1. REVIEW OF LITERATURE

1. Sharma Divya Darshan, et.al., (2014) conducted a study to assess the fitness of cricket players with a clear objective of making them capable to increase their level of performance and to be in the game of cricket for longer duration. A test was conducted to assess the specific physical fitness of cricket players participating at inter university level. 25 male cricket players participating in inter university level cricket were selected as the subjects for the present study.

2. Vickery W1, et.al., (2014) Compared physiological, physical and technical demands of Battle zone, traditional cricket training and one-day matches. Data were initially collected from 11 amateur, male cricket players (age: 22.2 ± 3.3 year, height: 1.82 ± 0.06 m body mass: 80.4 ± 9.8 kg) during four battle zone and four traditional cricket training sessions encompassing different playing positions. Heart rate, blood lactate concentration, rating of perceived exertion and movement patterns of players were measured.

3. Vickery W, et.al., (2013) conducted a study on investigated the physiological responses and movement demands associated with modified versions of small-sided games for cricket training, termed ‘Battle zone’. 11 (22.2 ± 3.6 years; 1.80 ± 0.06 m; 81.7 ± 11.4 kg) male, cricket players volunteered to perform each of four modified eight over scenarios of Battle zone.

4. Kirubalan G, et.al., (2013) conducted a study to compare anxiety among different age groups of city league male cricket players. For the purpose of the study, 90 city league male cricket players who had regularly practice the games and participate in various tournaments in different levels were selected as subjects and they were classified into three groups of 30 each subjects in an age categories of 18 to 20, 21 to 23 and 24 to 26 years.

5. Gurdeep Singh (2013) conducted a study to compare the degree of sports competition anxiety between state level chess and cricket players. The study was conducted on 40 State level male chess and 40 male cricket players are ranging from 18 to 25 years. In this study Sports Competition Anxiety Test (SCAT Martens et al., 1990) was used to measure sports competition anxiety.
6. **Pradeep Kumar, et.al., (2013)** conducted a study on comparative analyses of physiological variables of All India Intervarsity level batsmen’s, pace bowlers, spin bowlers, wicketkeepers, and all-rounders men cricketers of India. For the purpose of this study, 114 cricket players which consist 22 batsmen, 40 bowlers (i.e. 25 medium pace and 15 spin bowlers) 14 wicket keepers, and 38 all-rounders were selected. The following physiological variables were considered to be the major factors contributing to the performance in the cricket- Resting pulse rate, Resting blood pressure, Hb content, Vital capacity, Anaerobic power, and Aerobic capacity. To prepare profiles of All India Intervarsity Level cricket Men players of India, descriptive analysis i.e. mean and S.D. was done.

7. **J. Jeyson (2013)** conducted a study to compare the selected physical fitness variables of school level basketball and cricket players in rural areas. Total 60 students (30 from Basketball and 30 from cricket) male players from Govt. higher secondary schools, in Radhapuram block, Tirunelveli District were selected for this study. Their age ranged between 13-17 years. AAPHER youth physical fitness test was utilized to measure selected fitness components of players.

8. **Lockie RG, et.al.,(2013)** conducted a study to analyze the relationships between general and specific cricket speed tests, which included 30m sprint (0 to 5m, 0 to 10m, 0 to 30m intervals; general); 505 change-of-direction speed test with left and right foot turns (general); 7.68 m sprint without and with (WB) a cricket bat (0 to 5, 0 to 17.68m intervals; specific); and run a-three (specific).

9. **Gaur Santosh Kumar (2011)** conducted a study to find out the motor fitness is gauged by performance and this performance is based on a composite of many factors. The most commonly motor fitness factors are speed, muscular strength, muscular endurance, muscular power, circulatory respiratory endurance, flexibility and agility. The purpose of the study was calculating the motor fitness components of inter-university cricket and football players. The subjects for this study were cricket and football interuniversity players of Dr. Ram Manohar Lohiya Awadh University, Faizabad, Uttar Pradesh

10. **Olivier B, et.al.,(2013)** conducted a study to establish the difference in lumbo-pelvic movement control, static and dynamic balance at the start and at the end of a
cricket season in pace bowlers who sustained an injury during the season and those who did not. This is a longitudinal, observational study. 32, healthy, injury free, male premier league fast, fast-medium and medium pace bowlers between the ages of 18 and 26 years (mean age 21.8 years, standard deviation 1.8 years) participated in the study.

11. **Baljinder Singh Bal et.al., (2013)** conducted a study to find out the significant differences of selected Psychomotor abilities between male Baseball pitcher and cricket fast bowler. A group of thirty (N=30) male subjects aged between 18-28 years, who participated in intercollege competitions organized by the Department of Sports, Guru Nanak Dev University, volunteered to participate in this study and were selected for this study.

12. **Arjun Singh Solanki, et.al., (2013)** conducted a study to find out the differences in mental toughness between Tae-Kwon-Do and Cricket male players of Guru Ghasidas Vishwavidyalaya, Bilaspur(C.G.).

13. **Amit K. Gamit (2013)** conducted a study to compare the level of anxiety between male and female national cricketer of Gujarat. Anxiety is an arousal state of mind which has both negative and positive effects on sports performance. 40 cricketer (male = 20, female = 20) who have participated in the national championships were taken as the subjects. The age of the subjects ranged from 17 to 25 years.

14. **Chaturvedi Shweta, et.al., (2013)** conducted a study to conducted on competitive behavior and team cohesion between male and female Cricket National players of Madhya Pradesh.60 subjects (30 male & 30 female) from national level cricket team of Madhya Pradesh were selected randomly for the study.

15. **Vasanthi G et.al., (2013)** conducted a study to assessment of selected psychological variables between rural and urban cricket players. For the purpose of this study a total of 140 male cricket players were selected randomly from rural and urban area of Uttar Pradesh with 70 subjects in each group and their age ranged from 14-18 years.

16. **Yadav Angad, et.al., (2013)** conducted a study on mental toughness of high and low level cricket players of Madhya Pradesh. Mental toughness is a widely used
expression in modern sports. It is a quality, which differentiates the winner, from the looser, the champion form the rest of the field.

17. **Juanita.R weissensteiner, et.al., (2012)** conducted a study to determine the psychological characteristics and skills that are fundamental to batting success in the sport of cricket.

18. **Minett GM, et.al., (2012)** conducted a study to examine physiological and performance effects of pre-cooling on medium-fast bowling in the heat. Ten, medium-fast bowlers completed two randomized trials involving either cooling (mixed-methods) or control (no cooling) interventions before a six-over bowling spell in 31.9±2.1°C and 63.5±9.3% relative humidity.

19. **Gurpreet Makker, et.al., (2012)** conducted a study on the relationship between mental skills and level of Anxiety between the successful and unsuccessful team of men Cricket at Delhi Inter College.

20. **Cooke, et.al., (2011)** conducted a study to investigate the effects of state and trait anxiety and personality in an anxiety in Cricket. The anxiety reduction program consisted of effective goal setting, relaxation techniques and a gratitude diary was designed specifically to help those cricket players who suffered from anxiety.

21. **Houghton L, et.al., (2011)** conducted a study to find out the reliability (test-retest) of running between the wickets times and skill performance was assessed during a batting exercise (BATEX) simulation of two hour 20 minutes duration that requires intermittent shuttle running. In addition, performance and physiological responses (heart rate, sweat rate, rating of perceived exertion, blood lactate concentration) were compared between high- and low-grade district club batsmen (n = 22, mean ± s: age 20 ± 2 years, mass 73.4± 8.5 kg).

22. **Weissensteiner JR, et.al., (2012)** conducted a study to determine the psychological characteristics and skills that are fundamental to batting success in the sport of cricket. Following from the findings of an earlier qualitative investigation which suggested that a favorable mix of psychological attributes and skills are critical to high performance in batting (Weissensteiner et al.(10)), adult-aged batsmen of two different skill levels (highly skilled n=11; lesser skilled n=10) completed a battery of psychological tests that included measures of mental toughness (Mental Toughness
Inventory), perfectionism (Multidimensional Perfectionism Scale), coping ability (Athletic Coping Skills Inventory-28), and optimism (Attributional Styles Questionnaire).

23. **Balaji P, et.al., (2011)** conducted a study to find out the differences in mental toughness among cricket players of different age groups. To achieve this purpose, 90 cricket players at the age group of 10-21 years were selected from Chennai district, who regularly practice the game and participate in various tournaments.

24. **Daniel F. Gucciardi (2011)** conducted a study to investigate the contribution of positive and negative youth sport experiences to self-reported mental toughness among young aged cricketers. A sample of 308 male cricketers aged between 13 and 18 years self-reported mental toughness using the Cricket Mental Toughness Inventory (CMTI; Gucciardi & Gordon, 2009), with 187 of these cricketers also documenting their exposure to a variety of positive and negative developmental experiences.

25. **Petersen CJ, et.al., (2011)** conducted a study to find out the quantify of physiological demands of selected cricket training activities and compared these to known match demands. 28 different training activities were monitored in national academy level cricketers (n = 42) using global positioning system units during a 14-week residential training program. The training activities were classified into three categories: conditioning sessions (n = eight), skill sessions (n = nine), and game simulations (n = 11). Conditioning sessions were further classified into high (n = four) and low (n = four) intensity drills

26. **Johnstone JA and Ford PA (2010)** conducted a study on physiologic profile of professional cricketers and noted positional differences at the start of the 2007/08 competitive season.

27. **Duffield R, et.al., (2009)** conducted a study to investigate the relationship between physiological and performance responses during repeated six over fast-bowling spells. Six, first-class, medium-fast bowlers performed six over spells separated by 45 min of light activity.

28. **Gucciardi DF and Gordon S (2009)** conducted a study to develop a psychometrically sound measure of mental toughness in cricket, using a multi-method research design. Two qualitative studies in which current and former cricketers’ (n = 16) perceptions of the key components of mental toughness in cricket
and the suitability of an item pool to target those key components (n = nine) were assessed.

29. **Petersen C et.al., (2009)** conducted a study to time-motion characteristics and the within-athlete variability in movement patterns were quantified, for the same male fast bowler, playing One Day International (ODI) cricket matches (n=12). A number of different time motion characteristics were monitored using a portable 5-Hz global positioning system (GPS) unit (Catapult, Melbourne, Australia).

30. **Christie CJ, et.al., (2008)** conducted a study to measure selected physiological responses during batting in a simulated high-scoring one-day cricket game. 10 male university cricketers performed a batting specific work session consisting of four sprints per over (6 balls) for a seven over period. Testing was conducted outdoors with players wearing full batting gear.

31. **Duffield R and Portus M (2007)** conducted a study to compare the effects of three types of full-body compression garments (Skins, Adidas and Under Armour) on repeat-sprint and throwing performance in cricket players. Following familiarization, 10 male cricket players performed four randomized exercise sessions (three garments and a control).

32. **Noakes TD and Durandt JJ (2000)** conducted a study despite its long history and global appeal, relatively little is known about the physiological and other requirements of cricket. It has been suggested that the physiological demands of cricket are relatively mild, except in fast bowlers during prolonged bowling spells in warm conditions.

33. **Burnett AF, et.al.,(1995)** conducted a study to find out the effect of a 12-over spell on fast bowling technique in cricket. Nine members of the Western Australian Cricket Association fast bowling development squad were selected to determine the effects that a 12-over spell would have on fast bowling technique and selected physiological variables.

34. **Kamal Saha (1989)** conducted a study on assessment of some physiological variables as limiting factor in fast bowling in cricket. 15 fast bowlers of first division cricket, Calcutta (West Bengal) were selected randomly as subjects for the study. The selected physiological variables chosen for this study were anaerobic power,
aerobic power and resting pulse rate.

35. **Devashish Bagchi (1983)** investigated the relationship of strength and flexibility of selected body parts to velocity of ball in cricket. The subject for this study was 25 male cricket players in the age group of 17 to 23 years, studying at Lakshmibai National College of Physical Education, Gwalior. About thirty players were chosen for the study for they had completed all test items. Those who could not complete all the test items were eliminated.