

# Meditation and Its Effect on Chronic Physical Illnesses among Medical Outpatients at the National Hospital of Sri Lanka

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## Abstract

### Objective

Assess the knowledge, attitudes and practices about meditation and its effect on chronic physical illnesses among patients attending medical outpatient clinics at the National Hospital of Sri Lanka.

### Results

The population mean age was 61 and 110 (46%) practised meditation. Buddhists practised different forms of meditation whereas people following other religions mainly concentrated on God as their predominant form of meditation. The majority (87.4%) who meditated were not formally trained. Approximately two thirds (60%) of the cohort showed a significant interest in being formally trained. More people believed meditation can help control psychiatric illnesses compared to physical illnesses (79% vs. 56.7%). Female patients who had attended religious schools tended to believe in meditation more.

### Conclusions

Almost half of the sample patient population (46%) practised meditation of some form. The majority of the cohort was not trained in meditation but showed interest in pursuing meditation as a means of adjunctive therapy for their chronic physical diseases.

**Key words** : Meditation, Mindfulness, Chronic Disease.

## Introduction

Modern medicine has been complemented by alternative forms of medicine such as Ayurvedic medicine in both developing and developed countries.<sup>1,2</sup> These forms have specially been used when Western medicine failed to achieve a cure in diseases such as cancer or alleviate symptoms in chronic illnesses. Among the many forms of alternative/complementary medicine forms available, meditation has gained a significant foothold because of its religious background as well as its perceived simplicity.

Meditation has its origins mainly as a religious practice in Buddhism and Hinduism.<sup>3,4</sup> It's been classified and taught extensively among the religious fraternity for hundreds of years. Even though the

methods differ slightly, the objective of reducing mental stress is common to most forms of meditation.<sup>5</sup>

In the treatment of psychiatric disorders such as depression, meditation has shown much promise.<sup>6</sup> Although the local research on this area is limited, there is some evidence in favour of meditation as a complementary approach to treatment of depression.<sup>7</sup> It is used as a part of psychotherapy in mild forms of depression and as an adjunctive treatment to medication in severe depressive disorder.

However, use of meditation in the treatment of physical illnesses is less well studied. Psychological stress plays a significant role in the outcome of diseases such as coronary artery disease.<sup>8</sup> Therefore, stress reduction by means of meditation can be expected to improve the outcome of such diseases.<sup>9</sup> Zamarra et al showed this using transcendental meditation in patients with coronary heart disease.<sup>9</sup> Meditation has also shown benefit as an adjunctive form of treatment for other illnesses as well.<sup>10-12</sup>

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Mindfulness based stress reduction (MBSR) is a program pioneered by Prof. Jon Kabat-Zinn which approaches meditation in a structured manner with the ultimate objective of reducing stress.<sup>13</sup> It is an objective method of meditation which is widely used in alternative treatment programs around the world.

MBSR has an emerging evidence base in treating a range of illnesses, not limited to psychiatric diseases. For example, it has shown better glycaemic control in patients with diabetes.<sup>11</sup> It has also shown better outcome in patients suffering from psoriasis.<sup>14</sup> These reports bear witness to the scientific validity of MBSR as an adjunctive treatment method.

Sri Lanka, unfortunately though, being a country with a rich heritage of meditation practices, has scarce literature in this aspect so far.

Unlike other forms of alternative medicine, meditation requires a great degree of commitment from the patient. It is not as simple as swallowing a tablet or undergoing a surgery. Therefore, patients' attitudes influence the outcome of this intervention greatly. The amount of literature available on the attitudes and knowledge among patients on meditation are limited globally. Two researches conducted on patients with melanoma and cardiovascular disease have shown that patients are of the opinion that meditation would help them improve the outcomes of their disease.<sup>15, 16</sup>

Unfortunately, the amount of research in this regard is very limited in Sri Lanka. Mindfulness meditation used as an intervention at the level of a clinical trial was unavailable at the time of writing this report. One notable research done in Sri Lanka akin to this nature is one on music therapy in patients with stable angina.<sup>17</sup> This showed that following listening to Indian music, patients reported better symptomatic relief in terms of their angina. A comprehensive literature review did not find any research on attitudes of people regarding meditation done in Sri Lanka.

Therefore, it was considered important to find how patients perceive meditation as a means of treatment for physical illness, prior to embarking on a full-scale clinical trial testing its impact on an actual physical illness.

## Objectives

General objective of the was to assess the knowledge, attitudes and practices related to meditation and its use as an adjunctive treatment method for the treatment of chronic physical illnesses among patients attending outpatient general medical clinics at the National Hospital of Sri Lanka, Colombo. Specifically, we aimed to assess the background knowledge and experience patients have about meditation and to assess patients' ideas about using meditation as an adjunctive treatment method to treat their chronic physical illnesses. Another aim was to find any factors affecting the attitudes towards meditation in this group of patients.

## Methodology

This was a descriptive, cross-sectional study and was carried out from July to October 2020. The target population was the patients attending the outpatient general medical clinics at the National Hospital of Sri Lanka, Colombo.

Patients who attended the general medical clinics at the National hospital of Sri Lanka, Colombo were included. Patients who received treatment for any chronic medical illness were included. Chronicity was defined by the patient being on treatment for at least one year for a disease requiring lifelong treatment.

Patients who had been diagnosed with a chronic medical illness and on treatment for less than one year and patients with illnesses that will not require treatment and follow up for more than one year were excluded.

A total of 238 patients were included in the study. The patients attending the clinics were given numbers upon arrival. All patients with even numbers were offered to participate in the study. An investigator administered questionnaire was used for data collection. Data collection was carried out by the investigator and a pre-intern medical officer. Statistical analysis was carried out using SPSS version.

Ethical clearance was obtained from the ethics review committee of the National Hospital of Sri Lanka, Colombo.

**Table 1.** Socio- demographic characteristics

| Characteristic                                                | Frequency (%) |
|---------------------------------------------------------------|---------------|
| Age in years(Mean± SD)                                        | 61 ± 12.073   |
| Gender                                                        |               |
| Male                                                          | 98(41.2)      |
| Female                                                        | 140(58.8)     |
| Education                                                     |               |
| No school education                                           | 6(2.5)        |
| Up to Ordinary Level                                          | 111(46.8)     |
| Ordinary level                                                | 68(28.7)      |
| Advanced level                                                | 36(15.2)      |
| Degree holders                                                | 6(2.5)        |
| Senior exam (Previous advanced level equivalent exam ) passed | 8(3.4)        |
| SSC (Previous ordinary level equivalent exam)                 | 2(0.8)        |
| Religion                                                      |               |
| Buddhist                                                      | 135(57.0)     |
| Catholic/Christian                                            | 40(16.9)      |
| Hindu                                                         | 32(13.5)      |
| Muslim                                                        | 28 (11.8)     |
| Jehovah's witness                                             | 1(0.4)        |
| Atheist                                                       | 1(0.4)        |
| Whether attended religious school                             |               |
| Yes                                                           | 159(67.4)     |
| No                                                            | 77(32.6)      |
| Employment status                                             |               |
| Employed                                                      | 148(62.2)     |
| Unemployed                                                    | 90(37.8)      |

## Results

Sociodemographic characteristics of the study population

The following table summarises the socio-demographic characteristics of the study population.

Of the studied 238 patients, 140 (58.8%) were female (figure 1).The mean age of the sample was 61 years with a standard deviation of +/-12 years.

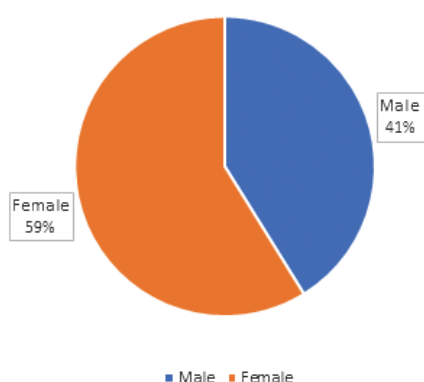
Six (2.5%) patients of the cohort have had no school education, whereas the remaining 97.5% has had some degree of formal education. Of these, six (2.5%) have had tertiary level education. The majority (46.8%) had studied up to ordinary level exam.

The majority of patients (57%) were Buddhists, with only one being an atheist. Forty were Catholic/Christian (16.9%), 32 (13.5%) Hindu and 28 (11.8%) Muslim.

Of all the religions, 159(7.4%) attended a religious school at some point in their lives. It was considered that a person attended a religious school if they attended it for at least one year.

More than half of the cohort (62.2%) was employed.

Figure 1. Gender distribution of the study population



Medical characteristics of the study population

A section of the questionnaire was devoted to analysing what medical co morbidities these patients had.

About half of the group were diagnosed with hypertension (53.8%) and prevalence of diabetes mellitus was the same (46.6%). About a quarter had ischaemic heart disease. Those who had bronchial asthma, chronic kidney disease and chronic liver cell disease were less than 10% each.

Figure 2. Religion of the study population

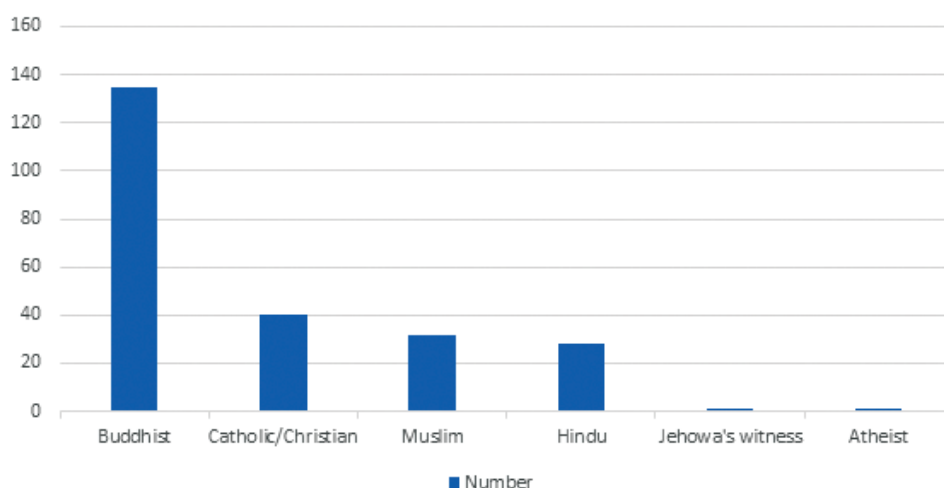


Figure 3. Medical co-morbidities of patients

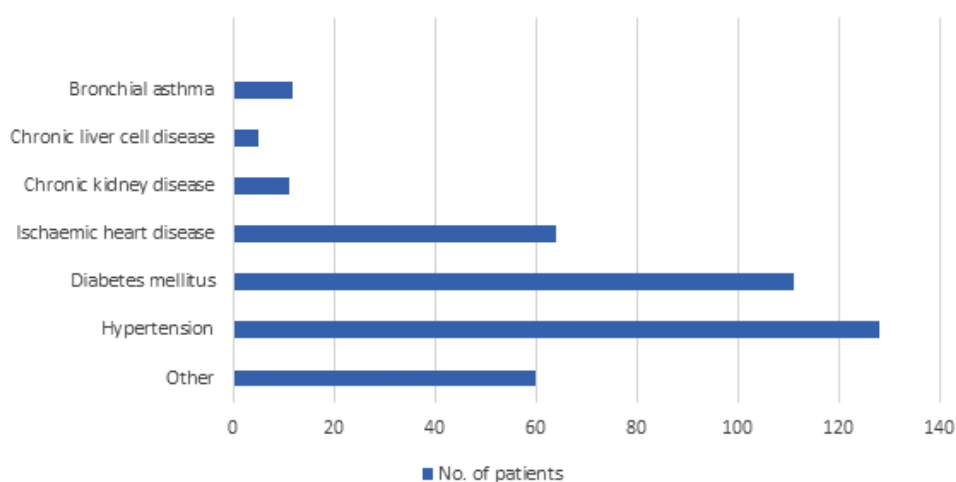
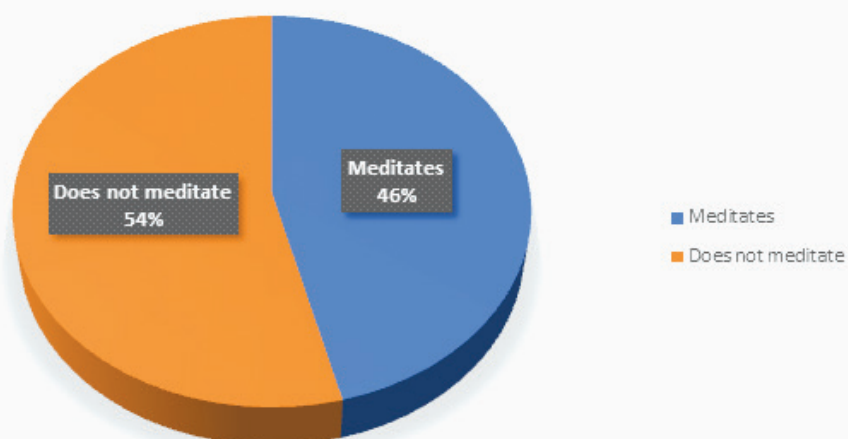


Figure 4. Practice of meditation



**Table 2.** Reasons for not willing to participate in meditation training

| Reason                                                         | Frequency (%) |
|----------------------------------------------------------------|---------------|
| Not enough time                                                | 29 (43.93)    |
| Not interested                                                 | 11 (16.66)    |
| Do not believe that it will help improve the disease condition | 25 (37.87)    |
| No suitable environment at home or workplace                   | 12 (18.18)    |

**Table 3.** Patients' belief if meditation affects outcome of psychiatric and physical illness

|                               | Frequency (%) |
|-------------------------------|---------------|
| Effect on psychiatric illness |               |
| Yes                           | 188(79.0)     |
| No                            | 50(21.0)      |
| Effect on physical illness    |               |
| Yes                           | 135(56.7)     |
| No                            | 103(43.3)     |

#### Aspects relating to meditation

Out of the study population, 110 (46%) practised meditation. Of these, 89 (80.9%) meditated less than an hour per day. Half of those who meditated were Buddhists. All the Buddhists who meditated did so in one or more of the forms outlined in Buddhism whereas 72.72% of the other religious groups concentrated on God as their form of meditation. Concentrating on God was done by focusing on God during the period of meditation and was limited to non-Buddhists. This was akin to the "anapanasathi" meditation where instead of respiration, people concentrated on God.

Out of all the people who meditated, "Maithree" meditation was done by about a third (38), "Anapanasathi" by 14 (12.7%) and "Buddhanussathi" by 7 (6.4%). Some of these patients practised a combination of these types and other variants. It is noteworthy that the majority (87.4%) of patients who meditated were not formally trained.

#### Attitudes towards meditation

The willingness of patients to undergo formal training to learn meditation to control their illnesses was assessed in the study. They were asked to give a score of 0-10 for their willingness.

Of the 238 participants, 95 (40%) scored  $\leq 5$  on this question. When they were asked the reasons for their unwillingness to participate in a training programme for meditation the responses in table 2 were expressed.

Some of the other reasons stated by patients were that it was too late for them now to commence training and not being physically fit enough to meditate.

The majority of patients believed that meditation could be used to help treat both mental and physical illnesses (79% and 56.7% respectively), although a lesser proportion thought it helps physical illness than mental illness. Almost half (48%) wasn't sure how long it would take for the beneficial effects to manifest and 76 (37.6%) thought it'd take less than a year.

Analysis of the effect of demographic factors towards participants' belief if meditation has a positive effect towards psychiatric illness, showed that there was a statistically significant effect from gender ( $p=0.007$ ), education level ( $p=0.02$ ), current practice of meditation ( $p=0.001$ ) and willingness to meditate ( $p<0.001$ ). There was no statistically significant association with age, religion, attendance

**Table 4.** Association between demographic factors and participant belief if meditation affects psychiatric illness

| Factors                                                                            | Whether meditation affects psychiatric illness |              | p Value |
|------------------------------------------------------------------------------------|------------------------------------------------|--------------|---------|
|                                                                                    | Yes (N=188)                                    | No (N=50)    |         |
| <b>Age</b>                                                                         |                                                |              |         |
| Less than 50 Years                                                                 | 32(17.0)                                       | 6(12.0)      | 0.395   |
| 50-70 Years                                                                        | 108(57.4)                                      | 34(68.0)     |         |
| More than 70 Years                                                                 | 48(25.5)                                       | 10(20.0)     |         |
| <b>Gender</b>                                                                      |                                                |              |         |
| Male                                                                               | 69(36.7)                                       | 29(58.0)     | 0.007   |
| Female                                                                             | 119(63.3)                                      | 21(42.0)     |         |
| <b>Education level</b>                                                             |                                                |              |         |
| Up to O/L                                                                          | 85(45.5)                                       | 32(64.0)     | 0.020   |
| Higher than O/L                                                                    | 102(54.5)                                      | 18(36.0)     |         |
| <b>Religion</b>                                                                    |                                                |              |         |
| Buddhism                                                                           | 111(59.4)                                      | 24(48.0)     | 0.118   |
| Catholic                                                                           | 33(17.6)                                       | 7(14.0)      |         |
| Hindu                                                                              | 24(12.8)                                       | 8(16.0)      |         |
| Islam or other                                                                     | 19(10.2)                                       | 11(22.0)     |         |
| <b>Whether attended religious school</b>                                           |                                                |              |         |
| Yes                                                                                | 128(68.8)                                      | 31(62.0)     | 0.361   |
| No                                                                                 | 58(31.2)                                       | 19(38.0)     |         |
| <b>Employment status</b>                                                           |                                                |              |         |
| Employed                                                                           | 116(61.7)                                      | 32(64.0)     | 0.766   |
| Unemployed                                                                         | 72(38.3)                                       | 18(36.0)     |         |
| <b>Comorbidities</b>                                                               |                                                |              |         |
| Hypertension                                                                       | 100(53.2)                                      | 28(56.0)     | 0.723   |
| Diabetes mellitus                                                                  | 86(45.7)                                       | 25(50.0)     | 0.592   |
| Ischaemic heart disease                                                            | 53(28.2)                                       | 11(22.0)     | 0.380   |
| Bronchial asthma                                                                   | 9(4.8)                                         | 3(6.0)       | 0.719   |
| Chronic kidney disease                                                             | 10(5.3)                                        | 1(2.0)       | 0.466   |
| Chronic liver cell disease                                                         | 4(2.1)                                         | 1(2.0)       | 1.000   |
| Other                                                                              | 47(25.0)                                       | 13(26.0)     | 0.885   |
| <b>Practise meditation</b>                                                         |                                                |              |         |
| Yes                                                                                | 97(51.6)                                       | 13(26.0)     | 0.001   |
| No                                                                                 | 91(48.4)                                       | 37(74.0)     |         |
| <b>Willingness to practise meditation</b>                                          |                                                |              |         |
| Score for willingness to participate in a meditation training programme (Mean± SD) | 7.21 ± 3.008                                   | 3.54 ± 3.065 | <0.001  |

**Table 5.** Association between demographic factors and participant belief if meditation affects physical illness

| Factors                                                                                 | Whether meditation affects physical illness |                  | P Value |
|-----------------------------------------------------------------------------------------|---------------------------------------------|------------------|---------|
|                                                                                         | Yes (N=135)                                 | No (N=103)       |         |
| <b>Age</b>                                                                              |                                             |                  |         |
| Less than 50 Years                                                                      | 23(17.0)                                    | 15(14.6)         | 0.864   |
| 50-70 Years                                                                             | 79(58.5)                                    | 63(61.2)         |         |
| More than 70 Years                                                                      | 33(24.4)                                    | 25(24.3)         |         |
| <b>Gender</b>                                                                           |                                             |                  |         |
| Male                                                                                    | 44(32.6)                                    | 54(52.4)         | 0.002   |
| Female                                                                                  | 91(67.4)                                    | 49(47.6)         |         |
| <b>Education level</b>                                                                  |                                             |                  |         |
| Up to O/L                                                                               | 57(42.2)                                    | 60(58.8)         | 0.011   |
| Above O/L                                                                               | 78(57.8)                                    | 42(41.2)         |         |
| <b>Religion</b>                                                                         |                                             |                  |         |
| Buddhism                                                                                | 79(59.0)                                    | 56(54.4)         | 0.067   |
| Catholic                                                                                | 27(20.1)                                    | 13(12.6)         |         |
| Hindu                                                                                   | 17(12.7)                                    | 15(14.6)         |         |
| Islam or other                                                                          | 11(8.2)                                     | 19(18.4)         |         |
| <b>Whether attended</b>                                                                 |                                             |                  |         |
| <b>religious school</b>                                                                 |                                             |                  |         |
| Yes                                                                                     | 101(75.9)                                   | 58(56.3)         | 0.001   |
| No                                                                                      | 32(24.1)                                    | 45(43.7)         |         |
| <b>Employment status</b>                                                                |                                             |                  |         |
| Employed                                                                                | 82(60.7)                                    | 66(64.1)         | 0.599   |
| Unemployed                                                                              | 53(39.3)                                    | 37(35.9)         |         |
| <b>Comorbidities</b>                                                                    |                                             |                  |         |
| HTN                                                                                     | 80(59.3)                                    | 48(46.6)         | 0.052   |
| DM                                                                                      | 61(45.2)                                    | 50(48.5)         | 0.607   |
| IHD                                                                                     | 34(25.2)                                    | 30(29.1)         | 0.497   |
| BA                                                                                      | 6(4.4)                                      | 6(5.8)           | 0.630   |
| CKD                                                                                     | 7(5.2)                                      | 4(3.9)           | 0.761   |
| CLCD                                                                                    | 2(1.5)                                      | 3(2.9)           | 0.655   |
| Other                                                                                   | 38(28.1)                                    | 22(21.4)         | 0.232   |
| <b>Practise meditation</b>                                                              |                                             |                  |         |
| Yes                                                                                     | 73(54.1)                                    | 37(35.9)         | 0.005   |
| No                                                                                      | 62(45.9)                                    | 66(64.1)         |         |
| <b>Willingness to practise meditation</b>                                               |                                             |                  |         |
| Score for willingness to participate in a meditation training programme (Mean $\pm$ SD) | 7.65 $\pm$ 2.735                            | 4.86 $\pm$ 3.473 | <0.001  |

**Table 6.** Association between demographic factors and practice of meditation

| Factors                                                                           | Practice of meditation |              | p Value |
|-----------------------------------------------------------------------------------|------------------------|--------------|---------|
|                                                                                   | Yes (N=110)            | No (N=128)   |         |
| <b>Age</b>                                                                        |                        |              |         |
| Less than 50 Years                                                                | 17(15.5)               | 21(16.4)     | 0.802   |
| 50-70 Years                                                                       | 64(58.2)               | 78(60.9)     |         |
| More than 70 Years                                                                | 29(26.4)               | 29(22.7)     |         |
| <b>Gender</b>                                                                     |                        |              |         |
| Male                                                                              | 36(32.7)               | 62(48.4)     | 0.014   |
| Female                                                                            | 74(67.3)               | 66(51.6)     |         |
| <b>Education</b>                                                                  |                        |              |         |
| Up to O/L                                                                         | 46(42.2)               | 71(55.5)     | 0.042   |
| Above O/L                                                                         | 63(57.8)               | 57(44.5)     |         |
| <b>Religion</b>                                                                   |                        |              |         |
| Buddhism                                                                          | 55(50.0)               | 80(63.0)     | 0.055   |
| Catholic                                                                          | 25(22.7)               | 15(11.8)     |         |
| Hindu                                                                             | 13(11.8)               | 19(15.0)     |         |
| Islam or other                                                                    | 17(15.5)               | 13(10.2)     |         |
| <b>Whether attended religious school</b>                                          |                        |              |         |
| Yes                                                                               | 82(74.5)               | 77(61.1)     | 0.028   |
| No                                                                                | 28(25.5)               | 49(38.9)     |         |
| <b>Employment status</b>                                                          |                        |              |         |
| Employed                                                                          | 74(67.3)               | 74(57.8)     | 0.133   |
| Unemployed                                                                        | 36(32.7)               | 54(42.2)     |         |
| <b>Comorbidities</b>                                                              |                        |              |         |
| Hypertension                                                                      | 58(52.7)               | 70(54.7)     | 0.762   |
| Diabetes mellitus                                                                 | 54(49.1)               | 57(44.5)     | 0.482   |
| Ischaemic heart disease                                                           | 32(29.1)               | 32(25.0)     | 0.478   |
| Bronchial asthma                                                                  | 7(6.4)                 | 5(3.9)       | 0.388   |
| Chronic kidney disease                                                            | 3(2.7)                 | 8(6.3)       | 0.231   |
| Chronic liver cell disease                                                        | 1(0.9)                 | 4(3.1)       | 0.377   |
| Other                                                                             | 32(29.1)               | 28(21.9)     | 0.232   |
| <b>Willingness to practise meditation</b>                                         |                        |              |         |
| Score for willingness to participate in a meditation training programme(Mean± SD) | 5.94 ± 2.247           | 6.44 ± 2.397 | 0.113   |

**Table 7.** Association between demographic factors and willingness to participate in a training program for meditation

| Factors                                  | Score for willingness to meditate (+/- SD) | p Value |
|------------------------------------------|--------------------------------------------|---------|
| <b>Age</b>                               |                                            |         |
| Less than 50 Years                       | 7.32±3.424                                 | <0.001  |
| 50-70 Years                              | 6.18±3.300                                 |         |
| More than 70 Years                       | 6.50±3.455                                 |         |
| <b>Gender</b>                            |                                            |         |
| Male                                     | 5.69±3.548                                 | 0.004   |
| Female                                   | 6.96±3.146                                 |         |
| <b>Education</b>                         |                                            |         |
| Up to O/L                                | 5.78±3.439                                 | 0.002   |
| Above O/L                                | 7.06±3.182                                 |         |
| <b>Religion</b>                          |                                            |         |
| Buddhism                                 | 6.73±3.320                                 | 0.219   |
| Catholic                                 | 6.85±3.076                                 |         |
| Hindu                                    | 5.63±3.731                                 |         |
| Islam or other                           | 5.67±3.273                                 |         |
| <b>Whether attended religious school</b> |                                            |         |
| Yes                                      | 6.81±3.271                                 | 0.013   |
| No                                       | 5.71±3.402                                 |         |
| <b>Occupation</b>                        |                                            |         |
| Employed                                 | 6.34±3.497                                 | 0.628   |
| Unemployed                               | 6.60±3.158                                 |         |
| <b>Comorbidities</b>                     |                                            |         |
| HTN                                      | 6.46±3.292                                 | 0.976   |
| DM                                       | 6.59±3.420                                 | 0.517   |
| IHD                                      | 5.95±3.484                                 | 0.205   |
| BA                                       | 7.08±3.502                                 | 0.458   |
| CKD                                      | 4.64±4.154                                 | 0.124   |
| CLCD                                     | 4.60±4                                     | 0.368   |
| Other                                    | 6.63±3.156                                 | 0.763   |

to a religious school or type of chronic illness.

The demographic factors affecting participants' belief if meditation has a positive effect towards physical illness were the same as above except that there was a statistically significant effect from attendance

to a religious school as well (p=0.001).

Analysis of association between demographic factors and current practice of meditation showed that there was a statistically significant association with gender (p=0.014), education level (0.042) and

attendance to religious school ( $p=0.028$ ).

Analysis of the association between demographic factors and willingness to participate in a training program for meditation revealed there was a statistically significant association with age, gender, education level and attendance of religious school.

### Discussion

This study was carried out with the intention of assessing the knowledge, attitudes and practices patients with chronic illnesses had with regards to meditation. It also was designed to explore if patients believed meditation had any positive effects towards altering the outcome of the chronic diseases they're suffering from.

The cohort of patients reflect a relatively aged population given that they suffer from chronic illnesses such as diabetes mellitus and hypertension. It was a female predominant group of patients and religion-wise reflected the normal Sri Lankan society distribution.

Forty six percent of the cohort practised meditation which enabled acquisition of a significant number of details pertaining to meditation. It was quite surprising to see the different forms of meditation practised by these patients. Of note was the fact that Buddhists practised different forms of meditation whereas the people following other religions mostly concentrated on God as their form of meditation. All these types of meditation have the common characteristic of maintaining mindfulness over a given period of time, which justifies analysing the results as a cohort under the broad umbrella term of 'meditation'.

It can be argued that, to believe meditation would help heal psychiatric illnesses is easier than to believe it helps physical illness. Since meditation is linked with the mind, it is natural for one to believe it would rather help to heal the diseases affecting the mind than the body. This is reflected by the proportion of participants who believed that meditation has effects on these two forms of illnesses (79% for psychiatric illness vs. 56.7% for physical illness).

The belief that meditation affected physical and psychiatric illness had a statistically significant association with gender, education level and current practice of meditation. Gender, attendance to a religious school and education level also had a statistically significant association with current practice of meditation.

Around two thirds (60%) of patients favoured participating in learning meditation in this cohort. This was significantly more compared to two studies done in the USA and UK where only 46% and 50% of the people showed interest in learning meditation respectively.<sup>16,18</sup> This may in part be due to the cultural differences.

Going through the reasons people weren't willing to participate in a training program to learn meditation; it was surprising to see that only a handful accepted they had only limited knowledge regarding meditation. In other words, this implied people were somewhat overconfident in terms of knowing how to properly meditate. The common reasons were lack of time, disbelief, and disinterest which partly coincides with the findings of a study done in Australia regarding meditation in patients with skin cancer.<sup>15</sup>

### Challenges and recommendations

The main hurdle surrounding these types of studies involving meditation is defining the term 'meditation' and how people perceive this in different socio-religious groups. For example, when conducting the study, concentrating on God and performing "Maithree" meditation meant the same to patients. When conducting the research, the term 'meditation' was used to imply mindfulness (maintaining focus on one particular thing) over the linguistic meaning which is more religion-based.

The next issue is assessing and quantifying the practice of meditation itself. Meditating for longer doesn't necessarily mean its better. There's no objective method yet to assess the efficiency of meditation. Also, there are so many variables in play which will affect the final outcome.

Although it was initially planned to involve 384 patients in this study, due to COVID associated logistical issues, only 238 were recruited. However, post-hoc analysis of the data showed the study has a power of more than 80%.

Another drawback of this study is that the study population was elderly and did not include the perceptions of the young. A separate study targeting the young age groups will be valuable in this regard. It is important to note that the range of diseases affecting the younger population will differ considerably. Additionally, a patient who contracts a chronic illness when they're young will suffer its effects longer than when they contract it at an older age. This may play a role in motivation towards using methods such a meditation in the younger population.

The main objective of this study was to understand the perceptions of patients with chronic illnesses regarding meditation and its effects on physical illnesses to pave the way for future researchers to plan randomised trials using a single form of mindfulness technique. This study has proved that a significant proportion of patients believe and are willing to use meditation to control the outcome of their physical illnesses. Sri Lanka also inherits a rich cultural knowledge base in terms of meditation. A well-planned multi-centre clinical trial involving these patients to objectively assess the effect of meditation on chronic diseases such as hypertension or diabetes mellitus will prove invaluable to further the understanding of how our mind affects our physical body. If proven useful, mindfulness meditation could be introduced to therapeutic programs as an inexpensive, adjuvant treatment method to help patients suffering from chronic diseases.

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