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3.1 INTRODUCTION

This chapter presents the operational definitions of the variables included in the present study along with the list of hypotheses to be studied. It is followed by the description of the method used for this study.

3.2 VARIABLES AND HYPOTHESES

Operational definitions of the variables included in the present study, and the hypotheses developed for the present study are given in this section.

3.2.1 Operational Definitions of the Variables

In the present research anger as well as triguna, tridosha, irrational beliefs and health outcomes were included. On the basis of existing theories and research literature, the following operational definitions were adhered to.

Anger: Anger is a “psychobiological emotional state and trait consisting of subjective feelings that vary in intensity and frequency from mild irritation to intense fury and would fluctuate over time as a function of frustration, perceived insults or being verbally or physically attacked by others, experienced over time. It is accompanied by arousal of autonomic nervous and neuroendocrine process” (Spielberger, 1999).

Triguna: The universe consists of various combinations of the three gunas: sattva, rajas and tamas. These subtle qualities underlie matter, life, mind, consciousness and soul. They determine mental and spiritual nature of a person. Sattva-intelligence imparts balance, rajas-energy causes imbalance, and tamas-substance creates inertia (Frawley, 2004).

Tridosha: According to Ayurveda the predominance of doshas determines the energetic condition of the body. The prevalent dosha restricts the operation of the other two and characterizes the behavior and actions in a specific situation. These are: Vata (air +ether), the principle of kinetic energy, rules the basic sensitivity and mobility of the mental field. Kapha (earth + water), the principle of potential energy, governs feelings, emotions and gives mental calm, stability, but can prevent growth and expansion. Pitta
(fire + water) controls the body’s balance of kinetic and potential energies, governs reason, intelligence and understanding.

Irrational beliefs: People have their own beliefs they rely on to assist in making judgments and evaluate situations, ideas, people and events. The thought and beliefs are the important factors in determining both feelings and responses to a given situation. Irrational beliefs are the assumptions upon which irrational self-talk is based. It takes one away from reality and leaves the actual problem unresolved, causing mental and physical disturbances in the person.

Health: Health is defined as a state of well-being and free from physiological and psychological illnesses. Ayurveda recognizes the ideal healthy person as an individual whose bodily doshas are in a state of equilibrium, with balanced digestion and metabolism, and in whom the functions of the tissues and waste materials are normal, accompanied by properly functioning senses (five organs of perception and five organs of actions) and happy state of being. It is a process which requires attention and care throughout the life.

3.2.2 Hypotheses

On the basis of review of previous literature, the following hypotheses were formulated:

1. Sattva, rajas, tamas personality groups differ on Trait-Anger, Anger Expression-Out, Anger-Expression-In, Anger Control-Out and Anger Control-In scores
2. Sattva, rajas, tamas personality groups differ on irrational beliefs scores
3. Sattva, rajas, tamas personality groups differ on physical and mental health scores
4. Vata, pitta, kapha constitution groups differ on Trait-Anger, Anger Expression-Out, Anger-Expression-In, Anger Control-Out and Anger Control-In scores
5. Vata, pitta, kapha constitution groups differ on irrational beliefs scores
6. Vata, pitta, kapha constitution groups differ on physical and mental health scores

3.3 METHODOLOGY

This section describes the method used for the present study.

3.3.1 Sample

The sample for the study comprised 250 students (131 males and 119 females). Their age ranged from 20 to 25 years; all were Indian students studying in various colleges and universities in Pune, knowing English. The students meeting these inclusive criteria were included from different faculties of Arts, Commerce, Humanities, Engineering, Management, Architecture, Social and Medical Sciences.

3.3.2 Tools

The following tools were used to obtain the data.

1. State-Trait Anger Expression Inventory-2 (STAXI-2) developed by Spielberger (1999). It consists of 57 items, six scales and five subscales and an Anger Expression Index. The six scales are: i) State Anger, ii) Trait Anger, iii) Anger Expression-Out, iv) Anger Expression-In, v) Anger Control-Out, vi) Anger Control-In. The five subscales are: i) State-Anger/Feeling, ii) State-Anger/Verbal, iii) State-Anger/Physical, iv) Trait-Anger/Temperament, v) Trait-Anger/Reaction. Alpha- coefficient measures of internal consistency are uniformly high across all scales and sub-scales: .84 or higher, except for the 4-item T-Anger/R subscale for normal adults, which is .76 and .73 for normal females and males, respectively. The inventory consists of three parts: Part 1 consists of items numbered 1 to 15 on State-Anger (Experience), Part 2 consists of items numbered 16 to 25 on Trait Anger (Frequency) and Part 3 consists of items number 26 to 57 on the Anger Expression Index. (The scale and answer sheet are in Appendix A and B, respectively.)
2. Triguna-SRT Scale was developed anew, based on the descriptions of sattva, rajas, and tamas gunas. This is a 3-point rating scale with responses in the direction from 1- untrue, 2- somewhat true, 3- true. Higher the score higher is the guna in the sub-scale. Originally it had 63 items with 21 items in each of the subscales of sattva, rajas, and tamas. Standardization was done on sample of 250 students. Using iterative item-total remainder method the final version of the Triguna-SRT scale has 41 items, for sattva- 13 items (1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 30, 32, 34), for rajas-9 items (2, 5, 8, 11, 14, 17, 20, 23, 26), tamas- 19 items (3, 6, 9, 12, 15, 18, 21, 24, 27, 29, 31, 33, 35, 36, 37, 38, 39, 40, 41). Alpha coefficient for sattva is .60; for rajas, .60; and for tamas, .72. Validation was done on 100 students against “The tri­dimensions of gunas scale” by Pathak, Bhatt and Sharma (1992). The obtained coefficient for sattva is .43; for rajas .43 and for tamas .53. (First and final versions of the scale and answer sheet are in Appendix C, D and E, respectively).

3. Tridosha-VPK Scale was developed anew, based on the descriptions of vata, pitta, and kapha constitutions in the literature. This is a 3-point rating scale with responses in the direction from 1- untrue, 2- somewhat true, 3- true. Higher the score higher is the dosha in the subscale. The scale initially had 78 items with equal number of items for each type of constitution. It was administered to 250 post-graduation students from 18 to 24 years of age. On the basis of the scores obtained item analysis was carried out through iterative item-total remainder correlation. After item analysis 40 items of significant correlations were retained. For vata scale -16 items (item numbers are: 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34,37, 38, 39, 40), for pitta scale-12 items (2. 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35), and kapha scale- 12 (3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36) were retained. Alpha coefficient for vata is .67; pitta .63; for kapha .61. First and final versions of the scale and answer sheet are in Appendix F, G and H, respectively).
4. Irrational Beliefs-Anger Scale (IB-AS). This scale originally consisted of 25 items with an alpha coefficient of .81 (Mathew & Ram, 2000). The items were modified to fit the requirement of the study to be framed as statements in relation to anger. After administering this scale to 150 students between 20 and 22 years of age, this set of data was subjected to iterative item-total remainder correlations for selection of items. This yielded 22 items finally. The alpha coefficient was .81 for the new sample and a split-half reliability correlation coefficient with Spearman-Brown correction was .77. This is a 5-point rating scale with responses ranging from ‘Strongly agree’ to ‘strongly disagree’ with scoring in the direction of 5-1. Higher the score greater is the irrationality in a respondent. (First and final versions of the scale and answer sheet are in Appendix I and J, respectively).

5. Personal data sheet. Items of Thingujam’s Physical Health Scale (2002) and of Mental Health Checklist by Mathew and Ram (1999) were clubbed together to meet the requirement of the study to collect the respondents’ demographic information and physical and mental health data on a 5-point rating scale with responses ranging from ‘Very frequently’ to ‘Never’ and scoring in the direction of 5-1. Higher the score poorer is the health. There are totally 38 items to be responded to. (Final version of the scale is in Appendix K).

3.3.3 Procedure

The five tools were administered to the selected sample (which met the inclusive criteria) in small groups in their classrooms. The purpose of the study was told to them as being to find out if anger had anything to do with health, and in this the students’ cooperation was sought to respond to the “questionnaires” as one’s participation would help in research. Confidentiality was assured and they were also told that the information would be used for research purposes only.
3.3.4 Statistical analysis

The obtained data were analyzed through Pearson’s product-moment correlation, t-test, One-Way ANOVA and Multiple Regression Analysis to test the hypotheses.

3.5 SUMMARY

This chapter explained the methodology used in the present study. The variables studied were operationally defined for the purpose of this study. The hypotheses, sample, tools and procedure were described subsequently along with proposed statistical techniques for analysis of the collected data.