</td>
<td>9.8</td>
<td>9.866</td>
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<tr>
<td>Control Group</td>
<td>30</td>
<td>61.233</td>
<td>5.917</td>
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</table>

Conclusion

The study findings concluded that MBSR was an effective intervention for reduction of depression and increasing mindfulness among elderly. Screening the lone elderly for depression should be made mandatory to improve their well being. Preventive intervention like MBSR can reduce suffering of the elderly and help to improve health-related quality of life. Moreover helping the elderly learn these techniques is cost effective, has no side effects and would be a helpful tool to reduce depression and other psychological problems.

References

12. Rahman TTA. Anxiety and depression in lone elderly living at their own homes and going to geriatric clubs VS living at geriatric homes 2006. Available at http://www.globalaging.org/health/world/2006/egpytederly