European Journal of Human Movement

OPEN ACCESS

Viewpoint

Applied Physical Activity: A Subject for the Development of Employability Skills in Young University Students with Intellectual Disabilities in Spain.

Alba Roldán*[1], Antonio Luis Martínez-Pujalte[2], Raúl Reina[1]

1 Sports Science Department, Universidad Miguel Hernández de Elche, Spain

2 Department of legal science, Universidad Miguel Hernández de Elche, Spain

* Correspondence (ARR): aroldan@umh.es; ORCID: 0000-0001-5232-5825

Received: 08/11/2022; Accepted: 07/12/2022; Published: 31/12/2022

Abstract:

The access of young people with intellectual disabilities to the university context is already a reality in many countries. In Spain, several universities have developed specific training programmes to welcome these young people with the aim of facilitating the access to certain jobs. The present study has two aims: firstly, to justify the inclusion of physical activity as part of the educational curriculum of these training programmes based on the physical, psychological, and social benefits reported in the scientific literature. Secondly, approaching the transfer from theory to practice through a case study that has been carried out for the last six years at the Miguel Hernández University of Elche (Spain).

Keywords: Employment, disability, social-inclusion, higher education.

1. Introduction

Access to the university setting for people with intellectual disabilities as full citizens is a reality in Spain. Several educational programmes have been designed to accommodate young people with intellectual disabilities within a context of high academic demands. A fundamental strategy for the success of these programmes is the ability to design an optimal curriculum that adapts to the needs of the students, ensuring the quality of teaching and their personal and professional development. The aim of this paper is to propose and justify the incorporation of a physical activity subject into the curriculum of training programmes for young people with intellectual disabilities.

The International Convention on the Rights of Persons with Disabilities (UN, 2006) recognises in Article 27 "the right of persons with disabilities to work on an equal basis with others", specifying that "this includes the right to the opportunity to gain a living by work freely chosen or accepted in a labour market and work environment that is open, inclusive and accessible to persons with disabilities". However, finding and pursuing employment remains a challenge for people with intellectual disabilities, who face numerous barriers, including a lack of experience and training of company and career guidance staff in recruitment processes, stigma and negative attitudes towards intellectual disability, a lack of inclusive policies in companies, and a lack of adapted environments (Taubner, Tideman & Staland, 2021; Kocman, Fischer & Weber, 2018; Chi et al, 2018; Lysaght, Ouellette-Kuntz & Lin, 2012). The barriers mentioned above compromise the labour inclusion process for this group, causing people with intellectual disability to have a significantly higher unemployment rate than people without disabilities (Geiger et al., 2017; Waddington & Priestley, 2018). According to the World Report on Disability published by the World Health Organisation and the World Bank (Lecerf, 2020), 28.4% of EU citizens with disabilities tend to be unemployed and at higher risk of poverty or social exclusion, compared to 18.4% of those without disabilities.

In Spain, as in the rest of Europe, the disparity in employment opportunities between people with and without disabilities is a social reality (Rodriguez, 2017). However, disparities become even more pronounced when comparing the different types of disability. For example, people with sensory disabilities tend to have the highest employment rates, presenting 59.9% for those with hearing disabilities and 43.1% for those with visual disabilities. The population with physical disabilities ranks third in terms of employability with 45.1% for health conditions related to the osteoarticular system and 33.4% for those related to the neuromuscular system. In the case of people with intellectual disabilities, employment ratios are lower, with 28.3% (National Institute of Statistics, 2020). T

The implementation of different labour inclusion measures, such as reserve quotas or work enclaves, which facilitate the transition from sheltered to regular employment, whether with or without support (Laborda & Gonzalez, 2017), has allowed society to develop, albeit slowly, more positive and inclusive attitudes towards disability. Thanks to the European Social Fund and the Operational Programme for Youth Employment, the ONCE Foundation issued a call for grants in the form of the UniDiversity programme in 2017 (ONCE, 2022). This call aims to promote the employment of young people with intellectual disability between the ages of 18 and 30 through various training programmes in university contexts. In the last 6 years, more than 30 Spanish universities have risen to the challenge of implementing this university training, which contributes to increasing the levels of autonomy and the employment opportunities of people with intellectual disability in different business sectors (Díaz-Jiménez, Terrón-Caro & Yerga-Míguez, 2021).

According to the International Labour Organisation (ILO) (Aggarwal, 2021), being a good candidate in the labour market requires a set of skills, which refer to the level of performance of an individual on a particular task or the capability to perform a job well which can be divided into technical elements and behavioral elements (Noe, Hollenbeck & Gerhart, 2015). Technical, or hard skills, are related to specific and non-job-specific theoretical and practical preparation. And they are acquired through formal education and training programs, including college, apprenticeships, short-term training classes, online courses, and certification programs, as well as on-the-job training /i.e. experience). In contrast, behavioral, or soft skills, is a term for a complex set of "skills, abilities and personal traits that pertain to personality, attitude, and behavior, rather than to formal or technical knowledge" (Moss & Tilly's, 1996, p.253). Moreover, some authors have considered these abilities more like personal attributes rather than skills (Zamudio & Lichter, 2008). The most well-known soft skills are communication, critical thinking, problem-solving skills, teamwork, adaptability, flexibility of thought, lifelong learning, and cultural awareness, among others (Mahasneh & Thabet, 2015). The UniDiversity training programmes, without neglecting the theoretical aspects, prioritise practical training with the intention of applying the acquired knowledge directly to the workplace. On this basis, the subjects contained in the different curricula can be classified as follows: (a) generic, related to the development of autonomy and independent living, comprising contents referring to adaptive and social skills, emotional intelligence, cognitive training for the resolution of everyday problems, or the use of the community; (b) occupational, covering subjects more closely associated with the development of technical skills, such as digital literacy, effective communication strategies, job search, and languages; and (c) specific, which will depend on the occupational profile towards which the university training is oriented, such as work experience in companies. This variety of subjects within the curriculum aims to support the appropriate personal and social development of the student to be able to face a constantly evolving work environment (Jackson & Hancock, 2010).

Soft skills are increasingly in demand as key determinants of employment success, hence the call for their increased presence in university curricula (Al-Asefer & Zainal, 2021). It has been observed in some studies where employers and career counsellors have been interviewed, that those candidates who showed good soft skills such as a positive attitude or good communication, became well considered candidates for the job (Lindsay et al., 2014; Scheef, Walker & Barrio, 2019). So, the development of soft skills is crucial for young people with intellectual disability. It has been shown that some personal attributes that can often be observed in persons with intellectual disabilities like a lack of motivation and self-determination, a low perception of competence, difficulty in learning new skills, limited social and communication skills to interact with co-workers, and behavioural problems are some of the main causes of exclusion from the labour market for this group (Strindlund et al., 2019; Vornholt, Uitdewilligen & Nijhuis, 2013). Moreover,

recent studies have shown that, when employing people with intellectual disability, companies place a greater emphasis on soft skills than on technical or job-specific competencies (Scheef et al., 2019).

At this point, the importance of hard and soft skills for people with intellectual disability seems evident, the former to get the job, the latter to keep it. However, given the characteristics of people with intellectual disabilities, it seems important to consider a third element like physical health, which has a direct impact on the worker. The relationship between health and employment has been previously documented (O'Neill, 2016). Better physical health improves likehood for employment as increases an individual's ability to participate in a task. People with intellectual disabilities tend to have certain associated comorbidities (Liao, Vajdic & Trollor, 2021) that can limit their physical functioning and therefore difficult their adaptation and participation at work (i.e. whether part-time or full-time).

Physical activity has been associated with improved employability, as a workforce with healthy lifestyle habits reduces absenteeism rates and increases productivity (International Labour Organization, 2020). Some jobs require a high level of physical exertion, which can result in extreme fatigue. On the other hand, there are jobs that involve little or no physical demands, leading to very sedentary lifestyles that are detrimental to health. The practice of physical activity is essential for combating both situations, as it has multiple levels of benefits. On a physical level, it is well known that regular physical activity contributes to optimal physical fitness, prevents overweight problems, and has a positive impact on muscular endurance, flexibility, and balance (Borland et al., 2022; Kapsal et al., 2019). Working on these aspects is crucial for people with intellectual disability, who tend to have gait disorders due to balance and coordination problems and high levels of muscle hypotonia (Oppewal & Hilgenkamp, 2018), which often lead to falls (Ho et al., 2019) or other risks related to job performance. Likewise, the practice of physical activity will allow this group to develop better motor coordination (Alesi, Giustino, Gentile & Gómez-López, 2022) and motor proficiency in general to carry out a wider variety of jobs. A recent study found that people with intellectual disability, who reported being in poorer physical condition, had fewer opportunities to participate in a work activity than those who reported being in better physical condition (King et al., 2022).

Additionally, physical activity has positive cognitive and psychological benefits (Kapsal et al., 2019). Although research is limited, some studies have observed that the practice of physical activity can have an impact on cognitive function, especially on the development of executive functions in young people with intellectual disability (Protic & Valkova, 2018). Those with lower levels of physical fitness tend not only to have a more limited cognitive capacity but also to have less developed attention skills (Vuijk, Hartman, Scherder & Visscher, 2010). According to Diamond (2013), executive functions are the complex mental activities necessary to plan, organise, guide, review, regularise, and evaluate the behaviours required to adapt effectively to the

environment and achieve goals. Some of these functions, such as attentional control, cognitive flexibility, working memory, decision making, verbal fluency, time estimation, and inhibition, are essential for attaining and performing a job (Balconi, Angioletti & Crivelli, 2021).

In addition, the inherent social nature of physical activity makes it a valuable tool for enhancing social and communication skills. The study by Kapsal et al. (2019) shows that people with intellectual disability developed the ability to relate to others, made more friends, and enhanced their social maturity. Other studies involving young people without disabilities have also found that physical activity is positively associated with the development of soft skills, including proactivity, leadership, and perseverance (Feraco and Meneghetti, 2022), which are crucial for the optimal execution of many jobs.

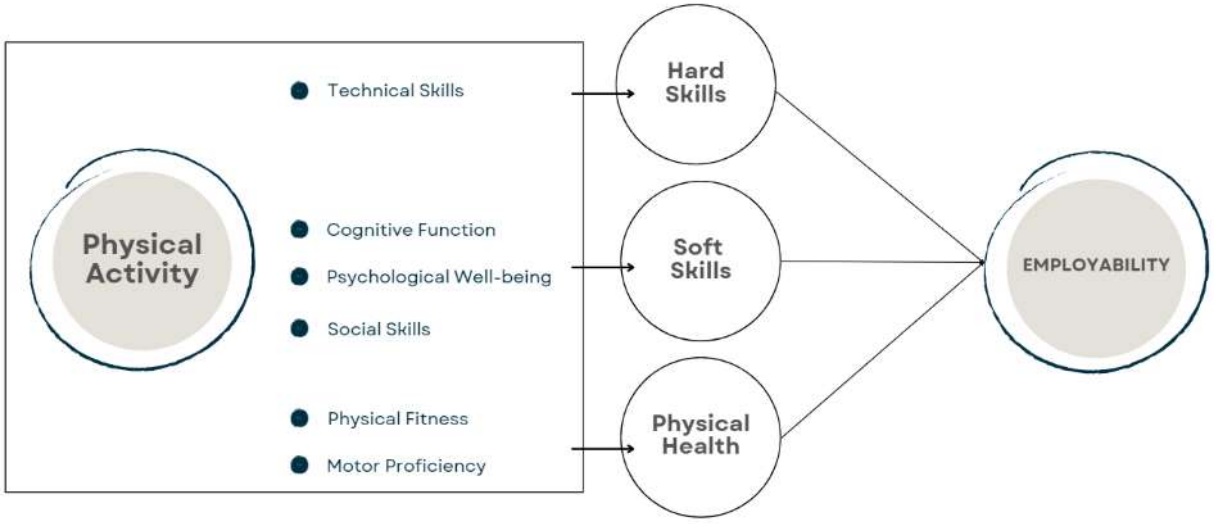

Figure 1. Outline of the three components highlighted in this study for the employability of people with intellectual disabilities.

Based on the potential of physical activity to enhance physical, cognitive, and social aspects in people with intellectual disabilities, this paper highlights and justifies the role of physical activity as part of the educational curriculum (see Figure 1) and providing an example of how it can be implemented in higher education setting. This proposal is intended as a starting point so that each university can adapt it to the peculiarities of each programme (i.e. professional orientation) and the availability of workspaces and resources.

2. The Chair of Disability and Employability TEMPE-APSA of the Miguel Hernández University of Elche.

The so-called *Chair of Disability and Employability TEMPE-APSA* of the Miguel Hernández University of Elche (UMH) has been one of the pioneering programmes funded by the UniDiversity initiative since its inception (i.e., the academic year 2016–2017), with the following two specific training lines: (a) Training course in Shop Assistant Tasks and (b) Training course in Office Assistant Tasks, which alternate each academic year. Each of these programmes has a course load

of 44 ECTS credits and 900 hours, distributed among 13 subjects (see Table 1). This must be supplemented by an additional 200 hours of study, tutorials, preparation of practicals and assignments, or preparation of evaluations, bringing the total training load for the programme to 1100 hours.

Each academic year, this UMH Chair welcomes a group of 15 to 17 students with intellectual disability. To participate in this programme, it is essential to (a) present a certificate of disability indicating a degree equal to or greater than 33%, officially recognised by the competent body of the Autonomous Community; (b) be a beneficiary of the National Youth Guarantee System for at least 15 days before the start date of the course; and (c) be between 18 and 30 years old, during the academic year (ages endorsed by the Youth Guarantee System). In addition to the above, although the programme does not require any previous academic qualifications, students must:

- be job seekers before a competent public body of the Autonomous Community;
- have a level of autonomy that allows them to travel from their homes to the University, as not all students come from the city where the centre is located;
- not present mental health problems or other permanent disruptive behaviours;
- have acquired basic academic skills in reading, writing, and arithmetic;
- show appropriate social conduct to ensure integration into the university environment;
- demonstrate a strong desire to learn.

These criteria are intended to ensure that students who successfully complete the course are prepared to face the challenges of entering the open labour market (with or without support).

3. The Subject of Applied Physical Activity (APA)

Within the subjects that make up the educational curriculum of this programme, Applied Physical Activity (APA) is the fifth subject in terms of working load. This subject is taught two days a week, with one hour of theory and two and a half hours of practice.

The two primary objectives of the course are to develop soft and social skills through physical activity and encourage habits related to active lifestyles (i.e., physical activity) and healthy lifestyles (e.g., nutrition). The practical component focuses on developing skills such as verbal and nonverbal communication, teamwork, decision making, goal setting, problem solving, strategic thinking, empathy, active listening, attention, concentration, and memory, among others. This is accomplished through the design of structured motor tasks and other sports activities aimed at enhancing other skills such as motor coordination (e.g., use of sports involving implements), postural control (e.g., Pilates or balance games), or personal space management (e.g., combat sports such as judo). The theoretical hours of the subject follow a programme of contents structured in

a book adapted for easy reading that focuses on several pillars: (a) understanding the benefits of regular physical activity; (b) knowing the different types of physical activity that can be performed and where they can be performed (e.g., clubs or sports centres); (c) understanding what the concept of "active leisure" means; (d) relating sedentary lifestyles to health problems; (e) learning how to combat obesity; and (f) knowing the basics of healthy eating.

To be able to teach this subject, teaching staff must have training in working with people with intellectual disability and other learning disabilities, as well as knowledge of the design and programming of adapted physical-sports activities. As aspects of physical activity practice must be addressed in a group with various comorbidities, it is necessary to provide accurate and safe content.

Table 1. List of subjects and distribution of hours of the Nanomasters in Store and Office Assistant Tasks.

Nanomáster in Store Assistant Tasks		**Nanomáster in Office Assistant Tasks**	
Subject	**Hours**	**Subject**	**Hours**
Subjects in common of the two Nanomaster programmes			
Practicum	200	Practicum	200
Adaptative Skills	120	Adaptative Skills	110
Basic English	95	Basic English	100
Applied Physical Activity	80	**Applied Physical Activity**	80
Elements and factors of the working process	40	Elements and factors of the working process	40
Occupational Risk Prevention and Environment Awareness	30	Occupational Risk Prevention and Environment Awareness	35
Social and Political Participation	30	Social and Political Participation	30
Employee Orientation Training	30	Employee Orientation Training	30
Business Planinng and Organisation	15	Business Planinng and Organisation	15
Yoga and Mindfulness	15	Yoga y mindfulness	10
Subjects differentiated between the two Nanomaster programmes			
Point-of-sale organisation, warehousing, and provisioning	165	Point-of-sale organisation, warehousing, and provisioning	115
IT applied to shop and warehouse tasks	50	IT applied to shop and warehouse tasks	80
Product design, marketing, and sales	30	Product design, marketing, and sales	55

ECTS: European Credit Transfer and Accumulation System

4. Practical Applications: Good Practices in Applied Physical Activity

The subject of APA allows, due to its playful, socialising, and motivating nature, the creation and design of inclusive activities aimed at the personal and professional development of the students of the programme. This is important because, first, on many occasions, students with ID who access these programmes do not have many opportunities to participate in inclusive activities with other students, as

their timetables and educational itineraries cannot be easily adapted to those of other university students without disabilities. Second, a high percentage of these students come from specialised centres for people with ID, and few of them have had the opportunity to interact with young people their age without disabilities. Several ideas and projects are carried out within the APA subject, with the objectives previously indicated.

4.1. Inclusive Learning Space

The practical sessions of the APA subject welcome other university students without disabilities who are pursuing degrees in Physical Activity and Sport Sciences and Occupational Therapy. This experience is of great importance since it invites the students of the programme to communicate and interact with other young people while allowing the other students who participate as guests to meet people with disabilities and see it in a new light, fostering a spirit of tolerance towards this reality. The suitability of this measure is demonstrated not only by the fact that many continue to come throughout the academic year but also by the fact that others apply to do their Final Degree Projects in activities related to the Chair's APA subject (Belando, 2020; Cano, 2021; Gómez, 2022).

4.2. Space for Becoming More Physically Active.

It has been observed that many of the Chair's students want to be more active but do not know how to achieve this due to the limited opportunities for sports practice for the group with intellectual disability, especially in the university context (Reina, Roldan, Candela & Carrillo de Albornoz, 2018; Úbeda-Colomer, Devís-Devís & Sit, 2019). This is because the training of technical staff to deal with diversity is, in many cases, deficient or nonexistent (Jacinto et al., 2019). To this end, since the 2017–2018 academic year, a physical activity promotion programme has been implemented for the students, consisting of the use of a free smartphone application to quantify the steps they take throughout the week. This activity is of great importance because it not only responds to those who wish to be more active but also raises awareness of the importance of physical exercise. In addition to the physical benefits, this activity allows for the introduction of new technologies and the development of digital literacy (e.g., mobile phone or computer word processing, among others) for future employment, as the ILO considers ICT skills to be one of the most sought-after skills of the 21st century (International Labour Organization, 2019).

4.3. A Meeting Place for Employers and Workers.

As part of the development of the APA subject, workers from the various companies where the students of the programme complete their training internships are invited to participate in a physical activity session and spend a few hours with the students. The experience reveals that, despite having a positive attitude towards disability, many workers greatly underestimate the ability of people with intellectual disability to perform leadership tasks. Therefore, considering that the visits made by students with intellectual disability to companies may not be enough to overcome the existing prejudices against disability, we carry out this activity of coexistence, in which personal spaces are broken and, with them, the barriers to the knowledge of the disability itself.

5. Conclusions

Access to employment is a right enshrined in the International Convention on the Rights of Persons with Disabilities (United Nations, 2006) and a key element in ensuring the quality of life, reducing poverty, or promoting the inclusion and economic participation of persons with disabilities (Lysaght et al., 2017). Moreover, this is linked to the Sustainable Development Goals and the UN 2030 Agenda, especially Goal 4 on quality (and inclusive) education and Goal 10 on reducing inequalities. However, the figures presented at the beginning of this paper show that this right is far from being a reality for people with intellectual disability.

The ultimate goal of every training programme should be not only to increase the chances of getting a job through specific technical training but also to maintain it over time (Ellenkamp et al., 2016). While a certain number of UniDiversity students enter the labour market each year, many other students do not do it for some time. Previous studies have found that, after university education, many young people with intellectual disability are unable to make new social connections and stop participating in various community activities (Lally et al., 2019). This underlines the importance of considering the true educational value of educational programme completion and the outcomes of the educational qualification (Gobec, Rillotta & Raghavendra, 2022). Therefore, this paper aims to justify the inclusion of an (applied) physical activity subject as a vehicle to work on and develop essential skills to face the labour demands of the 21st century with greater chances of success. Physical activity seems to be a useful tool for enhancing the cognitive functions of these students, which will help them manage aspects related to thoughts, emotions, and actions, as well as develop the social skills necessary to work in teams and communicate with others (Brooks et al., 2015). Physical activity is also a good subject for developing motor skills essential for performing many jobs as well as instilling more active lifestyle habits. We must not forget that people with intellectual disability tend to develop markedly sedentary lifestyle habits (Oviedo, Travier & Guerra-Balic, 2017), which contributes to the development of various diseases such as heart disease, obesity, or hypertension, among others (Segal et al., 2016). In addition to being associated with mobility issues, fatigue, and a higher risk of injury, these comorbidities frequently have a negative effect on any physical demand (Borji, Zghal, Zarrouk, Sahli & Rebai, 2021; Sherrard, Tonge & Ozanne-Smith, 2002). Another element to consider is the early ageing that also characterises people with ID, which has a double impact on their professional development and, therefore, their overall quality of life (Cuesta, Ortega & González, 2021).

In summary, for all the reasons mentioned above, the authors of this paper argue that physical activity is a curricular content that can bring significant benefits to the work profile of young university students with intellectual disability at the physical level, through the enhancement motor proficiency, at cognitive level through the enhancement of executive functions, as well as at the social level through the enhancement of interpersonal skills and communication for a better adaptation to a future job.

Conflicts of Interest: The authors declare no conflict of interest.

References

Alesi, M., Giustino, V., Gentile, A., Gómez-López, M., & Battaglia, G. (2022). Motor Coordination and global development in subjects with Down Syndrome: The influence of physical activity. Journal of Clinical Medicine, 11(17), 5031. doi:10.3390/jcm11175031

Aggarwal, A. (2021). Global framework on core skills for life and work in the 21st century. International Labor Organisation. Retrieved from: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_813222.pdf

Al Asefer, M. & Zainal Abidin, N. S. (2021). Soft skills and graduates'employability in the 21st century from employers' perspectives: A review of literature. International Journal of Infrastructure Research and Management, 9(2), 44-59.

Balconi, M., Angioletti, L., & Crivelli, D. (2020). Neuro-empowerment of executive functions in the workplace: the reason why. Frontiers in Psychology, 11, 1519. Doi. doi.org/10.3389/fpsyg.2020.01519

Belando-López, J. M. (2020). Zumba inclusiva para personas con discapacidad intelectual [Tesis Final de Grado, Universidad Miguel Hernández]. Retrieved from: http://dspace.umh.es/jspui/handle/11000/1184/browse?type=title&sort_by=1&order=ASC&rpp=20&etal=-1&null=&starts_with=Y

Borland, R. L., Cameron, L. A., Tonge, B. J., & Gray, K. M. (2022). Effects of physical activity on behaviour and emotional problems, mental health and psychosocial well-being in children and adolescents with intellectual disability: A systematic review. Journal of Applied Research in Intellectual Disabilities, 35(2), 399-420. doi:10.1111/jar.12961

Brooks, B. A., Floyd, F., Robins, D. L., & Chan, W. Y. (2015). Extracurricular activities and the development of social skills in children with intellectual and specific learning disabilities. Journal of Intellectual Disability Research, 59(7), 678-687. doi:10.1111/jir.12171

Cano-Rodriguez, N. (2021). Diseño de un programa de fitness online para fomentar la actividad física en jóvenes con discapacidad intelectual y trastorno del espectro autista. [Trabajo Final de Grado, Universidad Miguel Hernández]. Retrieved from: http://dspace.umh.es/browse?type=author&value=Cano+Rodr%C3%ADguez%2C+Nayara

Chi, C. F., Dewi, R. S., Jang, Y., & Liu, H. L. (2018). Workplace accommodation for workers with intellectual or psychiatric disabilities. International Journal of Industrial Ergonomics, 68, 1-7.

Cuesta-Gómez, J. L., Ortega-Camarero, M. T., & González-Bernal, J. (2020). Impact of aging on the quality of life of workers with intellectual disabilities. Journal of Psychology, Society and Education, 12(2), 81-90. doi:10.25115/psye.v12i2.2852

Diamond, A. (2013). Executive functions. Annual Review of Psychology, 64, 135-168. doi:10.1146/annurev-psych-113011-143750

Díaz-Jiménez, R. M., Terrón-Caro, T., & Yerga-Míguez, M. D. (2021). University education for people with intellectual disabilities. Evaluation of a training experience in Spain. Disabilities, 1(4), 388-405. doi:10.3390/disabilities1040027

Ding, D., Van Buskirk, J., Nguyen, B., Stamatakis, E., Elbarbary, M., Veronese, N., Clare, P. J., Lee, I. M., Ekelund, U., & Fontana, L. (2022). Physical activity, diet quality and all-cause cardiovascular disease and cancer mortality: a prospective study of 346 627 UK Biobank participants. British Journal of Sports Medicine. Ahead of print. doi: 10.1136/bjsports-2021-105195

Ellenkamp, J. J., Brouwers, E. P., Embregts, P. J., Joosen, M. C., & van Weeghel, J. (2016). Work environment-related factors in obtaining and maintaining work in a competitive employment setting for employees with intellectual disabilities: A systematic review. Journal of Occupational Rehabilitation, 26(1), 56-69. doi:10.1007/s10926-015-9586-1

Geiger, B., Van Der Wel, K., & Tøge, A. G. (2017). Success and failure in narrowing the disability employment gap: Comparing levels and trends across Europe 2002–2014. BMC Public Health, 17(1), 928. doi:10.1186/s12889-017-4938-8.

Gobec, C., Rillotta, F., & Raghavendra, P. (2022). Where to next? Experiences of adults with intellectual disability after they complete a university program. Journal of Applied Research in Intellectual Disabilities, 35(5), 1140-1152. doi:10.1111/jar.13000

Gómez-Boronat, L. (2022). Uso de las redes sociales como elemento de promoción de actividad física en jóvenes con discapacidad intelectual límite. [Trabajo Final de Grado, Universidad Miguel Hernández]. Retrieved from:

Ho, P., Bulsara, M., Patman, S., Downs, J., Bulsara, C., & Hill, A. M. (2019). Incidence and associated risk factors for falls in adults with intellectual disability. Journal of Intellectual Disability Research, 63(12), 1441-1452. doi:10.1111/jir.12686

Instituto Nacional de Estadística (2020). El Empleo de las personas con Discapacidad. Retrieved from: https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736055502&menu=resultados&idp=1254735573175

Jacinto, M., Vitorino, A. S., Palmeira, D., Antunes, R., Matos, R., Ferreira, J. P., & Bento, T. (2021). Perceived barriers of physical activity participation in individuals with intellectual disability: A systematic review. Healthcare, 9(11), 1521. doi:10.3390/healthcare9111521

Jackson, D. & Hancock, P. (2010). Non-technical skills in undergraduate degrees in business: Development and transfer. Education Research and Perspectives, 37(1), 52-84.

Kapsal, N. J., Dicke, T., Morin, A. J., Vasconcellos, D., Maïano, C., Lee, J., & Lonsdale, C. (2019). Effects of physical activity on the physical and psychosocial health of youth with intellectual disabilities: A systematic review and meta-analysis. Journal of Physical Activity and Health, 16(12), 1187-1195. doi:10.1123/jpah.2018-0675

King, E., Brangan, J., McCarron, M., McCallion, P., Bavussantakath, F. R., & O'Donovan, M. A. (2022). Predictors of productivity and leisure for people aging with intellectual disability. Canadian Journal of Occupational Therapy, 89(2), 135-146. doi: 10.1177/00084174211073257

Kocman, A., Fischer, L., & Weber, G. (2018). The employers' perspective on barriers and facilitators to employment of people with intellectual disability: A differential mixed-method approach. Journal of Applied Research in Intellectual Disabilities, 31(1), 120-131. doi:10.1111/jar.12375

Laborda-Molla, C. & González-Fernández, H. (2017). Estudio cualitativo sobre discapacidad intelectual y trabajo protegido: la orientación como herramienta para mejorar la calidad de vida. Revista Española de Orientación y Psicopedagogía, 28(3), 87-103. doi: 10.5944/reop.vol.28.num.3.2017.21620

Lally, N., O'Brien, P., & Gilligan, R. (2019). What comes next? Sustaining outcomes postuniversity. In P. O'Brien, M. Bonati, F. Gadow, & R. Slee (Eds.), People with intellectual disability experiencing university life: Theoretical underpinnings, evidence and lived experience (pp. 219–228). Boston: Brill Sense Publication.

Lecerf, M. (2020). Employment and disability in the European Union. Retrieved from: https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/651932/EPRS_BRI(2020)651932_EN.pdf

Liao, P., Vajdic, C., Trollor, J., & Reppermund, S. (2021). Prevalence and incidence of physical health conditions in people with intellectual disability–a systematic review. PloS one, 16(8): e0256294 doi:10.1371/journal.pone.0256294

Lindsay, S., Adams, T., Sanford, R., McDougall, C., Kingsnorth, S. and Menna-Dack, D. 2014. Employers' and employment counselors' perceptions of desirable skills for entry-level positions for adolescents: How does it differ for youth with disabilities? Disability & Society, 29, 953–967. doi: 10.1080/09687599.2013.874330

Lysaght, R., Ouellette-Kuntz, H., & Lin, C. J. (2012). Untapped potential: Perspectives on the employment of people with intellectual disability. Work, 41(4), 409-422.

Lysaght, R., Petner-Arrey, J., Howell-Moneta, A., & Cobigo, V. (2017). Inclusion through work and productivity for persons with intellectual and developmental disabilities. Journal of Applied Research in Intellectual Disabilities, 30(5), 922-935. doi:10.3233/WOR-2012-1318

Mahasneh, J. K. & Thabet, W. (2015). Rethinking construction curriculum: A descriptive cause analysis for the soft skills gap among construction graduates. In 51st ASC Annual International Conference Proceedings. Retrieved from. http://ascpro0.ascweb.org/archives/cd/2015/paper/CEUE391002015.pdf

Moss, P., & Tilly, C. (1996). "Soft" skills and race: An investigation of Black men's employment problems. Work and Occupations, 23(3), 252–276. https://doi.org/10.1177/0730888496023003002

Noe, R.A., Hollenbeck, J.R., & Gerhart, B. (2015). Fundamental of Human Resource Management. New York: McGraw-Hill.

Observatorio de las Ocupaciones del Servicio Público de Empleo Estatal (SEPE) (2022). Informe del mercado de trabajo de las personas con discapacidad. Retrieved from. https://www.sepe.es/HomeSepe/que-es-el-sepe/comunicacion-institucional/publicaciones/publicaciones-oficiales/listado-pub-mercado-trabajo/informe-mercadotrabajo-estatal-discapacitados.html

O'Neill, E. A. (2016). The role of diabetes in predicting employment status for individuals with bipolar disorder. Social Work in Public Health, 31(7), 646-655. doi:10.1080/19371918.2016.1160351

Oppewal, A., & Hilgenkamp, T. I. M. (2018). The association between gait and physical fitness in adults with intellectual disabilities. Journal of Intellectual Disability Research, 62(5), 454-466. doi.org/10.1111/jir.12484

Oviedo, G. R., Travier, N., & Guerra-Balic, M. (2017). Sedentary and physical activity patterns in adults with intellectual disability. International Journal of Environmental Research and Public Health, 14(9), 1027. doi:10.3390/ijerph14091027

Programa UniDiversidad. Fundación ONCE. Retrieved from: https://www.fundacionONCE.es/es/que-hacemos/universidad-y-discapacidad

Protic, M. & Válková, H. (2018). The relationship between executive functions and physical activity in children with an intellectual disability. Journal of Physical Education and Sport, 18(2), 844-852. doi:10.7752/jpes.2018.02125

Reina, R., Roldan, A., Candela, A. & Carrillo de Albornoz, A. (2018). Sports practice for university students with disabilities: barriers, facilitating factors, and employability. Vía Libre, Madrid (España)

Rodríguez, V. (2017). El empleo de las personas con discapacidad en España: Quo venis, quo vadis. Panorama Social, 26, 41-55.

Segal, M., Eliasziw, M., Phillips, S., Bandini, L., Curtin, C., Kral, T. V., ... & Must, A. (2016). Intellectual disability is associated with increased risk for obesity in a nationally representative sample of US children. Disability and Health Journal, 9(3), 392-398. doi: 10.1016/j.dhjo.2015.12.003

Scheef, A. R., Walker, Z. M., & Barrio, B. L. (2019). Salient employability skills for youth with intellectual and developmental disabilities in Singapore: the perspectives of job developers. International Journal of Developmental Disabilities, 65(1), 1-9.

Sherrard, J., Tonge, B. J., & Ozanne-Smith, J. (2002). Injury risk in young people with intellectual disability. Journal of Intellectual Disability Research, 46(1), 6-16. doi:10.1080/20473869.2017.1335479

Taubner, H., Tideman, M., & Staland Nyman, C. (2021). Employment sustainability for people with intellectual disability: A systematic review. Journal of Occupational Rehabilitation, 32, 353-364. doi:10.1007/s10926-021-10020-9

Strindlund, L., Abrandt-Dahlgren, M., & Ståhl, C. (2019). Employers' views on disability, employability, and labor market inclusion: a phenomenographic study. Disability and Rehabilitation, 41(24), 2910-2917. doi:10.1080/09638288.2018.1481150

Úbeda-Colomer, J., Devís-Devís, J., & Sit, C. H. (2019). Barriers to physical activity in university students with disabilities: Differences by sociodemographic variables. Disability and Health Journal, 12(2), 278-286. doi.org/10.1016/j.dhjo.2018.11.005

Vornholt, K., Uitdewilligen, S., & Nijhuis, F. J. (2013). Factors affecting the acceptance of people with disabilities at work: A literature review. Journal of Occupational Rehabilitation, 23(4), 463-475. doi:10.1007/s10926-013-9426-0

Vuijk, P. J., Hartman, E., Scherder, E., & Visscher, C. (2010). Motor performance of children with mild intellectual disability and borderline intellectual functioning. Journal of Intellectual Disability Research, 54(11), 955-965. doi:10.1111/j.1365-2788.2010.01318.x

Waddington, L. & Priestley, M. (2018). Mainstreaming disability rights in the European pillar of social rights: A compendium. Brussels: Academic Network of European Disability Experts.

Zurc, J. (2012). Connection between physical activity and level of social skills in children. TEST-ZV, 81(12).

Siedentop, D. (1998). New times in (and for) physical education. In R. Feingold, R. Rees, G. Barrette, S. Fiorentino, S. Virgilio & E. Kowalski (Eds.), AIESEP Proceedings, "Education for Life" World Congress (pp. 210–212). New York: Adelphi University.

Zamudio, M. M. and Lichter, M. I.. 2008. Bad attitudes and good soldiers: Soft Skills as a code for tractability in the hiring of immigrant latina/os over native blacks in the hotel industry. Social Problems, 55, 573–589. doi: 10.1525/sp.2008.55.4.573.