

# Public Health And Physical Activity Management

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## **A Model Examining The Correlates And Impacts Of Sport Center In Taiwan — An Example Of The North-Changhua Sport Center**

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The aim of this study is to develop a model to investigate the influencing factors which impact the operation of the sports center so that the model can be a reference guide for the planning and operation of the sports center in Taiwan. The sports centers are a brave attempt of Taiwan's government to encourage sports lifestyle and hopefully to further improve residents' overall health. Now it is the time to examine the effectiveness of sports centers. Therefore, this study attempts to develop a model to investigate the effectiveness of sports centers in Taiwan, using the North-Changhua Sport Center in the middle of Taiwan as an example.

This study adopted a mixed research method including qualitative and quantitative research design. In the stage of qualitative research, interviews were conducted. Using a purposive sampling, interviewees included the chief executive of the sports center, the coach, managers of the sports centers, directors of community associations in the neighborhood around the public sports center, residents, customers, and the director of a swimming pool near the sports center. Content analyses of the interview transcripts were conducted to help provide support of empirical evidence to develop the model along with literature review. The model includes six variables in total: three factors (three variables) that influence the operation of the sports center (one variable), and includes two impact factors (two variables) derived from the sport center's operation. A pilot survey was then conducted to help revise the items of the six variables and helped develop the formal questionnaire with the six scales (variables).

The first scale is the sports resources and exercise facility in the communities with three items which indicate whether respondents thought the sport resources and exercise facility in the communities were insufficient before the North-Changhua Sports Center was built (Cronbach Alpha 0.928). The second scale is the potential demands for the six required facilities of the sport center with six items which indicate whether respondents have potential demands for the six facilities (swimming pool, dancing classroom, table tennis facility, weight training facility, badminton court, and basketball court; Cronbach Alpha 0.888). The third scale is societal sport attitudes towards paying for doing exercise with three items which indicate whether respondents agree that people would be likely to pay for doing exercise (Cronbach Alpha 0.910). The fourth scale is the operation of the sports center with six items which indicate respondents' perceived value and quality of the sports center's programs and service (Cronbach Alpha 0.901). The fifth scale is the economic, environmental and cultural impacts of the sports center on the surrounding neighbor communities with six items (Cronbach Alpha 0.929). The sixth scale is the improvement of residents' sport lifestyle with five items (Cronbach Alpha 0.938).

Questionnaires were distributed to 120 residents of the communities and 120 customers of the sports center. The sample showed that 125 people were males whereas 115 were females.

Structure equation modeling is used to analyze the data. Based on modification indices, some items were dropped out and the model fit indices were chi-square per degree of freedom 2.07, NFI 0.92, RFI 0.90, IFI 0.95, TLI 0.95, CFI 0.95 and RMSEA 0.067 when the items for the six scales were between 3 and 4. The path coefficient between the factor one (perceived insufficiency of sports resources and exercise facility in the communities prior to the establishment of the sports center) and the operation of the sports center was not significant, indicating that respondents may not think the sports center was required but the sports center did improve the living quality. In other words, the sports center is like an attractiveness factor. Other path coefficients were significant. Perhaps, the factor one should influence the potential demands for the facilities of the sports center first.

In conclusion, using a constructed model, this study confirmed that the operation of the public sports center was indirectly influenced by perceived insufficiency of sports resources and exercise facility of the

community prior to the establishment of the sport center, and directly influenced by the potential demands for the required facilities of the sport center and societal sport attitudes toward paying to do exercise. This model also validated the hypotheses that the operation of the sports center can improve residents' sport lifestyle, and bring with positive impacts of the sports center on the surrounding neighbor communities in terms of living quality.

## **References**

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