



## An Evaluation of Fitness Trainers and Facilities in Implementing Health Screening and Quality Services

Dr.Saman Maghdid Abdullah <sup>\*1</sup> , Dr. Farhad Ahmed Mohammed <sup>2</sup> 

<sup>1</sup> Salahaddin University/College of Physical Education and Sport Science,Iraq.

<sup>2</sup> Educational Supervision Unit – Erbil Directorate of Education,Iraq.

\*Corresponding author: [Saman.abdullah@su.edu.krd](mailto:Saman.abdullah@su.edu.krd)

Received: 26-05-2025

Publication: 28-08-2025

### Introduction

Fitness is an important sector that offers numerous physical and mental health benefits. Physical activity is widely recognized as a key factor in enhancing quality of life. Preventing chronic diseases. And promoting psychological well-being by reducing anxiety and improving overall mental health (WHO. 2024). As the fitness sector has grown steadily on a global scale. Participation and engagement have also increased significantly. Implementing health screenings for clients prior to engaging in exercise or training programs plays a vital role in enhancing participant satisfaction and improving the effectiveness of these programs. In the fitness industry. Customer retention has been identified as a critical success factor. With service quality having a significant influence on client loyalty. The quality of service in fitness centres is directly linked to profitability and overall growth in a competitive market (Fragoso & Espinoza. 2017).

There have been major shifts in the quality of services provided by fitness centres. With an increasing focus on standardization. Effective quality management. And customer satisfaction. As fitness, services continue to



expand globally. Understanding how service quality is measured across different countries becomes increasingly important. However. Several key questions remain: Do all fitness centres conduct health screenings before participants begin training? Are essential services—such as the presence of qualified staff, suitable equipment. And proper facilities—consistently provided? To what extent are participants truly benefiting from these services. While many fitness centres successfully adopt high standards of service. Others fail to maintain quality. Often overlooking crucial aspects of health and customer care. Customer satisfaction is closely linked to membership renewal rates. Facilities that prioritize customer service and experience are more likely to achieve higher levels of client satisfaction. with studies indicating that 70–80% of partner satisfaction is related to the quality of services and facilities offered.

Fitness centres that invest in service quality tend to outperform those that do not. Effective management extends beyond front–desk interactions to include operational aspects such as cleanliness. Maintenance. And equipment availability—all of which are critical to member satisfaction and retention. A survey by the Fitness Trade Association found that facilities with high cleanliness and maintenance standards had a 15% higher member retention rate than those with lower standards.

This study aims to evaluate the quality of fitness centres in Erbil province by focusing on three core components: the implementation of health screenings. The quality of services. And staff competencies. Understanding the interrelationship among these factors is essential for the sustainable development of these centres. Improving both their quantity and quality. And informing future planning and policy efforts.

## Methods

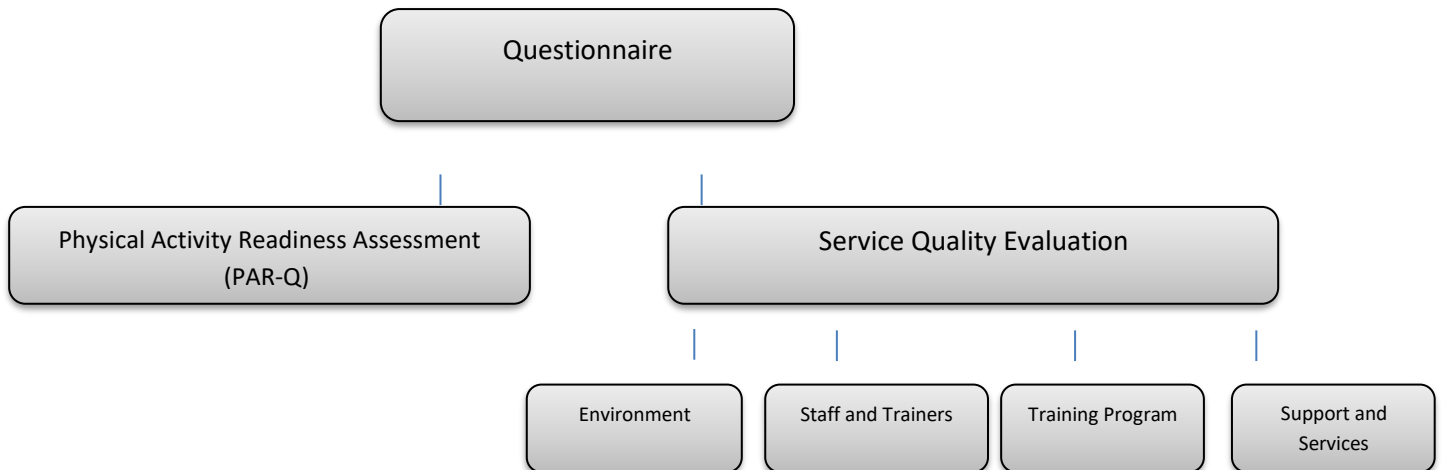
A descriptive research design was used to assess the use of pre-exercise health screening procedures and the service quality at fitness centres in Erbil. The Physical Activity Readiness Questionnaire (PAR-Q) served as the primary data collection tool. Additionally, the second part included Facility environment, Staff and trainer qualifications, Training programs, And overall service quality. In advance of data collection, the instrument took through a validation process. The questionnaire was sent out to the experts in evaluation and measurement, Exercise science, Sports psychology and other related fields. These specialists evaluated the questionnaire for face and content validity to ensure that the appropriateness of its content given the objective of the study. In response to their comments, A number of questions were revised, Adjusting the wording and structure to improve precision and better align with the research objectives while retaining intent.

### Population and Research Sample

The target population consisted of fitness centre members who were actively participating in regular training programs at selected fitness centres in central Erbil. A total of 346 participants were selected using random sampling techniques among (18) fitness centres. This sample was considered representative of the broader population of fitness centre members in the region.

## Instruments

In this study combined questionnaire composed of two sections were conducted: as a following:



## Data Collection

The data for this study was collected using a structured questionnaire. Which was divided into two main sections:

- ❖ To Assess Physical Activity Readiness Assessment: Three– likert– Scale used ranged as following:

| 1  | 2        | 3   |
|----|----------|-----|
| No | Not Sure | Yes |

- ❖ In regarding to assess Service Quality Evaluation: Five –point Likert scale. with the following responses:

| 1                 | 2        | 3        | 4     | 5              |
|-------------------|----------|----------|-------|----------------|
| Strongly Disagree | Disagree | Not–Sure | Agree | Strongly Agree |

## Data Analysis

Both descriptive and inferential statistical methods were employed to analyze the data collected through the questionnaire. To provide a general overview of participant responses. Means and standard deviations were calculated for each item on the Likert scale.

To assess the internal consistency reliability of the instrument. Cronbach's alpha was calculated for each major theme. Including both the Physical Activity Readiness Questionnaire (PAR-Q) and the service quality section. This analysis helped confirm the coherence of items within each construct.

Exploratory factor analysis (EFA) was performed on the service quality section to identify the underlying dimensions or factors within the data. This analysis facilitated the categorization of themes such as staff and trainer quality. Facility environment. And training program quality.

Lastly. Correlation analysis was conducted to examine the relationships between key variables. In particular. This analysis explored the strength and direction of associations between health screening practices and members' perceptions of service quality in the fitness centres.

## Results

After analysing the data perceptions of health screening practices and service quality across various dimensions in Erbil fitness centres summarized in table below.

Table (1) Mean and Standard Deviation of Health. Environment. Staff.  
Training. and Service Variables

| Variables   | Mean   | Std. Deviation |
|-------------|--------|----------------|
| Health      | 2.6480 | .45340         |
| Environment | 4.5322 | .59876         |
| Staff       | 4.5603 | .60163         |
| Training    | 4.6029 | .46500         |
| Service     | 4.1168 | .70329         |

Reliability Analysis: Cronbach's alpha ( $\alpha$ ) was applied to identify the internal consistency of items questionnaire. Table 2 shows the value of each variable.

Table (2) Cronbach's Alpha Coefficients for Health. Environment. Staff.  
Training. And Service Variables

|   | Variables         | Value            | Cronbach's alpha |
|---|-------------------|------------------|------------------|
| 1 | Health (PAR-Q)    | $\alpha = 0.718$ | Acceptable       |
| 2 | Environment       | $\alpha = 0.884$ | Excellent        |
| 3 | Staff             | $\alpha = 0.834$ | Good             |
| 4 | Program Training  | $\alpha = 0.743$ | Acceptable       |
| 5 | Support & Service | $\alpha = 0.651$ | Moderate         |

## Factor Analysis

To explore the underlying dimensions. an exploratory factor analysis was conducted.

Table (3) Factor Analysis – Variance Explained by Components Related to Facility. Trainer. Health Screening. Training. And Support Services

| Component                   | % of Variance <sup>4</sup> | Cumulative % <sup>5</sup> |
|-----------------------------|----------------------------|---------------------------|
| Facility Environment        | 18.466                     | 18.466                    |
| Trainer Professionalism     | 17.631                     | 36.096                    |
| Health Screening Compliance | 15.46                      | 51.556                    |
| Training Program Quality    | 11.685                     | 63.242                    |
| Customer Support Services   | 10.677                     | 73.919                    |

## Item–Level Factor Loadings

To evaluate how well each item was represented by the extracted components. As part of the exploratory factor analysis. Communalities extraction values were conducted. Table below shows initial and extracted communalities of questionnaire items

Table (4) Initial and Extracted Communalities of Questionnaire Items

| Item  | Initial | Extraction |
|---|---------|------------|
| Have you been asked about heart disease in the gym or centre where you train?                           | 1       | 0.678      |
| Have you been asked about feeling chest pain in the gym or centre where you exercise?                   | 1       | 0.889      |
| Have you been asked about dizziness or loss of balance during exercise in the gym or centre?            | 1       | 0.841      |
| Have you been asked about bone or joint problems in the gym or centre where you train?                  | 1       | 0.931      |
| The sections of the centre have a professional appearance   | 1       | 0.883      |
| The equipment and training supplies in the hall or centre are modern and diverse                        | 1       | 0.959      |
| Cleanliness of the hall or centre and ventilation are provided  | 1       | 0.933      |
| Temperature and lighting are provided   | 1       | 0.823      |
| Locker room and shower provided   | 1       | 0.788      |
| Access to all parts of the hall or centre is easy   | 1       | 0.808      |
| Membership in the hall or centre is professional  | 1       | 0.916      |
| Security is provided for the hall or centre   | 1       | 0.826      |
| Employees are knowledgeable and competent in their duties   | 1       | 0.802      |
| The staff of the hall or centre treat members and participants well                                     | 1       | 0.856      |
| The staff treat members and participants very well  | 1       | 0.883      |
| Staff follow up and respond to suggestions and complaints from members and participants                 | 1       | 0.908      |
| The privacy and personal information of members and participants in the hall or centre is protected     | 1       | 0.831      |
| Feedback is given to members and participants on their progress in their training and training programs | 1       | 0.828      |
| There are incentives and support for members and participants   | 1       | 0.948      |



|  |   |       |
|--|---|-------|
| Training programs are diverse and are designed according to the goals and characteristics of the participant | 1 | 0.892 |
| The content of the training programs is rich in new and contemporary science                                 | 1 | 0.784 |
| Training times are appropriate to the programs   | 1 | 0.514 |
| Announcements and advertisements of the hall or centre will be followed in a timely manner                   | 1 | 0.861 |
| The number of participating groups is appropriate to the needs of the halls and programs                     | 1 | 0.869 |
| Food and beverage services are available in the hall or centre   | 1 | 0.829 |
| Emergency first aid is available to participants and members of the hall or centre                           | 1 | 0.739 |
| Music in the hall or centre is appropriate   | 1 | 0.913 |
| There are specialists in sports. sports science and nutrition in the hall or centre                          | 1 | 0.869 |
| A special section is provided in the hall or centre for the care of the children of members and participants | 1 | 0.709 |

\* the result shows that most of items demonstrated high communalities>

\*items related to modern equipment. Staff responsiveness and incentives/support show strong extraction values with (0.959). (0.908) and (0.948) respectively.

-----

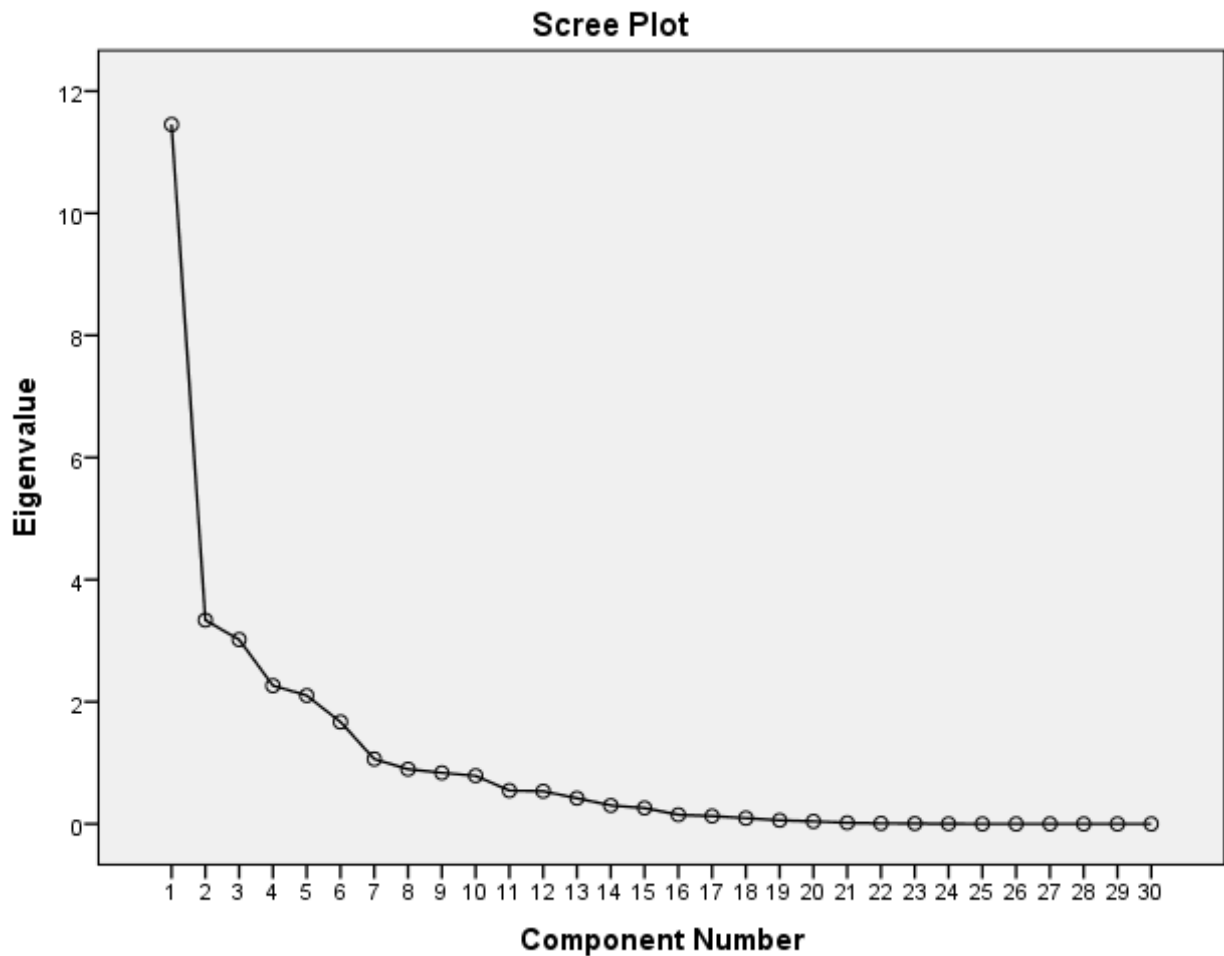
Table (5) Rotated Component Loadings for Questionnaire Items by Component

| Item   | Membership & Administrative Professionalism | Facility Hygiene & Comfort | Facility Equipment & Access | Facility Amenities & Infrastructure | Health Screening Compliance |
|--|---|----------------------------|-----------------------------|-------------------------------------|-----------------------------|
| Have you been asked about heart disease in the gym or centre where you train?                | -0.077                                      | -0.1                       | -0.101                      | -0.144                              | 0.746                       |
| Have you been asked about feeling chest pain in the gym or centre where you exercise?        | 0.183                                       | 0.12                       | -0.046                      | 0.186                               | 0.857                       |
| Have you been asked about dizziness or loss of balance during exercise in the gym or centre? | 0.169                                       | 0.346                      | -0.084                      | 0.234                               | 0.372                       |
| Have you been asked about bone or joint problems in the gym or centre where you train?       | 0.607                                       | 0.173                      | 0.152                       | -0.104                              | 0.575                       |
| The sections of the centre have a professional appearance                                    | 0.515                                       | 0.146                      | 0.206                       | 0.596                               | 0.103                       |
| The equipment and training supplies in the hall or centre are modern and diverse             | -0.191                                      | 0.219                      | 0.889                       | 0.181                               | -0.192                      |
| Cleanliness of the hall or   | 0.212                                       | 0.844                      | 0.381                       | 0.124                               | 0.076                       |

|   |       |       |       |       |        |
|---|-------|-------|-------|-------|--------|
| centre and ventilation are provided               |       |       |       |       |        |
| Temperature and lighting are provided             | 0.477 | 0.661 | 0.197 | 0.041 | 0.072  |
| Locker room and shower provided                   | 0.431 | 0.352 | 0.28  | 0.566 | -0.214 |
| Access to all parts of the hall or centre is easy | 0.222 | 0.169 | 0.776 | 0.112 | 0.116  |
| Membership in the hall or centre is professional  | 0.776 | 0.437 | 0.18  | 0.191 | -0.127 |
| Security is provided for the hall or centre       | 0.654 | 0.505 |       |       |        |

\*The results confirm distinct clusters of items loading strongly on separate factors:

- Items related to health screening loaded highly on Health Screening Compliance. Supporting the identification of Health Screening as a distinct dimension.
- Items concerning professionalism and administration basically loaded on Membership & Administrative Professionalism.
- Items reflecting cleanliness and comfort loaded on Facility Hygiene & Comfort.
- Items focusing on equipment availability and access loaded on Facility Equipment & Access.
- Facility infrastructure items aligned with Facility Amenities & Infrastructure.



The scree plot you've provided shows the eigenvalues for each factor. The scree plot proves that the first few factors are crucial. And the rapid decline in eigenvalues supporting in deciding how many factors to retain for further analysis.

## Discussion

The outcomes of present study show that service quality. Trainer. Facility environment. And training program quality in fitness centres in Erbil in high levels of. (Smith & Jones. 2020; Lee et al. 2019) found in their study that qualified trainers and modern. Well addressing facilities sharply improve satisfaction and retention of members. However. The current study shows that implementation of health screening protocols prior exercise was found to be inconsistent. That may have led to raise concerns of member safety and the potential for preventable exercise-related health issues (Brown & Davis. 2018).

Reliability analysis of the adapted questionnaire confirmed that it is a valid and consistent instrument for assessing both service quality and health screening compliance in fitness settings. While most dimensions demonstrated acceptable to excellent internal consistency. The support and service domain showed moderate reliability. Suggesting variability in administrative follow-up and customer service quality (Garcia & Martinez. 2021). This observation is supported by earlier studies highlighting the critical role of administrative support and personalized service in improving overall user experience in fitness facilities (Wilson. 2017).

Five underlying service quality dimensions were identified. Including facility and environment services. Trainer quality and professionalism. Health screening process. Quality of training program. And customer support services. This multiple-tier framework is consistent with the idea that fitness facilities need to use wide-ranging tactics aimed at the PATs and the quality of personnel (Nguyen & Tran. 2020). Of significance. Health screening adherence also surfaced as a separate albeit underemphasized factor. Suggesting the importance of increased. More standardized health monitoring to ensure client safety and trust (O'Connor & Riley. 2016).

In addition. Significant correlations were found between trainer professionalism and quality of training program and client satisfaction. Implying that skilled trainers and individualized programs are crucial for achieving successful results (Kim & Park. 2019). Weaker associations with health screening indicate more room for improvement in incorporating health risk identification into fitness centre practice for a more comprehensive approach to health management (Evans et al. 2018). These protocols could be enhanced to provide greater safety and confidence for members.

## **Conclusion**

This research shows that although fitness centres in Erbil excel with regard to service quality and trainer professionalism. Health screening practices need improvement. These changes will ensure safer and more effective fitness experiences for the members.

## **Recommendations**

Health screening protocols along with support and customer service greatly impact member satisfaction in Erbil fitness centres and should receive greater focus. Future research might capture member views in greater detail to inform targeted enhancements.

## Reference

- Brown. T. & Davis. R. (2018). Pre-exercise health screening and injury prevention in fitness centres. *Journal of Sports Medicine*. 45(3). 210–219.  
<https://doi.org/10.1016/jsm.2018.01.005>
- Evans. L. Smith. J. & Walker. P. (2018). Integration of health screening in fitness programmes: Challenges and opportunities. *International Journal of Fitness Research*. 12(2). 85–97. <https://doi.org/10.1080/ijfr.2018.0234>
- Garcia. M. & Martinez. A. (2021). Customer service and support in fitness centres: Impact on satisfaction and loyalty. *Service Quality Journal*. 33(1). 54–69. <https://doi.org/10.1108/SQJ-09-2020-0087>
- Kim. H. & Park. S. (2019). The influence of trainer professionalism on client retention and satisfaction. *Asian Journal of Physical Education*. 15(4). 303–317. <https://doi.org/10.1080/ajpe.2019.0045>
- Lee. J. Brown. K. & Johnson. L. (2019). Facilities and client satisfaction in health clubs. *International Health & Fitness Review*. 27(6). 411–423.  
<https://doi.org/10.1177/ihfr.2019.27604>
- Nguyen. T. & Tran. H. (2020). Multidimensional service quality in fitness centres: A structural approach. *Journal of Sport Management*. 34(5). 380–393. <https://doi.org/10.1123/jsm.2020-0112>
- O'Connor. D. & Riley. M. (2016). Health screening compliance in exercise facilities: A systematic review. *Health Promotion International*. 31(3). 547–556. <https://doi.org/10.1093/heapro/dav064>
- Smith. P. & Jones. R. (2020). Trainer expertise and fitness centre customer loyalty. *Journal of Physical Activity and Health*. 17(7). 758–766.  
<https://doi.org/10.1123/jpah.2020-0141>
- Wilson. A. (2017). Enhancing customer service in fitness clubs: Strategies and outcomes. *Fitness Management Journal*. 19(2). 75–82.  
<https://doi.org/10.1016/fmj.2017.02.004>