A protocol for assessing the readiness for practicing introspective meditations (*manan dhyana*) as a tool for reduction of stress among high-stress occupations

Un protocollo per valutare la disponibilità a praticare la meditazione introspettiva (manan dhyana) come strumento per ridurre lo stress in lavori ad elevato stress

Manoj SHARMA[1]

Affilations

[1] *Department of Environmental & Occupational Health, School of Public Health, University of Nevada, Las Vegas, USA.*

Corresponding author
Manoj Sharma. E-mail: manoj.sharma@unlv.edu ORCID: 0000-0002-4624-2414.

Abstract

Stress is inescapable in contemporary times. The workplace offers unique challenges and some specific stressors are unique to working which if not managed can lead to a plethora of negative sequelae. Some occupations are particularly prone to high stress and burnout. Spirituality at workplace could be used to address poor mental health outcomes. The purpose of this article is to introduce to the researchers a theory-based protocol for assessing the readiness toward practicing introspective meditations (*manan dhyana*), an Eastern approach based on yoga, to combat occupational stress in high-stress professions. The protocol utilizes the multi-theory model (MTM) of health behavior change and presents a questionnaire based on it for administration in a cross-sectional survey design to test the model. If the model is found to be significant then it can be used to design interventions that promote introspective meditations (*manan dhyana*) for high-stress occupations. Such interventions can first be pilot tested, then tested for efficacy, and finally, if found efficacious, can be replicated in effectiveness studies. This kind of intervention can be used in the framework of workplace health programs to advance worker's mental well-being.

Riassunto

Lo stress è inevitabile nei tempi odierni. L'ambiente di lavoro offre delle sfide uniche ed alcuni specifici fattori di stress sono tipicamente lavorativi e dipendono dal lavoro che, se non è ben organizzato, può portare a conseguenze molte negative. Alcune attività lavorative espongono in modo particolare i lavoratori a stress elevato e burnout. La spiritualità sul posto di lavoro potrebbe essere usata per affrontare i problemi di salute mentale. La finalità di questo lavoro è quella di proporre ai ricercatori un protocollo per valutare la disponibilità rispetto alle pratiche introspettive meditative (*manan dhyana*), un tipo di approccio orientale basato sullo yoga, utile per contrastare lo stress lavorativo nelle professioni ad alto rischio. Il protocollo si basa sul modello teorico multiplo di cambiamento del comportamento in materia di salute e presenta un questionario basato su tale modello da somministrare in un disegno di studio trasversale.

Se il modello risulta essere significativo, può essere usato per progettare interventi che promuovono meditazioni introspettive per le occupazioni ad elevato stress. Tali interventi dovrebbero essere preliminarmente sottoposti a test pilota, quindi essere testati per efficacia ed infine, se efficaci, possono essere replicati in studi di efficacia. Questa tipologia di intervento potrebbe essere utile nell'ambito di programmi di promozione della salute negli ambienti di lavoro per il miglioramento del benessere psicologico dei lavoratori.

INTRODUCTION

Stress is a pervasive phenomenon in a modern-day fast-paced life. Stressors are generally defined into three categories: acute life events (once in a while, discrete, major life influencing events, e.g. death, divorce, etc.), chronic stressors (that occur daily, e.g. getting stuck in traffic), and nonevents (simple boredom or when anticipated events do not occur) [1]. It is the chronic stressors that are more pervasive and are important from the point of adverse effects and management. Chronic stressors have been classified as persistent life difficulties that result when acute stressors last for a long time (e.g. disability following an accident), chronic strains (e.g. being a minority member in a majority of people with different ethnicity or any other characteristics), community-wide strains (e.g. living in a high crime neighborhood), daily hassles (e.g. waiting too long in a queue) and role strains (e.g. doing a job that one does not like) [2]. The workplace offers unique challenges and there are some chronic stressors that are exclusive to working such as role one plays being an employee or employer, interpersonal relationships and dynamics at work, organizational structure, organizational policies, and so on [3–5].

There are some occupations that are more demanding than others and are classified as high-stress occupations. Some of these professions include those of police officers, prison guards, emergency personnel (including physicians and paramedics), firefighters, social workers (especially those working in demanding conditions), call center workers, customer service representatives, and teachers [3, 6–8]. The high stress in these occupations often leads to poor satisfaction rates, high turnover, and a propensity to stress-related problems. High-stress occupations are also associated with burnout [9, 10].

Stress and burnout can lead to cardiovascular diseases, diabetes mellitus, abnormal lipid profile, metabolic syndrome, musculoskeletal symptoms, fatigue, migraines and headaches, respiratory disorders, gastrointestinal problems, the potential for sustaining injuries, sleep disorders, depressive symptomatology, misuse of prescription medications, poor job satisfaction, absenteeism, substance use, premature mortality, and others [1, 9, 11, 12]. Stress can also be a putative causative factor, an indirect contributing factor, a triggering factor, or an intensifying factor for mental illnesses [1, 13–16].

Several modalities of stress management interventions have been implemented in the workplaces. Both individual-level approaches (e.g. cognitive behavioral therapy) and organizational-level approaches (e.g. change in policies) have been tried [17, 18]. Spirituality programmes at workplace can improve workers' well-being and productivity [19]. Indeed. it is well-recognized the beneficial role of both spirituality and religion on mental and physical health [20]. They, therefore, could be used into the framework of the Workplace Health Promotion programmes, to promote good lifestyles and behaviours (e.g., smoking and alcohol habits) that may positively impact on work-related diseases, and to increase resilience and coping mechanisms to deal with psychosocial hazards such as violence, burnout and work-related stress [21].

One modality of stress management that is gaining popularity is yoga which is a form of mind-body intervention and has been suggested as a means to reduce stress. Yoga is an ancient technique that establishes harmony between mind, body, and the environment [22]. A combinational approach of the components of yoga with a cognitive-behavioral approach in the form of introspective meditations (*manan dhyana*) or reflective thinking on one's own thinking has been proposed as a means to reduce unwanted stress [23]. Some introspective meditations that are important for high-stress occupations are on seeking pleasure, achieving security, attaining ethical standards, learning to care, circumventing anger, escaping jealousy, overpowering fears, disabling self-condemnation, and fostering objectivity [23, 24]. The Westerners have not experimented with this Eastern approach of introspective meditations (*manan dhyana*). It

is important to assess the readiness of Westerners in adopting this behavior change because it is an important determinant whether behavior change will occur or not [25]. Readiness means the willingness to do something and was first introduced in the transtheoretical model where a Readiness to Change Questionnaire was developed [26].

Hence, the purpose of this article is to introduce to the researchers a theory-based protocol for assessing the readiness toward practicing introspective meditations (*manan dhyana*) to combat occupational stress in high-stress professions.

DISCUSSION

A fourth-generation theoretical paradigm of the multi-theory model (MTM) of health behavior change [24, 27] has been proposed in this protocol to assess readiness for initiation and maintenance of behavior of performing introspective meditations (*manan dhyana*) every day for 20 minutes. MTM proposes the constructs that are essential to start a health behavior change as *participatory dialogue* (in which the participant realizes that the gains of a health behavior change offset the drawbacks), *behavioral confidence* (in which the participant develops self-reliance to make the behavior change), and *changes in the physical environment* (in which the participant has tangible resources at one's disposal). MTM further proposes that for maintaining the behavior change the vital constructs are *emotional transformation* (in which the participant identifies and changes negative feelings into goals), *practice for change* (in which the participant has persistent thoughts and reflections about the change), and *changes in the social environment* (in which the participant mobilizes social support). MTM has been found to be a useful paradigm in qualitative studies [28, 29], cross-sectional studies with a variety of behaviors in different target populations [30–32], and in interventional research [33, 34].

Proposed methodology of the protocol
Design

The study can utilize a cross-sectional, quantitative study design that serves as a snapshot in time and helps provide quick data at a low cost. Two models can be built in this study. For the initiation model, the constructs of participatory dialogue, behavioral confidence, and changes in the physical environment can be used as independent variables while the intention to start the practice of introspective meditations for 20 minutes daily in the upcoming week can be the dependent variable. For the sustenance model, the constructs of emotional transformation, practice for change, and changes in the social environment can be used as independent variables while the intention to start the practice of introspective meditations for 20 minutes daily from now on can be the dependent variable. The perceived stress level and the level of psychological distress can be used as covariates in the study.

Population, sample, and data collection

The population for the study can be employees at one or more medium to large high-stress worksites such as police departments, call centers, firefighters organizations, etc. A survey can be completed at the worksite or electronically administered to the employees through email. The electronic platforms of *Qualtrics* or *Survey Monkey* can be used. In calculating the sample size based on G*Power, Version 3.1 [35], the p-value can be set at 0.05, power at 0.80, the effect size can be considered to be medium at 0.10 (as is the case in social and behavioral science research) [36], and there are 5 predictors in each model. These assumptions will yield a sample size of 134 which can be inflated by 15% for any missing values to arrive at the sample size of 144 participants. Reminders can be sent to arrive at the quota sample determined by G*Power.

Instrumentation

An instrument based on MTM along with the Perceived Stress Scale [37] and PHQ-4 [38] and scoring guide has been provided in the Appendix for use.

To summarize the instrument, questions 1-9 are demographic questions; questions 10-19 pertain to perceived stress on a rating scale of

never (0) to very often (4) with a possible range of 0-40 units; questions 20-23 are PHQ-4 with total scores ranging from 0 to 12 units, with categories of psychological distress being: none (0-2 units), mild (3-5 units), moderate (6-8 units), severe (9-12 units). Questions 24-28 are about the construct of advantages on a rating scale of never (0) to very often (4), and questions 29-33 are about the construct of disadvantages on a rating scale of never (0) to very often (4). The score of the participatory dialogue construct can be obtained by subtracting the summative score of disadvantages from the summative score of advantages and ranged from -20 to +20 units. Questions 34-38 tap into the construct of behavioral confidence on a rating scale of not at all sure (0) to completely sure (4) and a summative score yielding a possible range of 0-20 units. Likewise, summative scores for changes in the physical environment from questions 39-41; emotional transformation from questions 42-44; practice for change from questions 45-47; and changes in the social environment from questions 48-50 using a rating scale of not at all sure (0) to completely sure (4) yield total scores of 0-12 units. Question 51 pertains to the intention to start the practice of introspective meditations for 20 minutes daily in the upcoming week rated on a scale of not at all likely (0) to completely likely (4). Final question 52 is about continuing the practice of introspective meditations for 20 minutes daily from now on rated on a scale of not at all likely (0) to completely likely (4).

Ethical Approval

The study will need to be approved by an Ethics Institutional Review Board (IRB) and the Protocol number must be obtained and mentioned on the instrument. Depending on the country of IRB, the instrument can either be exempt in which case an information sheet detailing the study will suffice or an informed consent may be necessary which should be followed diligently. No personal identifying names and contact information of the participants are needed for this study making it an anonymous study. No compensation or incentive is necessary for participation in the study as the time commitment is not much. Participation in the survey must be voluntary and the participants can choose to leave the survey at any point in time.

Data Analyses

All data can be analyzed using IBM-SPSS, Version 26.0 or SAS or any other statistical software. Metric demographic and study variables can be summarized using means and standard deviations while for categorical variables, frequencies and percentages can be reported for descriptive purposes. For modeling initiation and sustenance, participants who spent less than 20 minutes daily on introspective meditations and those who did not can be grouped into two categories, and four sets of modeling can be conducted. The perceived stress score and PHQ-4 scores can be used as covariates. For model building, hierarchical multiple regression modeling can be employed. The significance levels can be set at $p < 0.05$.

Implications for practice and conclusions

Introspective meditations (*manan dhyana*) have the potential to reduce stress among occupations that are demanding. The approach outlined in this article can be applied to test the MTM model. If the model is found to be significant then it can be used to design behavior change interventions that promote introspective meditations at worksites. Such interventions can first be pilot tested, then tested for efficacy and, finally, if found efficacious, can be replicated in effectiveness studies.

References

1. Romas JA, Sharma M. *Practical stress management. A comprehensive workbook.* (7th ed.). London: Academic Press; 2017.

2. McLean DE, Link BG. Unraveling complexity: Strategies to refine concepts,

3. measures, and research designs in the study of life events and mental health. In W. R. Avison & I. H. Gotlib (Eds.), *Stress and mental health: Contemporary issues and prospects for the future* (pp. 15–42). New York: Plenum Press; 1994.

4. Dėdelė A, Miškinytė A, Andrušaitytė S, et al. Perceived stress among different occupational groups and the interaction with sedentary behaviour. Int J Environ Res Public Health. 2019;16(23):4595. https://doi.org/10.3390/ijerph16234595

5. Nash JM, Thebarge RW. Understanding psychological stress, its biological processes, and impact on primary headache. Headache. 2006;46(9):1377–1386. https://doi.org/10.1111/j.1526-4610.2006.00580.x.

6. Chirico F. The assessment of psychosocial risk: only "work-related stress" or something else? Med Lav. 2015 Jan 9;106(1):65–66.

7. Naghieh A, Montgomery P, Bonell CP, et al. Organisational interventions for improving wellbeing and reducing work-related stress in teachers. Cochrane Database Syst Rev. 2015;(4):CD010306. https://doi.org/10.1002/14651858.CD010306.pub2

8. Chirico F. The forgotten realm of the new and emerging psychosocial risk factors. J Occup Health. 2017;59(5):433–435. Doi: 10.1539/joh.17-0111-OP.

9. Chirico F. Combatting the shortage of physicians to alleviate work-related strain. J Health Soc Sci. 2017 Nov;2(3):239–242. Doi: 10.19204/2017/cmbt11.

10. Salvagioni D, Melanda FN, Mesas AE, et al. Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. PloS One. 2017;12(10):e0185781. https://doi.org/10.1371/journal.pone.0185781

11. Chirico F. Is burnout a syndrome or an occupational disease? Instructions for occupational physicians. Epidemiol Prev. 2017 Sep;41(5-6):294–298. Doi: 10.19191/EP17.5-6.P294.089.

12. Toussaint L, Shields GS, Dorn G, et al. Effects of lifetime stress exposure on mental and physical health in young adulthood: How stress degrades and forgiveness protects health. J Health Psychol. 2016;21(6):1004–1014. doi: 10.1177/1359105314544132.

13. Chirico F, Heponiemi T, Pavlova M, et al. Psychosocial Risk Prevention in a Global Occupational Health Perspective. A Descriptive Analysis. Int J Environ Res Public Health. 2019;16(14):2470. Published 2019 Jul 11. doi:10.3390/ijerph16142470.

14. Fahey N, Soni A, Allison J, et al. Education mitigates the relationship of stress and mental disorders among rural Indian women. Ann Glob Health. 2016;82(5):779–787. doi: 10.1016/j.aogh.2016.04.001.

15. Li SS, Liddell BJ, Nickerson A. The relationship between post-migration stress and psychological disorders in refugees and asylum seekers. Curr Psychiatry Rep. 2016;18(9):82. doi: 10.1007/s11920-016-0723-0.

16. Magnavita N, Di Stasio E, Capitanelli I, et al. Sleep Problems and Workplace Violence: A Systematic Review and Meta-Analysis. Front Neurosci. 2019;13:997. Published 2019 Oct 1. doi:10.3389/fnins.2019.00997.

17. Zhu C, Chen L, Ou L, et al. Relationships of mental health problems with stress among civil servants in Guangzhou, China. Community Ment Health J. 2014;50(8):991–996. doi: 10.1007/s10597-014-9726-7.

18. Grawitch MJ, Ballard DW, Erb KR. To be or not to be (stressed): The critical role of a psychologically healthy workplace in effective stress management. Stress Health. 2015;31(4):264–273. https://doi.org/10.1002/smi.2619.

19. Chirico F, Taino G, Magnavita N, et al. Proposal of a method for assessing the risk of burnout in teachers: the VA.RI.B.O strategy. G Ital Med Lav Erg. 2019;41(3):221–235.

20. Chirico F, Magnavita N. The Spiritual Dimension of Health for More Spirituality at Workplace. Indian J

Occup Environ Med. 2019;23(2):99. doi:10.4103/ijoem.IJOEM_209_18.

21. Chirico F. Religious Belief and Mental Health in Lay and Consecrated Italian Teachers. J Relig Health. 2017 Jun;56(3):839–851. doi: 10.1007/s10943-016-0242-7.

22. Chirico F, Sharma M, Zaffina S, et al. Spirituality and Prayer on Teacher Stress and Burnout in an Italian Cohort: A Pilot, Before-After Controlled Study. Front Psychol. 2020;10:2933. Published 2020 Jan 21. doi:10.3389/fpsyg.2019.02933.

23. Sharma M. Jung's collective unconscious, integrative (mind-body-spirit) yoga and self-realization. In S. B. Schafer (Ed.). *Media models to foster collective human coherence in PsychEcology* (pp. 93-108). Hershey, PA: IGI Global; 2019.

24. Sharma M. *Introspective meditations for complete contentment (Santosha).* Omaha, NE: Health for All; 2018.

25. Sharma M. *"Introspective meditations for complete contentment (Santosha")*. *Amazon;2018*. ISBN#978-1718670655.

26. Sharma M. T*heoretical foundations of health education and health promotion.* (3rd ed., pp. 250-262) Burlington, MA: Jones and Bartlett; 2017.

27. Rollnick S, Heather N, Gold R, et al. Development of a short readiness to change questionnaire for use in brief opportunistic interventions among excessive drinkers. Br J Addict. 1992;87(5):743–754. doi:10.1111/j.1360-0443.1992.tb02720.x

28. Sharma M. Multi-theory model (MTM) for health behavior change. WebmedCentral Behaviour. 2015;6(9):WMC004982. http://www.webmedcentral.com/article_view/4982

29. Agyei-Baffour P, Asare M, Lanning B, et al. Human papillomavirus vaccination practices and perceptions among Ghanaian healthcare providers: A qualitative study based on multi-theory model. PLoS ONE. 2020;15(10):e0240657. https://doi.org/10.1371/journal.pone.0240657.

30. Mousali A, Moradveisi L, Barati M, et al. Male addicts' experiences on predictors of relapse to drug use: A directed qualitative content analysis. Addicta Turk J Addict. 2020;7(3):166–173. DOI: 10.5152/ADDICTA.2020.20039.

31. Sharma M, Largo-Wight E, Kanekar A, et al. Using the multi-theory model (MTM) of health behavior change to explain intentional outdoor nature contact behavior among college students. Int J Env Res Public Health. 2020;17:6104. https://doi.org/10.3390/ijerph17176104.

32. Sharma M, Batra K, Davis R, et al. Explaining handwashing behavior among college students during COVID-19 pandemic using the multi-theory model (MTM) of health behavior change. Healthcare. 2021;9(1):55. https://www.mdpi.com/2227-9032/9/1/55.

33. Sharma M, Chandra A, Toth R, et al. Utility of multi-theory model (MTM) to explain the intention for PAP adherence in newly diagnosed sleep apnea patients. Nat Sci Sleep. 2021;13:263—271. https://www.dovepress.com/articles.php?article_id=62636.

34. Brown L, Sharma M, Leggett S, et al. Efficacy testing of the SAVOR (Sisters Adding Fruits and Vegetables for Optimal Results) intervention among African American women: A randomized controlled trial. Health Promot Perspect. 2020;10(3):270–280. https://doi.org/10.34172/hpp.2020.41.

35. Hayes T, Sharma M, Shahbazi M, et al. The evaluation of a fourth-generation multi-theory model (MTM) based intervention to initiate and sustain physical activity in African American women. Health Promot Perspect. 2019;9(1):13–23. https://doi.org/10.15171/hpp.2019.02.

36. Faul F, Erdfelder E, Lang AG, et al. G*Power 3: A flexible statistical power analysis program for the social, behavioral and biomedical sciences. Behav Res Methods. 2007;39(2):175–191.

37. Lipsey MW, Wilson DB. The efficacy of psychological, educational, and behavioral treatment. Am Psychol. 1993;48:1181–1209.

38. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav. 1983;24:385–396.

39. Kroenke K, Spitzer RL, Williams JBW, et al. An ultra-brief screening scale for anxiety and depression: The PHQ-4. Psychosomatics. 2009;50:613–621.

Appendix

Instrument used in the Protocol "Measuring the Change in Introspective Meditations (*Manan Dhyana*)"

Directions: Please choose the response that best describes your position.

Stress is a pervasive issue that affects all of us daily. One of the techniques for dealing with stress is introspective meditations (*Manan Dhyana*) or self-reflection on behaviors for 20 minutes daily. Some introspective meditations are on seeking pleasure, achieving security, circumventing anger, escaping jealousy, etc.

1. During the past 24 hours did you engage in introspective meditations?
    ❏ Yes ❏ No

2. During the past 24 hours, how many minutes of introspective meditations did you practice?
    _____ minutes

3. What is your sex?
    ❏ Female
    ❏ Male
    ❏ Other, _____

4. How old are you today (in years)? _____

5. What is your race/ethnicity? *(If used in the US)*
    ❏ White
    ❏ Black
    ❏ Asian
    ❏ American Indian
    ❏ Hispanic
    ❏ Other _____

6. What is your highest level of education?
    ❏ Some schooling, but not completed
    ❏ Completed high school
    ❏ Some college, but not completed
    ❏ Completed college
    ❏ Completed masters or doctoral degree
    ❏ Completed professional degree

7. Are you employed for pay?
    ❏ Yes ❏ No

8. What is your occupation? _____

9. What is your yearly gross household income? *(If used in the US)*
   - ❏ Less than $ 50,000
   - ❏ $ 50,001 to $ 100,000
   - ❏ $100,001 to $150,000
   - ❏ $150,001 to $200,000
   - ❏ More than $200,000
   - ❏ Prefer not to answer

Items 10-19 are from the Perceived Stress Scale by Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 385-396. Under public domain.

Items 20-23 are from Kroenke K, Spitzer RL, Williams JBW, Löwe B. (2009) An ultra-brief screening scale for anxiety and depression: the PHQ-4. *Psychosomatics, 50,*613-621.Under public domain.

Never	Almost Never	Sometimes	Fairly Often	Very Often
24. If you start practicing introspective meditations for 20 minutes daily you may be relaxed.				
25. If you start practicing introspective meditations for 20 minutes daily you may have peace of mind.				
26. If you start practicing introspective meditations for 20 minutes daily you may be happier.				
27. If you start practicing introspective meditations for 20 minutes daily you may feel contented.				
28. If you start practicing introspective meditations for 20 minutes daily you may prioritize things in life.				

Never	Almost Never	Sometimes	Fairly Often	Very Often
29. If you start practicing introspective meditations for 20 minutes daily you may have less time for other things.				
30. If you start practicing introspective meditations for 20 minutes daily you may get confused.				
31. If you start practicing introspective meditations for 20 minutes daily you may not be able to find time to do it.				
32. If you start practicing introspective meditations for 20 minutes daily you may still not be able to relax.				
33. If you start practicing introspective meditations for 20 minutes daily you may still not be able to prioritize things.				

Not At All Sure	Slightly Sure	Moderately Sure	Very Sure	Completely Sure
34. How sure are you that you can practice introspective meditations for 20 minutes daily by reflecting on your thoughts?				
35. How sure are you that you can practice introspective meditations for 20 minutes daily by reflecting on your words spoken?				
36. How sure are you that you can practice introspective meditations for 20 minutes daily by reflecting on your past day actions?				
37. How sure are you that you can practice introspective meditations for 20 minutes daily by reflecting on desired change?				
38. How sure are you that you can practice introspective meditations for 20 minutes daily by assessing the time frame for making the desired change?				

Not At All Sure	Slightly Sure	Moderately Sure	Very Sure	Completely Sure
39. How sure are you that you will be able to find a quiet place for practicing introspective meditations for 20 minutes daily?				
40. How sure are you that you will be able to eliminate distractions preventing you from introspective meditations in your physical environment?				
41. How sure are you that you will be able to have the necessary reflective questions to practice introspective meditations?				

Not At All Sure	Slightly Sure	Moderately Sure	Very Sure	Completely Sure
42. How sure are you that you can direct your feelings toward accomplishing the goal of practicing introspective meditations for 20 minutes daily?				
43. How sure are you that you can motivate yourself to practice introspective meditations for 20 minutes daily?				
44. How sure are you that you can overcome self-doubt in accomplishing the goal of practicing introspective meditations for 20 minutes daily?				

Not At All Sure	Slightly Sure	Moderately Sure	Very Sure	Completely Sure
45. How sure are you that you can keep a self-diary/journal to monitor the goal of practicing introspective meditations for 20 minutes daily?				
46. How sure are you that you can be able to practice introspective meditations for 20 minutes daily if you encounter barriers?				
47. How sure are you that you can change your plan for practicing introspective meditations for 20 minutes daily if you face difficulties?				

	Not At All Sure	Slightly Sure	Moderately Sure	Very Sure	Completely Sure
48.	How sure are you that you can get the help of a family member to support you with practicing introspective meditations for 20 minutes daily?				
49.	How sure are you that you can get the help of a friend to support you with practicing introspective meditations for 20 minutes daily?				
50.	How sure are you that you can get the help of a health professional to support you with practicing introspective meditations for 20 minutes daily?				

	Not At All Likely	Somewhat Likely	Moderately Likely	Very Likely	Completely Likely
51.	How likely is it that you will practice introspective meditations for seeking pleasure for 20 minutes daily in the upcoming week.				
52.	How likely is it that you will practice introspective meditations for seeking pleasure for 20 minutes daily from now on.				

SCORING GUIDE

Total Perceived Stress scores (PSS-10) uses a scale: never (0), almost never (1), sometimes (2), fairly often (3), very often (4). Summative scores from items 10-19 are obtained by reversing the scores on the four positive items[#13, 14, 16 & 17], e.g., 0=4, 1=3, 2=2, etc., and then summing across all 10 items with a possible range of 0-40.

Scoring of PHQ-4 (items 20-23): PHQ-4 total score ranges from 0 to 12, with categories of psychological distress being: None:0-2; Mild: 3-5; Moderate: 6-8; Severe: 9-12. Anxiety subscale includes summing of items 20 and 21 (possible range: 0 to 6); Depression subscale includes summing of items 22 and 23 (possible range: 0 to 6). On each subscale, a score of 3 or greater is considered positive for screening purposes

The construct of advantages: Derived by summing the scores of items 24-28 on the scale of Never (0), Almost Never (1), Sometimes (2), Fairly often (3), Very often (4) with a possible range of 0-20.

The construct of disadvantages: Derived by summing the scores of items 20-33 on the scale of Never (0), Almost Never (1), Sometimes (2), Fairly often (3), Very often (4) with a possible range of 0-20.

The construct of participatory dialogue: Derived from subtracting disadvantages score from advantages score with a possible range of -20 to + 20..

The construct of behavioral confidence: Derived by summing the scores of items 34-38 on the scale of not at all sure (0), slightly sure (1), moderately sure (2), very sure (3), completely sure (4) with a possible range 0-20.

The construct of changes in the physical environment: Derived by summing the scores of items 39-41 on the scale of not at all sure (0), slightly sure (1), moderately sure (2), very sure (3), completely sure (4) with a possible range 0-12.

The construct of emotional transformation: Derived by summing the scores of items 42-44 on the scale of not at all sure (0), slightly sure (1), moderately sure (2), very sure (3), completely sure (4) with a possible range 0-12.

The construct of practice for change: Derived by summing the scores of items 45-47 on the scale of not at all sure (0), slightly sure (1), moderately sure (2), very sure (3), completely sure (4) with a possible range 0-12.

The construct of changes in the social environment: Derived by summing the scores of items 48-50 on the scale of not at all sure (0), slightly sure (1), moderately sure (2), very sure (3), completely sure (4) with a possible range 0-12.

The construct of initiation of introspective meditations: Item 51 on a scale of not at all likely (0), somewhat likely (1), moderately likely (2), very likely (3), and completely likely (4)

The construct of sustenance of introspective meditations: Item 52 on a scale of not at all likely (0), somewhat likely (1), moderately likely (2), very likely (3), and completely likely (4)