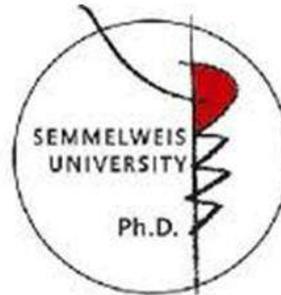


CHANGES IN PHYSICAL ACTIVITY AND SPORTING HABITS VIA GENERATIONS IN CYPRUS

Abstract of the PhD thesis

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1. Introduction

Sport is a cultural phenomenon and thus a part of the larger society in which it is embedded. Both society and within it sport as a social institution have undergone tremendous changes over the last centuries. The social functions of sport broadened, and the set of motivational agents for sport participation became more complex. Nowadays many people do sport and exercise and consume sport because of different reasons or for different purposes than their predecessors. The reasons leading people to get involved in sports also are constantly changing, following the dominating values and norms of the given societies.

Since society is continuously replaced by new members, generational changes occur over time in all areas of social life, including sports. Likewise, in other matters of society, only some of the social norms, values, traditions and behavioral patterns are transmitted more or less unaltered from generation to generation; others are abandoned and/or replaced by new ones, in sports as well.

Everyday experiences suggest that the younger generations are more interested in sport than their seniors had been ever since modern sport emerged at the end of the 20th century. Notwithstanding, generational differences have been rarely investigated in connection with sport. The few research works which one can find references to are related to sport administration, coaching, sport fans' motivations and sporting values, and they only examine generational changes between two generations. According to the author's knowledge the sole sport sociological study dealing with the development and transmission of sporting traditions through three generations was carried out at the turn of the 1960s and 1970s in a Housing Estate in Warsaw. The major conclusions of the latter emphasized the social nature of sport and the decisive impact of the social, political and economic systems the members of the three generations were living in and the mechanism of the transmission.

Generational differences were seldom approached from scientific perspectives in Cyprus as well, they are lacking not only from sport related literature but from the other areas of social sciences. As an exception, occupational differences and similarities between two generations that are currently active in the hospitality

workplaces were investigated. The findings of that research can help understand some elements of the existing generational gaps in contemporary Cypriot society but it could not be used as references to sport.

Parallel with the gradually increasing importance of sports in Cyprus, in the last decades several research projects have been carried out regarding various social issues in national sport, however, generational differences in sport related habits have not been studied yet. As a the first attempt, in this thesis the focus is on the population's involvement in sport and the changes that occurred in the last decades in their sporting habits and in their customs related to daily physical activity. Taking into consideration that sport mirrors societies and that in Cyprus sweeping social, political, cultural and economic changes occurred successively within just few decades, it can be rightly assumed that these changes might be reflected in the population's sporting values, habits, behaviors and participation motivations for sport in a special way.

2. Objectives

Although sport related social sciences have been developing recently in Cyprus, the differences in sport related issues between the elderly, the middle-aged and young people have never been approached from a social perspective. With the intention of filling the above gap, the main objectives of this thesis are

- to discover the generational changes which occurred in the life cycle of the last three generations in connection with their sport related knowledge, behavior, habits and motivations and with their customs related to physical activity, and
- to reveal how some major socio-cultural aspects of sport involvement and physical activity have been modified in the same period.

2.1 Research questions

In order to attain the objectives of this thesis an empirical research was carried out in Cyprus among selected members of today's secondary school children, their parents and their grandparents with the aim of answering the following research questions:

- To which extent are the members of the individual generations familiar with sports?
- What are the major differences between the three generational groups regarding their opinion about the role of sport in the life of Cypriots?
- What are the major differences between the three generational groups regarding the frequency and the level of their primary and secondary sport participation?
- What are the major socializing agents which influenced the three Cypriot generations to get involved in sports as participants and as consumers?
- What are the major differences between the three generations' motivations in connection with sport at present and what were their motivations like at the age of 12-18?
- What are the major differences between the three generational groups regarding their everyday physical activity?

2.2 Hypotheses

At the start of the research the following hypotheses were formulated:

H₁. It is assumed that Cypriots "tasted" and practiced mostly traditional sports but are not familiar with "sports modi".

H₂. It is assumed that significant differences exist between the three generational groups regarding their opinion about the role that sports play in the life of Cypriots.

H₃. It is assumed that significant differences exist between the three generational groups regarding the frequency and the level of their primary and secondary sport involvement and the reasons for their non-participation. It is also assumed that the students' economic background has a decisive impact on their participation in sports at all levels.

H₄. It is assumed that significant differences exist between the three generational groups regarding the role played by the various socializing agents in their sport involvement.

H₅. It is assumed that significant differences exist between the three generations regarding their motivation for sport participation at present and their motivations when they were at the age of 12-18.

H₆. It is assumed that significant differences exist between the three generational groups regarding their everyday physical activity.

3. Methods

3.1 Survey method

Sampling

The investigation was built on survey method. Students attending secondary schools in the academic year 2007-2008, their parents and grandparents were regarded as the total population of the survey. At first, the student sample was gradually selected by stratified sampling according to regions (mainland, coastal and mountain areas of Cyprus), the type of the secondary schools (gymnasiums and lyceums), gender and the grade of the students. The students in the individual schools were randomly selected.

The identification of the students' sample was followed by a snowball selection for choosing the parents' and the grandparents' sample, via the students. The sample consisted of three stratification schemes: 741 students, 229 parents, and 97 grandparents. Due to the gradual, stratified and random sampling methods that were used, all three sub-samples are heterogeneous with regards to their education and other socioeconomic characteristics. The student's sample is representative of the total students' population regarding the region, the type of

the secondary school, the gender and the grade of the students. The parents' and the grandparents' sub-samples followed the student's sample, but they were not representative according to gender. The mean age of the three groups was the following: mean age_{students}=15 (SD=3), mean age_{parents}=45 (SD=8), mean age_{grandparents}=75 (SD=5).

Data collection

The data were collected by questionnaires which consisted of 3 open-ended, 16 multiple-choice, and 12 semantic differential scale questions. The latter were related to the motivational factors: the scoring scales provided respondents with 5 options to check, with the middle point being a neutral answer. The reliability was measured by Cronbach's alpha coefficient (0.89). The answers given to the open-ended questions were categorized according to their frequency.

The students completed the questionnaires in the presence of the researcher during school time, and the parents and grandparents were subsequently given the questionnaires at home. The response rate was 100% for the students, 77.4% for the parents, and 65.5% for the grandparents.

Treatment of the data

The data were analyzed using the SPSS program for Microsoft Windows. To examine statistically significant differences between generations at first Chi-Square was used where frequencies between two variables were observed.

In order to assess the motivation level for sport participation of the three generational groups at the present time and at the age of 12-18 years, a multi-variant analysis (factor analysis) and one-way analysis of variance (ANOVA) were used in each case.

Because of the large number of variables, a data reduction method and factor analysis was used in order to cluster the variables according to their characteristics. Additionally, the assumptions for using ANOVA were verified; by: (1) the independence of the cases; (2) normality – the normal distribution of the residuals; (3) homoscedasticity (homogeneity of variance).

The assumptions for using ANOVA also were verified by Kolmogorov-Smirnov test (normality) and by Brown-Forsythe test (homogeneity of variance). Bonferroni post hoc tests were used to further indicate statistically significant differences between the three generational groups; the level of $\alpha=0.05$ was considered significant.

In order to identify how physical activity has been changed within one's lifetime and between generations, data of retrospective nature were also needed. The adult respondents were asked to clarify the number of days per week and the amount of time per day they used to spend at the age of 12-18 for the kinds of physical activity which were given to them alternatively. Similar questions were put to the youngsters concerning present time. To compare the two sets of scores Wilcoxon two related sample test (Wilcoxon Signed Rank Test) was used.

In some cases t-test analyses were used in order to check the significance of sport participation in relation to the economic situation of the students' group.

Information derived from the open questions was analyzed in a qualitative way in order to complement and enhance the statistical (quantitative) analysis in the given research dimensions.

3.2 In-depth interviews

The survey method was complemented by in-depth interviews which were structured according to the life cycle of the respondents and the answers were categorized according to the type of the motivations (enjoyment or health prevention).

The parents and grandparents were asked both about the attitudes and motivations they have at present time and those that they used to have at the age of 12-18 years, while students were asked only about the attitudes and motivations that they have at present time.

In-depth interviews were conducted with Gymnasium and Lyceum pupils between the ages of 12-18 during the academic year of 2007-2008 (n=15), their parents (n=9) and their grandparents (n=5). The guidelines of the in-depth interviews included questions about the following issues: (1) Importance of the role of sport; (2) Practice of sport; (3) Familiarity with certain sports; (4)

Ownership of sport equipment; (5) Sport socializing agents; (6) Sport motivations; (7) Participation in SFA programs

3.3 Analysis of documents

During the research the following major documents were analyzed: the lists of public secondary schools (Gymnasia – Lykeia) registered by the MoEC, the lists with the numbers of the students that were enrolled at the academic year 2007-2008, annual reports from the Ministry of Education and Culture, Sport for All programs issued by the Cyprus Sport Organization and the Ministry of Education and Culture and reports by the Statistical Service of the Republic of Cyprus.

4. Results

4.1 Knowledge and opinion about sport

To be familiar with a sport is a precondition in most cases to be involved with it. Therefore, the first aim was to understand how familiar the Cypriot population is with sports. The three generations' knowledge about sports was examined in the context of "tasting a sport" and practicing it. The results show that Cypriots tried and practiced mostly traditional sports, such as swimming, volleyball, football and basketball, even jogging attracted relatively many of them, but they were hardly familiar with "sports modi", such as snowboard, kite-board, etc.

As it was expected, football is very popular in all age groups; but this is not the sport which is practiced by the most people, jogging precedes it in the rank not only with grandparents and parents but also with students. The latter are familiar with the most sports. They seem to try a lot of sports even if they don't practise them regularly. Notwithstanding, in spite of living on an island, they do not benefit from the opportunity to have sea all around the country, water sports, especially sailing, are underrepresented in the list of the practiced sports. In certain other cases, such as in the case of handball or tennis, the gap between tasting a sport and practising the same sport needs attention.

The three generational groups had a different opinion with regard to the importance of the role of sport in their life at present and at the age of 12-18. The relevant results of this research discovered that the students seem to appreciate sport more than the other two generations. On the other hand, at the age of 12-18 the generations of parents and grandparents favoured more the sporting elements in their life and attributed more importance to sport. Advancing in years their physical abilities and their priorities have changed. Especially the grandparents' generation lost their interest in sport which was not very high anyway, not even in their childhood and youth. Furthermore, the socialization process occurred in different historical periods of the country, and this circumstance also had an impact on their opinions about sport.

4.2 Sport related behaviour

Level and frequency of primary involvement in sport

Based on a generally accepted classification in the international literature, in this thesis a distinction is made between primary and secondary involvement in sports. According to this concept, playing sports or exercising are considered as a common characteristic of primary involvement. The term of secondary involvement refers to direct (coaching, managing, organizing etc) and indirect (consuming sport, writing about sport, covering sport programs, buying athletes etc) involvement.

The practiced sporting activities were differentiated at three levels: recreational level, competitive level and extreme sports level. The results revealed that the involvement in recreational sports, as an alternative to sedentary lifestyle, is the most frequent. The results showed a significant difference between the three age groups, the younger generations' involvement in recreational sports is much higher than their parents'.

The findings in connection with sport participation at competitive level support the statement that the character of sport has been changing; competitions are no longer the most frequent form of sport involvement. Although the students are more active in sport than their parents, they do not compete more often, they practice at recreational level or they chose extreme sports, although they are familiar only with a few of them.

The findings also revealed a significant difference in the explanation of why people decline to practice. One of the main reasons is similar to what the international literature revealed, that is the lack of time. Although this explanation is understandable for the parents, it seems to be only a pretext for the students' and grandparents' generation. It is not understandable either why the lack of physical abilities is a relatively frequent reason for the students' non participation, much more frequent than with the other two groups.

Socializing agents of primary involvement in sport

The results indicated that the three generations have differences regarding the importance of the different socializing agents. According to the data of the one-way ANOVA analysis the three age groups differed from each other in the following factors: Friends ($F_{(2)} = 48.414$, $p < 0.01$), Family ($F_{(2)} = 45.334$, $p < 0.01$), Coach ($F_{(2)} = 94.269$, $p < 0.01$), TV ($F_{(2)} = 52.951$, $p < 0.01$), School ($F_{(2)} = 25.571$, $p < 0.01$), PE teacher ($F_{(2)} = 24.377$, $p < 0.01$) and Magazines ($F_{(2)} = 32.243$, $p < 0.01$). A Tukey post hoc test was also performed, the results of which revealed that only the group of students' differed significantly from the other two generational groups concerning all factors in this respect. Between the two adult groups, significant differences were found just in the case of few factors.

Motivations for primary involvement in sport

With the aim to examine the motivations for participating in sporting activities at the present time and at the age of 12-18, the motivations were clustered in two factors: Joy and Health Factor. The results of the Factor analysis and the one-way ANOVA analysis showed statistically significant differences between the three generations both at the present and the age of 12-18.

In connection with the present, using the Bonferroni post hoc criterion for significance, the *Joy Factor* post hoc analyses indicated that statistically significant differences exist between all the three generational groups, more specifically between students and parents (Mean Difference=0.412, $p < 0.001$), students and grandparents (MD=0.514, $p < 0.001$), parents and grandparents (MD=0.102, $p < 0.01$). Regarding the *Health Factor*, also using the Bonferroni post hoc criterion for significance, the post hoc analyses indicated that statistically significant differences exist between all the three generational groups, more specific between students and parents (MD=0.051, $p < 0.001$), students and grandparents (MD=0.396, $p < 0.001$), parents and grandparents (MD=0.345, $p < 0.001$).

In connection with the past (at the age 12-18), using the Bonferroni post hoc criterion for significance, the *Joy Factor*, post hoc analyses, indicated that statistically significant differences exist between students and parents (MD=0.111, $p < 0.001$), students and grandparents (MD=0.145, $p < 0.001$), but not

between parents and grandparents (MD=0.034, $p<0.076$). The *Health Factor* post hoc analyses, using the Bonferroni post hoc criterion for significance, indicated that statistically significant differences exist between students and parents (MD=0.197, $p<0.001$), students and grandparents (MD=0.516, $p<0.001$), parents and grandparents (MD=0.319, $p<0.001$).

Secondary involvement in sport: consuming sport

Out of the different kinds of secondary involvements in this research, sport consumption was also studied. More precisely, it was examined how often the members of the three generations attend sporting events, how often they read about sport, and how often they watch sport related programs in the television, both at national and international levels.

The results of a one-way analysis of variance revealed that statistically significant differences exist between the three generational groups concerning all examined sport consuming habits: Attending international sport events ($F_{(2)} = 13.693$, $p<0.01$), Reading about international sports ($F_{(2)} = 16.205$, $p<0.01$), Watching international sports on TV ($F_{(2)} = 37.685$, $p<0.01$), Attending national sport events ($F_{(2)} = 71.906$, $p<0.01$), Reading about national sports ($F_{(2)} = 20.959$, $p<0.01$) and Watching national sports on TV ($F_{(2)} = 41.622$, $p<0.01$).

It was expected that young people attend sporting events the most frequently. However, it was not expected that just few grandparents go to watch football matches at the stadia. The fact that young people spend much more time in front of the television watching sport related events than their parents and grandparents was also surprising. The differences in the three generations' sport socialization can be the reason for this contradictory phenomenon.

4.3 Customs related to physical activity

Intragenerational changes of physical activity

In order to identify how the physical activity throughout the parents' and grandparents' own generation changed, data of retrospective nature were needed, in addition to the present time data. The findings of the Wilcoxon two-sample test related to the middle-aged people show that the ranks of the different kinds of

physical activity changed negatively. The differences between the frequency of the middle-aged people's physical activity at present and at the age of 12-18, were significant in all areas, except physical activity in the house (gardening, housework, etc). It means that the middle-aged Cypriot adults' daily routine comprises significantly less physical activity than it did in their childhood and adolescent years; they walk less indoor and less frequently to and from their work places. The fact that at the same time they have more household chores does not justify this modification.

Intergenerational changes in physical activity

Customs related to physical activity can be changed not only within one generation's lifetime, but they can be altered relative to the previous generations' life cycle. In this thesis some selected elements of the way of life regarding physical activity and inactivity were examined with the three generations when they were in the same age, that is when they were 12-18 year old.

First the students', their parents' and their grandparents' opinion about the importance of physical activity in life was compared. It turned out that the younger a generation, the higher their opinion on the necessity of physically active elements in the everyday life.

The results also indicate that today's students are sitting in class longer than their parents did when they attended school, and similarly, their parents were sitting more at classes than their own parents, that is, today's grandparents. The grandparents' generation spent more time on average with walking to and from school, and the same activity requires less time from their grandchildren. Not only because there are more schools than there used to be, but they go to school more often by public transport. The youngsters watch television longer hours than the middle-aged and the elderly are sitting in front of the television or the computer even shorter time than the middle-aged. The findings also suggest that the significant intergenerational differences regarding both the frequency of and the time spent for various forms of physical activity manifest themselves partly in a similar, partly in a dissimilar way as it can be observed in most other European countries.

3. Conclusions

In this thesis the focus is on how the different generations noticed the changes in their environment, more specifically how they responded and adjusted to the major modifications in connection with sports and with everyday physical activity.

Sports have become multi-dimensional and new sports have been invented day by day. According to the related literature, a wide range of new sports, called “sports modi” have been spreading, several of them even were recognized formally. The three last generations in Cyprus do not seem to follow the above tendency in sport. *Based on the results it can be stated that hypothesis one, according to which Cypriots “tasted” and practiced mostly traditional sports but they are not familiar with “sports modi,” is confirmed.* Although there are differences between the young, the middle-aged and the elderly regarding the number of sports they have ever tried in one way or another, a considerable turn towards modern and extreme sports which occurred internationally could not be observed nationally, not even with the students. It is noteworthy that with the latter, golf appeared as a novelty in the middle of the rank of sports, and they tried to practice it, while their grandparents who might have seen the British rulers playing golf were not attracted by it. The generations are obviously changing their preferences on what they call sport and on the importance the different sports play in their lives.

Due to the changing environment, sport became more important in people’s life in contemporary Cypriot society than it used to be decades ago. The young people responded well to this phenomenon, they attribute more importance to sport in life than their parents and grandparents did when they were in a similar age. On the other hand, the grandparents and parents were of a higher opinion about the significance of sport in their childhood and youth than they are today. These results *confirmed the second hypothesis* which assumed that significant differences exist between the three generational groups regarding their opinion about the role that sports play in the lives of the Cypriots.

With full knowledge of the fact that the transformation of mentality is a very slow process, it can be rightly said that the Cyprus Sport Organization, the Cyprus Olympic Committee and other responsible bodies for sports can be blamed to a certain degree for the backwardness of the adults' way of thinking about the social importance of sports. While they made efforts during the last decades in the promotion of the populations' sport participation through national and local sport programs, they failed to launch campaigns with the help of which they could have explained why it would be of vital importance to practice.

Until recently the efforts of the sporting bodies for promoting the Cypriot population's sporting activity has been crowned with moderate success. Significant differences were found among the three generational groups regarding the frequency and the level of sport participation. With these findings, the first part of *the third hypothesis* which assumed that significant differences exist between the three generational groups' primary involvement in sport *is partly confirmed*. However, when participation in Sport for All programs was measured on a five-item scale, the findings concerning the students were only slightly more favorable than their *parents' and grandparents'*, and *all three generational groups' mean was below the average*.

The situation is even more complex in connection with secondary sport involvement. Although *the data verified the assumption* included in hypothesis three according to which significant differences exist between the three generational groups regarding their secondary sport participation; the interpretation of the data revealed that the nature of the differences does not always answer the implicit expectations. Namely, the students spend much more time in front of the television watching sport programs than their grandparents who have plenty of time and just a few of the latter attend football matches which are considered to be the most popular pastime in the Cypriots' leisure.

Similar contradictions were noticed concerning the reasons for the three generational groups' non participation. On the one hand significant differences were found between the explanations given by the members of the three generations about why they decline to practice at recreational and competitive levels; thereby *the second part of the third hypothesis was partly confirmed*.

Regarding extreme sports, the data were not sufficient either to prove or to deny the assumption. On the other hand, the meaning of a significant difference does not fully answer the implicit expectations: almost one fifth of the students explained their absence from sport by the lack of their ability, while there were much fewer parents and grandparents referring to this reason. *The last part of the third hypothesis*, according to which the students' economic background had a decisive impact on their involvement at all levels, *was rejected* since no significant relationship was found between their families' economic situation and sport participation, either in recreational or in extreme sport.

Based on the results, the fourth hypothesis which assumed that significant differences exist between the three generational groups regarding the role played by the various socializing agents in their sport involvement *is accepted*. The results revealed that there are significant differences between the importances of the socializing agents influencing the three generations' sporting activity. It can be stated that the students' sport-related behavior is influenced more by external factors than their parents' and grandparents'. The various factors affected the grandparents' generation less. Although to a different extent, the friends had the strongest impact with all three generations. The second most important socializing factor was the family, proving that in spite of recent changes, family ties are still close in the country.

The results also supported the fifth hypothesis according to which it was assumed that significant differences exist between the three generations regarding their motivation for sport participation at the present and their motivations when they were at the age of 12-18. The grandparents considered health enhancement as a stimulating factor in their childhood and youth, and they did not change their mind during their whole life cycle. The parents' motives are closely connected to joy and fun at present but in their childhood they considered health promotion as the most important reason for sport involvement. The students' motivation for participation in sport is closely related to fun and enjoyment. Generational differences in participation motivation for sport are probably universal but their elements can be dissimilar depending on the value system in general and in sport in particular in societies.

Finally, according to the results of this study, the sixth hypothesis which supposes that significant differences exist between the three generational groups regarding their everyday physical activity is also confirmed. After examining intra-and intergenerational changes in daily living and in selected health related physical activities between the three generational groups, the findings show that both the frequency and the intensity of daily physical activity have been decreasing within the lifetime of the middle-aged and the elderly, partly in a similar, partly in a dissimilar way as it occurs in most other European countries. Moreover, significant differences could be noticed between the physically active and inactive elements in the three examined generations' way of life. The observed changes can only be explained to a small extent by the process of getting older. They are rather rooted in the contradictory impact of the slow advancements in science and technology on the Cypriots' everyday life and in the special characteristics of physical culture in Cyprus.

One of the major conclusions of this study is that effective measures have to be taken in the immediate future to stop the spreading of the observed and obviously increasing inactivity among the Cypriot population.

The particular characteristics of the historical and cultural circumstances in Cyprus allow the generalization of the conclusions only on a national level. Generational differences are definitely universal but the elements of these differences are often dissimilar in different countries. In principle some findings of this research could be relevant in those South European states where, similarly to Cyprus, the traditional values and behavioral patterns survived long and where the close family ties playing an outstanding role in early sport socialization have loosened only recently, as a consequence of globalization.

In practice not significant similarities can be observed because of the radical differences in these countries' history and in the history of their sport. Unlike Cyprus, the cited countries were not colonized; they were rather colonizers (e.g. Spain and Portugal). Besides, modern sport emerged much earlier in those countries, for instance Greece, the value system of which is the most similar to the Cypriot one, played a leading role in promoting the rise and the spread of the Olympic movement. Finally, the size of all quoted countries is considerably

bigger than that of Cyprus where daily life is usually more personal than in countries with large populations and the knowledge of other people's backgrounds and personalities might have a special impact on sport socialization throughout the life cycle. Notwithstanding, the question how the smallness of Cyprus, and in connection with it the strong interpersonal networks as well as the closeness of the interpersonal relations, do influence the participation motivations for sport is still open.

Further research works are needed to discover how the ever changing political, cultural, social and economic factors affect the different generations' participation motivations and sport involvement in Cyprus, and how the national sport politics and sport policy can use the research findings and other countries' good practices in a more effective way.

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