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A COMPARATIVE STUDY ON PAIN TOLERANCE AMONG UNIVERSITY-LEVEL FEMALE FOOTBALL AND BASKETBALL TEAM

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ABSTRACT

The main purpose of the study was to find out the comparison of pain tolerance among university-level female athletes of football and basketball. The subjects for the present study were forty (40), out of which twenty (20) were football players and twenty (20) were basketball players from colleges of the University of Delhi by applying random sampling method. Data on pain tolerance were collected and subsequently organized using Microsoft Excel. Descriptive statistics and two-sample (independent) t-test were employed as the statistical techniques for analysis. It was hypothesized that there would be no significant difference in pain tolerance between football and basketball players, and the findings confirmed that no significant difference existed between the two groups.

Keywords: Pain Tolerance, Female Athletes, Football, Basketball, Psychology.

INTRODUCTION

Most people who play sports feel pain now and then. When you train hard or push past your limits, it shows up, sometimes from effort, sometimes from getting hurt. How much you can handle shapes how well you do. That limit where pain becomes too much? It's different for everyone. Still, we do not know if footballer feel pain the same way basketball player do. Pain shifts differently across sports, yet proof remains scattered. Running up a football field takes grit of a different kind than darting down a court. One game pounds bodies through long sprints and tackles, the other zips with sudden stops and jumps. Pain shows up differently when boots dig into turf compared to sneakers squeaking on wood. How players handle that ache often ties back to what the sport asks them to do. So here we look at how much pain female college athletes in football and basketball can handle. One sport swaps quick cuts for full- speed clashes, the other builds on jumps and sudden stops, each shapes stress differently. This time, it is about who pushes further when things start to burn.

METHODOLOGY

The data were collected from female athletes of various colleges affiliated with the University of Delhi. A total of forty (N= 40) athletes, aged 17-23 years, were selected using random sampling. The sample consisted of twenty (20) football players and twenty (20) basketball players. Pain tolerance was measured using the Pain Tolerance Scale for Athletes (PTS-A) developed by Sayema Ahmed, Dr. Poonam Singh, and Dr. Ajit Kumar (2018). The scale includes ten items covering coping, cognitive response, body awareness, avoidance, and catastrophizing, rated on a five-point Likert scale. The purpose of the study was explained to the participants before administering the questionnaire after training sessions. Confidentiality of responses was maintained. For statistical analysis, descriptive statistics and independent t-tests were used through SPSS.

RESULTS

Table 1: Descriptive statistics for Pain Tolerance in Football and Basketball players

No.	SPORTS	N	Mean	Std. Deviation	Std. Error Mean
1.	FOOTBALL	20	33.55	5.862	1.311
2.	BASKETBALL	20	31.75	4.610	1.031

In Table 1, we see how pain tolerance scores break down for football and basketball athletes. Slightly above in footballers, the mean is 33.55 and in basketball players sit just below at 31.75. This gap hints that those playing football may handle pain a bit better. Spread across individuals, results differ more sharply among football participants, their data swings wider, shown by a standard deviation of 5.86. In contrast, basketball team responses stay tighter around the center, marked by an SD of 4.61.

Table 2: Independent T-test for Pain Tolerance in Football and Basketball players

No.	Variable	Group	N	Mean	Std. Deviation	Std. Error Mean	Description
1.	Pain Tolerance	Football	20	33.55	5.862	1.311	Average pain tolerance score of football players
2.	Pain Tolerance	Basketball	20	31.75	4.610	1.031	Average pain tolerance score of basketball players

In Table 2, results come from a t-test comparing pain tolerance in football versus basketball athletes. Because variance equality was checked, Levene's test showed $p = 0.776$, it's safe to assume similar spreads across groups. With a t-value of 1.079 and 38 degrees of freedom, the probability value reached 0.287. Since that number sits above the standard cutoff, 0.05, any observed gap lacks statistical strength. So, differences in how much discomfort each group handles? They aren't meaningful here.

DISCUSSION

Despite examining female athletes in football versus basketball, the study found no notable gap in how they handle discomfort. One might expect variation but data shows otherwise. Earlier work by Burke and Shafer in 2015 already pointed toward minimal contrasts across different athletic disciplines. What stands out here is consistency, not contrast. Evidence lines up again with research from Tesarz et al. (2012). Though sport type differs, the threshold remains steady. Another piece fits, Thornton's later analysis backs this pattern too. Backed by data from Pettersen et al. (2020) and Diotaiuti et al. (2022), evidence suggests trained individuals endure discomfort more effectively than less active peers though distinctions across disciplines tend to blur. Because preparation intensity and contest frequency shape resilience, such factors might outweigh the role of sport type alone. Football competitors, facing physical collisions, show pain thresholds much like those of basketball performers, whose game avoids direct impact. Since both groups undergo demanding routines, their capacity to manage strain ends up nearly identical. Rather than the nature of the activity dictating results, persistent effort and structured regimens appear central. Among skilled women athletes, how long someone trains matters more than whether they sprint after balls or dodge checks. Overall, discipline and not discipline category seems key.

CONCLUSIONS

The data showed a little distinction in how much pain female university athletes can endure, regardless of playing football or basketball. High thresholds appear common to both, suggesting rigorous practice shapes response more than game rules do. What stands out is consistency, repeated physical challenge builds resistance in comparable ways, even when sports differ in pace or contact level. Looking ahead, research may explore additional influences on how pain is experienced, personal ways of handling stress, mental traits, or differences in practice routines. Taken together, findings suggest women who play team sports could gain similarly from shared approaches to managing discomfort and building strength, no matter their specific game.

One way to build on these results is to do more work that uses data from a wider range of people, sports, and areas. Athletes involved in solo or long-duration events might show different patterns in handling discomfort. Another path opens when body responses are tracked alongside personal feedback, while attention shifts toward drive and methods people use to manage stress. Over months or years, watching how practice changes perception could clarify what shapes resilience. A fuller picture may come not just from who is studied, but how steadily they're followed.

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