

## **An Analysis of Depression Level of Retired Professional Football Players According to Their Life Quality**

*<sup>1</sup>Metin Bayrak, <sup>2</sup>Yalçın Tasmektepligil, <sup>3</sup>Taner Tunç and <sup>3</sup>Seval Aksoy*

<sup>1</sup>Department of Physical Education and Sport, Çankırı Karatekin University, Turkey

<sup>2</sup>School of Physical Education and Sport, Ondokuz Mayıs University, Turkey

<sup>3</sup>Faculty of Art and Science, Ondokuz Mayıs University, Turkey

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**Abstract:** The aim of this study was to determine the life quality and depression levels of retired professional football players and to make an evaluation of their depression levels with respect to life quality. Face-to-face interview method was applied to 388 retired football players and the data were analyzed with SPSS and statistica 7 software in the study. Before the analysis of data, conformity of the score distribution obtained through scales concerning life quality and beck depression levels with the normal distribution was determined by the Shapiro-Wilk's test in order to find the appropriate analysis method. As a result of the test, it was found that the observation values did not display a normal distribution in terms of depression scores whereas it displayed a normal distribution in terms of life quality scores ( $p < 0,05$ ). This study has found out that retired professional football players with higher depression levels have lower life quality levels while those with lower depression levels have higher life quality levels. Significant correlations were seen between demographic variables and sub-dimensions of life quality and depression levels. Nevertheless, no significant correlation was found between depression levels of retired professional football players and their marital status, education level, career in professional leagues and how long they have been retired. As a conclusion, a negative correlation was found between depression scores and life quality scores. In retired professional football players, life quality goes down as depression levels increase, which is attributed to low education level, income, fame/popularity, decreased mobility and marital status.

**Key words:** Retirement • Football • Depression • Life Quality • Athlete Identity

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### **INTRODUCTION**

Having a career in football is a challenging process. However, excitement of competition perfectly coupled with the award and success feeling makes one forget about all the hardships experienced. As is the case in every profession, football career has an end, too. It is not very easy to accept the detachment from such an identity which is gained through great enthusiasm and labor [1].

Football players who have to decide to retire eventually experience many difficulties after retirement from their career in football [2] and face potential psychological, social and financial hardships. The main and most influential factor in ending the career is about self-respect or the degree of self-accomplishment of identity of the athlete. Being an athlete is a part of identity of athletes. Athletes usually spend their time with their

colleagues, which bring about an attachment to a group and an athlete identity [3]. Athletes who dedicate themselves to a sport branch obtain an identity through dedication to the sport branch in which play [4]. Athlete identity is defined as attaching great importance to sports and adaptation to the self-perception in a sport branch. More specifically, the athlete identity is the self-schema which organizes or guides a

Development in a cognitive structure or a personal realm. It is therefore much more likely for an individual with a strong athlete identity to consider an event (such as ending the career) from the perspective of significance of being an athlete [5]. As self-respect and identity of athletes relies on sports, they experience a negative transition and face a confusion of identity [6]. Athletes intensively dedicated to a sport branch are described as "uni-dimensional" individuals because their

self-perception cannot exceed the limits of sports [7]. Athletes with a strong athlete identity perceive “ending the career” as a very important and irrecoverable loss [8]. Retirement means break-up of a long-lasting order and formulation of a new social milieu and a new identity. Retirement thus results in a change of place of an individual among his/her family and other people [9].

Compulsory transition to retirement depends on four main functions: age, disfavor, injury and private reasons. These functions are psychologically, socially and physically formulated within the retirement transition process [10-12]. Likewise, retirement from football can take place as ending the career voluntarily or non-voluntarily. When we compare voluntary and non-voluntary retirements, it is seen that voluntary retirement corresponds to emotional and social adaptation in ending the career. Athletes’ retirement due to injury is difficult and as stressful as similar retirements [8]. As a conclusion, athletes can decide to retire due to a mixture of personal, social and psychological reasons [13].

As a result of voluntary or non-voluntary retirement of professional athletes, along with the loss of competition and winning, the process of transition to retirement can be a difficult and traumatic brand-new start for athletes. An athlete whose life is full of performance, attraction and financial income faces a life style, with retirement, in which such features are minimized or lost, which results in some emotional changes [14].

The process of retirement is the essential difficulty itself for the athlete. Undoubtedly, retirement brings about ambiguity and uncertainty in athletes [15]. Furthermore, retirement from elite sports stands for a potentially painful transition for athletes because they have to revisit and re-evaluate their relationships in social and physical milieu [16]. Process of transition of retirement from sports also involves a decrease in psycho-social level, social and cultural loneliness, difficulty in social communication and other problems that might arise from non-sportive situations [17]. Many athletes do not care thinking about their post-retirement future [15] and face psychological, social, economic and professional changes at the end of their careers [3]. If retirement takes place non-voluntarily, particularly due to an injury, it makes the emotional situation much more complex for an individual. Psychological damages including depression, anxiety, fear, loss of self-respect and use of substance can occur in many athletes who have to retire from sports due to an injury [18]. Studies have shown that there is a great correlation between depression and injuries [19] and an

injury which takes place in a way that does not allow an athlete to restore back to his or her career has an impact on use of substance and suicidal tendencies [8].

In chronic injuries, treatments result in anger and depression in time. As this weakening in health condition coupled with decreased activity and loss of power imposes a lower life style particularly in athletes, depression may come out [20]. Results of studies reveal that athletes who experience the feeling of loss due to retirement need relatively long time for a high level of adaptation and more efforts need to be exerted to overcome the feeling of confusion, anger and depression and to acquire a new social status and new nutrition habits [18].

Studies have shown that suicidal risk was 10%, depression risk 13%, the risk of diagnosis of mild cognitive disorder in later life due to an impact received during professional football career 8% in players whereas the fact of suicide was analyzed at 20% in athletes who had to retire due to an injury [14]. In sports, whereas money talks a lot, many athletes conclude their career when they reach their 30s and start to face financial difficulties with retirement unless they do something to invest the money they earn throughout their career, after which they start to use substances in depression [21]. Athletes having a transition in their career feel the need to disclose their feelings about making a significant change in their lives. The level of anxiety experienced during such a transition may result in lack of confidence in an individual [6]. Individuals show more emotional reactions towards the labeling of “retired” posted by the external environment. The reaction shown to such a social labeling is internal and the individual draws himself or herself back and make a negative internal evaluation [22].

Any process in the life has an end. It is an issue all by itself for football players to give an end to their football career which is already abundant in difficulties. All the competitions and trainings which fill all the life of football players come to an end after achievement or non-achievement of the goals. When the fame, money and excitement that come with football are no longer there all of a sudden, there can be very destructive consequences for the individual [1]. However, there are many factors preparing a ground for this process. Retirement is withdrawal from a status, profession or active working life. Nevertheless, definition of retirement is not so simple. On the contrary it expresses a very complex process. Retirement has an individual effect, in socio-cultural terms, shaping, their incomes, social interactions, physical

and mental well-beings, self-esteems, life satisfactions and life quality as well as the way the retired people spend their time [23].

In general, quality is a degree of being good. Life quality is a comprehensive concept – not limited to only the personal health condition – covering personal well-being of an individual. Mendola and Pelligrini define life quality as “the satisfactory social situation achieved by an individual within the capacity of the physical capacity perceived by that individual” [24]. Life quality is a subjective concept and therefore has many different definitions. Different definitions include concepts such as satisfaction, happiness, morale, positive-negative impact balance, evaluation of perception, health and psychological and subjective well-being which are overlapping to some extent but never synonymous with one another. As is the case for sacredness of the life, the concept of life quality is related to protection of life in moral and social terms. Life quality also focuses on economic, social, physical and emotional factors concerning physical negativities of sickness. Retirement from sports brings about a difference in life quality [12]. Any decrease in activity will result in an undesired situation in terms of life quality for athletes who are accustomed to doing physical activity all the time. Physical activity is a significant part of healthy aging. Lack of physical activity is directly correlated with low life quality [25]. Schwenk *et al.* [14] have concluded in a study on American football players that sub-dimensions of life quality such as physical mobility, economic satisfaction and social life go down in retired professional football players in depression. This study has, however, revealed that life quality of retired football players is moderate whereas their depression level was mild. The results of the very same study have also suggested that life quality scores of football players go down as their depression level increases.

The aim of this study was to describe the life quality and depression situations of retired professional football players and finding solutions for problems encountered in this realm.

## MATERIALS AND METHOD

This study applied a personal information form and a questionnaire with two sections. The data collection tool in the first section of the questionnaire is the Life Quality Scale (LQS) developed by the researcher to measure the life quality levels of retired professional football players. The scale included 20 questions and six

main sub-sections. Accordingly, the subscale of “Overall Life Satisfaction” has 4 questions; the subscale of “Popularity/Interest” had 4 questions; the subscale of “Health/Physical Mobility” has 3 questions; the subscale of “Social Life/Friendship” has 3 questions, the subscale of “Economic Satisfaction” has 2 questions; and the subscale of “Family Life” has 4 questions. In the second section of the questionnaire, the Beck Depression Scale was used to measure depression levels of retired professional football players. The original form of the scale was developed by Beck *et al.* [26].

The Beck Depression Scale has two versions dating to the years 1961 and 1978. Both versions have already been translated into Turkish and their validity and reliability studies have been completed. This study used the 1978 version adapted by Hisli. In the Beck Depression Inventory form, there are four options for each of 21 indicator category. The subject is asked to mark the statement which depicts how s/he feels himself/herself within the last week including the day of application [26].

Sample and Universe: In the study, retired professional football players were found and face-to-face interviews were made with 400 subjects. However, as some of the scale forms were seen to be incomplete and defective, 12 questionnaires were excluded from evaluation and all the evaluation and interpretation was made on 388 questionnaires in total.

**Statistical Analysis:** Questionnaires consisting of a Data Collection Form, a Life Quality Scale and a Beck Depression Scale were applied to all retired professional football players with face-to-face interview method. As 12 questionnaires were found out to be incomplete and defective, 388 questionnaires – out of 400 – were taken into evaluation and the data were analyzed with SPSS 15.0 and STATISTICA 7 software. Before the data analysis, conformity of the score distribution obtained through scales concerning life quality and beck depression levels with the normal distribution was determined by the Shapiro-Wilk’s test in order to find the appropriate analysis method. As a result of the test, it was found that the observation values did not display a normal distribution in terms of depression scores ( $p>0,05$ ) whereas it displayed a normal distribution in terms of life quality scores ( $p<0,05$ ). Thus, parametric and non-parametric analysis methods were used in data analysis.

In order to see whether there is a difference between average scores of retired football players in terms of life quality and depression level depending on their marital status, age, professionalism, length of professional career,

education, the reason of retirement from football and income level, t test and the Mann Whitney U test were made in two-variable groups. In groups with more than two variables, the Kruskal-Wallis test and the ANOVA test was conducted. As a result of the Kruskal Wallis H-Test, significant differences were not found between average scores of retired football players in terms of various variables according to the significance level  $p > 0,05$ . As for the groups in which significant differences were found as a result of the ANOVA test ( $p < 0,05$ ); At first, the homogeneity situation was taken into consideration ( $p > 0,05$ ) and the Scheffe's test or the Tamhane's test was applied accordingly. Then, for finding the direction and magnitude of the correlation between subscales of depression and life quality, Kendall's tau-b correlation analysis was carried out. The results of the analysis were evaluated and interpreted at 95% reliability interval and 5% significance level.

**DISCUSSION AND CONCLUSION**

Table 1 shows a negative correlation between life quality and depression ( $p < 0,01$ ). As life quality of retired professional football players goes down, their depression level increases. When we look at the daily life from the life quality point of view, we see such differences in daily life needs and economic approaches as well as social, psychological and physical aspects. Therefore, low life quality affects every aspect of the life.

Retired professional football players were compared for their average scores of life quality subscales according to demographic variables and a significant difference ( $p = 0,01 < 0,05$ ) was found between the average scores of life quality scale and the status of having a career in the 1st League as a demographic variable, which is likely due to the fact that more money and fame is earned in the 1st League. However, it was found that retired professional football players did not display any significant difference according to their career in the 1st League in the Depression Scale ( $p = 0,418 > 0,05$ ). Nevertheless, when we analyze the depression scores, we found that depression scores of those who did not have a career in the 1st League was lower than those with a career in the 1st League although just the opposite was expected by the researcher, which was rather interesting. It would be much more accurate to attribute this situation to the assumption that the 1st League has a more stressful environment. Moreover, there can be sharp declines in economic terms in transition of retirement for players of a high-level league (Table 2).

Table 1: Correlation Analysis between Sub-dimensions of Scales

Variable	Depression	Life Quality
Depression (N=388)	1,000	-,143(**)
Life Quality(N=388)	-,143(**)	1,000

\*\* 0,01

Table 2: A Comparison of Life Quality and Depression Levels according to whether they played in the 1<sup>st</sup> League or not

Variable	Depression Mean±SD (N=388)	Life Quality Mean ±SD (N=388)
Those who played in the 1 <sup>st</sup> League (n=281)	11,122±8,94	68,570±11,473
Those who did not play in the 1 <sup>st</sup> League (n=107)	10,879±9,47	64,690±9,679
P	0,418 <sup>c</sup>	0,01**

\*Mann Whitney U testi \*\*t- testi

Table 3: A Comparison of Life Quality and Depression Levels according to how long it has been since they retired

Variable Year	Depression Mean±SD (N=388)	Life Quality Mean ±SD (N=388)
1-3	11,529±9,08	65,847±9,305
4-7	9,739±8,567	66,792±9,396
8-11	9,918±8,678	66,035±10,281
12+	11,942±10,382	64,686±11,712
P	0,402( $\chi^2=2,931$ )*	0,508(F=0,775)**

\*Kruskal Wallis test \*\*ANOVA

Table 4: A Comparison of Average Scores concerning Sub-Dimensions of Life Quality according to their "Marital Status"

Variable	Depression Mean±SD (N=388)	Life Quality Mean ±SD (N=388)
Married	10,425±9,064	67,287±9,845
Single	11,845±10,082	62,086±9,731
Widowed	13,026±9,595	61,436±12,087
P	0,253( $\chi^2=2,747$ )*	0,00(F=11,465)**

\*Kruskal Wallis test \*\*ANOVA

Table 5: A Comparison of Life Quality and Depression Levels according to the Level of Education

Variable	Depression Mean±SD (N=388)	Life Quality Mean ±SD (N=388)
Primary School	11,846±9,941	62,0±9,465
Elementary school	13,056±10,125	62,333±12,458
High School	11,61±9,508	63,667±9,887
University	9,407±8,302	71,168±8,841
Post Graduate	6,643±9,094	69,214±5,686
P	0,083( $\chi^2=8,244$ )*	0,00(F=13,957)**

\*Kruskal Wallis testi \*\*ANOVA

Table 6: A Comparison of Life Quality and Depression Levels according to Income Levels

Variable	Depression Mean±SD (N=388)	Life Quality Mean ±SD (N=388)
Very Low Level	13,105±10,088	57,722±10,576
A low Level	12,362±10,762	61,095±8,033
Medium Level	10,990±8,801	66,481±9,955
A High Level	8,681±8,927	72,255±9,467
Very High Level	7,286±5,917	71,857±11,697
P	0,143( $\chi^2=6,873$ )*	0,000(F=16,502)**

\*Kruskal Wallis testi \*\*ANOVA

Table 7: A Comparison of Life Quality and Depression Levels according to the Reasons for Retirement

Variable	Depression	Life Quality
	Mean±SD (N=388)	Mean ±SD (N=388)
Age	11,215±9,926	69,198±9,369
Physical Deficiency	7,163±7,025	64,184±8,941
Injury	12,155±9,593	64,985±10,451
Family Reasons	13,400±9,104	63,263±11,613
Lack of interest	11,278±8,642	56,222±9,315
Disagreement with the coach/board member	11,773±7,546	66,591±9,878
Insufficient income	9,381±10,495	63,381±11,495
Other	5,500±5,155	67,375±10,391
P	p=0,143 ( $\chi^2=6,873$ )*	P=0,000 (F=16,502)**

\*Kruskal Wallis test \*\*ANOVA

It was seen that the average life quality scores did not differ significantly according to how long it has been since the retirement ( $p=0,508>0,05$ ). Transition in sports brings about the need to establish a new career due to psychological and social reasons, which is the most challenging part for an athlete [27]. No significant difference was seen in the average scores of the depression scale according to how long it has been since retirement for retired football players ( $p=0,402>0,05$ ). However, it seems highly significant that those who retired from professional football more than 12 years ago and those who retired 1 to 3 years ago displayed higher depression scores than others because it is in line with the Atchley's stages of retirement [28] (Table 3).

It was found out that average life quality scores differed significantly according to the marital status of retired football players ( $p=0,00<0,05$ ). The Scheffe's test revealed that married ones had different averages from single or widow ones ( $p=0,01<0,05$ ). Marriage strengthens the psychology for older men and women [29]. It may therefore not be that difficult to answer why marriage affects the life quality of men so profoundly. One may claim that this is most importantly because men are not very much skillful to look after themselves and maintain their personal care. It is seen that there was not a significant difference in average depression scores of retired professional football players according to their marital status ( $p=0,253>0,05$ ) (Table 4). Nonetheless, it was still noted that married retired professional football players had lower depression scores. Although differences were found in some studies on the correlation between depression and marital status conducted by various researchers in different fields [30-32], no significant difference was found out in majority of studies [33-36]. It was observed that the average life quality scores displayed differences according to the education

levels of retired football players ( $p=0,00<0,05$ ). Considering that the life quality score is homogenous ( $p=0,077>0,05$ ), the Scheffe's test revealed that the average life quality scores of university graduates were different from those of primary school, secondary school and high school graduates ( $p=0,00<0,05$ ). In other words, as the education level goes up, life quality scores go up, too. Muehrer and Becker [37] found that life quality increases significantly with an increase in the level of education and Yıldırım [38] noted that there was a significant correlation between life quality and level of education. Özgelik *et al.* [39] found out a different fact in a study on life quality that people with high income but low education level displayed a lower life quality compared to people in other groups.

No significant difference was found in average depression scores of retired professional football players according to their level of education. When we have a further look at the depression scores in education levels, it is observed that depression scores are lower in graduate and post-graduate levels (Table 5).

No significant difference was found in average life quality scores of the life quality scale according to the level of income. The Tamhane's test was used to find out in which income level the significant difference of income level occurred for retired professional football players, considering that the variances were not homogenous ( $p=0,024<0,05$ ). It was seen as a result that life quality scores increased with the increased level of income. Level of income is an indispensable element of sub-dimensions of life quality. However, it would be inaccurate, in our opinion, to take it as a factor increasing the life quality all by itself. A statistically significant difference was not found in depression levels according to the level of income ( $p=0,143>0,05$ ). Gözüye *et al.* [40] found out that the average depression scores of those whose income is less than their expenditure are higher than those whose income is equal with the expenditure and whose income is higher than the expenditure (Table 6). Significant differences were found out among groups in average life quality scores according to the reasons of retirement from football ( $p=0,00<0,05$ ). When we look at the reasons of retirement, we see that the life quality scores of those who retired due to their "age" are higher than others. It can be considered as a voluntary retirement and we can suggest that football players prepare themselves for such a situation. As the life quality score is homogenous ( $p=0,447>0,05$ ) the Scheffe's test was used to discover which variable this difference stemmed from. A significant difference was observed in average life

quality scores of football players who retired from football due to lack of interest and due to their age ( $p=0,001<0,05$ ).

A significant difference could not be found in average Depression Scale scores according to reason of retirement of retired professional football players ( $p=0,143>0,05$ ). Retirement reasons are mostly family reasons, injuries or disagreement with the coach whereas the less frequent reasons are classified under the "others" item, which essentially suggest non-voluntary retirement. Leddy *et al.* [41] found out in a study on athletes who retired due to injuries that they were clinically depressive by 20-33% (Table 7).

The findings of Güven [42] in a study on life quality and depression dimension of diabetes patients showing that depression is influential on life quality are in line with the findings of this study.

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