Promoting physical activity and quality of life for citizens through municipal libraries

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Abstract

The usefulness of municipal libraries and municipal sports organizations of Greek Local Authorities is obvious. Their benefits to the body and the spirit are significant. However, the relationship between them has not been clarified, nor has it been researched bibliographically. The evaluation of the contribution of Greek municipal libraries has not attracted the interest of researchers so far. The present research attempts to explore new possibilities and actions of municipal libraries. Two questionnaires were constructed for which validity and reliability testing was carried out, which according to the scientific criteria was considered acceptable. The SPSS statistical package for social research was used for the analysis. One questionnaire was distributed to managers of municipal sports organizations and the other to managers of municipal libraries in the Region of Attica. The study involved 46 municipal libraries and 26 municipal sports organizations. The results of the study show that most libraries do not provide programs based on physical activity, only occasionally. However, the overwhelming majority believe that future implementations of joint actions in collaboration with municipal sports organizations can help promote a healthier lifestyle. A significant percentage of library managers believe they need to become more extroverted, take innovative action and encourage their audience to engage in alternative activities, improving not only their spirit but also their body, with the ultimate goal of enhancing their wellbeing.

Keywords: Greek municipal libraries, municipal sports organizations, movement based programs, physical activities

1. Introduction

1.1 Libraries are changing

According to Watson [1], libraries are more than numbers, information or collections. They are mostly places that bring people and ideas together in local communities. They are benchmarks where people exchange knowledge, wisdom, thoughts and above all human dignity and solidarity. Innovative programs are now being implemented in libraries [2]. The books, as physical objects have a less central role in a library. There is a re-evaluation of the Libraries as places, as well as reconsideration regarding what the use of these places will be [3]. The opening-up of libraries to services beyond book lending does not reduce the role it plays in fostering education in society. Libraries abroad are increasingly moving away from the image of a quiet, dark place, full of dusty books. And while in the past libraries would not be the first place one would think of, when talking about sports activities, such programs are available nowadays and their audiences are thrilled [4]. Libraries are now contributing significantly to their users’ leisure time, offering them options that improve their health through sporting activities. They serve the needs of the community, paving the way towards understanding how to enhance individual well-being and the overall health of citizens. Many libraries in partnership with sports organizations run projects that extend from Story Walks, to skateboard lessons and zumba in local parks [5-8]. Physical inactivity is a pandemic and is now the fourth leading cause of death worldwide; however, the role of physical activity is still underestimated, despite its beneficial health effects [9]. Since their founding, libraries have tried to support a healthy lifestyle in various ways [10], but in recent years, libraries have been recognized by a wide range of academic and political stakeholders as critical factors contributing to health and wellness [11]. Local sports organizations and associations can become more popular through libraries.
This way their users will be motivated to live a healthier lifestyle[12]. Libraries cannot remain uninolved in a constantly changing environment. They have to adapt their functions and services in such a way as to meet the urgent needs of their users[13]. At the same time, Municipal Athletic Organizations are key players in the development of sports culture and behavior[14-16]. Strategic planning, synergies with other municipal bodies, such as Municipal Libraries, can ensure the provision of social leisure services, increase physical activity and promote the quality of life of their citizens[16].

2. Literature Review
2.1 Promoting physical activity through municipal libraries: The international experience
As early as 1999, Lake Villa Public Library District in Illinois, USA has created baseball related activities in an effort to attract more readers to the library[17]. By creating a positive atmosphere within the libraries, their members are encouraged to exercise their bodies. Libraries thus contribute positively to the well-being of their communities[18]. The New York Public Library, with its 89 branches, offers more than 25,000 free programs to its members. These range from poetry seminars to yoga classes[19]. In Norfolk County Council public libraries, programs are being implemented to protect public health. They are no longer pilot actions, but central and permanent services offered by the Libraries[20].

At Hangzhou Library in China, reading and sports are combined. With its motto "Sport keeps us healthy and reading improves our lives", the library emphasizes the association of reading with health and fitness. It promotes love for reading by associating it with health and wellbeing. Inside the library there are sports such as mini golf, yoga, archery, always under the guidance of professional coaches. Also, fencing, yoga, ballet and wing Chun kung Fu lessons[21]. At the Napa Valley Library, California, USA the “Athletes as Readers and Leaders program” is being implemented. High school athletes visit elementary school students, read books and talk to them about the importance of reading. They also refer to the importance of a healthy diet and the need for movement in their lives. Speaking with examples from their own experiences, they managed to wake up elementary school children. To date, over 4,000 children from 15 elementary schools and over 350 athletes from the Napa Valley Unified School District have participated in the program[22].

Hiking and running teams at Fisher Public Library, Woodstock, N.B. in Canada meet at the library and then start walking or running respectively, starting at the library entrance. Whenever they come to their meetings, they are also updated about the new library book purchases. Many of them purchase books on sports (running, yoga, healthy eating) and donate them to enrich the library collection[23]. Such running teams also exist at the Rye Public Library, New Hampshire, USA, which in addition to encouraging library users to have a healthier lifestyle, promote love for reading as well[24].

The “Active Kids” program at the Twin Falls Library, Idaho Public Library, USA, is a free program designed to teach preschoolers how to integrate movement into their lives. The purpose of this program is to teach kids about physical activity and to try out sports, such as karate, without fees. Following these actions, children also search for relevant books from the library collection to obtain more information[25].

The Chair Yoga program at the Walton & Tipton Township Public Library, Walton in Indiana, USA, began in early 2016, prompted by library users and is held twice weekly in the library premises. Exercises are especially beneficial for joints and muscular strength. This free program is addressed to both women and men. Each time members of the yoga team visit the library for their lessons, they find the opportunity to borrow books from its collection[26].

Libraries in the state of Kansas, USA in addition to their traditional services, they provide radical sports and exercise programs, with activities such as yoga or full body chair fitness, aimed at a healthier lifestyle for their users[27]. For these actions, they have been awarded the National Award for Museum and Library Services[28].

The “Wise Walk” program at the Sewickley Public Library, Pennsylvania, U.S.A. is implemented during spring and autumn, bringing together diverse groups of people. Participants find other members of the library who follow the same paths at the same walking rate. Activities, such as stretching and rest heart rate, or monitoring by a local physician to get a general picture of the participants’ health, are performed regularly[29].

The Farmville Library, North Carolina, USA considering the major obesity problem that the community was facing, decided to implement in 2014 a step-counting lending program called "Get Walking at Your Library". Working with the University of North Carolina and Chapel Hill School of Information and Libraries contributes to a healthier lifestyle in this rural community[30].

With the program "Take a walk" at the Winnipe Public Library, Canada, the library decides to "take a walk outside", combining historical walks, literary paths and hiking with the reading club. The library is situated in a neighborhood with street names referring directly to literature. For example, streets named 'Shakespeare Bay', 'Dickens' etc, predispose its audience to participate, to walk, to learn historical facts about the city, and more generally to take a different look at the place where they live. This groundbreaking project has become particularly popular and has introduced new forms of approach to library users[31].

Many US libraries implement free bicycle lending programs, such as the "Check out a bike" program at the Mansfield / Richland County Public Library, the "Book-a-Bike" program at the Athens County Public Libraries Library and the Meridian Library District libraries, the " Free Bike Share Program »at the Montgomery County Public Libraries," Take a spin with a KDL Cruiser" program at Kent District Library libraries, and many other libraries in the USA offering free bicycles to their users, encouraging them to have a full in health and movement lifestyle[32-34].

In 2013, the Brasov Public Children's Library in Romania won the Global Libraries Foundation award for the implementation of the program "A moving child is a learning child". This program was aimed at children aged 0-14 years old, and was intended to cover their physical exercise needs, which provides many benefits to their physical and mental development[35].

The "Be Fit, Not Fat" program was implemented in 2012 at the Pietrari Library in Romania. It is a reading room exercise program, as well as providing information on healthy eating habits to help those with obesity problems. During the program, participants were weighed, and within a short time, the Library recorded approximately 2,750 user visits, winning national and international awards for this program[36].

The “Libraries meet sport program” is being implemented in Russian libraries, which encourage practices that support the value of sports and a healthy lifestyle. The libraries’
collections include sport-related material while there are exhibitions aimed at promoting physical activity, meetings with famous athletes, games, reading marathons, educational programs, Olympic sports lessons and more. In 2013, Russia's Kemerovo Children's and Teenagers' Library organized a sports program called 'Hope Starts Week'. Library users took part in various sports. The Russian Children's and Teenagers' Library of Komi hosted a volleyball tournament between librarians and readers [37].

The 'Hat trick' program in the libraries of Norway is a collaboration between the Association Read (a non-governmental organization designed to encourage Norwegian citizens and in particular adolescents to engage in reading and literature), the Norwegian Football Union and all the public libraries in Norway. The purpose of this program is to make literature and book presentations accessible to soccer players and to create a network of contacts between local teams, librarians and writers [38].

The 'Sport and Reading' program at the Libraries of Norway, was based on the finding that children and adolescents spend much of their free time playing or training at local groups and gyms. Librarians coined the concept of "locker room librarian": the Diego Maradona of reading. Each librarian was provided with a number of about 50 books to be borrowed from children and adolescents. Librarians and the children's favorite writers, as well as popular sports personalities, visited gyms and sports centers. The whole project had a difficult task: to overthrow two established concepts. On the one hand, the idea that athletes, especially celebrities, do not read, and on the other, that reading is a boring process for children and adolescents who associate it only with their schoolwork. Such long-standing stereotypical perceptions are not easily reversed. But with initiatives such as the Sport and Reading program a good start is possible [39].

The Bookball program, in the libraries of Croatia, came about as a result of the collaboration between the libraries and the most popular football team, Rijeka. About 400 teenagers, as well as players, can borrow books from the "Little Library" installed in the stadium building. In this way, for the first time, a 'cultural point' was created within a predominantly sporting space. Many saw with disbelief and prejudice the existence of this program, as there is a stereotypical perception that football players do not read, while those who read do not engage in football. Obviously, there are many challenges and prejudices that still need to be overcome [40].

America's "Let's move in libraries" program began in February 2010, when Michelle Obama launched the groundbreaking action "Let's Move-America Move to Raise a Healthier Generation of Kids", a national campaign to combat the epidemic of childhood obesity in the USA [41]. The purpose of this program is for people of all ages and abilities to get involved in physical activities, thereby creating healthy communities. It focuses on increasing physical activity and improving the health of American citizens. According to the program's official site, letsmovelibraries.org, 1,157 libraries in the US and Canada provided movement-based activities to the public. 86% of librarians report that many new users visited the libraries because of these actions.

The purpose of the present study was to investigate the services and actions of municipal libraries in Greece, related to sports content programs, as well as their evaluation. Further objectives were to make it clear whether libraries are willing or ready to provide programs and actions based on movement and physical activity. If sports have a place in a municipal library. If libraries can become more "noisy" by embracing the needs of their local communities. If sports activities are in line with the traditional responsibilities of libraries, and finally if the existence of sports programs on their premises is a matter of taboo for library managers.

3. Methodology
3.1 Sample
The target population of the study were all the municipal libraries as well as municipal sports organizations active in the Region of Attica in Greece. Out of 54 active municipal libraries in the Attica Region, 46 libraries responded (85% response rate) while of the 51 Municipal Sports Organizations, 26 responded (51% response rate).

3.2 Design and development of questionnaires - Method of data collection
The questionnaire was used as a tool for data collection. The questionnaire needs to correspond to the purpose of the research, to the evaluation of the quantity of information available on each topic, but also to its validity, reliability and usability as a research tool [42]. For the purpose of the research, two questionnaires were designed according to the kind and quantity of information required (parameters - variables) in order to evaluate the contribution of municipal libraries to the development and evolution of sporting events. Two questionnaires were produced by the researcher: (a) for the directors of the Region of Attica libraries, (b) for the managers of the municipal sports organizations of the Region of Attica.

A pilot implementation of the questionnaire evaluation took place first, as it plays an important role in conducting research in order to avoid and prevent problems that may lead to deviation from planning. For the final design of the two questionnaires, a pilot project and a reliability analysis were carried out. The questionnaires were sent to the municipal libraries as well as the municipal athletic organizations of the Attica Region in January 2018 by email and a reminder followed in fifteen days' time. The total response period was six months (January-June).

3.3 Methods of statistical analysis - Validity check - Validity of questionnaires
The reliability-validity analysis of the two questionnaires concerned the reliability-objectivity check and the questionnaires' validity regarding their adequacy as research tools. Validity, reliability and objectivity checks were performed for each questionnaire by calculating Cronbach's Alpha. This process indicates the internal consistency of the questionnaire and thus its validity and objectivity.

For the present study the statistical software SPSS version 24.0 for Windows was employed. To calculate Cronbach's alpha coefficient, a KR-20 was performed, which in the case of binary scaling employment, alternatively applies the Kuder-Richardson-20 (KR-20) equation, which measures the reliability of the binary query consistency. A coefficient KR-20 > 0.80 is considered very good and > 0.90 excellent. After the factors were generated, a reliability analysis was performed that found that the factors we designed were consistent and highly validated.

3.4 Questionnaire validity statistic test (calculation of Cronbach's Alpha index) for the questionnaire given to the libraries
The Kuder-Richardson-20 (KR-20) check was performed for the questionnaire using the Cronbach's Alpha Index [43-46].
SPSS statistical package was used for the analysis. The overall evaluation of the questionnaires given by the statistical check of the Cronbach's Alpha index and assessed according to the requirements of the scientific criteria was acceptable.

3.5 Questionnaire validity statistic test (calculation of Cronbach's Alpha index) for the questionnaire given to municipal sports organizations.

The SPSS social science statistical package was used for the analysis. The overall evaluation of the questionnaires given by the statistical check of the Cronbach's Alpha Index and assessed according to the requirements of the scientific criteria was acceptable.

3.6 Analysis of Results

SPSS version 24.0 for Windows was used for the analysis. Descriptive statistics, and in particular Frequencies, were used for all questionnaire responses. The data were analyzed and adequately organized with appropriate measures (position and dispersion) and the trend of the results was quantified to show all the information contained in the data in order to be understood. This quantification was performed using measures, such as mean, median, standard deviation, etc., which are known as descriptive statistics.

4. Results

![Fig 1: Is there collaboration between municipal libraries and municipal sports organizations?](image1)

![Fig 2: If there is no collaboration between municipal libraries and municipal sports organizations, what do you think reasons are?](image2)
Fig 3: If there is a partnership between municipal libraries and municipal sports organizations, report typical actions.

Fig 4: Do you think municipal sports organizations can help promote a healthier lifestyle by working with libraries?

Fig 5: Does your library provide any movement-based programs (dance programs, Pilates, Zumba)?
Fig 6: If the library does not provide movement based programs, what do you think are the reasons?

Fig 7: Have your users expressed a desire to organize movement-based programs within the library?

Fig 8: In the future, are you considering integrating movement-based programming into your library's actions?
5. Discussion and Conclusions
During the present research work and during the distribution of the questionnaires, it was found that some Greek municipal libraries have implemented actions and programs based on movement and sport. These actions, as became evident from the results, were fragmented, mainly in the context of the summer reading and creativity Campaign, in collaboration with Future Library (a non-profit organization) and the National Library of Greece. In this context, the public libraries, during the summer months, offered programs such as yoga for children, music kinetics, acquaintance with sports, such as tennis, football, basketball and more.

In Greece, a unique case of a cultural organization that combines cultural and sporting activities in the same area is the Stavros Niarchos Foundation Cultural Center (SNFCC), which is a model, emblematic, multifaceted area of art, sport and education. Many of SNFCC’s activities could be an example of good practice and trigger many municipal libraries into action. Some typical sports activities that take place at SNFCC are: Mat Pilates, Yoga in the Park, Tai Chi, Sports for the elderly, Cross-training in the Park, SNFCC Running Team, Qigong 50+, Exercise and Memory, Pétanque, Street Soccer 5X5, Football Skills, Mini Tennis, Mini Volley, etc.

To promote further conclusions, future research could be expanded to a nationwide sample, or be addressed to the members and not to the managers of sports organizations and libraries in order to capture their own view.

The present study contributes to the literature by validating with documentation the positive effects of the cooperation of sports organizations with libraries. The findings confirm the literature references, as the majority of researchers argue that libraries are "anchors" for the communities they serve and must respond to the new challenges of the times. As the environment is constantly changing, libraries can contribute to a healthier and better quality of life for their users, through innovative services and actions, with groundbreaking movement-based and sport-based programs.

Conducting this research, which for the first time involves both of these creative structures of Greek municipalities, libraries and sports organizations, confirms their desire for future collaborations. The results show a promising message, as 97.8% of Greek municipal librarians and 92.3% of Greek...
municipal sports organizations agree that if they work together they can contribute to promoting a healthier lifestyle, enhancing the 'healthy body is a healthy mind' ideal, and to the general well-being of their public.

In conclusion, the study supports the view that partnerships between Municipal Libraries and Municipal Sports Organizations can play an important role in promoting citizens' physical activity, in adopting an active lifestyle and in improving the quality of life of citizens.

6. References
3. Lenstra N. The Experiences of Public Library Staff Developing Programs with Physical Activities: An Exploratory Study in North Carolina. Library Quarterly: information, Community, Policy, 2018; 88(2):142-159.
33. Cox S. Why bike share makes sense as a library resource.

35. Popescu C. Sports and Health Education at Pre-school Level - A project of the Center of Excellence for children in Brasov, Romania. Libraries for Children and Young Adults Section. Newsletter IFLA, Sport and Libraries. 2014, 80

36. Fairbairn J, Popescu C. Be Fit, not Fat. Pietrari Local Public Library. Romania Libraries for Children and Young Adults Section. Newsletter IFLA, Sport and Libraries. 2014, 80


38. Storoe O. Reading the Game in Oslo, Norway. Libraries for Children and Young Adults Section. Newsletter IFLA, Sport and Libraries. 2014, 80


