A perspective on the daily routines of esports players: life balance

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Abstract

Introduction: Esports is a fairly rising and growing entertainment and career platform. The recent changes in the life balance and general health of the players, which are thought to be related to esports, draw attention. Material and methods: 53 professional esports players and 44 non-professional esports players participated in the study. All of the participations were male. Online assessment methods were preferred, and participants answered the questions in the Sociodemographic Data Form, Activity Wheel, and Life Balance Inventory. The normality of the data was tested using the Kolmogorow-Smirnov and Shapiro-Wilk tests. Demographic characteristics were compared with The Independent Samples T-test and Chi-square test. The Mann–Whitney U test was used to compare LBI subtests scores and occupational performance areas of the sample group. Results: Professional players showed more balanced results on the LBI Relationships subscale. A significant difference was found between the two groups in the field of productivity performance. Discussion: All players interpret their lifestyles as balanced; qualitative research is needed to detail the individual differences and meaning attributed to occupations for all players.

Keywords: esport, life balance, self-care

Introduction

The rapid development of technology in the last twenty years has affected many areas besides sports and has led to the emergence of the concept of electronic sports (esports). Esports is a sport based on online games and has recently started to attract attention (Bányai et al., 2019). The International Esports Federation (IESF) defines esports as a form of competitive sport in which players use their physical and mental abilities to compete in various games that take place in a virtual, online environment. Esports players compete in online video games with certain rules. In these games, players are defined as athletes (Hallmann & Giel, 2018; Jenny et al., 2017).

Especially among adolescents and young adults, the number of players who describe esports as more than just a recreational activity is increasing steadily. Participation in tournaments, awards, sponsorships, respect and popularity shown to players cause players to choose this sport as a career option. (Bányai et al., 2020). The first studies on esports are mostly related to economic scope of esports, demographics of esports players, challenges that players face and the needs of esports consumers (Olsen, 2015; Tani, 2018; Weiss, 2011; Weiss & Schiele, 2013). With the fact that esports has found its place in the digitalized world and has become a growing sector, the advantages and disadvantages of esports in terms of health have also become of interest to researchers working on well-being. (Cottrell et al., 2019; Happonen & Minashkina, 2019; Rudolf et al., 2020).

Some studies demonstrated that esports can contribute to overall health of the players; increased social interaction not only in the virtual enviroment but also in their real lives, positive emotional status, hand-eye coordination and visual-spatial skills. In addition, players can improve their cognitive skills such as attention, problem solving and reaction time, depending on the type of video game played. (Granic et al., 2014; Nielsen & Karhulahti, 2017; Rudolf et al., 2020). On the other hand, esports may pose some disadvantages such as eye fatigue, musculoskeletal pain and sedentary life-style for the players (Happonen & Minashkina, 2019; Wattanapisit et al., 2020). Some psychosocial negative effects such as an increased risk of addictive behavior, social anxiety and inadequate personal hygiene can also be observed in esports players. (Polman et al., 2018). Eccessive time spent on video games and changing prioritites of the life can results in significant impairments to an individual's ability to function in various domains of life over a prolonged period of time. In the 11th Revision of the International Classification of Diseases (ICD-11), gaming addiction was defined as a disorder as a pattern of gaming behavior. It is characterized by impaired control over gaming and dysfunctional priority given to gaming over other activities, resulting in life imbalances.

Life balance has been receiving increasing attention recently in order to give a broader perspective on human well-being (Eakman, 2015). The concept of life balance refers not only to the effective use of activities and time, but also to the feeling of pleasure derived from meaningful activities and includes a person's values and beliefs (Pentland & McColl, 2008). A balanced lifestyle can improve various domains of one's life and after all his/her health including physiological, psychological and social components.

The average esports players can spend 3 to 4 hours a day in front of a screen with their eyes fixed on it. During multiplayer tournaments and personal competitions, that that time spent in front of a screen increases. Inappropriate postures, decreased time awareness and mobility, changes in physiological needs such as eating and sleeping, replacement of normal

meals with fast food, neglect of personal hygiene and daily roles accompany this condition, worsening the potential risks of gaming addiction and threatening overall health (Arnaez et al., 2018; DiFrancisco-Donoghue et al., 2019). Individuals who play excessive games may have difficulties with time management and work-life balance (Amin et al., 2020). Himmelstein et al. (2017) stated that esports players have difficulty in seperating life and gaming.

In the literature, there are numerous studies comparing physical activitiy levels between esports and regular sports players, whereas only limited knowledge is available about how life balances of esport players are affected (Happonen & Minashkina, 2019; Trotter et al., 2020). Esports is a considerably new emerging and growing entertainment and career platform. Therefore, the results including the changes in life balances and overall health status of players thought to be related to the engamanent with esports have been noticed recently.

One of the focuses of an occupational therapy is maintaining meaningful activities or occupations and contributing to overall health of individuals, groups, and after all society (Persson et al., 2001). In this perspective, the activities that individuals perform in their daily routines and the meaning of the activities are important. This meaning is directly related to life balance. To achieve this aim for subjects in the field of epsorts, an occupational therapist should know the extent to which esports affects the life balance of a player and possible physical, psychological and social problems. By this way a more comprehensive assessment and intervention program can be implemented by an occupational therapists.

Material and methods

Participants

A total of 97 male players participated, including professional players with an average age of 21.79 ±4.49 and non-professional players with an average age of 22.27 ±4.15. Esports teams and players were reached for professional players in the sample group of the research. Team manager and team captains were contacted via email and informed about the research. These people shared the research details with the team players and a total of 112 players were reached. Those who wanted to participate voluntarily contacted the researchers. For these players playing in the professional team, at least six months of experience and being over the age of 18 were sought. 53 professional players who met these conditions and volunteered to participate in the research were included. For non-professional players, the condition of being over the age of 18 was also sought. There was also the condition of playing esports as a hobby, without any team. 44 Turkish players who reached the research from their social media accounts (Twitter, Linkedin) and met the inclusion criteria participated in the research. After the participants were informed about the research details through online interviews, they gave consent to participate in the study.

Design and Procedure

In order to reach more participants during the pandemic period, when being at home and staying in front of the screen increased significantly, online assessment methods were preferred (Kovacs et al., 2021). The study, whose ethical approval was obtained from a regional institution, was conducted between January 2021 and January 2022. Players who wanted to participate voluntarily were included in this study and all evaluation inventories consisting of self-evaluation questions were shared on web-based platforms. Participants

answered the questions in the Sociodemographic Data Form, Activity Wheel, and Life Balance Inventory. The data obtained were all recorded.

Data Collection

Sociodemographic Data Form

This form consisted of the following data and questions: Age, educational level, marital status.

Life Balance Inventory

The Life Balance Inventory (LBI) assesses the time an individual spends on activities of daily living and their satisfaction with it. It consists of four subscales: health, identity, challenge/interest, and relationship. Considering the past month, the time spent and intended to be spent on 53 activities is rated on a three-point scale. An average score between 1.00 and 3.00 is generated for all activities in LBI scoring. Higher scores reflect better life balance. There are four scoring criteria in the inventory: 1.0-1.5 - very unstable; 1.5-2.0 - unstable; 2.0-2.5 - moderately balanced and 2.5-3.0 very balanced (Matuska & Health, 2012a, 2012b).

Activity Wheel

The activity wheel is used to evaluate the typical weekday and weekend daily routine. Activities performed in each hour are recorded on a 24-hour chart. Then, total the hours for each general category (work/obligations, leisure/relaxation, sleep/rest, self-care/caregiving and other) are filled at the bottom of the wheel. The approximate rate of participation for all categories are determined (Passmore, 2001). Occupations made by individuals in all activity performance areas such as self-care, productivity and leisure time (for example, studying, taking a bath, reading a book) are written in each time zone.

Data Analysis

Quantitative data analysis was performed using the IBM Statistical Package for the Social Sciences (version 20.0, SPSS). Means (M), standard deviations (SD) and frequency (%) of descriptive data was calculated. In addition, Microsoft 365 Excel program was used for figure designs. The normality of the data was tested using the Kolmogorow-Smirnov and Shapiro-Wilk tests ($p > .05$). Demographic characteristics were compared with The Independent Samples T-test and Chi-square test. The Mann–Whitney U test was used to compare LBI subtests scores and occupational performance areas of the two groups. With the Activity Wheel, the daily activities of the participants were collected as quantitative data. These activities were coded according to three performance areas as self-care, productivity and leisure time with content analysis method.

Results

A total of 97 male players participated in this research.The average age of all male participants were 21.79 (SD=4.49; PEP) and 22.27 (SD=4.15; Non-PEP) years. There was no statistically significant difference according to the demographic characteristics (age,

education, marital status) of the groups. The participants forming the two groups are homogeneous according to their demographic characteristics.

The mean scores of the LBI subtests show that all scores of both groups are at the "moderately balanced" level. In addition, Mann-Whitney U test found no statistically significant difference of *LBI Health, Identity* and *Challenge* subtests. However, *LBI - Relationship* was a significant difference in the scores for PEP and Non-PEP (p=0.00) (Table 1).

Table 1: Comparison of Life Balance Inventory scores of two groups

	Professional esports players (n=53)		Non-Professional esports players (n=44)		p
	Mean (SD)	Total Mean (SD)	Mean (SD)	Total Mean (SD)	
LBI -Health	2.29 (.41)	13.47 (2.8)	2.22 (.39)	13.32 (2.34)	.288
LBI -Relationship	2.23 (.42)	19.35 (5.5)	2.19 (.44)	9.89 (3.29)	**.00***
LBI -Identity	2.18 (.42)	15.29 (4.48)	2.1 (.44)	15.32 (4.5)	.923
LBI -Challenge	2.16 (.45)	12.61 (5.12)	2.05 (.45)	13.98 (5.13)	.301

*Mann-Whitney U* test *was performed for between-group analysis. *Significant at .05 or less*
LBI= Life Balance Inventory; SD= Standart Deviation

According to the "Activity Wheel" data, the daily occupations of all participants were interpreted with content analysis. Similar occupations were grouped with specific topics (Sleeping/Rest,Work, Video Game e.g.) and placed in appropriate performance areas (Self-care, Productivity and Leisure). In Figure 2, a visual design was created by classifying the occupations according to their performance areas. Two rings are shown together for all participants, professional and non-professional. The inner circle shows professional esports players, and the outer circle shows non-professionals. Each performance area attended during the day is shown as a percentage value. Professionals devote 41% of their time to self-care activities in a day, compared to 38% for non-professionals. It was determined that leisure area were prioritized among their daily routines in both groups (44%, PEP; 40%, Non-PEP). Although esports-related occupations are included in productivity area in the group of professionals, their productivity occupations distribution is lower than that group of non-professionals. So, according to Figure 1 professional esports players participate in less productivity occupations during a day. (Figure 1).
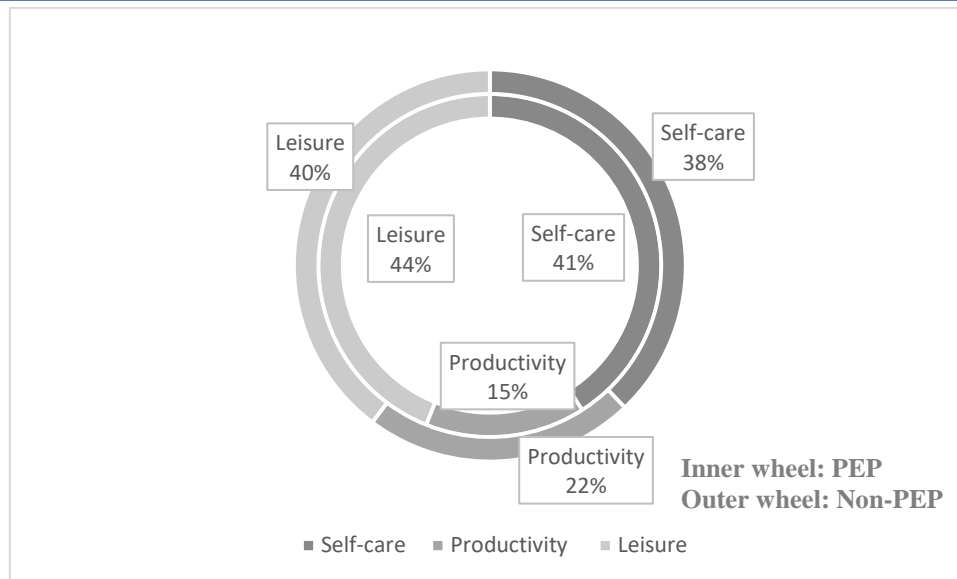
Figure 1: Activity Wheel of Groups (Occupations are classified according to performance areas)

All activities that individuals participate in within a 24-hour period are grouped according to their performance areas. It has been observed that professional players spare time for self-care activities (84%) at most between 06.00 and 09.00 hours compared to other activities. Non-professionals, on the other hand, participate in self-care activities with 89% between 03.00 and 06.00. Both groups participate mostly in sleep/resting activities (PEP=73%, Non-PEP=80%) during the day. The productivity activities of the participants are examined and it is seen that professional players are active within 24 hours. Professional gamers spend 58% of all productivity activities in a day with esports-related activities. When the productivity activities of non-professional players are examined, it is seen that there is a concentration from 06.00 to 18.00. All non-professional players reported going to school/work or studying. Considering the leisure time as the last performance area, it was determined that the two groups showed a parallel distribution with each other. Non-professionals participate in leisure time activities with a maximum of 91% between the hours of 21.00-00.00. It was noted that both groups reported the most gaming activity (Figure 2).

Self-care

Productivity

Leisure

■ PEP ■ Non-PEP
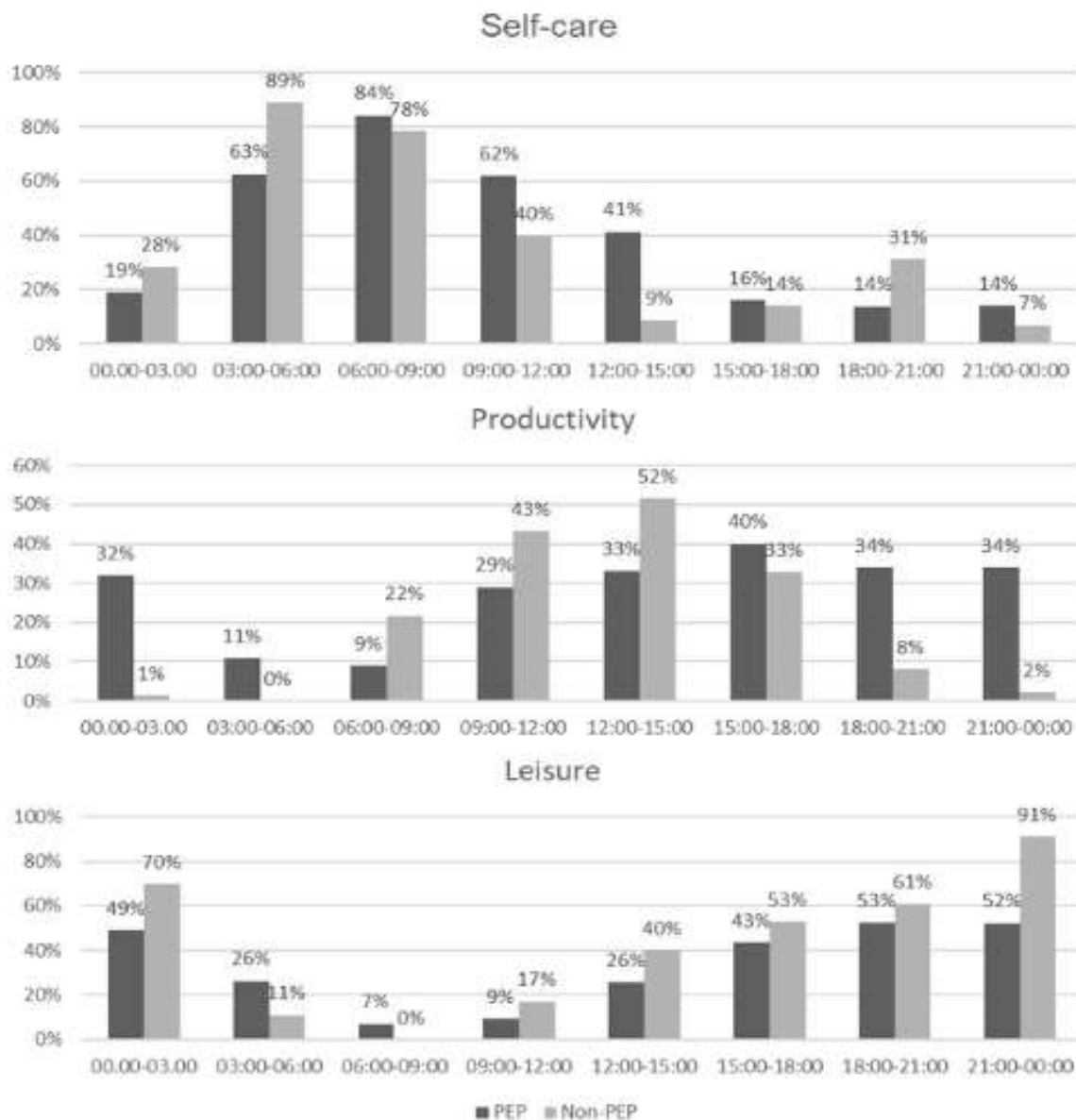
Figure 2: Percentages of participation in daily routine activities

The frequency of each occupation is shown within its own performance area at Table-2. The occupations reported from each group were coded according to their performance areas. Sleeping/rest constitutes 63% of the activities within the self-care performance area of professional players and 72% of non-professionals. Professionals devote the most time to esports-related occupations (35%) within the productivity performance area, while academic-related occupations (51%) stand out in the other group. Both groups devote the most time to Video game activities (53%, PEP; 54%, Non-PEP) within the leisure performance area. Also the two groups were compared according to their performance areas and a statistically significant difference was found between the productivity occupations (p=.03) (Table 2).

Table 2: Statistical Analysis of Performance Areas

Performance Areas	Occupations	Professional esports players (n=53)	Non-Professional esports players (n=44)	p
		%	%	
Self-care	Sleeping/rest	63	72	
	Eating	27	19	
	Managing daily needs *(grooming etc.)*	10	9	.23
	Total occupations in self-care	**100**	**100**	
Productivity	Work	33	48	
	Academic-related occupations	33	51	
	Household management	0	1	
	Esports-related occupations *(playing, workout etc.)*[1]	35	-	**.03***
	Total occupations in productivity	**100**	**100**	
Leisure	Video game[2]	53	54	
	Exercise	6	5	
	Quiet leisure *(reading, watching etc.)*	19	29	
	Social media	13	5	
	Socially-related occupations *(meeting with friends etc.)*	10	18	.79
	Total occupations in leisure	**100**	**100**	

[1]Esports were accepted as a productivity occupations for professional esports players.
[2]Esports were accepted as video games for non-professional esports players.
Note: The Mann–Whitney U test was performed for between-group analysis. Significant at .05 or less

Discussion

Our aim in this study was to examine the daily routines and life balances of e-sports players. Our findings showed that the life balance comparison between professional and non-professional players was similar, but they had a "moderately balanced" lifestyle. Additionally, when the activities they performed in their routines were examined, it was understood that both groups defined esports-related activities in different categories, such as productivity or leisure time activity.

Life balance, satisfactory participation in all activity performance areas of daily life; it is defined by expressions such as balance between activities such as leisure time, self-care, and satisfaction with the time spent on activities (Christiansen & Matuska, 2006). In addition to this, it has been emphasized in the occupational therapy literature that participation in daily occupations that are meaningful to the person positively affects health and well-being (Liu et al., 2021). In order to demonstrate a good life balance, an individual must be satisfied with the time he devotes to activities that meet his daily needs. When looking at the life balance of PEP and non-PEP individuals, it was seen that individuals were generally satisfied with their lifestyles. It was determined that both groups had a moderately balanced lifestyle. Only in the "Relationships" subtest was it seen that professional players had higher balance scores and were more satisfied with their relationships in daily life. Professional gamers establish relationships with other people in their leisure time and productive activities, allowing virtual socialization to come to the fore. Martončik (2015) has shown that for professional players, eSports is not only about fun and gaming, but can also serve as a tool to satisfy other needs, such as building relationships with teammates and achieving social life goals (Martončik, 2015). As virtual socialization, players can improve themselves by interacting with opponents, communicating with players and coaches, and holding online meetings. In the current study, professional players perform esports-related activities both as productivity and as a leisure time activity, indicating that these virtual relationships are more established. Professional players also highlighted many points, including stress and depression, such as a general lack of life balance. They stated that these are related to tournament environments and situations that affect people's life balance related to esports (Nilsson & Lee, 2019).

This perspective, which focuses on life balance in the occupational therapy literature, emphasizes the distribution of daily time into occupations. From this perspective, the time spent on activities in all activity performance areas (self-care, productivity, lesiure time) directly points to life balance (Crist et al., 2000). While professional players spend more time on self-care and leisure activities, non-professional players spend more time on productive activities than professionals. Let's examine all performance areas one by one.

In the current study, professionals, just like non-professionals, devote the first half of their daytime hours to self-care activities. In other words, whether athletes are professional or not, they carry out the activities necessary for self-care in a flow within their daily routines. For example, sleep is known to have an important place in esports, as it affects both routine and performance (Fullagar et al., 2015; Halson, 2008). It is estimated that insufficient sleep will have a negative impact on the athlete's performance during the tournament and in training (Bonnar et al., 2019). While sleep is important in this sense, in the current study it was observed that athletes mostly participated in sleep/rest activities in their daily routine. Significant results were achieved in the field of productivity and performance, which is another issue. eSports players do not see these activities as leisure time but as a platform to

carry out their identities (Seo & Jung, 2016). Taylor (2012) explained that in a growing eSports business, players want to differentiate themselves from others and establish an identity, while also going public (Taylor, 2012). On the other hand, professional players tended to turn to esports gaming as a profession and earn income. These different roles of eSports players have revealed their participation in different productivity activities such as playing, watching and managing eSports (Seo & Jung, 2016). In this research, professional players defined and performed eSports as both a productivity activity and a leisure activity. However, the fact that most of the activities they perform as productivity are related to epsor shows how big a role esports has in their routines. However, it has been observed that the time they allocate to productive activities in their routines is less compared to the amount of leisure time. On the other hand, most non-PEP players do not spend much time during the day. It is known that players tend to play games for long hours. Many gamers even devote a few hours of their time completely to gaming activities after school, classes or work (Rudolf et al., 2020). Similarly, the non-PEP in the current study also play games in their leisure time after classes/work, which they define as productivity. In short, both groups of players spend most of the leisure time in their routines playing games.

Conclusion

As a result, for the athlete, the meaning of professions and their place in her/his life are related to her/his life balance. In this context, both groups of players interpret their lifestyles as balanced. We saw that the individuals participating in our research spend a lot of time on esports-related activities, that is, they spend most of their daily routine in front of the computer. We think that observing this situation in other conditions will be supportive of the athletes' daily routines. Qualitative studies are needed to detail individual differences for all actors and the meanings attributed to professions.

Funding:

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