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## A comparative study on gender health status and fitness

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### Abstract

Regular physical activity, fitness, and exercise are critically important for the health and well being of people of all ages. Research has demonstrated that virtually all individuals can benefit from regular physical activity, whether they participate in vigorous exercise or some type of moderate health enhancing physical activity. Even among very old adults, mobility and functioning can be improved through physical activity. The 45 year old or even 75 year old, who become active even after years of sedentary living, experience the same lower risk of death and the same added years of life as the man or women who remains habitually active all along.

**Keywords:** Physical education, physical activity, gender health status, fitness

### Introduction

Health status is a multidimensional concept, requiring multiple indicators and multiple methodologies for adequate measurement. Several different indicators of health status are usually included in health surveys, including single summarizing measures; questions relating to disease incidence and prevalence; and questions relating to functioning (physical, cognitive, emotional, and social) or disability. Health status measures also vary depending on whether they are based on objective information obtained from standardized examinations or medical records or from information obtained from the individual or a proxy. To be most effective, individual health surveys should capture a variety of aspects of health status so as to provide a more comprehensive and complete assessment of health status than would be possible from any single strategy. Measures of health status should also be constructed to be useful in epidemiologic analyses of risk factors as well as for monitoring trends.

There is often interest in using a single question to measure health status in health surveys, as well as in surveys of other areas, such as employment, income, or education. The subject's self assessment of his/her health status as excellent, very good, good, fair, or poor is a popular summary indicator of health status. This measure has been shown to be highly correlated with other measures of health status and is predictive of mortality and admission to long-term-care facilities. However, this measure can be problematic when used to monitor change over time. The means by which individuals evaluate various aspects of health have been shown to be affected by contextual parameters. Implicit in self-perceived health status is the individual's evaluation of his/her health status against some unstated standard. Societal norms act to define the standard but the norms and the standards change in response to a variety of conditions.

If measuring blood pressure with a sphygmomanometer were introduced into clinical practice today, there would be resistance to its adoption. The process would be unfamiliar and unsettling to the patient. The maneuver takes time. Measurement is prone to subjective factors. Scoring would require an unconventional scale. Both the short-term interpretation of the measurements and their long-term implications would be uncertain. Despite these problems, however, we have incorporated this ungainly procedure into our data collection routine. This adoption occurred because research has demonstrated both the measure's reliability and the association between small differences in blood pressure with future events such as a stroke. As a result, blood pressure was reframed from the province of physiology into a clinical and epidemiologic issue. We now use blood pressure screening to identify patients who can benefit from interventions. Periodic measurements help monitor and adjust treatment regimens.

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Blood pressure is even used as a surrogate measure for clinical outcome in trials of new antihypertensive medications.

Currently, our clinical database consists primarily of biological and physiologic measurements like blood pressure. However, it is becoming apparent that these measures alone are not sufficient indicators of health. Given that health is more than simply the maintenance of organ function. The clinical database is incomplete.

Today, assessments of functional status and well-being are available to supplement the conventional database. These measures represent aspects of health directly experienced by the patient and together are often called measures of health status or health-related quality of life. Some of these measures require self-report, such as the 36-item short-form health status survey, while others require the observation of performance, such as the 6-minute walk. Although it is still early in the adoption process, it is appropriate to ask, "What is the evidence for the feasibility and usefulness of health-status measures?"

The most commonly used of these measures is functional status. Several such measures have been used to screen for and quantitate disability. Similar measures have been used to assess a person's fitness for work, predict personal care needs, and forecast a person's ability to live in the community. In addition, self-reported measures of health status are increasingly used to measure the effectiveness of treatment in clinical trials. If used appropriately, these measures can provide information that is not provided by physiologic measures.

There have been few attempts to use functional status to predict mortality and fewer still to adjust for disease severity or case mix. While previous research has shown the importance of including assessments of functional status for prognostication, the use of purely patient-based assessments may give additional and more precise information. In general, self-reported health, an important element of health status, has proven to be a good predictor of mortality. Further, it seems useful in predicting outcomes other than death, such as health-related quality of life and health services utilization.

Data about functional status and well-being are theoretically easy to obtain; one need only ask or observe. Most assessments can be made quickly and with a minimum of bother to patients. When informed of their purpose, patients usually are cooperative. On the other hand, collecting this information does require deviation from the routine. In contrast to the traditional medical history and physical examination, these assessments require one to collect specific pieces of information, using questionnaires, interviews, observations, or inferences. Functional status assessment more closely resembles standard history taking and physical examination, but it still requires the collection of standardized data elements. Scoring is often too complex to complete at the bedside, and the meaning of the scores may not be immediately apparent. Furthermore, there is a sense that these soft measures are less trustworthy than hard, scientific biological data. Considering this, perhaps it is not surprising that health status measures have seen limited application in clinical settings.

More than 60% of the world's population is not physically active at levels that promote health. In concert with other behavioral risk factors for cardiovascular disease (CVD), sedentary lifestyles exert a heavy medial and economic toll on individuals and societies. Physical activity lowers all cause mortality, reduces several risk factor for cardiovascular

disease, and is a category two intervention that can halve cardiovascular disease risk. The benefits extend across a wide spectrum of structured as well as lifestyle physical activity levels. Models and programs aimed of translating physical activity's promise in cardiovascular prevention have been assessed, but results have been generally disappointing. A pragmatic strategy based on the "stages of change" or trans theoretical model can be effective. It incorporates self efficacy and individual initiatives, both crucial ingredients necessary to surmount the inevitable hurdles on the path towards physically active lifestyles. In this context researcher was of particular interest in examining the health status of individuals who are intrinsically motivated to indulge themselves in some or the other form of physical activity and compare them on the basis of gender.

### Methodology

All together 248 fitness enthusiasts who were involved in self motivated regular fitness workouts in parks, stadiums, playground and other public areas of Kurukshetra city, Haryana served as subjects for this study. They were selected on the basis of random proportional sampling to give equal representation to male (N=124) and female (N=124) participants and their age ranged between 45 to 60 years. To measure their health status, body mass index (BMI) involving height in meters and weight in kgs was made use. For this purpose, stadiometer ot measure height and standardized electronic weighing scale for measuring weight were used. Further a self structured questionnaire was administered in order to obtain their demographic information, personal details, frequency and duration of physical activities etcetera. In order to collect necessary information the researcher along with a trained helper was personally present on time at the locations mentioned above. Prior to his visit he had made all essential arrangements related data collection. The researcher requested subjects to assemble in a particular place and at the out set made the intentions of the study clear. He requested their cooperation for data collection and sought honest opinion on questionnaire.

### Analysis of Data

The raw data obtained on height and weight was statistically treated with the formula  $BMI = \text{weight in kgs} / (\text{height in mtrs})^2$  to obtain BMI of each subject. In order to examine the hypothesis of the study descriptive statistics including mean, standard, deviation and 't' test for independent variables were utilized. Graphical representation of data was also made where ever required. Results of the study are been given in the following tables. Table 1 provides information on BMI of both male and female participants.

**Table 1:** Mean, SD and Normative response of male group (N=124) on BMI

Mean	Standard Deviation	Normative Response
28.52	4.74	Over weight

From Table 1 it is evident that the mean score of male group in terms of BMI is 25.82 4.74. This score when applied to the norms constructed by National Institute of Health reveals that the male group fails in the category of over weight. Similarly, information on BMI of female participants is presented in Table 2.

**Table 2:** Mean, SD and Normative Response of Female Group (N=124) on BMI

Mean	Standard Deviation	Normative Response
24.45	3.51	Over weight

From Table 2 it is evident that the mean score of male group in terms of BMI is 24.45 3.51. This score when applied to the norms constructed by National Institute of Health reveals that the female group fails in the category of over weight. Similarly, information on BMI of female participants is presented in Table 3.

**Table 3:** Mean, SD and Normative Response of Female Group (N=124) on BMI

Sl. No.	Gender Groups	Mean	SD	't' score
1.	Male Group	25.82	4.74	2.697*
2.	Female Group	24.45	3.51	

\*Table value required for significance at .05 levels is 1.645

Above table describes the fact that there is significant difference between two groups in terms of body mass index. The 't' ratio was tested for significance at .05 level of confidence. The tabulated 't' value required for significance was 1.645. As the obtained 't' value is higher than the tabulated value it can be concluded that the mean scores of two groups differ significantly.

### Findings

Results of the present study indicates that the male group needs due attention to improve their health status and neglect of which will lead to serious and life threatening health problems. In spite of the fact that the group is actively involved in some sort of physical activity, their health seems to be deteriorating. Reasons for this may be attributed to low intensity of workout, low volume of workout, irregularity to workout, lifestyle so on and so forth. What ever may be the reason, it is high time for these urban male fitness enthusiasts to sit back and think of their exercise regimen seriously. A professional's help can also be sought in this direction which can be handy.

### Conclusion

On the basis of the findings of the present study, it can be concluded that the female fitness enthusiasts in urban setting are been benefited optimally. On the other hand, their male counterpart are on the verge or facing serious health problems associated with cardio vascular, respiratory and associated problems including hypertension, diabetes etc.

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