

Personality Profile of Elite Male Badminton Players of Bangladesh

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Abstract

Background: Psychology is the scientific study of human mind and its functions, especially those which affect behaviour in a given context. A personality profile is a comprehensive assessment that provides insights into an individual's psychological characteristics, behavioural tendencies, and emotional attributes. **Objective:** The purpose of the present study was to analyze and understand the personality profile of elite male badminton players of Bangladesh. **Methods:** The personality profile was measured for the present study. For assessing personality profile, 16 PF questionnaire which was developed by Cattell was considered. Personality factors were assessed using Bengali version of Raymond Cattell's 16 PF questionnaires (Form-C) developed and standardized by Bose and Chatterjee (1984), Department of Applied Psychology, University of Calcutta. The 16 PF questionnaire was included total sixteen factors i.e. Factor A-reserved v/s outgoing; Factor B- less intelligent v/s more intelligent; Factor C-economically less stable v/s economically stable; Factor E- humble v/s assertive; Factor F-sober v/s enthusiastic; Factor G-expedient v/s conscientious; Factor H- shy v/s venturesome; Factor I-tough minded v/s tender minded; Factor L- trusting v/s suspicious; Factor M-practical v/s imaginative; Factor N-forthright v/s shrewd; Factor O- self assured vs. apprehensive; Factor Q1- conservative vs. liberal; Factor Q2- Group oriented v/s self sufficient; Factor Q3- undisciplined self-conflict v/s following self image; Factor Q4- relaxed v/s tensed. Total hundred male badminton players (n=100) who were attending National Coaching Camp of Bangladesh were selected as subjects. The collected data of personality factors were analyzed using descriptive and analytical statistics. **Results:** The results of the present study revealed that the subjects were lower average in Factor H. On the other hand they were also found to be higher than the normal in Factors G and Q3. In respect of other factors they had found average standard mean values. **Conclusions:** National level male badminton players of Bangladesh appear to be average in personality traits including; A (warmth), C (emotional stability), E (dominance), F (liveliness), I (sensitivity), L (vigilance), N (privateness), O (apprehension), Q1 (openness to change), and Q4 (tensions). It is also found that they have less reasoning ability (Factor B), be shy, sensitive, and hesitant (Factor H) in respect of social boldness. National level male badminton players of Bangladesh appear to be dutiful and rule bound (Factor G), imaginative (Factor M), self reliant (Factor Q2) and socially precise (Factor Q3) conscientious in respect of rule consciousness.

Keywords: Psychology, Personality, Cattell's 16 PF questionnaires, Badminton players.

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INTRODUCTION

Psychology is the scientific study of the human mind and its functions, especially those which affect behaviour in a given context. Any sports performance depends on many groups of factors such as fitness & condition, technique & tactics, psychological preparedness of the athletes on the respective sport. A personality profile is a comprehensive assessment that

provides insights into an individual's psychological characteristics, behavioural tendencies, and emotional attributes. It offers a structured understanding of your unique traits, preferences, and ways of interacting with the world. The 16 Personality Factors questionnaire included total sixteen factors i.e. Factor A-reserved v/s outgoing; Factor B- less intelligent v/s more intelligent; Factor C-economically less stable v/s economically stable; Factor E- humble v/s assertive; Factor F-sober v/s

enthusiastic; Factor G-expedient v/s conscientious; Factor H- shy v/s venturesome; Factor I-tough minded v/s tender minded; Factor L- trusting v/s suspicious; Factor M-practical v/s imaginative; Factor N-forthright v/s shrewd; Factor O- self assured vs. apprehensive; Factor Q1- conservative vs. liberal; Factor Q2- group oriented v/s self sufficient; Factor Q3- undisciplined self-conflict v/s following self image; Factor Q4- relaxed v/s tensed. Different sports scientists have been constantly studying and trying to analyse the relation of each of these factors with the performance achieved. In this endeavour sport psychologists have focussed to understand the relation of personality factors with the performance. Thus for example Ciaran *et al.*, (1980) have reported that cross country runners are cautious, deliberate individuals, suited to monotonous and repetitive situations. According to their findings rowers are self disciplined with compulsive tendencies. Gandola *et al.*, (1991) have also reported that the female tennis players are more reserved with more intelligent and suspicious, and less pretentious. Marrero *et al.*, (2000) have reported that athletes are self-reliant, individualist and supportive, apart from tensed, energetic, impatient and uneasy and, on the other hand, responsive and emotionally changing. It is believed that the outcomes of this investigation may help in identifying the talent and selection of badminton players across the country; and their training for high level performance. Therefore, the researchers determine the research question and adopted a scientific methodological process to analyze and understand the personality profile of elite male badminton players of Bangladesh.

Objective

The objective of the present study was to analyze and understand the personality profile of elite male badminton players of Bangladesh.

METHODS

Participants

Total hundred male (n=100) badminton players from National Badminton Coaching Camp of Bangladesh volunteered as subjects for this present study. All of them were active national players with the participating experience of 5-8 years of organizes training under qualified coaches. The age of the subjects ranged between 20-25 years.

Assessment

For measuring personality profile of badminton players 16 PF questionnaire was assessed which was developed by Raymond Cattell. The 16 PF questionnaire included total sixteen factors i.e. Factor A-reserved v/s outgoing; Factor B- less intelligent v/s more intelligent; Factor C-economically less stable v/s economically stable; Factor E- humble v/s assertive; Factor F-sober v/s enthusiastic; Factor G-expedient v/s conscientious; Factor H- shy v/s venturesome; Factor I-tough minded v/s tender minded; Factor L- trusting v/s suspicious; Factor M-practical v/s imaginative; Factor N-forthright v/s shrewd; Factor O- self assured vs. apprehensive; Factor Q1- conservative vs. liberal; Factor Q2- group oriented v/s self sufficient; Factor Q3- undisciplined self-conflict v/s following self image; Factor Q4- relaxed v/s tensed.

Data Synthesis

For measuring these personality factors Bengali version of Cattell's 16 PF Questionnaire (Form C), developed and standardized by Bose and Chatterjee (1984) of Department of Applied Psychology, University of Calcutta, was used. It consisted of 105 items. In Form C, there were eight items for the factor B, Seven items for the motivational distortion and six items for each of the remaining factors. Three alternative answers were provided for each of the questions. Each answer scored 0, 1 or 2 points, except the factor B (conceptual ability) answers, which scored 0 (incorrect) or 1 (correct). Obtained raw scores of 16 PF were calculated with scoring key, and then it was converted to 'sten score.

Statistical Analysis

Collected data was analyzed using descriptive statistics. Mean, standard deviation, maximum and minimum values were calculated as the measures of descriptive statistics.

RESULTS AND DISCUSSIONS

The purpose of the present study descriptive statistics of sten scores for all the 16 personality factors have been analyzed, presented in Table-1. For interpretation of results the limit of sten scores 4.5 to 6.5 was considered as average. Below average scores were considered as lower and upper average scores as the higher values of personality factors. The results as shown in Figure-1 and Table-2 have been discussed as follows.

Table-1: Assessment of personality factors of national level male badminton players of Bangladesh

Primary Factor	Mean \pm SD of Sten Score	Descriptions
A (Warmth)	5.88 \pm 1.90	Average
B (Reasoning)	4.47 \pm 1.50	Below Average (Less reasoning ability)
C (Emotional Stability)	5.94 \pm 1.19	Average
E (Dominance)	6.29 \pm 1.64	Average
F (Liveliness)	6.35 \pm 1.49	Average
G (Rule-Consciousness)	7.70 \pm 1.57	Above average (Rule bound)
H (Social Boldness)	3.41 \pm 1.69	Below Average (Shy and hesitant)
I (Sensitivity)	6.11 \pm 1.83	Average

Primary Factor	Mean \pm SD of Sten Score	Descriptions
L (Vigilance)	6.00 \pm 1.54	Average
M (Abstractedness)	6.88 \pm 1.83	Above Average (Imaginative)
N (Privateness)	5.64 \pm 2.37	Average
O (Apprehension)	5.41 \pm 1.62	Average
Q1 (Openness to Change)	5.94 \pm 1.88	Average
Q2 (Self-Reliance)	6.70 \pm 2.08	Above average (Self reliant)
Q3 (Perfectionism)	7.17 \pm 2.15	Above average (Socially precise)
Q4 (Tension)	6.00 \pm 1.90	Average

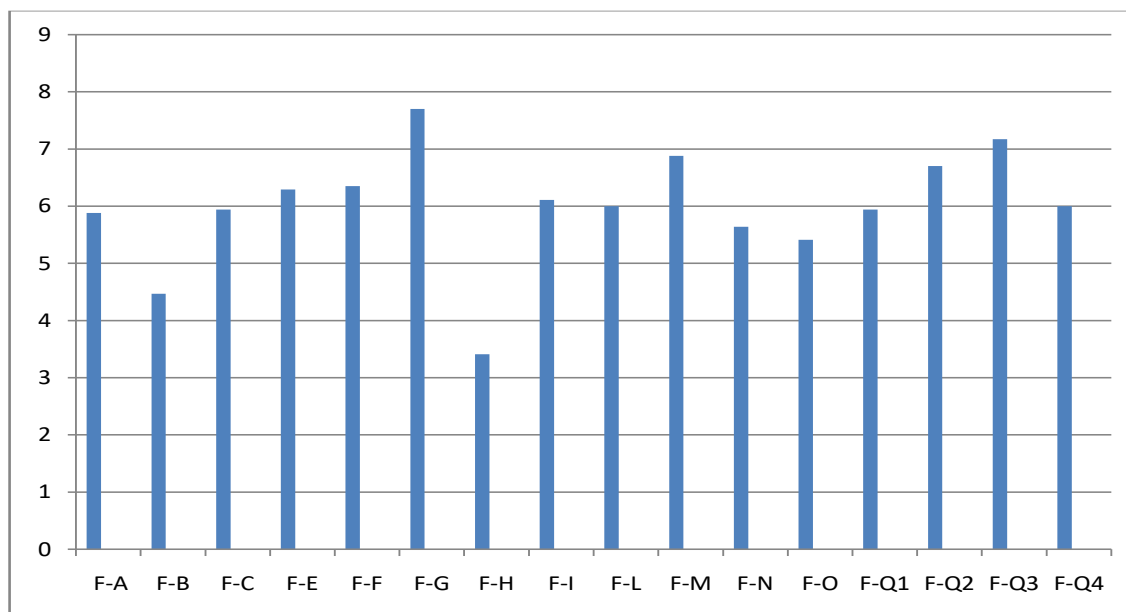


Figure 1: Personality profile of National level male badminton players of Bangladesh

Factor A (Warmth: Reserved v/s Outgoing): The continuum of this trait extended from cool, reserved, impersonal, detached and aloof at lower end to warm, outgoing, participating at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor A is 5.88 which lies on average level. So, it is considered that the subjects are neither outgoing nor reserved.

Factor B (Reasoning: Less reasoning v/s More reasoning): The continuum of this trait extended from concrete-thinking, less intelligent at lower end to abstract-thinking, more intelligent at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor B is 4.47 which lies slightly below average level. So, it is considered that the subjects have less reasoning ability.

Factor C (Emotional stability: Emotionally less Stable v/s Emotionally Stable): The continuum of this trait extended from feeling, emotionally less stable at lower end to emotionally stable, mature at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor C is 5.94 which lies on average level. So, it is

considered that the subjects are average in emotional stability.

Factor E (Dominance: Submissive v/s Competitive): The continuum of this trait extended from submissive, humble, mild, easily led at lower end to dominant, assertive, aggressive, bossy and competitive at upper end. The result shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor E is 6.35 which lies on average level. So, it is considered that the subjects are neither assertive nor humble.

Factor F (Liveliness: Sober v/s Enthusiastic): The continuum of this trait extended from sober, restrained, prudent and taciturn at lower end to enthusiastic, spontaneous, cheerful, heedless and expressive at upper end. The outcome of the result shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor F is 6.29 which lies on average level. So, it is considered that the subjects are neither sober nor enthusiastic.

Factor G (Rule consciousness: Unconventional v/s Rule conscious): The continuum of this trait extended from expedient and disregards rules at lower end to conscientious, conforming, moralistic and rule bound at

upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor G is 7.70 which lies upper end of the spectrum. So, it is considered that the subjects are rule bound, moralistic.

Factor H (Social boldness: Shy v/s Venturesome): The continuum of this trait extended from shy, timid and hesitant at lower end to bold, venturesome and uninhibited at upper end. The result shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor H is 3.41 which lie on the lower end. So, it is considered that the subjects are hesitant.

Factor I (Sensitivity: Tough minded v/s Tender minded): The continuum of this trait extended from tough-minded, self-reliant, no-nonsense and rough at lower end to tender-minded, sensitive, over-protected and intuitive at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor I is 6.11 which lies on average level. So, it is considered that the subjects are neither self reliant nor sensitive.

Factor L (Vigilance: Trusting v/s Suspicious): The continuum of this trait extended from trusting and accepting at lower end to suspicious, hard to fool and sceptical at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor L is 6.00 which lies on average level. So, it is considered that the subjects are neither trusting nor suspicious.

Factor M (Abstractedness: Practical v/s Imaginative): The continuum of this trait extended from practical and steady at lower end to imaginative, absent-minded and impractical at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor M is 6.88 which lies on the upper end of the spectrum. So, it is understood that the subjects are imaginative and impractical.

Factor N (Privateness: Forthright v/s Shrewd): The continuum of this trait extended from forthright, genuine and artless at lower end to shrewd, socially aware, diplomatic and calculating at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor N is 5.64 which lies on average level of the spectrum. So, it is understood that the subjects are neither confident nor diplomatic and calculating.

Factor O (Apprehension: Self assured v/s Apprehensive): The continuum of this trait extended from self assured, secure, untroubled and self-satisfied at lower end to apprehensive, self-blaming, insecure and worrying at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor O is 5.41 which lies on average level of the spectrum. So, it is understood that the subjects are neither self-assured nor apprehensive.

Factor Q1 (Openness to change: Conservative v/s Liberal): The continuum of this trait extended from conservative at lower end to experimenting and liberal at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor Q1 is 5.94 which lies on average level of the spectrum. So, it is understood that the subjects are neither conservative nor apprehensive.

Factor Q2 (Self reliance: Group oriented v/s Self sufficient): The continuum of this trait extended from group-oriented at lower end to self-sufficient, resourceful at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor Q2 is 6.70 which lies on the upper end of the spectrum. So, it is understood that the subjects are self sufficient and resourceful.

Factor Q3 (Perfectionism: Undisciplined self-conflict v/s Following self image): The continuum of this trait extended from undisciplined self-conflict, lax and careless of social rules at lower end to following self-image, socially precise and compulsive at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor Q3 is 7.17 which lies on the upper end of the spectrum. So, it is understood that the subjects are socially precise and compulsive.

Factor Q4 (Tension: Relaxed v/s Tensed): The continuum of this trait extended from relaxed, tranquil and unfrustrated at lower end to tense, frustrated and overwrought at upper end. The Table-1 shows that the mean score of sten values of national level male badminton players of Bangladesh for Factor Q4 is 6.00 which lies on average level of the spectrum. So, it is understood that the subjects are neither relaxed nor tensed. Detail of personality profile of national level male badminton players of Bangladesh has been presented in Figure-1.

Table-2: Raymond Cattell's 16 Personality Factors measuring traits.

Descriptors of low range	Primary factor	Descriptors of high range
Impersonal, distant, cool, reserved, detached, formal, aloof	Warmth (A)	Warm, outgoing, attentive to others, kindly, easygoing, participating, likes people

Descriptors of low range	Primary factor	Descriptors of high range
Concrete-thinking, less intelligent, lower general mental capacity, unable to handle abstract problems	Reasoning (B)	Abstract-thinking, more intelligent, bright, higher general mental capacity, fast-learner
Reactive emotionally, changeable, affected by feelings, emotionally less stable, easily upset	Emotional Stability (C)	Emotionally stable, adaptive, mature, faces reality calmly
Deferential, cooperative, avoids conflict, submissive, humble, obedient, easily led, docile, accommodating	Dominance (E)	Dominant, forceful, assertive, aggressive, competitive, stubborn, bossy
Serious, restrained, prudent, taciturn, introspective, silent	Liveliness (F)	Lively, animated, spontaneous, enthusiastic, happy-go-lucky, cheerful, expressive, impulsive
Expedient, nonconforming, disregards rules, self-indulgent	Rule-Consciousness (G)	Rule-conscious, dutiful, conscientious, conforming, moralistic, staid, rule-bound
Shy, threat-sensitive, timid, hesitant, intimidated	Social Boldness (H)	Socially bold, venturesome, thick-skinned, uninhibited
Utilitarian, objective, unsentimental, tough-minded, self-reliant, no-nonsense, rough	Sensitivity (I)	Sensitive, aesthetic, sentimental, tender-minded, intuitive, refined
Trusting, unsuspecting, accepting, unconditional, easy	Vigilance (L)	Vigilant, suspicious, skeptical, distrustful, oppositional
Grounded, practical, prosaic, solution oriented, steady, conventional	Abstractedness (M)	Abstract, imaginative, absentminded, impractical, absorbed in ideas
Forthright, genuine, artless, open, guileless, naive, unpretentious, involved	Privateness (N)	Private, discreet, nondisclosing, shrewd, polished, worldly, astute, diplomatic
Self-assured, unworried, complacent, secure, free of guilt, confident, self-satisfied	Apprehension (O)	Apprehensive, self-doubting, worried, guilt-prone, insecure, worrying, self-blaming
Traditional, attached to familiar, conservative, respecting traditional ideas	Openness to Change (Q1)	Open to change, experimental, liberal, analytical, critical, freethinking, flexibility
Group-oriented, affiliative, a joiner and follower dependent	Self-Reliance (Q2)	Self-reliant, solitary, resourceful, individualistic, self-sufficient
Tolerates disorder, unexacting, flexible, undisciplined, lax, self-conflict, impulsive, careless of social rules, uncontrolled	Perfectionism (Q3)	Perfectionistic, organized, compulsive, self-disciplined, socially precise, exacting will power, control, self-sentimental
Relaxed, placid, tranquil, torpid, patient, composed low drive	Tension (Q4)	Tense, high-energy, impatient, driven, frustrated, over-wrought, time-driven

CONCLUSIONS

National level male badminton players of Bangladesh appear to be average in personality traits including; A (warmth), C (emotional stability), E (dominance), F (liveliness), I (sensitivity), L (vigilance), N (privateness), O (apprehension), Q1 (openness to change), and Q4 (tensions). It is also found that they have less reasoning ability (Factor B), be shy, sensitive, and hesitant (Factor H) in respect of social boldness. National level male badminton players of Bangladesh appear to be dutiful and rule bound (Factor G), imaginative (Factor M), self reliant (Factor Q2) and socially precise (Factor Q3) conscientious in respect of rule consciousness.

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REFERENCES

- Cattell. (1970). Theories of Personality. John Wiley and Sons, Inc (2nd ed.) p.386.
- Fatemi, M. A., & Sazegar, Z. (2016). The Relationship between Teacher's Personality Traits and Doing Action Research. *Journal of Applied Linguistic and Language Research*, 3(1), 144-154.
- Dolphin C., Brien M., Cahill N., & Cillen J. (1980). Personality Factors and some Physiological Correlates in Athletes. *Journal of Psychosomatic Research*, 25, 281-285.
- Bedse, R. C. (2019). A Comparative Analysis of Personality Traits among Women Badminton and Lawn Tennis Players. *International Journal of Yogic, Human Movement and Sports Sciences*, 4(1), 1168-1170.
- Ghosh, S. N., De, A., & Mondal, S. (2018). Stress Hormones and Sports Performance: A Critical Analysis. *International Journal of Physiology, Nutrition and Physical Education*, 3(1), 1752-1757.
- Gondola, J. C., & Wughalter, E. (1990). The Personality Characteristics of International lyranked

- Female tennis players as measured by the Cattell 16PF. Perceptual and Motor Skills, 73.
- Bastug, G., Agilonu, A., & Balkan, N. (2017). A Study of Attention and Imagery Capacities in Badminton Players. *Turkish Journal of Sport and Exercise*, 19(2), 307-312. <https://doi.org/10.15314/tsed.325694>
 - Islam, M. S., & De, A. (2018). Functional Hamstring to Quadriceps Strength Ratio (H: Q) and Hamstrings Injury of Soccer Players: A Qualitative Analysis. *Orthopaedics and Sports Medicine: Open Access Journal*, 2(2), 126-132.
 - Marrero G., Martin-Albo, J., & Nuñez, J. L. (2000). Perfil de personalidad del tenista. *Revista de Psicología del Deporte*, 9(1-2), 21-36.
 - De, A., & Bag, S. (2015). A Study on Selected Anthropometric and Physical Fitness Variables between Fast Bowlers and Javelin Throwers. *Active Lifestyle-A Complete Journal of Health, Physical Education, Physical Activity & Sports (ACLIFS)*, 1(2), 7-13.
 - Ooi, C. H., Tan, A., Ahmad, A., Kwong, K. W., Sompong, R., Mohd Ghazali, K. A., ... & Thompson, M. W. (2009). Physiological characteristics of elite and sub-elite badminton players. *Journal of sports sciences*, 27(14), 1591-1599. doi: 10.1080/02640410903352907
 - Roy, D., & De, A. (2018). Effect of Aging on Psycho-Motor Components in Relation to Perceived Stress among Healthy Citizen. *International Journal of Movement Education and Social Science*, 7(1), 1-6.
 - Maksum, A., & Indahwati, N. (2023). Personality traits, environment, and career stages of top athletes: An Evidence from Outstanding Badminton Players of Indonesia. *Heliyon*, 9(3), e13779. doi: 10.1016/j.heliyon.2023.e13779
 - De, A., & Ghosh, S. N. (2016) Effect of Healthy Activity Programmes on Kinesthetic Perception and Self-Concept among School Students. *International Journal of Advanced Scientific Research*, 1(7), 29-33.
 - Maksum, A. (2020). Personality Traits, Environment, and Career Stages of Top Athletes: An Evidence from Outstanding Badminton Players of Indonesia. *SSRN Electronic Journal*. <http://dx.doi.org/10.2139/ssrn.4157141>
 - Heller, J. (2010). Physiological Profiles of Elite Badminton Players: Aspects of Age and Gender. *British Journal of Sports Medicine*, 44, i17.
 - Roy, T., Roy, D., & De, A. (2017). Modern Technology and Health Risk Factors: A Pedagogical Emergent for Social Wellbeing. *International Journal of Current Trends in Science and Technology*, 7(11), 20192-20196.
 - Tai, C. C., Chen, Y. L., Kalfirt, L., Masodsai, K., Su, C. T., & Yang, A. L. (2022). Differences between Elite Male and Female Badminton Athletes Regarding Heart Rate Variability, Arterial Stiffness, and Aerobic Capacity. *International Journal of Environmental Research and Public Health*, 19(6), 3206. <https://doi.org/10.3390/ijerph19063206>
 - Ooi, C. H., Ahmad, A., Tan, A., Chai, W. J., & Thompson, M. (2007). Physiological Profiles of Elite Male Malaysian Badminton Players. 12th Annual Congress of the European College of Sport Science, Jyväskylä, Finland - July 11-14th 2007, p. 270.
 - Titarmare, D. (2017). Personality Dynamics of Badminton Skill: A Correlational Study. *International Journal of Physical Education, Sports and Health*, 4(1), 298-300.
 - Islam, M. S., & De, A. (2022). Ancient Boxing: A Narrative Discussion from Archaeological and Historical Evidences. *Montenegrin Journal of Sports Science & Medicine*, 11(2), 71-78
 - Devi, K. S., & Singh, T. I. (2021). Profile Study of Selected Motor Fitness Variables of Badminton Player. *International Journal of Science, Engineering and Management*, 6(7).
 - Tai, C. C., Chen, Y. L., Kalfirt, L., Masodsai, K., Su, C. T., & Yang, A. L. (2022). Differences between Elite Male and Female Badminton Athletes Regarding Heart Rate Variability, Arterial Stiffness, and Aerobic Capacity. *International journal of environmental research and public health*, 19(6), 3206. doi: 10.3390/ijerph19063206