Journal of Global Sport and Education Research
http://dergipark.gov.tr/jogser

A Study on Life Balance of Wheelchair Basketball Players

Sultan AKEL[1], Tunahan ÇETİN[2], Mustafa Talha BAŞARAN[3], Ümit UĞURLU[4]

[1] *Bezmi Alem Foundation University, Faculty of Health Sciences, ORCID ID: 0000-0003-1413-132X*
[2] *Bezmi Alem Foundation University, Faculty of Health Sciences ORCID ID: 0009-0005-7515-6821*
[3] *Bezmi Alem Foundation University, Faculty of Health Sciences ORCID ID: 0009-0008-5220-583X*
[4] *Bezmi Alem Foundation University, Faculty of Health Sciences ORCID ID: 0000-0003-0360-1904*

Original Article

Abstract

Participation in sports and recreational activities has an important role in the well-being and life satisfaction of individuals. This study was planned to evaluate the life balance, which is closely related to the life satisfaction of athletes with physical disabilities. Mixed method was used in the research and the obtained qualitative and quantitative data were recorded. The ages of 12 people participating in the study ranged from 19 to 47. Sociodemographic Data Form, Activity Wheel, and Life Balance Inventory were used as assessment tools. The satisfaction of the participants from the readings they performed in their daily routines was evaluated. Descriptive data were analyzed and qualitative data were presented visually. Participations have a very balanced lifestyle on the Health subscale, an unbalanced lifestyle in Identity, Relationships, and Difficulty/Interests. Individuals' activity repertoire is not wide and they are not satisfied with their routines. The diversity and participation of the athletes in their routines is related to their satisfaction with these routines. The diversity of occupations in the routines of the athletes is associated with their satisfaction with these routines. Supporting them in planning their routines and raising awareness about the diversity of occupations will change their satisfaction with their lifestyles and support their life balance.

Article Info
Received: 22.06.2023
Accepted: 06.10.2023
Online Published: 16.10.2023

Keywords: *Wheelchair Basketball, Life Balance, Occupational Therapy.*

Tekerlekli Sandalye Basketbol Oyuncularının Yaşam Dengesi Üzerine Bir İnceleme

Orijinal Makale

Öz

Spor ve rekreasyonel aktivitelere katılım, bireylerin iyilik hali ve yaşam doyumunda önemli bir role sahiptir. Bu çalışma, fiziksel engelli sporcuların yaşam doyumları ile yakından ilgili olan yaşam dengesinin değerlendirilmesi amacıyla planlanmıştır. Araştırmada karma yöntem kullanılmıştır ve elde edilen nitel ile nicel veriler kayıt edilmiştir. Araştırmaya katılan 12 kişinin yaşları 19 ile 47 arasında değişmektedir. Değerlendirme araçları olarak Sosyodemografik Veri Formu, Aktivite Tekerleği ve Yaşam Dengesi Envanteri kullanılmıştır. Katılımcıların günlük rutinlerinde gerçekleştirdikleri okupasyonlarından memnuniyetleri değerlendirilmiştir. Betimsel veriler analiz edilmiş ve nitel veriler görsel olarak sunulmuştur. Katılımcılar Sağlık alt ölçeğinde oldukça dengeli, Kimlik, İlişkiler ve Zorluk/İlgi alanları alt ölçeğinde dengeli olmayan bir yaşam tarzına sahiptir. Bireylerin aktivite repertuvarı geniş değildir ve rutinlerinden memnun değildirler. Sporcuların rutinlerindeki aktivitelerin çeşitliliği, bu rutinlerden memnuniyetleri ile ilişkilidir. Rutinlerini planlamalarına destek olmak ve aktivite çeşitliliği konusunda farkındalık yaratmak onların yaşam tarzlarından memnuniyetlerini değiştirecek ve yaşam dengelerini destekleyecektir.

Yayın Bilgisi
Gönderi Tarihi: 22.06.2023
Kabul Tarihi: 06.10.2023
Online Yayın Taihi: 16.10.2023

Anahtar kelimeler*: Tekerlekli Sandalye Basketbolu, Yaşam Dengesi, Ergoterapi.*

Sorumlu Yazar: Sultan AKEL
e-mail: sakel@bezmialem.edu.tr

INTRODUCTION

Participation in sports is a common occupation for many children and young people and contributes to improved physical and psychosocial health. Participation in sports is perceived as meaningful and valuable by many in different cultures. A reasonable way to improve general health, community participation and quality of life for many people with physical disabilities is to participate in adapted sports. Adapted sports have recreational, therapeutic and competitive properties. Participation of physically disabled people in adaptive sports facilitates the establishment of social contacts, improves psychological health and helps people with disabilities focus on their abilities rather than their disabilities. Whether a person participates in a sport as a form of play, leisure, work or social participation, sport can make a big impact in the lives of people. What may be a game or a leisure activity for one person may be a job for another.

Studies show that physically active disabled people are more satisfied with life, fitter, physically and mentally healthier, have a higher life expectancy and have a positive athlete identity (Groff & Kleiber, 2001; Seaman et al., 1999). Ongoing occupational engagement provides a cyclical way of making sense of experiences and maintaining a sense of self and well-being (Mee et al., 2004; Rebeiro & Cook, 1999). Therefore, the belief that it is important to ensure occupational participation to improve mental health has appealed to many researchers.

The balance between different types of occupation has gained increasing attention, and it has been hypothesized that a balanced occupation routine can promote better well-being (Persson et al., 2001). The concept of life balance has an occupational therapy perspective based on equivalence and harmony in the occupation repertoire. For this reason, in order to achieve a better life balance, one must be satisfied with the time that one actually dedicates to the occupations that meet their daily needs in the occupation repertoire. It is thought that this balance is related to the reduction of stress, meeting the needs and increasing subjective well-being, and therefore it will have positive effects on mental and physical health (Pentland et al., 2009; Persson & Jonsson, 2009). Examining how sports practices affect both the lifestyles and quality of life of individuals with disabilities can provide the basis for the preparation of education plans to improve the health and well-being of the disabled population.

Lifestyle balance is a complex phenomenon that includes dimensions of time use, role demands, and performance, satisfaction with independence and appropriate to one's values and interests (Matuska & Christiansen, 2008; Pentland & McColl, 2008). Occupational therapists point to a necessary or satisfactory balance between self-care, productivity, and leisure occupations as a professional balance. It is important to clarify these aspects to see if the life behavior issues are related to wheelchair athletes' perceptions of their lifestyle. In this context, current study was planned to evaluate the daily routines of wheelchair basketball players and their satisfaction with these routines.

METHOD

Participants and Procedure

The research was carried out with a mixed method in which quantitative and qualitative methods were used together. This method was preferred in order to address the research problem more broadly and to present multiple data within a framework. This method allows a broad perspective in the research and provides a better understanding of the sample group and the data obtained. Current research was conducted with the athletes of a team that has been operating in our country for many years. There were a total of 12 registered athletes on the team and all volunteered to participate. The ages of the athletes ranged from 19 to 47, and 2 of them were women and the others were men. The criteria for inclusion in the research were to be a professional athlete and to be active in the team. Athletes who were informed about the study volunteered to participate and gave written consent. The Sociodemographic Data Form, the Life Balance Inventory and the Activity Wheel tools were used for evaluation. After the evaluations, with the question "What do you think about your routine and life balance", feedback was received about the routines and life balance of the participants. The answers to all questions were recorded and analyzed. The results of the analysis were shared with the athletes, feedback was given and the research was concluded.

Tools

***Sociodemographic Data Form*:** A form was created by the researchers to record the demographic data of individuals. With this form, information such as age, gender, educational status, marital status, how many years they have been doing sports, how many years they have been in a team professionally, the reasons for their disability and the assistive equipment they used were recorded with this form.

***Life Balance Inventory*:** The Life Balance Inventory (LBI) assesses the relationship between an individual's time spent on 53 different activities and the time they want to spend. The evaluation process consists of two steps: First, the individual chooses whether to perform each activity. Satisfaction with actual time spent on each activity is then scored on a three-point scale, taking into account the requested time in the past month. The highest score is given in a 3 balanced state (about right for me); a slight imbalance (sometimes less/more than I want) is scored as 2 points and a severe imbalance (always less/more than I want) is scored as 1 (2. step). LBI scoring creates a total average score for all activities performed or desired, with the total LBI score ranging from 1.00 to 3.00, with higher scores reflecting better life balance. In addition, the LBI creates four subscale scores using 51 items (2 items are not used for subscale calculation): Health subscale (6 items) (e.g relaxing, getting regular exercise), Challenge/interest subscale (20 items) (e.g. working for pay, making music), Identity subscale (15 items) (e.g taking care of your appearance, participating in religious activities), Relationships subscale (10 items) (e.g. doing things with friends, partner). The internal consistency of the original LBI in the general population is high (Cronbach's alpha = 0.97) (Matuska, 2012). The scale is adapted to Turkish society and has high content validity (İnal et al., 2022).

***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/responsibilities, 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 (Ephross, 2009). 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.

Statistical Analysis

Quantitative data analysis was performed using the IBM Statistical Package for the Social Sciences (version 25.0, SPSS). Means (M), standard deviations (SD) and frequencies (%) of descriptive data were calculated. In addition, Microsoft 365 Excel program was used for figure designs. With the Activity Wheel, the time periods allocated by the participants according to each performance area were presented as quantitative data. The occupation types performed in four performance areas as self-care, productivity, leisure time and sleep-rest are given by content analysis method.

Ethical Approval

Ethics committee application of the research was made to Bezmialem Vakıf University Non-Interventional Research Ethics Committee with application number 2022/288 and it was found ethically appropriate.

RESULTS

The mean age of the individuals participating in the research is 34.16 ± 7.5, the youngest athlete was 19 and the oldest was 47 years old. Other information such as gender, education level and disability types of the participants are given in the Table 1.

Table 1: Participations definitions

	n	**(%)**
Gender		
Female	2	16.7
Male	10	83.3
Marital status		
Single	8	66.7
Married	4	33.3
Education status		
Primary education	1	8.3
Highschool	7	58.3
University	4	33.3
Disability		
Poliomyelitis	2	16.7
Congenital	1	8.3

Accident	6	50.0
Spinal cord paralysis	1	8.3
Wrong surgical practice	2	16.7
Assistive equipments		
Prosthesis and other walking aids	5	41.7
Wheelchair	5	41.7
None	2	16.7

Note. n=number of participants (N=12 total sample group)

Nine athletes do this sport as an income generating business. The other three athletes also work in another income-generating job and do sports as a hobby. The previous sports experiences of the athletes show that most of them have been doing sports for a long time. The average duration of sports activities is 16.67 years, with a minimum of 3 years and a maximum of 25 years. Many of them have been on this team for a long time. Athletes have been active in this team for an average of 13.92 years, varying between 1-21 years. Having sports-related activities in the life of individuals for a long time has an important place in the planning of daily routine.

The data obtained about the daily life balances of the athletes were analyzed. It is concluded that there is a "very balanced" lifestyle in the Health subscale, and an "unbalanced" lifestyle in the Identity, Relationships and Difficulty/Interests subscales. The total score shows that this sample group generally has an unbalanced life routine (Table 2).

Table 2: Life Balance Inventory Findings

	Mean	**Std. Deviation**	**Minimum**	**Maximum**
Health	2.55	0.39	1.50	3.00
Identity	1.76	0.42	1.06	2.33
Relationships	1.90	0.41	1.30	2.50
Difficulty/ Interests	1.57	0.38	0.80	2.15
LBI Total	1.80	0.29	1.24	2.28

Comparing the routines of the athletes on weekdays and weekends shows that the time they spend on personal care, sleep and rest is similar. However, the time spent on productivity and self-care performance areas is increased on weekends. (Figures 1 and 2).

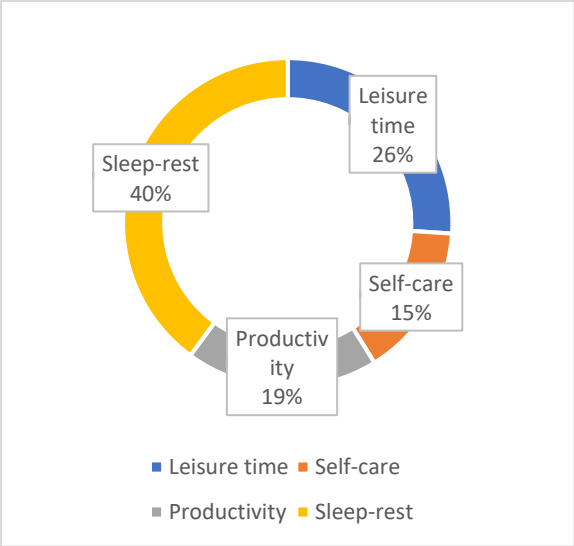

Figure 1: Weekday routine

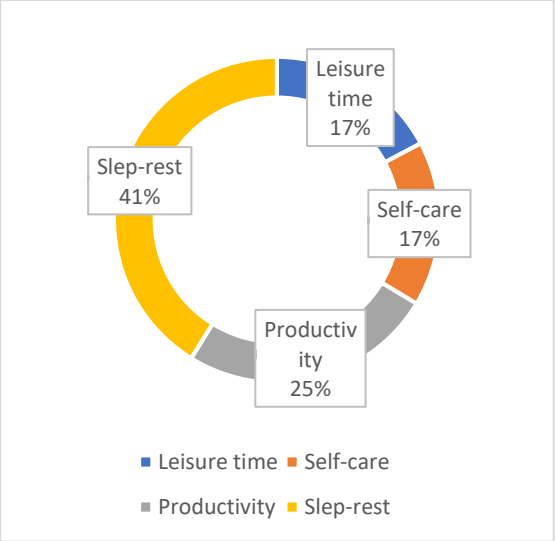

Figure 2: Weekend routine

The reasons for these differences can be understood when we look at the types and number of operations performed in the time allocated to the performance areas. On weekends, a lot of time is spared for the athletic roles that are performed as productivity. Travels for the competitions and the trainings of the athletes to increase their individual performance are among the most frequently performed occupations. In addition, athletes with parental roles are preoccupied with many caregiving occupations such as childcare and schoolwork. It is among the data obtained that they often prefer to do the activities they perform for self-care purposes on a weekend. Based on the data on the types and number of occupations they frequently perform in these routines, it can be concluded that the routines have become commonplace within the same framework (Figure 3). It suggests that the occupational repertoire of athletes who mostly perform similar types of occupations is not large.

Figure 3: Type and frequency distribution of occupations

After the data obtained from the assessment tools, the athletes were asked to evaluate their own routines and life balances with the question "What do you think about your routine and life balance".

The answers given by the participants are given below.

-*"My routine has become monotonous now, sometimes I get bored of it but I'm not sure what to do when I want to change it (P5)."*

-*"Generally I'm happy with this flow, I love our team and I'm happy to be there. Sometimes I just want to spend more time with myself (P2)."*

-*"I can't rest enough because my sleep is not regular most days, I would like to spend more time on sleep and rest (P7)."*

-*"Although it doesn't seem balanced, I'm happy with this routine, especially the time I spend with the team is good for me. My routine has become mundane, yes, but enough for me (P4)."*

-*"I don't have many friends, I have friends in the team. I don't see them outside of training and matches either. That's why I get bored sometimes (P10)."*

-*"I have been in a sports routine for many years, my routine is very balanced in my opinion, I can devote as much time as I want to whatever I want. Sometimes that can change, but overall it's nice (P9)."*

-*"Being in the team make me feel confident, but I cannot say that I am satisfied with the rest of my life (P6)."*

The answers given by the athletes show that their routines have become ordinary. Even though some athletes are not satisfied with this routine, they continue with it because they are used to it and do not know how to change it. On the other hand, some athletes think that even if it is not an efficient routine, it is enough for them.

DISCUSSION

The present research was carried out to investigate the life balance and satisfaction of people with disabilities who are engaged in wheelchair basketball. In the light of all our knowledge, athletes have an unbalanced routine and are mostly dissatisfied.

Tasiemski et al. (2005) investigated whether participation in sports and physical recreation is associated with life satisfaction in patients with spinal cord injury. Patients engaged in sports and physical recreation reported higher levels of satisfaction with life overall. It has been reported that the motivation brought by participation in sports and physical activities as recreation increases satisfaction in areas such as work, school, and free time. It has been understood that sports activities, which are both free time and productivity, are at the basis of daily life. It is seen that satisfaction with the routine that these activities take place is generally low. This dissatisfaction was not due to sports-related activities, but to regular planning of the routine.

It is known that individuals with physical disabilities who participate in any sport or recreational activity have higher participation in society and life satisfaction. Individuals with physical disabilities may insist on continuing medical treatment unless they are directed and motivated to adapted sports. This situation may cause lack of motivation in participation and adaptation to the flow of social life. It is known that long-term recreational activity and adapted sports have positive effects on general physical, social and psychological well-being. In support of this information, it has been understood that playing in a team for many years gives the athletes confidence and feels good (Calheiros et al., 2020; Samulski & Noce, 2002).

There is evidence that the practice of sports activities among people with disabilities is extremely beneficial, allowing players to push their limits and provide motivation in their lives. It is important to highlight the importance that adapted sports represent in the lives of people with physical disabilities, especially sports that are more likely to interact between players, such as wheelchair handball and wheelchair basketball. Hutzler et al. (2013) analyzed the psychosocial effects of basketball practice among young adults with physical disabilities and found that basketball activity was effective in increasing the quality of life and perceived social competence of these individuals. This finding, which reinforces the quality of life and lifestyle findings of this study, should encourage coaches and technicians to increase player engagement. Sports such as basketball require athletes to use their cooperation for competitive purposes and enable more comprehensive participation in sports activity (Schoger, 2006). The fact that the athletes in our study are satisfied with being in the team and continue to stay in the team for a long time supports these data.

Life balance, satisfactory participation in all activity performance areas of daily life; leisure time is defined by expressions such as the balance between activities such as self-care and satisfaction with the time spent on activities (Christiansen & Matuska, 2006). To exhibit a good life balance, the individual must be satisfied with the actual time he or she devotes to activities that meet their daily needs. The answers given by wheelchair basketball players for each subscale in the LBI indicate the existence of a low balance in all other subscales, except for the Health subscale. It can be concluded that individuals show a more regular participation in the routine of maintaining their own care. This may be related to the fact that many of them are single and live alone, but do not receive the support of a caregiver. Identity subscale is mostly related to social roles. It includes roles such as being a student in daily life, housework roles, along with the individual's roles in society. Low scores on this subscale and having a low balanced routine may be associated with poor social relations of the participants. While the athletes communicate and interact within the team and are satisfied with it, their time, which is not related to sports but social, is limited. In this context, it stands out that they do not participate in activities such as social activities and volunteering in the society. It is thought that the athletes need guidance on how to evaluate the time left in their routines other than basketball.

Routine planning and effective use of free time for the current study and sample group emerges as an important point for occupational therapists. The relationships subscale includes activities such as romantic relationships and friendships, spending time with family members and friends. Scores from this subscale indicated an unbalanced routine. It suggests that athletes can establish sufficient interaction in sports-related activities, but do not show

satisfactory participation in other activities. The data obtained from the Difficulty/Interest subscale show that the athletes are not satisfied with what they do in the remaining time in other performance areas. The activities they perform in the context of this subscale are activities such as spending time on social media (internet) and watching TV. One of the areas that occupational therapists will focus on may be the acquisition of habits that will strengthen the routine, as exemplified in this subscale, such as spending time in nature, acquiring new hobbies, keeping a diary/writing. According to the general score of the LBI, individuals have an “unbalanced” life routine. Some athletes are satisfied with a routine that has become monotonous, however the majority have given feedback that this flow needs to be changed.

In LBI, the total score of all items is calculated and information about life balance is obtained with this score. The total score does not distinguish between 'too little' or 'too much' time for each item, which is not sufficient to describe different situations. For example, when an individual states that he or she spends too much time on a particular activity, it may be due to decreased interest in that activity (I don't want to do this activity but I should), but it may also reflect the individual's increased time. In both cases, there is an unbalanced lifestyle. Evaluation according to sub-scales will provide detailed information for all activity categories.

LBI offers therapists benefits in assessment and intervention planning in order to see the activities that individuals prefer in daily life and the satisfaction with the time they spend on these activities. In such cases, supporting qualitative data can also be used for the correct interpretation of the items and scores. The question “What do you think about your routine and life balance” asked to the athletes in our research supports the data obtained while evaluating the routine of the athletes. It is understood that some athletes point to specific problem areas such as sleep, leisure and personal time or social relationships. It is clear that these athletes are not satisfied with the balance in their routines, as well as the data obtained from other assessment tools. Similarly, each area can be examined in order to obtain more detailed information for each problem area and to intervene with appropriate methods if necessary. While a person's ocupational repertoire refers to the "constellation of meaningful daily activities (occupations) he has at a given point in his life" (Njelesani et al., 2020), routines are observable, orderly and repetitive and provide structure for daily living "specific seen as "behavior patterns that occur at some point" (AOTA, 2020). In addition, Njelesani et al. (2020) stressed that occupational repertoire development "involves progress in the capacity of occupations and their incorporation into one's occupations over time" (Njelesani et al., 2020). Unsatisfactory occupational repertoires refer to situations where the range of occupations a person engages in is adequate but provides little or no importance, significance, satisfaction, meaning, or purpose (Davis & Polatajko, 2010).

The routines of the athletes evaluated with the Activity Wheel were analyzed as the time allocated to each performance area and the types of occupations performed during these times. These data show that the weekday and weekend routines of the athletes are similar and the most time is spent in the context of sleep-rest. When we look at the types of occupations carried out in all performance areas, it is clearly understood that the scope is narrow. Davis and Polatajko (2010) remind us, as occupational therapists, that "we need to be mindful of the nature of our clients' professional repertoire and of the personal, occupational, and

environmental situations that may hinder and/or enable it" (Davis & Polatajko, 2010). As occupational therapists, we are concerned with individuals' occupational repertoire, healthy daily routines, optimized learning opportunities, functional physical skills and positive mental health (AOTA, 2020). Based on this information, it can be concluded that a more detailed analysis of the routines of the athletes in this sample group and the key points that will expand the repertoire should be considered.

CONCLUSION

The main purpose of occupational therapists is to support individuals to have the highest motivation to participate in daily life activities and to increase their life satisfaction with this participation. For this purpose, they need to evaluate their participation satisfaction for each activity in their daily routines. It is important to examining other occupations and satisfaction levels in their routines together with sports, which is one of the basic occupations of physically disabled individuals. According to these results, the occupational therapist can increase the life satisfaction and well-being of the person by making interventions such as planning the routine, supporting participation in the occupations in order to increase the satisfaction of the person.

REFERENCES

American Occupational Therapy Association (AOTA). (2020). Occupational therapy practice framework: Domain et process. Vol. 74 (Supplement_2), 1-87. https://doi.org/10.5014/ajot.2020.74S2001

Calheiros, D. d. S., Cavalcante Neto, J. L., de Melo, F. A. P., & Munster, M. d. A. v. (2020). The association between quality of life and lifestyle of wheelchair handball athletes. Journal of Developmental and Physical Disabilities, 32, 653-664. https://doi.org/10.1007/s10882-019-09712-1

Christiansen, C. H. & Matuska, K. M. (2006). Lifestyle balance: A review of concepts and research. Journal of Occupational Science, 13(1), 49-61. https://doi.org/10.1080/14427591.2006.9686570

Davis, J. A. & Polatajko, H. J. (2010). Don't forget the repertoire: the meta occupational issue. Occupational Therapy Now, 12(3), 20-22.

Ephross, P. H. (2009). Group Dynamics in Occupational Therapy, the Theoretical Basis and Practice Application of Group Intervention 3rd ed. New York: Slack, Inc. 406 pp., In: Taylor & Francis. doi: 10.1080/01609510802309345

Groff, D. G. & Kleiber, D. A. (2001). Exploring the identity formation of youth involved in an adapted sports program. Therapeutic Recreation Journal, 35(4), 318-332.

Hutzler, Y., Chacham-Guber, A., & Reiter, S. (2013). Psychosocial effects of reverse-integrated basketball activity compared to separate and no physical activity in young people with physical disability. Research in developmental disabilities, 34(1), 579-587. https://doi.org/10.1016/j.ridd.2012.09.010

İnal Ö, Karahan S, Matuska K. Turkish version of life balance inventory: Validity, reliability, and cultural adaptation study. Scandinavian Journal of Occupational Therapy. 30(6):803-810. https://doi.org/10.1080/11038128.2022.2145995

Matuska, K. (2012). Description and development of the Life Balance Inventory. OTJR: Occupation, Participation and Health, 32(1), 220-228. https://doi.org/10.3928/15394492-20110610-01

Matuska, K. M. & Christiansen, C. H. (2008). A proposed model of lifestyle balance. Journal of Occupational Science, 15(1), 9-19. https://doi.org/10.1080/14427591.2008.9686602

Mee, J., Sumsion, T. & Craik, C. (2004). Mental health clients confirm the value of occupation in building competence and self-identity. British Journal of Occupational Therapy, 67(5), 225-233. https://doi.org/10.1177/030802260406700506

Njelesani, J., Davis, J. A., & Pontes, T. (2020). Occupational repertoire development measure–Parent (ORDM-P): Face validity, comprehensiveness, and internal consistency. British Journal of Occupational Therapy, 83(5), 326-333. https://doi.org/10.1177/0308022619885247

Pentland, W. & McColl, M. A. (2008). Occupational integrity: Another perspective on "life balance". Canadian Journal of Occupational Therapy, 75(3), 135-138. https://doi.org/10.1177/000841740807500304

Pentland, W., McColl, M. (2009). Another perspective on life balance: Living in integrity with values. 165-180. ISBN: 9781556429064

Persson, D., Erlandsson, L.-K., Eklund, M., & Iwarsson, S. (2001). Value dimensions, meaning, and complexity in human occupation-a tentative structure for analysis. Scandinavian journal of occupational therapy, 8(1), 7-18. https://doi.org/10.1080/11038120119727

Persson, D. & Jonsson, H. (2009). Importance of experiential challenges in a balanced life. Micro-and macro-perspectives. Life balance: Multidisciplinary theories and research, 133-147.

Rebeiro, K. L. & Cook, J. V. (1999). Opportunity, not prescription: An exploratory study of the experience of occupational engagement. Canadian Journal of Occupational Therapy, 66(4), 176-187. https://doi.org/10.1177/000841749906600405

Samulski, D., & Noce, F. (2002). Perfil psicológico de atletas paraolímpicos brasileiros. Revista Brasileira de Medicina do esporte, 8, 157-166. https://doi.org/10.1590/S1517-86922002000400005

Schoger, K. D. (2006). Reverse inclusion: providing peer social interaction opportunities to students placed in self-contained special education classrooms. Teaching exceptional children plus, 2(6), 6.

Seaman, J. A., Corbin, C. & Pangrazi, B. (1999). Physical Activity and Fitness for Persons with Disabilities. Research Digest.

Tasiemski, T., Kennedy, P., Gardner, B. P. & Taylor, N. (2005). The association of sports and physical recreation with life satisfaction in a community sample of people with spinal cord injuries. NeuroRehabilitation, 20(4), 253-265. doi: 10.3233/NRE-2005-20403.