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Correlational Study between *Satwa Bala* and Stress Coping Capability among Police Personnel

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Abstract

Background: According to Ayurvedic science, to assess the mental status of an individual, one needs to understand his *satwa* and its strength. The systematic and holistic approach is provided by the *Satwa Bala* to understand a person adequately. To know the stress coping capability factor of Police personnel, examination of *Satwa Bala* from Ayurveda Context will prove a definite useful tool.

Aim: To examine the correlation between *satwa Bala* and stress coping capability among Police personnel.

Methodology: observational research study with sample size 120, self-made *satwa bala* questionnaire and stress coping capability scale was used, percentage and pearson correlation coefficient was used for data analysis.

Result: *Satwa Bala* and stress coping capability among Police personnel, are highly correlated with each other.

Conclusion: To know the stress coping capability factor of Police personnel, examination of *Satwa Bala* from Ayurveda Context will prove a definite useful tool.

Keywords: Mental health, occupational stress, stress coping capability, *Satwa Bala*.

Introduction

An essential branch of medicine is Ayurveda. It is essentially different from contemporary medical science. Ayurveda takes a comprehensive approach to medical science. It covers disease management as well as disease prevention and maintaining the health of the well [1]. To prevent illness and prolong life, as well as to get rid of bodily malfunction. Adhering to this proverb, all authors of traditional Ayurvedic texts-An individual can be called *Swastha* (healthy) when his *Daihika* constitution of *Dosha*, *Dhatu*, *Mala* and *Agni* are in equilibrium while *Atma* and *Mana* should be *Prasanna*. *Sushruta's* notion of "*Swastha*" emphasizes the mental, emotional, and physical health of people [2, 3]. *Mann* serves as the faculty's regulator and key component. While *Acharya Sushruta* does not specifically address *Satwa*, he does discuss the three attributes of humans based on their *Rajas*, *Tamas*, and *Satwa* status. The body remains in a healthy state when these are in equilibrium. The ratio of *Tamas*, *Raja*, and *Satwa* differs from person to person. The people are classified as *Rajasika* (the superiority of *Rajas*), *Tamasika* (the superiority of *Tamas*) and *Sattwik* (the superiority of *Satwa*) based on the predominance of *Guna* [4]. Ayurveda considers *Satwa* (mind) to be one of the three pillars (*Tridand*) on which life depends. They are always associated with mental attributes and identified in tandem with physical cues and symptoms. According to the Indian medical system, maintaining positive

well-being can be achieved through understanding *Satwa* and its state. The *Satwa* is a prime entity, who creates the connection between the body and soul necessary for the proper operation of the *Indriya* (sensory organs). A person's adequate state of well-being is provided by *Satwa Bala*, or "status/strength of mind," which offers a systematic and comprehensive approach to understanding an individual [5]. Starting from 1946, the World Health Organization has consistently highlighted the significance of wellness in defining mental health. The number of police personnel suffering from mental illnesses is becoming a significant public health concern. Police personnel are more likely to experience mental health problems than the general population. The use of effective mental health promotion programs can assist in reducing police personnel' psychological problems. Mental and psychological health problems have gained prominence as a major public health concern [6]. A mental disorder can be described as a clinically significant disturbance in an individual's thinking, emotional control, or behavior [7]. The mental health problems among police personnel were indeed alarming. Police personnel are generally considered to be a high-risk group for the development of psychological illnesses due to the numerous significant and potentially traumatic events they experience during their careers [23, 24]. The duties and responsibilities in police personnel place them in difficult and stressful

circumstances, which can have a major consequence on their mental health and probably even performance [25].

Previous research has linked law enforcement work to higher levels of physical, psychosocial, and anticipatory stress [26]. Despite the fact that mental disorders are common and may be influenced by work-related experiences, police personnel appear to be hesitant to seek mental health treatment. Furthermore, police personnel are more likely to develop mental health problems, but little research into their psychological issues, mental health promotion and intervention programs, has been conducted.^{27,28} Therefore, conducting research to learn more about mental disorders and mental health promotion, as well as to assist distressed police personnel, is critical.

Rationale of the Study

Assessment of *Satwa Bala* is very important to know one's mind strength. By assessing *Satwa Bala*, we can assess the stress coping capability of that person. It is helpful to find out the ways to treat that person's acute and chronic stress. Considering the police personnel here, this correlational study will be helpful to explore their *Satwa Bala* status and capability of stress coping behaviour. To deal with their mental health, this concept will surely be useful to physicians in treating patient's psychological issues. Also, for promotion of mental health, we can plan use of Achar-rasayana, Yoga and *Satwavajaya chikitsa* according to the patient's *Satwa Bala*. Considering the above facts, the present study takes a holistic view of personhood. This has been planned to study the Ayurvedic term *Satwa Bala*, stress coping capability and find their relationship among Police personnel.

Research Question

Is there any correlation between *Sattwabala* and stress coping capability among Police personnel?

Aim

To examine the correlation between *satwa Bala* and stress coping capability among Police personnel.

Objectives

To assess and compare *Satwa Bala* and stress coping capacity among Police personnel and to find correlation between them.

Literature Review of *Satwa Bala*:

Satwa has been regarded as the essential constituent of life and that it has been recognized as one of the chief determinants of human personality. Satwa is called Mann and it regulates the body because of its association with the soul. Depending upon its strength, it is of three types i.e., Pravara, Madhyama and Avara. Acharya charaka has described Dashavidha pariksha (tenfold examination) among which Sattva pariksha (examination of the mind) has its own importance^{8,9,10,11} Sushruta samhita has explained Satwa as the capacity of Manas which does not cause frustration at times of emotional turmoil. Dalhana has commented Satwa as Manobala, wherein the persons with Satwa guna predominance will have Uttama manobala, those with Rajoguna predominance will have Madhyama Manobala and persons with predominance of Tamoguna will have Manodourbalya. Acharya Susruta does not mention Satwa separately but he explained the three qualities of individuals according to the status of Satwa, Rajas and Tamas. Equilibrium of these maintains the healthy state of the body.

Proportion of Satwa, Raja and Tamas varies from person to person.

On the basis of predominance of Guna the individuals are said to be Rajasika (superiority of Rajas), Tamasika (superiority of Tamas) and Sattvik (superiority of Satwa). The person endowed with superiority of Satwa does not frustrate at times of distress and overcome panic situations because of his self-restraint and firmness. The person with the superiority of Rajo guna can overcome problems by getting appreciation and motivation from others. The person with the superiority of Tamo guna cannot tolerate any type of regret or penitence and they cannot overcome these situations. Kapha prakriti individuals Sattvawaan as they are calm, non-aggressive, delicate, stable minded and have pleasing faces. They are blessed with steady thoughts, steady determination, excellent tolerance, good memory, and concentration power. Depending on the strength of Manas, Charaka Samhita describes the following qualities to assess the *Satwa Bala* [12, 13].

- **Smruti:** Is the ability to recollect the objects of previous experience.
- **Bhakti:** Devotion
- **Krutajnata:** Intellectual, wise learned, clever discriminator.
- **Shuchi:** Clean, pure, hygiene
- **Mahotsaha:** Good energy
- **Daksha:** Able, expert, clever, skillful
- **Dheera:** Brave, bold, courageous
- **Samara Vikranta Yodhinaha:** Powerful, victorious
- **Tyakta Vishada:** Devoid of sadness, dejection, grief, sorrow Suvyavasthita gati and Gambheera buddhi chesta- Properly organized body language, intellect and behaviour.

These properties are very much similar to the stress coping capability attribute of the person.

Literature Review of Stress Coping Capacity

- **Stress:** It is a type of psychological strain that influences a person's attitude and conduct and is viewed as a burden. Stressors that might lead to such low moods can come from life transitions, family dynamics, the environment and nature of one's work and a variety of personal relationships [14, 15]. Just like stress may have varied effects on individual workers, the magnitude of what a police personnel perceives and the associated coping behavior may be varied as well.
- **Coping:** It is defined as the thoughts and behaviors mobilized to manage internal and external stressful situations¹⁹. It is a term used distinctively for conscious and voluntary mobilization of acts, different from 'defense mechanisms' that are subconscious or unconscious adaptive responses, both of which aim to reduce or tolerate stress [20]. Coping usually involves adjusting to or tolerating negative events or realities while you try to keep your positive self-image and emotional equilibrium. Coping occurs in the context of life changes that are perceived to be stressful. Adjusting to novel demands, or stresses, is part of coping. This calls for exerting more effort and energy than what is required for day-to-day living. Long-term exertion can raise stress-related hormone levels, which can lead to eventual physical deterioration and disease [19].
- **Coping Capability:** It is one of the prime factors in the process of stress coping [16]. There are problem-focused

and emotion-focused approaches to counter the stress. Problem-focused approach could be more effective in helping victims to solve the problems associated with stress than the emotion-focused [17, 18, 19].

- **Stress Coping Capability:** The ability to identify and accept stress in our life, as well as its cause and effects, is known as coping with stress. It involves the capacity to manage the source of stress as well as take action to lessen or eliminate it. In order to perform successfully in a variety of contexts, this skill also entails managing fear and other challenging emotions as well as our comprehension of our feelings and responses to conflict. This ability gives us the resilience to deal with the surrounding emotions, confront stressful, unpredictable, and conflicting situations, and seek out the most advantageous alternatives [21].

Coping is generally categorized into four major categories which are [19]:

- Problem-focused:** it addresses the problem causing the distress: Examples of this style include active coping, planning, restraint coping, and suppression of competing activities.
- Emotion-focused:** It aims to reduce the negative emotions associated with the problem: Examples of this style include positive reframing, acceptance, turning to religion, and humor.
- Meaning-focused:** In which an individual uses cognitive strategies to derive and manage the meaning of the situation
- Social coping** (support-seeking) in which an individual reduces stress by seeking emotional or instrumental support from their community.

Material and Methods

- This is a descriptive observational research study with survey mode.
- Literary review of the Satwa Bala and stress coping capacity were done from Ayurveda classical Context, scientific journals.
- Total 120 subjects from the police personnel between the age group 21 to 50 from different regions of India were included in this study.
- We have interviewed participants for collecting information relating to the present research with Google form and telephonically.
- We adopted a questionnaire as an instrument for the study. Selfmade questionnaires were used for the assessment of satwa bala comprising 36 items with 5 alternatives as-
 - a) Better than others,
 - b) same as others,
 - c) Uncertain,
 - d) Poor and
 - e) Very poor.

On the basis of total scoring, Sattabala of the subject has been assessed.

- For the assessment of stress coping capability, 'Coping Scale' developed by Hamby, Grych, & Banyard was used. This coping questionnaire assesses cognitive, emotional, and behavioral methods of dealing with problems. Scoring: Each answer category was assigned a value from 4 to 1. Higher scores indicate higher levels of stress coping capability. Total score (52) was categorised as- 1. Excellent = (36-52), 2. Medium = (1-35), 3. low = (0-20) [22]

Data Analysis

Percentages and the Pearson's Correlation Coefficient test were used for the data analysis. The Pearson's Correlation coefficient was used to describe the relationship between Satwa Bala and stress coping capability among police personnel.

Observations and Result

- Out of 120 police personnel, 55% were male and 45% were females.
- 39% participants were from joint families and 61% were from nuclear families.
- 26%, 18%, 16% and 40% participants were having vishamagni, tikshagni, Mandagni and Samagni respectively.
- 34%, 33% and 33% participants were having krura, mrudu and madhyam koshta respectively.
- 41% were non vegetarian and 59% were vegetarian.
- 15%, 30%, 32% and 40% participants were having vatapittaj, vatakapahaja, pittakaphaja and kaphapittaj sharir prakriti respectively.
- 31%, 31% and 38% were having rajtamsik, tamarajsik and sattvarajsik respectively.
- 25%, 53% and 22% were having Pravara, Madhyama and Avara satwa bala respectively.
- 27%, 52% and 21% were having high, average and low stress coping capability.
- Pearson correlation coefficient between *sattvabala* and stress coping capability is -0.9256. So, they are highly correlated with each other.

Correlation between *Satwa Bala* and stress coping capability among police personnel.

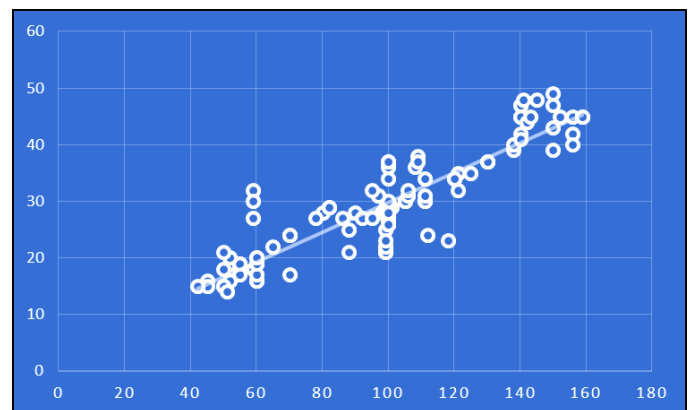


Fig 1: Sattvabala and stress coping capability

Conclusion

- From the above research study, it can be concluded that as *Satwa Bala* and stress coping capability are highly significantly correlated with each other, to know the stress coping capability factor of police personnel, examination of Satwa Bala from Ayurveda Context will prove a definite useful tool.
- Today we live in a very turbulent world, where breaking of law, distortion, violence, cheating, terrorization and dishonesty have become socially and morally acceptable. The superiority of Satwa is essential to be mentally and physically healthy. Ayurveda Sattvavajaya concept, Ayurveda Medhya (brain booster) drugs, Achar Rasayan, Sadvriitta (Ayurveda codes and conducts) can be used to improve the Madhyam and Avara Sattvabala of the police

personnel. This will improve their stress coping capability and surely be helpful to achieve their life goals.

- More research in this topic is needed

References

1. Dr. Bramhanand Tripathi, Charaka Samhita, Prakashan, Varanasi, Sutra sthana, Chapter 30/26- Dhashmahamuliya, 2010, Vol 1. Version no. 26, Page no. 565.
2. Dr. Ambika Dutt Shastri, Sushruta Samhita Vol 1, Chaukhamba Surbharati Prakashan, Varanasi 2012, Sutrasthana, Chapter 15- Dosha Dhatu Mala Kshaya Vriddhi, Version no.48, Page no. 84.
3. Sharir Kriya Vijanan by Dr. Nandini Dilip Dhargalkar, published by Chaukhambha Sanskrit Sansthan, Varanasi 1st edition-2008.
4. Sharma P V, Susruta Samhita, Nibandha Sangraha, Sharir Sthan 4/36, Chaukhambha Orientalia, Varanasi Ed- 2007; 772. Verma D, The Bhagvad Geeta, 14/11, Books For All, Delhi: Edition – 1999; 237.
5. Rani *et al.*, *World Journal of Pharmaceutical Research*; ISSN 22771105. 2018; 7(13):375-385.
6. Strine TW, Ford ES, Balluz L, Chapman DP, Mokdad AH. Risk behaviours and health-related quality of life among adults with asthma-the role of mental health status. *Chest*. 2004; 126:1849–54.
7. Challenges and Opportunities in Global Mental Health: a Research-to-Practice Perspective. Wainberg Milton L, Scorza Pamela, Shultz James M, Helpman Liat, Mootz Jennifer J, Johnson Karen A, Neria Yuval, Bradford Jean-Marie E., Oquendo Maria A., Arbuckle Melissa R. Apr 19; 2017 *Current Psychiatry Reports*. 19(5):28. doi: 10.1007/s11920-017-0780-z. Doi: 10.1007/s11920-017-0780-z. [DOI] [PMC free article] [PubMed] [Google Scholar]
8. New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. Charlson Fiona, Ommeren Mark, Flaxman Abraham, Cornett Joseph, Whiteford Harvey, Saxena Shekhar. *The Lancet*. 2019; 394(10194):240–248. doi: 10.1016/s0140-6736(19)30934-1. doi: 10.1016/s0140-6736(19)30934-1. [DOI] [PMC free article] [PubMed] [Google Scholar]
9. Cartwright K, Lewis D, Roberts C, Bint A, Nichols T, Warburton F. Workload and stress in consultant medical microbiologists and virologists: A questionnaire survey. *J Clin Pathol*. 2002; 55:200–5. [PMC free article] [PubMed] [Google Scholar]
10. Shri Kashinath Shastri, Charak Samhita, Vidhyotani Viman Sthan 7/3 Chaukhambha Sanskrit Sansthan, Varanasi; Ed. 2013; 1:608.
11. Tripathi B, Charak Samhita vol-1, Vimana Sthana 8/8, Chaukhamba Surbharti Prakashan, Varanasi Edition. 2014; 1:725.
12. Gaur B, Charak Samhita, Aishna, Viman Sthan, 8/110, Rastriya Ayurved Vidyapeetha, New Delhi Edition – 2014; 2:521
13. Tripathi B, Charak Samhita, Vimana Sthana 8/8, Chaukhamba Surbharti Prakashan, Varanasi Edition. 2014; 1:725.
14. Acharya Priyavrat Sharma, Susruta Samhita, Nibandha Sangraha, Sutra Sthan 23/3, Chaukhambha Orientalia, Varanasi Ed. 2007; 1:110.
15. Sharma P V, Susruta Samhita, Nibandha Sangraha, Sutra Sthan 11/28, Chaukhambha Orientalia, Varanasi Ed- 2007; 1: 50
16. Lazarus RS, Folkman S. *Stress, appraisal, and coping* New York: Springer, 1984.
17. Monat A, Lazarus RS. *Stress and coping* (3rd). New York: Columbia University Press, 1991.
18. Monat A, Lazarus RS, Reevy G. *The praeager handbook on stress and coping* New York: Praeger, 2007.
19. Stez TA, Stez MC, Bliese PD. The importance of self-efficacy in the moderating effects of social support on stressor-strain relationships. *Work & Stress*. 2006; 20(1):49–59.
20. Folkman S, Moskowitz JT. *Coping: pitfalls and promise*. *Annu Rev Psychol*. 2004; 55:745-74. [PubMed]
21. Venner M. [Adjustment, coping and defense mechanisms--deciding factors in the therapeutic process]. *Z Gesamte Inn Med*. 1988; 43(2):40-3. [PubMed]
22. <https://lifeskillscollaborative.in/glossary/coping-with>
23. https://www.researchgate.net/publication/280840331_Coping_Scale
24. Life Paths version: Hamby S, Grych J & Banyard VL. *Life Paths measurement packet: Finalized scales*. Sewanee, TN: Life Paths Research Program, 2015. <http://www.lifepathsresearch.org/strengths-measures/>
25. Partially adapted from: Holahan CJ & Moos RH. Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology*. 1987; 52(5):946-955.
26. Trajectories of Mental Health Status Among Police Recruits in Sweden. Emsing Mikael, Padyab Mojgan, Ghazinour Mehdi, Hurtig Anna-Karin. 2021 *Frontiers in Psychiatry*. 12:753800. doi: 10.3389/fpsyt.2021.753800. doi: 10.3389/fpsyt.2021.753800. [DOI] [PMC free article] [PubMed] [Google Scholar]
27. Police officers: a high-risk group for the development of mental health disturbances? A cohort study. Velden Peter G, Rademaker Arthur R, Vermetten Eric, Portengen Marie-Anne, Yzermans Joris C, Grievink Linda. 2013 *BMJ Open*. 3(1):e001720. doi: 10.1136/bmjopen-2012-001720. doi: 10.1136/bmjopen-2012-001720. [DOI] [PMC free article] [PubMed] [Google Scholar]
28. Understanding the mental health and wellbeing needs of police officers and staff in Scotland. Demou Evangelia, Hale Hannah, Hunt Kate. *Police Practice and Research*. 2020; 21(6):702–716. doi: 10.1080/15614263.2020.1772782. doi: 10.1080/15614263.2020.1772782. [DOI] [PMC free article] [PubMed] [Google Scholar]
29. Prevalence of Mental Illness and Mental Health Care Use among Police Officers. Jetelina Katelyn K., Molsberry Rebecca J., Gonzalez Jennifer Reingle, Beauchamp Alaina M., Hall Trina. *JAMA Network Open*. 2020; 3(10):658–670. doi: 10.1001/jamanetworkopen.2020.19658. doi: 10.1001/jamanetworkopen.2020.19658. [DOI] [PMC free article] [PubMed] [Google Scholar]
30. “Playing the system”: Structural factors potentiating mental health stigma, challenging awareness, and creating barriers to care for Canadian public safety personnel. Ricciardelli Rosemary, Carleton R Nicholas, Mooney Taylor, Cramm Heidi. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*. 2020; 24(3):259–278. doi: 10.1177/1363459318800167. doi: 10.1177/1363459318800167. [DOI] [PubMed] [Google Scholar]
31. Global prevalence and risk factors for mental health problems in police personnel: a systematic review and meta-analysis. Syed Shabeer, Ashwick Rachel, Schlosser Marco, Jones Rebecca, Rowe Sarah, Billings Jo. *Occupational and Environmental Medicine*. 2020; 77(11):737–747. doi: 10.1136/oemed-2020-106498. doi: 10.1136/oemed-2020-106498. [DOI] [PubMed] [Google Scholar].