

Research Paper :

## A study of health locus of control among Athletes of the Indian Universities

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### ABSTRACT

The present study was conducted to compare the psychological, variables upon health beliefs, (health locus of control), on 350 male and female University track and field athletes. The collected data were analyzed using Z test to find out the significance of differences between the high and low performance of male and female athletes on psychological variables. The finding of the statistical analysis revealed that the major finding in contrast to study was that high and low performance of female athletes showed statistically significance differences ( $P < 0.01$ ) on internal health locus of control. It has been depicted that there were no differences on powerful others and chance health locus of control and dimension of health locus of control.

**Key words :** Health locus of control, Z test, High and low performance

Human being is a complex creature and illness can be caused by multitude factors, not just a single factor such as virus or bacterium. Health psychologists study a broad range of variables including health beliefs, genotype, cardiovascular diseases, smoking habits, religious beliefs, alcohol use, social support, living conditions, emotional state, social class and much more. Health psychologists conduct research to identify behaviours and experiences that promote health, give rise to illness and influence the effectiveness of health care. They also recommend ways to improve health care and health-care policy

It is important to investigate the health behaviours among track and field athletes. Health behaviours are under taken by people to enhance or maintain their health. Poor health behaviours are important not only because they are implicated in illness but also because they may easily become poor health habits. A health habit is a health related behaviour that is firmly established and often performed automatically, because it was reinforced by specific positive outcomes such as parental approval coach and physical education teacher. It eventually becomes independent of the reinforcement process and also maintained by the environment. Health related behaviours in early life influences later risks for lifestyle related disorder.

It makes sense to focus on them in study of association between health and different health habits in order to improve health promotion activities targeting this group. It would also help to develop health education initiatives targeting the behaviours of athletes.

The concept of health locus of control was derived

from the social learning theory developed by Rotter in 1966. Health locus of control (HLC) is one of the most widely measured parameters of health being for the planning of health education programme, which evaluates whether individuals regard their health as controllable by them (e.g. 'I am directly responsible for my health'), they believe their health is not controllable by them is in the hands of fate (e.g. 'whether I am well or not is a matter of luck'), or they regard their health as under the control of powerful others (e.g. 'I can only do what my doctor tells me to do'). Health locus of control has been related to whether individuals change their behaviour (e.g. give up smoking) and the kind of communication style they require from health professionals. Wallston *et al.* (1978) recognized that there was difficulty in predicting health behaviour specifically from generalized expectancy measures such as Rotter's I-Escale (1966). The Multidimensional Health Locus of Control (MHLC) scale was developed by Wallston *et al.* (1978). The MHLC has been used as a predictor of health behaviour to explore how to best tailor interventions to target populations. The MHLC consists of three different sub-scales each of which assesses the three specific factors known to determine health behaviour. (Wallston *et al.*, 1978).

### METHODOLOGY

The sample for the present study consisted of 350 University level male and female athletes (145 high and 205 low performance track and field athletes) who were randomly recruited from the 67<sup>th</sup> All India Inter-University Athletic Championship held at Sree Kanteerva Stadium, Bangalore (25-29 Jan., 2007) under the auspices of

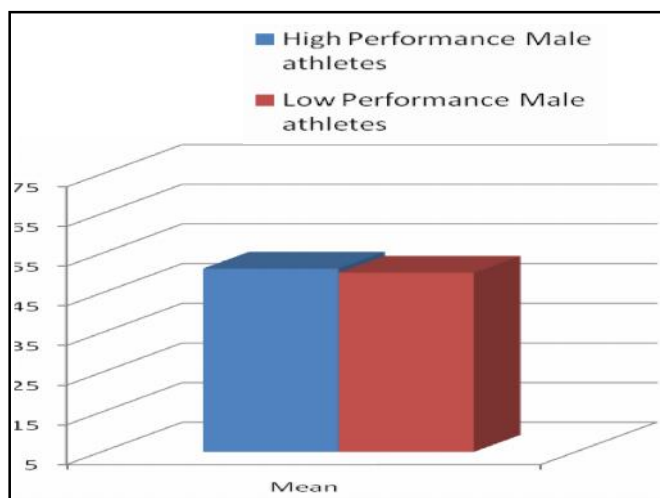
Bangalore University, Bangalore. The sample was classified into two main groups in terms of high and low performance male and female athletes. The high performers were those who had succeeded in getting first eight positions in each of tracks and field events. Low performers were those athletes who failed to qualify for the final rounds. The Multidimensional health locus of control scale (MHLC) is self-administered scale consisting of two alternative forms (A and B) each of which contains 18 items. This three-factor scale was created with factors of internally (IHLC), powerful others (PHLC), and chance (CHLC), all pertaining to the maintenance of health. Each dimension had six items that produced a possible range of scores of 6 to 36 per scale.

**OBSERVATIONS AND DISCUSSION**

It is evident from Table 1 that the two groups' *i.e.* high and low performance male athletes did not differ significantly ( $z=1.00, p>.05$ ) with respect to internal health locus of control (Fig. 1).

**Table 1 : Z test analysis between high and low performance male athletes on internal health locus of control**

Group	N	Mean	SD	Z
High performance male athletes	85	51.20	7.15	1.00
Low performance male athletes	125	50.14	8.13	



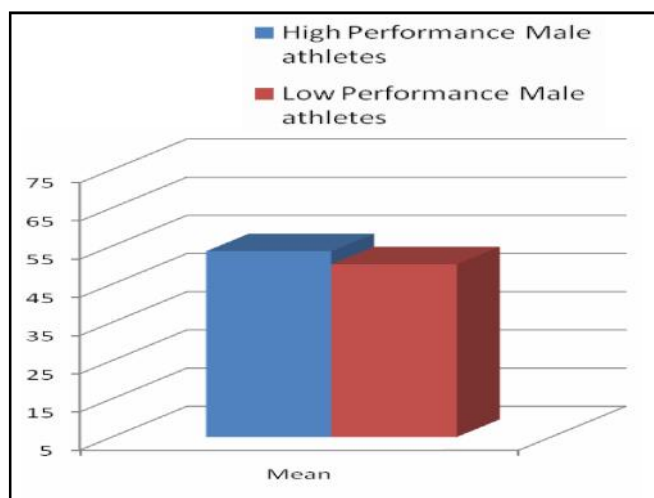
**Fig. 1 : Mean differences between high and low performance male athletes on internal health locus of control**

A strong significant difference ( $Z=2.68, p< 0.01$ ) has been observed between high and low performance female athletes on internal health locus of control (Table 2 and Fig. 2).

**Table 2 : Z test analysis between high and low performance female athletes on internal health locus of control**

Group	N	Mean	SD	Z
High performance female athletes	60	53.65	8.20	2.68**
Low performance female athletes	80	50.24	6.23	

\*\* indicate significance of value at  $P= 0.01$



**Fig. 2 : Mean differences between high and low performance female athletes on internal health locus of control**

It is evident from Table 3 that the two group's *i.e.* high performance male and female athletes did not differ significantly ( $z=1.87, p>.05$ ) with respect to internal health locus of control (Fig. 3).

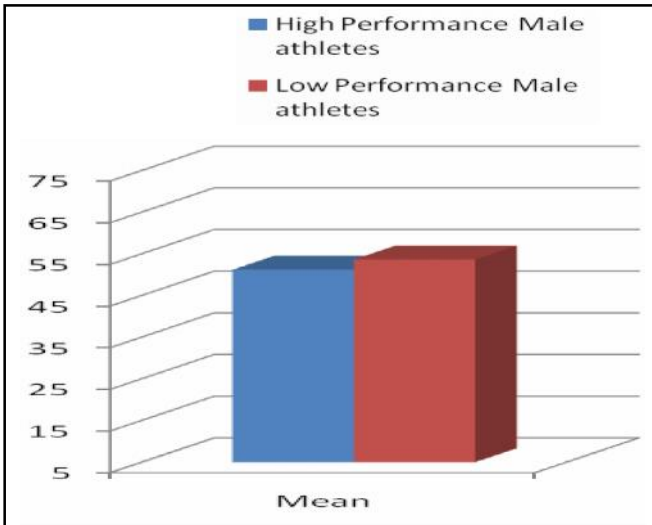
**Table 3 : Z test analysis between high performance male and female athletes on internal health locus of control**

Group	N	Mean	SD	Z
High performance male athletes	85	51.20	7.15	1.87
High performance female athletes	60	53.65	8.20	

No statistically significant difference ( $z= 0.10, p>0.05$ ) has been observed between low performance male and female athletes on the internal health locus of control (Table 4 and Fig. 4).

No statistically significant difference ( $Z=1.52, p>.05$ ) has been observed between high and low performance male athletes on the powerful other health locus of control (Table 5 and Fig. 5)

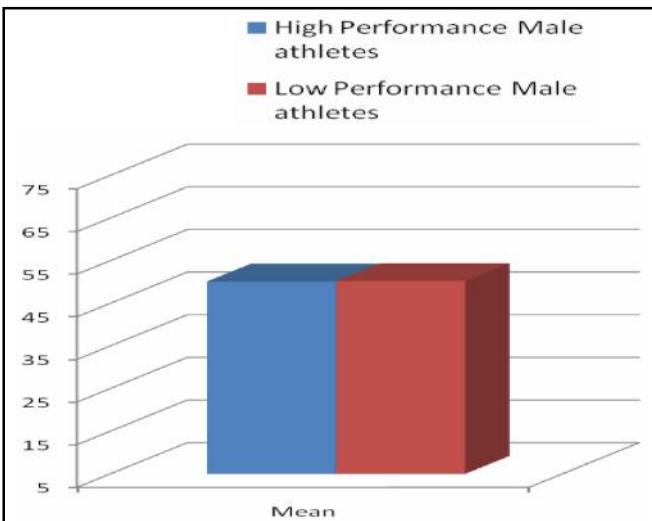
It is evident from Table 6 that the z value ( $z= 0.80,$



**Fig. 3 :** Means differences between high performance male and female athletes on internal health locus of control

**Table 4 : Z test analysis between low performance male and female athletes on internal health locus of control**

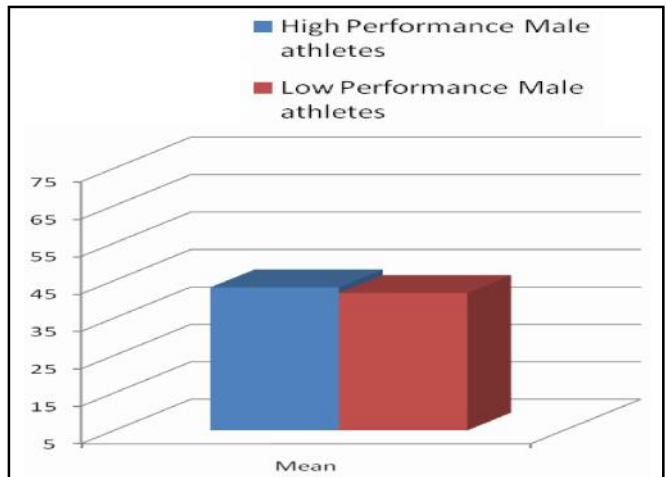
Group	N	Mean	SD	Z
High performance male athletes	125	50.14	8.13	0.10
High performance female athletes	80	50.24	6.23	



**Fig. 4 :** Mean differences between low performance male and female athletes on internal health locus of control

**Table 5 : Z test analysis between high and low performance male athletes on powerful other health locus of control**

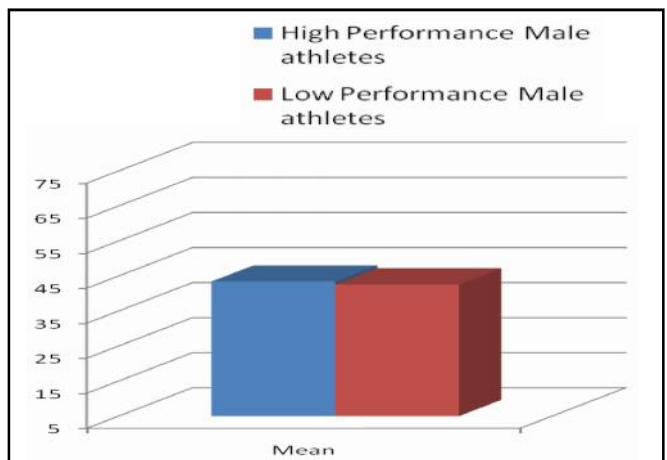
Group	N	Mean	SD	Z
High performance male athletes	85	43.21	7.16	1.52
High performance female athletes	125	41.70	6.81	



**Fig. 5 :** Mean differences between high and low performance male athletes on powerful others health locus of control

**Table 6 : Z test analysis between high and low performance male athletes on powerful others health locus of control**

Group	N	Mean	SD	Z
High performance male athletes	60	43.43	5.82	0.80
High performance female athletes	80	42.60	6.34	



**Fig. 6 :** Mean differences between high and low performance male athletes on powerful others health locus of control

$p > .05$ ) of powerful other health locus of control is not significant for two groups' *i.e.* high and low performance female athletes (Fig. 6).

The finding of the statistical analysis revealed that high performance female athletes have high in the internal health locus of control (M=53.65) when to compared to the low performance female athletes (Table 2). Internal health locus of control (M=50.24) came out to be significant ( $Z=2.68^{**}$ ) at 0.01 level of confidence.

The MHLC subscales data revealed that high performance female athletes participants had a stronger sense of belief in internal health locus of control. Higher scores toward the sub-scale internal locus of control, indicates a stronger belief in that particular health locus of control domain (internal locus of control) and had a strong belief that they themselves have control over their health and believed that external factors (e.g., powerful others) did not control their health. Individuals who tend to score higher on the powerful others scale feel that health professionals are in control of their health and there is little which they can do to improve their health status. For this reason, it can be speculated that high powerful others athletes may not be as inquisitive about their risk for disease, therefore, may be less likely to ask questions of the health professional. The present finding also support the observations made by Norman *et al.* (1998), utilizing the MHLC to study participation in health behaviours in 11,632 individuals from the UK. The health behaviours studied were exercise, diet, smoking, and alcohol consumption.

### Conclusion:

The results of the study revealed that a strong belief that one's health is under one's control was correlated with performance of a greater number of health behaviours. This result supports prior findings that individuals who score high on the internality scale are more likely to engage in health behaviours, would be positively correlated with internal health locus of control beliefs, negatively correlated with powerful others, and chance health locus of control. Previous work has shown in which Kennedy (1999) reported that the experimental

group demonstrated a significant change in internal health locus of control and powerful others health locus of control on Mexican-American women. These finding have also been confirmed by Russell *et al.* (2000), the relationship between sports participation and health related behaviours among US High School male and female students. Sports participation is highly prevalent among students and is associated with numerous positive health behaviours and a few negative health behaviours.

No statistically significant difference has been observed from the others tables but high performance athletes means score high than the low performance.

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