Original Article

The attitudes of prisoners regarding to physical activities and sports

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Abstract:

The purpose of the present quantitative study was to determine the attitudes of Greek prisoners regarding physical activities & sports. Three hundred and eight inmates voluntarily participated in the trial and answered in a valid and reliable instrument. <<Exploratory factors analysis with varimax rotation revealed 3 factors consisting of 11 physical activity and sport items that explained the 51.75 % of total variance of variables. These factors are: a) «the need for physical activity» (RA1, 7 items), b) « physical activity before and during imprisonment» (RA2, 2 items), and c) «non-participation in physical activity» (RA3, 2 items)>> (Konstantinakos, Skordilis, Tripolitsioti, & Papadopoulos, 2010). Further analysis by MANOVA in which the three factors compared with age, educational level, geographic stratification, type of prison and previous relationship with the sport, revealed the following: a) the older prisoners showed negative attitudes to each of the three factors separately, b) the attitudes of prisoners who were graduates of primary school were more negative than the graduates of high school and university, c) prisoners in open-air prison, had more negative attitudes than by prisoners in closed prisons and according to factor two, the prisoners in open prisons showed positive attitudes compared to those participants in closed prisons, d) in terms of geographical stratification it was observed statistically significant differences only for the second factor, while there was no differences in the two other factors, e) the relationship of prisoners with the sport, showed that participants who declared athletes had positive attitudes than of the participants declared supporters, fans or anything from them.

Key words: inmates, recreation, attitudes, physical activities, sports

Introduction

The views people have about a social event - function reflects the subjective representation of themselves as ideological or experiential "attitude" that have the specified objective social fact (Papastamou & Mantoglou, 1995). Especially when looking for opinions relating to social functions are necessary and have an objective application of human existence, such as physical activities and their impact on quality of life. If we define the representations for a fact - function as "attitude" that reflect an idealized representation of the actual event, then they change, transform and differentiate according to some factors (Koskinas, Papastamou, Mantoglou, Prodromitis & Alexias, 2000).

Also perceptions may be affected due to the social origin of the people, as that distinction because of the social and geographical stratification differentiates perceived representations of social functions (Bourdieu, 2002). The quality of life variables with fixed biological parameters, but also the mental and emotional effects that create the social environment may be regarded as objective fact when people experience and act without pathological aberrations (World Health Organization [WHO], 2010). Different studies have found links between health and activity, some as a result of the personal fitness and some about from the act of physical exercise and sport (Dunn, Trivedi & O'Neal, 2001).

In Nettleton main characteristics of quality of life is the environment, housing, leisure, education, health system, entertainment and social interaction (Nettleton, 2002). The physical activities is a basic social function that ensures the biological active participants improve with reflection on the entertainment field. Active participation in physical activities with scope for diversity and sport applications requires space and time. The limitation of time and space specific facilities and instruments for applications of physical activities generate differential effects on socially disadvantaged groups of people resulting in a negative impact on quality of life (McNamee, 2007; National Council for Curriculum and Assessment [NCCA], 2007). People in detention (prison), such as social delinquents are forced to experience daily spatiotemporal restriction even necessary functions such as physical activity movement, given the conditions of detention did not allow it. This lack of physical activity in the places of detention could be reversed if the infrastructure formed in the ratio of human needs, one of which is access to physical activity (Gonzalez-Castro, et al., 2013).

Moreover, prisons partly exists an unequal operation between inclusions in court - closed and open - rural prisons, with the latter having multiple possibilities in physical activities such as physical activities due to work or spaces for exercise – exercise (Wielgus, Nowicki & Borek, 2013).

Different studies, epidemiological, clinical and pathological supporting that physical activities and some sports plays has an important role in the prevention and rehabilitation of several diseases (Haskell et al., 2007). Is known that physical activities and sports were prohibited for prison inmates, because they were imprisoned for punishment and not for recreation (Roberts & Hough, 2005).

We know that <<...physical activity and sports for inmates started in the year 1973, when the National Advisory Commission on Criminal Justice Standards and Goals recommended that every prison should employ a physical education teacher with specialization in recreation or a graduated in recreation management. Since then many prisons incorporated physical activities and sports as part of the education system of offenders according to their rights>> (Konstantinakis et al., 2010). Is very important the decision of council of Europe to established the guidelines in the providing physical activities for prisons, when this success in North American was rules were adopted by the prisional system, (Delaney & Madigan, 2009). Different researcher's had interest to use and values the physical activities for the persons in the prison because there are rapid growth in prison populations in the Europe countries (Wagner, McBride & Crouse, 1999; Lipke, 2003; McGuire, 2003; Hsu, 2005; Jewkes, 2005; Plugge & Fitzpatrick, 2005; Konstantinakis et al., 2010).

Frey and Delaney, in their study that contacted in the prison of the Nevada state, showed that the <<leisure participation in prison life decreased significantly the tension release and increased the possibility for friendships and social relationships>> (Konstantinakis et al., 2010). The authors found no correlations between leisure participation, attitudes and feeling about prison life. Also they found that the leisure had no effects on boredom and aggression. More, although the inmates have opportunities to participate in leisure activities the levels of participation were low. The authors concluded that further research is needed about the role of physical activities and sport s in prisons (Frey & Delaney, 1996).

Robertson, believe that physical activities in prisons can help the health rehabilitation of offenders, develop new interests, to develop awareness of personal needs and appropriate avenues to satisfy them, foster new interests, develop acceptable outlets of stress, increase access to new social environments (Robertson, 2000). Also to enhance self-esteem through realizing success with a giving pursuit, develop decision making and problem solving skills and foster interpersonal skills such as trust, cooperation and team work (Williams, Strean & Bengoechea, 2002), investigated the effects of exercise and sport in the rehabilitation of prisoners. The authors confirmed that not all physical activities or sports are proper <<for all inmates and some of them should be individualized according to risk of each activity>> (Konstantinakis et al., 2010).

Buckaloo, Krug & Nelson (2009) investigated the effects of aerobic or anaerobic exercise on low-security prison inmates regarding to depression, stress and anxiety. They found that those who participated in the various types of exercise had lower levels of above mentioned parameters. The authors suggested that exercise is a coping strategy to deal with incarceration. Elger, found that the increasing opportunities of prisoners to practice sports in prison can decrease the stress and alleviate insomnia, causing beneficial effects of in the general health status (Elger, 2009). In an important ethnographic study, categorized the data regarding to physical activities and sports and produced for content analysis and discussion five themes that generated by observations and interpreted separately: escaping time, perceived therapeutic benefits, social control, gendered dimensions and performing masculinity (Martos-Garcia, Devis-Devis & Sparkes, 2009). As confirmed by the literature review, there are few studies that investigated the attitudes of prisoners regarding to physical activities. Furthermore, some researchers used for data collection the qualitative approach, which is an in depth exploration of the subject. On the other hand, the quantitative approach is interesting for the generalization of the result (Kabitsis, 2004).

Also, through the literature search no relevant study contacted in Greece, although in prisons there are about 12.000 inmates.

Therefore, the aim of this investigation was to identify the attitudes of Greek prisoners regarding to physical activities and sports in three large prisons and to compare these with age, educational level, geographic stratification, type of prison and previous relationship with the sport (konstantinakis et al., 2010). Theory about the attitudes in the citizen guided the present study (Papastamou, & Mantoglou, 1995). The <<attitudes represent a system of social values, ideas and practices orienting individuals in their material and social world. To that extend, social representations are reflected elements of social construction, which, in turn, are constantly converted into social reality and being subjected for re-interpretations and re-evaluations>> (Konstantinakis et al., 2010).

Method

This study was carried out by the department of sport management, Faculty of Human Movement and Quality of Life, University of Peloponnese, started on January 2008 and finished at the end of December 2009.

For the purposes and the requirements of the study, the researchers took the permission of the Ministry of Justice.

The three large Greek prisons were chosen, because there are about 3000 inmates. These prisons are named Koridallios of Attica, Tripolis of Arcadia and Tirinthis of Argos. After permission from the Ministry of Justice, the researchers sent a research package to the Directors of the prisons, with a cover letter in which described the study details and the study instrument. Then, the directors of the prisons informed all prisoners about the research project and requested them to voluntarily participate in the study. By this way three hundred and eight questionnaires were completed by offenders, who decided to participate in the study and transferred by the prison's directors to the researchers (Konstantinakis et al., 2010).

Instrument development

In this study used the instrument was developed with procedures from another similar studies (Tripolitsioti, Mountakis, Konstantinakis & Theodorikakos, 2007; Tripolitsioti, Mountakis & Strigas, 2009): a) ...<< a review of related literature, b) informal interviews with physical education teachers with specialization in recreation, c) a panel of specialists, and d) field testing of the instrument. a) Following a critical review of the literature on measures of physical activities & sports, a pool of 12 items was developed. These items were judged to cover the inmates' attitudes dimensions. b) Five informal interviews with physical education teachers were conducted. The aim of these interviews was to generate items specifically related to inmates of prisons. Four items were added, based on these interviews. These items were related to teaching activities or sports, which are taught in Greek large prisons. These procedures resulted in the development of a pool of 16 items. c) The above pool was subjected to a critical analysis by three specialists, representing prominent academics in physical education, psychology and research methods from Greece. They were asked to comment on the relevance of the items to the concept of the inmates' attitudes and the clarity of the statements. This procedure reduced the number of items to 11>> (konstantinakis et al., 2010). After all these the final instrument was reviewed by a Greek literature teacher in order to ensure comprehension and appropriate language (Kabitsis, 2004). Before distributing the questionnaires to the prisoners was conducted pilot study. The aim was to test the face validity of the instrument. Asked the prisoners to evaluate in a five-point Likert style scale the degree to which the statements were (a) strongly agree; (b) agree; (c) disagree d) strongly disagree; (e) not having an opinion. This means that the answers with low rate represented positive attitudes, while the answers with high rate represented negative attitudes (konstantinakis et al., 2010).

Statistics

The data collected from responders were entered into the SPSS 17.0 statistical package for data analysis. The descriptive statistics of means, standard deviations, frequency rankings of the attitudes statements and percentages were used to obtain information from the data analysis. Cronbach's coefficient alpha was used to confirm the internal consistency reliability between items on each factor. Factor analysis was conducted to determine the number of factors in the instrument (Konstantinakis et al., 2010). MANOVA was used in order to identify if there were any statistical differences between the factors of attitudes and the variables such as age, education level, type of prison regional stratified and relationship with physical activities and sports. Multiple comparisons by Bonferroni method was used to high-light the significant differences where needed. The level of significance was set at 0.05 level (Kabitsis, 2004; Vagenas, 2004).

Results

In the present study participated 308 offenders. The data about age, education, and prison type, regional stratified and relationship with physical activities and sports is :

Age: The greatest percentage of responders were between 20-30 and 31-40 years of age (235 or 76.14%).

Education: Most of the responders (152 or 49.67 %) were attended the gymnasium, which is the middle school in the Greek Education system. Only 20 of the prisoners (6.54 %) were graduated from a university.

Prison type. One hundred and eighteen responders (58.63 %) were residents of closed prison type.

Regional stratified: A large percentage of the prisoners (194 or 63.40 %) were in prisons that functioned in big cities, while the rest 114 in prison that functioned in towns or villages.

Relationship with Physical Education and Sport: Finally, 119 responders or 38.89 % confirmed that there had not a relationship with Physical Education and Sports.

Age

The multivariate analysis of variance (MANOVA) revealed significant differences across the three age groups (20-30, 31-40, 41 and above) ($L = .938$, $F = 3.261$, $p = 0.004$, $\eta^2 = .031$). Accordingly, the univariate findings with Bonferroni adjustment (.05/3) were significant for PA1 ($F = 4.366$, $p = .014$, $\eta^2 = .028$), PA2 ($F = 4.716$, $p = .010$, $\eta^2 = .030$) and PA3 ($F = 5.752$, $p = .004$, $\eta^2 = .037$) respectively. The LSD values were as follows for the PA1, PA2, and PA3 respectively: a) for PA1, the mean score of prisoners aging 41 and above

years old was significantly higher compared to those of 20-30 and 31-40 years old, b) for PA2, the mean score of prisoners aging 41 and above years old was significantly higher compared to prisoners aging 21-30 and 31-40 years old, and c) for PA3, the mean score of prisoners aging 41 and above years old was significantly higher compared to the 20-30 and 31-40 years old groups. The present findings are presented in **Figure 1**.

Fig. 1. Differences across age

Education

The multivariate analysis of variance (MANOVA) revealed significant differences across the four education groups (Elementary School, Junior High School, Senior High School, and University) ($L = .925$, $F = 2.624$, $p = .005$, $\eta^2 = .025$). Accordingly, the univariate findings with Bonferroni adjustment (.05/4) were significant for PA1 ($F = 6.568$, $p = .000$, $\eta^2 = .061$). No significant differences were found with respect to PA2 ($F = 2.597$, $p = .053$, $\eta^2 = .025$) and PA3 ($F = 2.149$, $p = .094$, $\eta^2 = .021$). The respective LSD values for the PA1 revealed that the mean score of prisoners graduating from elementary school was significantly higher compared to their counterparts graduating from junior high school, senior high school and university. The respective findings are presented in fig 2.

Fig. 2. Differences across education

Type of prison

The multivariate analysis of variance (MANOVA) revealed significant differences across the two groups (opened and closed) ($L = .792$, $F = 26.455$, $p = .000$, $\eta^2 = .208$). Accordingly, the univariate findings with Bonferroni adjustment (.05/2) were significant for PA1 ($F = 18.443$, $p = .000$, $\eta^2 = .057$) and PA2 ($F = 17.579$, $p = .000$, $\eta^2 = .055$) respectively. No significant differences were evident for PA3 ($F = 2.292$, $p = .131$, $\eta^2 = .007$). Examination of the mean scores revealed that respondents in opened prisons had a significantly higher mean score in PA1 compared to their counterparts in closed prisons. For the PA2 however, the respondents in opened prisons had a significantly lower mean score compared to the respondents from closed prisons. Findings from the present analysis are presented in fig 3.

Fig 3. Differences across type of prison

Region

The multivariate analysis of variance (MANOVA) revealed significant differences across the three groups (urban, suburban and village) ($L = .875$, $F = 6.954$, $p = .000$, $\eta^2 = .065$). Accordingly, the univariate findings with Bonferroni adjustment (.05/3) were significant for the PA2 ($F = 16.444$, $p = .000$, $\eta^2 = .098$). No

significant differences were found for the PA1 ($F = .782, p = .458, \eta^2 = .005$) and PA3 ($F = 1.351, p = .260, \eta^2 = .009$) respectively. The respective LSD values for the PA2 revealed that respondents from urban areas had a significantly lower mean score (positive) compared to respondents from suburban areas and villages. The present findings are presented in fig 4.

Fig 4. Differences across region

Previous Involvement in Physical Activity and Sports

The multivariate analysis of variance (MANOVA) revealed significant differences across the four groups (athletes, spectators, fans and nothing) ($L = .874, F = 4.571, p = .000, \eta^2 = .044$). Accordingly, the univariate findings with Bonferroni adjustment ($.05/4$) were significant for PA1 ($F = 7.643, p = .000, \eta^2 = .071$) and PA2 ($F = 8.158, p = .000, \eta^2 = .075$) respectively. No significant differences were evident for PA3 ($F = .993, p = .396, \eta^2 = .010$). The respective LSD values were as follows for the PA1 and PA2: a) for PA1, the mean score of prisoners who had been athletes in the past was significantly lower compared to the respective mean score of fans, spectators and those who reported no previous involvement (nothing), and b) for PA2, the mean scores of prisoners who had been athletes was significantly higher compared (positive) to the mean score of those who had been either fans, spectators or those who reported no previous involvement (nothing). Further, for the PA2, the spectator had a significantly lower mean score compared to those without any previous involvement with sports and physical activity. The respective findings are presented in Figure 5.

Fig. 5. Differences across previous involvement

Discussion

Physical activity can help people who enter the prison, mainly dependent on substances or pathological and psychological problems. Different <<previous research has suggested that physical activity levels change when users enter prison>> (Fischer, 2012). <<The present investigation was contacted to identify the attitudes of Greek prisoners regarding to physical activities and sports and to compare these with age, educational level, prison type, terms of geographical stratification the prisoners who were residents of towns showed negative attitudes in factor PA2 and e) the relationship of prisoners with the sport, showed that participants who declared athletes had positive attitudes in factors PA1. Further, for the PA2, the spectator had a significantly lower mean score.

The instrument developed in the present investigation can be a useful tool for sport directors and physical education teachers geographical stratification and relationship with physical activities and sports. The results showed 3 factors that named «the need for physical activity», «physical activity before and during imprisonment» and c) «non-participation in physical activity» >> (Konstantinakis et al., 2010).

Further analysis by MANOVA, following by Bonferroni method revealed the following: a) the older in age offenders showed negative attitudes to each of the three factors of the study separately, b) the prisoners who were graduates of primary school showed negative attitudes in the factor PA1, c) the inmates in open-air prison showed negatives attitudes in factor PA1, while the inmates of closed prisons showed negatives attitudes in factor PA2, d) in

with specialization in recreation, in their effort to evaluate the attitudes about physical activity and sport on prison inmates (konstantinakis et al., 2010). It is believed that attitudes surveys can help prison managers to close the gap between prisoners' perceptions and the perceptions of the service provider and these surveys

should be started to conduct in prisons in Greece. A similar tool is the International Physical Activity Questionnaire (IPAQ) which has been tested in research associated with inmates in prisons (Wielgus, et al., 2013).

This will give the chance for analysis of the offenders' attitudes regarding physical activities and sports data, which will indicate the degree the jails can organize or improve these activities over the time. In the Greek punishment system there are two types of prisons the open-air and closed. In the first type of prison, the inmates during jail can be worked and therefore to decrease in a half the punishing time (Lieblin & Maruna et al., 2005). According to the results of our study the offenders of Greek prisons confirmed the neediness of physical activities (Konstantinakos et al., 2010). These findings are in line with previous investigators (Libbus, 1994; Frey and Delaney, 1996; Robertson, 2000; Williams et al., 2002; Buckaloo et al., 2009; Martos-Garcia et al., 2009; Wagner et al., 1999).

We found that the inmates over 40 were negative to the expression of factors regarding the value of physical activities. One reason for this is because the older inmates may have less of an opportunity during open gym times to participate in healthy activities due to younger inmates monopolizing the equipment. However, the non participation of older offenders in physical activities and sports will deteriorate their health status and is increased the need for medical services. It is known that this population is suffering from cardiovascular disease, diabetes, arthritis, hypertension and cancer (Williams et al., 2002). So, the prison administrators and staff should provide the opportunity and encouragement the older inmates to participate in physical activities. Educating inmates may be the key to motivating them to create a healthier atmosphere overall (McGuire, 2003). We observed that the prisoners who graduated from elementary school rated positive the factor PA1 than that the other graduates in all three factors. Something similar shows from the research in (Wielgus et al., 2013), that the respondents with primary education met the criteria for healthy physical activity. For this explanation may be the implication of the prisoners with more leisure activities than the other categories of graduates.

According to the type of prison, it was observed that the inmates of open-air rated higher the factor PA1, while the offenders in close type were more positive for the factor physical activity before and during imprisonment. A recent study on physical activities in Polish prisons (open and closed) show similar results to ours, taking into consideration their age, education level and geographic stratification of prisoners (Wielgus et al., 2013).

As noticed earlier the prisoners of open-air prisons is worked very hard and the tow days of punishment jail because is equaled to one. So, it is understood that the inmates would prefer to work harder in order to decrease the jail time, than to participate in organized activities and sports. On the other case, the offenders of close type prisons, have to consume more time for the participation in the above mentioned activities (Konstantinakos et al., 2010). Positives attitudes regarding physical activities and sports showed the offenders that were born and growled up in big cities. This can be omitted to the life style of the astik centers where the residents have more chances to participate in a variety of physical activities and sports (Taylor, Crow, Irvine & Nichols, 2000).

Finally, positive were the attitudes of inmates, who were athletes before jailing. It seems, that they know very well the potential benefits of physical activities, sports, leisure and recreation and how these benefits relate to rehabilitation of juveniles (Williams et al., 2002).

Conclusions

The results of this study showed that the attitudes of Greek inmates regarding physical activities and sports were positive. There were small differentiations between factors of attitudes in comparison with age, education level, type of prison, geographical stratification and the relationship with physical activities and sports before prisoning. Further studies are needed to explore the other aspects of Greek prisoners such as leisure activities and health status (Konstantinakos et al., 2010).

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