

Managing Anxiety and Stress Holistically: Vedic Wisdom from the Purna Health Management System

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Abstract

Background: Anxiety and stress are prevalent across the globe. The Purna Health Management System (PHMS), named for its creator Dr. Professor Svami Purna, provides a promising approach to managing anxiety and stress, using four key factors in a holistic integrated method: Health, Fitness and Nutrition (HF&N), Life Balance (Stress Management) (LB-SM), Spiritual Growth and Development (SG&D) and Living in Harmony with the Natural Environment to Support Health (LHWNE).

Objective: To determine which of the four key factors of the PHMS correlate to participants' overall stress, stress management and mental/emotional health outcomes and which practices are helpful in managing stress and anxiety.

Methods: This was a cross-sectional mixed-methods study using an online anonymous survey with a non-clinical sample. Students of Dr. Professor Svami Purna were invited via email to participate in the study during a 12-month period in 2017-2018. Of the 253 approached, 60 responded to the survey. Spearman's Rho Correlation coefficient was used for analysis.

Results: There were moderate relationships ($p < .001$) between participants' frequent implementation of the PHMS four key factors and ability to manage stress (HF&N $r_s = 0.44$; LB-SM $r_s = 0.55$; SG&D $r_s = 0.39$; LHWNE $r_s = 0.55$) and self-reported mental/emotional health (HF&N $r_s = 0.42$; LB-SM $r_s = 0.54$; SG&D $r_s = 0.49$; LHWNE $r_s = 0.45$). Illustrative quotes from qualitative data indicated being in nature, contemplation, introspection, mantra, meditation, pranayama and reflection are helpful practices for managing stress and anxiety.

Conclusion: The PHMS may help clients to self-manage anxiety and stress.

Keywords: *Anxiety management; Stress management; Emotional balance; Mental balance; Integrated; Holistic; Vedic philosophy*

1. Introduction

The Purna Health Management System (PHMS) is an integrative, holistic approach based in ancient Vedic philosophy from the Sindo-Gangetic civilization. Created by the Himalayan Master, Professor, Dr. Svami Purna [1], it provides guidance on how people can live a healthy fulfilling life physically, mentally, emotionally, and spiritually, while taking responsibility for their own holistic health management. The PHMS involves 4 key factors that are integrated with each other in a transactive fashion: Health, Fitness and Nutrition (HF&N), Life Balance (Stress Management) (LB-SM), Spiritual Growth and Development (SG&D) and Living in Harmony with the Natural Environment to Support Health (LHWNE).

1.1 Literature supporting the PHMS 4 key factors

An explanation of the recommendations provided from each of the PHMS 4 Key Factors: Health, Fitness and Nutrition (HF&N), Life Balance (Stress Management) (LB-SM), Spiritual Growth and Development (SG&D) and Living in Harmony with the Natural Environment to Support Health (LHWNE), is below. Literature regarding each of the PHMS 4 Key Factors and their relationship with the management of stress and anxiety follows each explanation.

1.2 Health, fitness and nutrition (HF&N)

The PHMS Key Factor of Health, Fitness and Nutrition recommends that we engage in moderate exercise every day, eat a plant-based diet, and get 6-8 hours of deep, restful, undisturbed sleep [2-12]. Research supports these recommendations for the management of stress and anxiety [13-15].

For Health, Fitness, and Nutrition, recent research suggests that anxiety and stress decrease with physical exercise [16-19]. Similarly, proper nutrition is important during times of increased stress [20-21]. A plant-based diet was found to be associated with better health-related quality of life and mental health [22-23]. Getting the proper amount of Sleep is associated with decreased anxiety and stress [24-25].

1.3 Life balance (stress management) (LB-SM)

The PHMS Key Factor of Life Balance (Stress Management) suggests that we maintain a proper work and home life balance, engage in wholesome creative activities, and communicate with others in a calm, balanced, relaxed way [2-12].

Literature indicates that work-life balance has been found to support decreased anxiety and stress in college students [26].

Male pharmacy faculty report lower levels of anxiety and stress and better work-life balance than their female counterparts, suggesting an association between work-life balance with anxiety and stress [27].

Research also suggests that balanced interpersonal communication, a part of stress management, is associated with positive health and mental health outcomes in certain populations [28-29].

1.4 Spiritual growth and development (SG&D)

The PHMS Key factor of Spiritual Growth and Development follows Patanjali's 8-limbs of yoga [30]. Recommended practices include meditation, prayanama, mantra, reflection, contemplation and introspection. Recent literature addresses the benefits of

meditation, pranayama, mantra and reflection and are explored further. Meditation has been found to support decreased stress and anxiety [31-33]. Recent research also indicates that Pranayama (breathwork) is helpful in managing stress and anxiety in several populations [34-36]. The literature suggests that mantra is an effective practice for managing stress and anxiety [37-40]. Research indicates that those who engage in reflection during a stressful experience are more resilient and have better well-being [41].

1.5 Living in harmony with the natural environment to support health (LHWNE)

The PHMS Key Factor of Living in Harmony with the Natural Environment to Support Health involves spending time in nature, having reverence for nature, and protecting and sustaining nature. Recent evidence addresses the benefits of being in nature relative to managing stress and anxiety [2-12].

Research suggests that being out in nature is helpful in decreasing stress and anxiety [42], and increasing emotional wellbeing [43]. Even use of virtual environments are helpful when the natural environment is not readily accessible [44-45].

Since the PHMS is holistic and integrates all aspects of the person, it fits well with the current trends toward integrated behavioral health [46] and integrative medicine approaches to health care [47]. The PHMS not only integrates Eastern and Western perspectives of healing found in integrative medicine, but also supports integrating behavioral health and physical health together. This is important as physical health and behavioral health can strongly influence each other [48-52].

2. Statement of the Problem

Currently, levels of anxiety and stress have been on the rise across the globe, which has been exacerbated recently with the advent of COVID-19 and the mandate to social distance [53-56]. There is a need for non-pharmaceutical approaches to be more fully incorporated into interventions to help ameliorate anxiety and stress [57]. The PHMS suggests practices that can address this need and provides individuals with the tools for self-management.

3. Objectives

The purpose of this study was twofold:

- 1) to determine which of the four key factors of the PHMS have a statistically significant relationship with participants' stress management and mental/emotional health outcomes, and
- 2) to determine which PHMS practices are perceived by participants as being helpful in managing stress and anxiety.

4. Methods

This study was a cross-sectional mixed-methods descriptive study using an anonymous online survey.

4.1 Study site

The study was conducted online using SurveyMonkey.

4.2 Study population

This is a non-clinical population, comprised of 253 students of Professor Dr. Svami Purna.

4.3 Eligibility criteria

To be eligible for the study, potential participants needed to be adults over the age of 18 and students of Professor Dr. Svami Purna.

4.4 Inclusion criteria

Adult students of Professor Dr. Svami Purna were included in the study.

4.5 Exclusion criteria

Students of Professor Dr. Svami Purna who were younger than 18 years old, people who were not students of Professor Dr. Svami Purna and people who were younger than 18 years old, were excluded from the study.

4.6 Sample size

Of the 253 potential participants who were invited to participate in the study, 60 people responded to the survey, which is a 24% response rate.

4.7 Research design

This study used a mixed-methods explanatory sequential research design incorporating both quantitative and qualitative (open-ended) questions in an online survey. The quantitative items came first in the survey, followed by the qualitative open-ended questions to gain an understanding of the quantitative responses.

4.8 Study participant recruitment and enrollment

Potential participants who were adult students of Professor Dr Svami Purna were invited via email to participate. The email explained the purpose of the study, and that it was anonymous and voluntary. A link to the online survey was provided in the email. Once a participant clicked on the link, they were provided again with information about the study and reminded that it was anonymous, voluntary, and that they could stop participating at any time for any reason. They were given an option to agree to participate or not. Only 1 person chose not to participate, leaving 60 respondents remaining.

4.9 Data collection methods

Data were collected using an anonymous online survey.

4.10 Study implementation

The study was approved by A.T. Still University's IRB in Mesa, Arizona, USA. Potential participants were emailed approximately every 3-4 weeks during a 1-year period in 2017-2018, inviting them to respond to the survey.

4.11 Study instruments

Due to its unique focus, this study used a survey created by the researcher, which was reviewed by a panel of experts before implementation of the study to increase face validity.

4.11.1 Survey with Likert Scale and open-ended questions

This study used a survey comprised of a demographic module, Likert Scale questions, and open-ended questions. Some of the Likert scale questions addressed the *Frequency of Implementation of the 4 Key Factors*. For example: “In general, how often do you implement the PHMS teachings about Life-Balance (Stress Management) into your life?” using the 6-point rating scale of Daily, Several Times a Week, Weekly, Monthly, Less than once a month, Not applicable. This method was used for all PHMS 4 Key Factors. Other Likert scale questions asked for participant’s stress and health outcomes. *Overall Stress* was measured by this item: “In general, during the past 12 months, what has been the overall amount of stress you have experienced in life?” A 6-point Likert scale was used to rate this item: No stress, very little stress, mild stress, moderate stress, quite a lot of stress, extreme stress. *Ability to Manage Stress* was measured by the item: “In general, how would you rate yourself on your ability to manage that stress?” *Physical Health* was measured with this question “My overall physical health on most days, taking into account intensity of physical pain and other symptoms, frequency of physical illness, fatigue and general energy level is” *Mental/Emotional Health* was measured by this item: “My overall mental health on most days, taking into account intensity of emotional pain and other symptoms, mood swings, mental clarity and general stress level is.” A 5-point Likert scale of Excellent, Very Good, Good, Fair, and Poor was used to rate the outcomes of Ability to Manage Stress, Physical Health, and Mental/Emotional Health.

The open-ended question of “please explain” appeared after each Likert Scale question. At the end of the quantitative section of the survey, several open-ended questions were also asked such as “How have the PHMS Teachings helped you in managing stress? (please be specific and give examples)” and “How have the PHMS Teachings helped you in managing anxiety? (please be specific and give examples)” It is from this last section of questions that the illustrative quotes in the findings for this study are gleaned.

4.12 Findings

Demographic characteristics of the study sample are found in TABLE 1. Quantitative findings are in TABLE 2. Qualitative Themes for the open-ended questions using illustrative quotes are shown in TABLE 3.

TABLE 1. Demographic Characteristics of Study Sample (N=60).

Variable	N(%)
Age ^a	
31-39	9(15.00%)
40-49	22(36.66%)
50-59	15(25.00%)
60- 69	7(11.66%)
70-78	4(6.67%)
Age not stated	3(5.00%)
Gender	
Male	14(23.33%)
Female	44(73.33%)
Gender not stated	2(3.33%)

Race/Ethnicity	
White	40(66.67%)
Hispanic/Latino	10(16.67%)
Black or African American	1(1.67%)
Would Rather Not Say	4(6.67%)
Other	4(6.67%)
Race/Ethnicity not stated	1(1.67%)
Annual Household Income ^b	
\$0-80,000	24(40.00%)
\$90,000-300,000	16(26.67%)
Annual Household Income not stated	20(33.33%)
Employment Status	
Self-Employed	22(36.66%)
Full Time	17(28.33%)
Retired	11(18.33%)
Part Time	7(11.66%)
Unemployed	1(1.67%)
Employment Status not stated	2(3.33%)
Education Level	
Some College Courses	3(5.00%)
Associate's Degree	2(3.33%)
Bachelor's Degree	15(25.00%)
Some Graduate Courses	5(8.33%)
Master's Degree	21(35.00%)
Doctorate	7(11.67%)
Education Level not stated	2(3.33%)
Marital Status	
Married/Legally Partnered	22(36.66%)
Divorced	20(33.33%)
Never Been Married	9(15.00%)
A Member of an Unmarried Couple	5(8.33%)
Other (Single)	2(3.33%)
Prefer not to Say	1(1.67%)
Marital Status not Stated	1(1.67%)
Raising Children	
Yes	20(33.33%)
No	39(65.00%)
Parental Status not stated	1(1.67%)

Raising Children under 18	
Yes	16 (26.67%)
No	43 (71.66%)
Children under 18 not stated	1(1.67%)

^aMean Age= 49.82, SD= 11.28; ^bMean Annual Household Income= \$84,876.25, SD= \$78974.76)

TABLE 2. Spearman’s Rho Correlations for Frequency of Implementation of PHMS 4 Key Factors and Outcome Variables (N=52).

Frequency of Implementation of PHMS Factor	Overall Stress Past 12 months	Ability to Manage Stress	Physical Health	Mental/Emotional Health
Health Fitness and Nutrition	0.21	0.44**	0.24	0.42**
Life Balance (Stress Management)	0.15	0.55**	0.28*	0.54**
Spiritual Growth and Development	0.14	0.39**	0.14	0.49**
Living in Harmony with the Natural Environment to Support Health	0.28*	0.55**	0.18	0.45**

*. Correlation is significant at the 0.05 level (2-tailed).**. Correlation is significant at the 0.01 level (2-tailed).

TABLE 3. Illustrative Quotes of Helpful PHMS Practices.

PHMS Key Factor	Illustrative Quotes of Helpful PHMS Practices
Health, Fitness and Nutrition	<p>Diet</p> <p>“I am careful about diet and avoid certain exposures”</p> <p>“Green Juices everyday, when possible...eating organic as much as I can.... Detoxifying the body, fasting very important (the body ask for it naturally).”</p> <p>“organic whole foods keep the body stable and less reactive”</p> <p>“Eating as much organic as possible and trying to go 100% vegetarian.”</p> <p>Exercise</p> <p>“Exercises every day... Yoga poses.”</p> <p>Sleep</p> <p>“Better sleep so important”</p>
Life Balance (Stress Management)	<p>Stress Management:</p> <p>“Stress naturally falls away as emotional balance increases.”</p>

	<p>“keeping calm in the midst of the storm in any area of life, keep breathing, not taking anything personal, being positive, seeing thing as a learning process.”</p> <p>“Focus daily on maintaining life balance so I can continue on”</p> <p>“Balancing work and personal life to maintain physical health balance.”</p>
<p>Spiritual Growth and Development</p>	<p>Introspection:</p> <p>“Introspection with the intention to understand and dissolve the source of lower emotions does wonders to change behaviors and make for more harmonious relationships.”</p> <p>Mantra:</p> <p>“Mantra helps quiet the mind and mitigates unhealthy thoughts as a source of stress.”</p> <p>“When dealing with emotions, to prevent an erratic mind I practice mantra.”</p> <p>Meditation:</p> <p>“Meditation changes the way the brain behaves to minimize stress.....more responding to situations vs reacting, increases happiness / positive outlook and dissolves separation which is a kingpin for stress.”</p> <p>“Meditation practice provides a strong base...”</p> <p>“meditation and contemplation to let go of fear.”</p> <p>“choosing to change one's thinking and mood by choosing meditation and focusing on that which brings health and light.”</p> <p>Pranayama (Breathwork):</p> <p>“Breathing helps slow everything down and disconnect my awareness from the small mind (ego) and bring connection to the true self.”</p> <p>“Pranayama is also helpful to release blockages.”</p> <p>“Helped me a lot, just to remembering to keep breathing. Increasing Oxygen to the body...”</p> <p>“If a stressful situation has the potential to arise, I stop and connect to my breath and do one of the breathing practices from the PHMS”</p> <p>“pranayam - holy cow - the simple breathing can reset the whole system and change the nerves and thoughts.”</p> <p>“I used breath technique to manage [a] few panic attacks.”</p> <p>Reflection:</p> <p>“A deep understanding of how fear is generated leads to a gradual lessening of its impact.”</p> <p>“When difficult times arise it's good to remind oneself that it will pass and be resolved, although one doesn't know how. Be open to the how and when rather than rushing into anything particular.”</p> <p>“The techniques that I have used most often are the cloud and puzzle analogies. When situations occur, I think about the elements as clouds or pieces of a puzzle.”</p> <p>“Distance from the story at work to see the larger message of the life playing out. Understanding ... the gift of obstacles and learning.”</p>
<p>Living in Harmony with</p>	<p>Being in Nature:</p> <p>“walking outside and listening to sounds of nature is very soothing and uplifting.”</p>

<p>the Natural Environment to Support Health</p>	<p>“I may walk in Nature, connecting with the elements.”</p> <p>“I go out in nature several times per week and try to live a lifestyle that takes the health of the environment into account.”</p> <p>Protecting and Supporting Natural Environment:</p> <p>“I do my best to support the environment (though it's very difficult to do within the current societal structures).”</p> <p>“Decrease consumption of plastic bottles, use reusable shopping bags, recycle.”</p>
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4.12.1 Demographic characteristics of the study sample

Descriptive characteristics of the sample were calculated and are reported using number count (n) and percent (%). The mean age of the study sample was 49.82 years, with an age range of 31-78. Most of the respondents were female 44(73.33%) and White 40(66.67%). Only 40 of the 60 participants responded to the annual household income item, which ranged from \$0-\$300,000. More respondents 24(40%) reported a household income of \$80000 or below per year, which is below the mean of \$84,876.25. Approximately two-thirds of the sample were either self-employed 22(36.66%) or employed full time 17(28.33%). Many of the participants 48(80%) had a Bachelor’s degree or higher for education level. For marital status, 31(51.66 %) were without a partner and 27(45%) were partnered. For parental status, 20(33.33%) reported raising children, and 16(26.67%) of them were raising minor children (under the age of 18).

4.12.2 Quantitative findings - Spearman’s Rho correlations

Because the data were non-parametric, Spearman’s Rho correlation co-efficient was used to calculate the relationships between the PHMS 4 key factors and the self-reported outcomes of overall stress, ability to manage stress, physical health, and mental/emotional health. *Self-reported overall stress in the past 12 months had a weak significant association with LHWNE. Self-reported physical health had a weak significant relationship with LB-SM. There were moderate significant relationships between participants' frequent implementation of the PHMS 4 key factors and their self-reported ability to manage stress self-reported mental/emotional health.*

4.12.3 Qualitative themes organized by PHMS 4 key factors

Deductive coding using the PHMS 4 key factors and their sub-categories was used for analysis of the qualitative data. A peer reviewer provided feedback on the categorization of the codes. Some quotes from participants’ responses are below, organized by the PHMS 4 key factors and their subcategories to help further illuminate the quantitative findings and demonstrate how some of the participants were implementing the PHMS practices to manage their stress and anxiety.

5. Discussion

All 4 key factors of the PHMS have a moderate statistically significant relationship with participants’ ability to manage stress and mental/emotional health outcomes. These findings are supported by recent evidence, suggesting that getting proper exercise, eating a nutrient-rich plant-based diet, and getting enough sleep are important factors associated with reducing stress and anxiety [16-25]. Similarly, being able to maintain a good work-life balance and communicate in a balanced way with others has a relationship with decreased anxiety and stress and increased wellbeing [26-29; 59-60]. Spiritual practices such as mantra,

pranayama, and meditation are also related to the lowering of stress and anxiety levels [31-41; 61-63]. Finally, being in nature is correlated with reduced stress and anxiety [42-45].

It is difficult to pull apart thematically an integrated holistic approach such as the PHMS. As one participant explained, many methods used together can assist when managing anxiety: “Tools of prayer, mantra, contemplation, breath work all help to face anxiety and let it go.” Another participant stated regarding managing stress: “I apply pranayama, meditation and contemplation to bring the mind into a place of calm and then to reflect on the situation or thought that is causing stress or the feeling of being unsettled...and work with those energies from that more calm and objective perspective.” However, the illustrative quotes from the participants appear to suggest that using the PHMS while combining its many facets was helpful to them in finding mental and emotional balance.

These findings suggest that there is value and significance in finding ways to maintain mental and emotional balance, build resilience while managing anxiety, anger and stress given the circumstances of COVID-19 (and other crises of course) when people find themselves in a situation that is out of their control so that they can deal with life better. There is importance in developing a more philosophical perspective as suggested through the PHMS, perhaps through reframing, perhaps using humor or other uplifting tools as we cope with what life brings our way. The positive mind is so relevant to the management of stress and anxiety and to a happy, healthy life [63]. The PHMS system is flexible, integrated, and holistic and allows individuals to choose the practices which suit them best. The PHMS provides a promising approach to managing anxiety and stress. More research is needed with a larger sample size to demonstrate how the PHMS helps with the management of stress and anxiety.

6. Conclusion

Although we cannot attribute causality to these relationships as they are correlational in nature, the findings of this study suggest that using an integrated holistic approach such as the one provided by the PHMS may be valuable in helping people who are experiencing stress and anxiety.

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9. Conflicts of Interest

None.

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