WHITE PAPER:

PROPOSAL TO INTRODUCE A EUROPSY SPECIALIST CERTIFICATE IN CLINICAL NEUROPSYCHOLOGY

BY THE EFPA STANDING COMMITTEE ON CLINICAL NEUROPSYCHOLOGY November 16th, 2020 version 1.0

CONTENT

- 1. Proposal to the EFPA general assembly in 2021.
- 2. What is Clinical Neuropsychology?
- 3. Development of the Specialisation in Clinical Neuropsychology.
- 4. Why is Clinical Neuropsychology important?
- 5. Why a EuroPsy Specialist Certificate?
- 6. Appendices 1 to 3
- 7. References

1. Proposal to the EFPA general assembly in 2021

The Standing Committee on Clinical Neuropsychology proposes to establish a project, "Establishment of a pilot phase: Specialist Certificate in Clinical Neuropsychology, October 2021 – March 2023", in collaboration with EFPA Member Associations, who are interested in taking part in a working group of clinical neuropsychologists and the Standing Committee on Clinical Neuropsychology, with representation from EFPA and the EAC.

The Specialist Certificate would build upon the EuroPsy Basic Certificate and have requirements similar to the Specialist Certificates already available (see Appendix 1).

2. What is Clinical Neuropsychology?

Neuropsychology and Clinical Neuropsychology are briefly defined by the EFPA Standing Committee on Clinical Neuropsychology: Neuropsychology is a specialised domain of psychology that is focused on the relationships between cognitive and affective functioning, the personality and behaviour of the individual, and brain functioning. Cognitive functions include e.g. attention, learning, memory, language, and reasoning. Affective functions include emotions and mood. Clinical Neuropsychology is the application of Neuropsychology in clinical situations across the life span to understand how these relate to either normal brain functioning or acquired or developmental brain injury. The practice of Clinical Neuropsychology involves a clinical interview and the use of neuropsychological assessment methods for diagnostic and prognostic purposes. This information can also be used for planning, implementation and evaluation of interventions.¹

3. Development of the Specialisation in Clinical Neuropsychology

During the last few decades, Clinical Neuropsychology has developed from a small clinical discipline to an advanced and well-respected specialty internationally and in Europe². In most countries, comprehensive academic and practical training in the field is required to practice as a specialist in Clinical Neuropsychology³.

There are regional and national neuropsychological associations worldwide. In Europe, 23 neuropsychological associations with an approximate total membership of more than 8200 are represented in the Federation of European Societies of Neuropsychology (FESN) as of 2020. The FESN was founded in 2008 by fifteen European national neuropsychological societies⁴. Other such associations include the International Neuropsychological Society (INS), the most influential neuropsychological society worldwide founded in 1967 in the USA⁵, the Australian Psychological Society's College of Clinical Neuropsychologists⁶, and the Sociedad Latinoamericana de Neuropsicología, founded by seven national Latin America associations in 1989⁷. A full list of relevant neuropsychological societies, associations or sections for neuropsychology in Europe can be found in Appendix 2.

The proposed Specialist Certificate builds upon the Basic Certificate and the training is targeted to professionals that are eligible for the basic EuroPsy. The Standing Committee recently sent a questionnaire to representatives of 20 countries to acquire detailed information on programmes training students who already are licenced psychologists. Austria, Czech Republic, Finland, France, Germany, Italy, Norway, Portugal, Russia, Sweden, and United Kingdom offer advanced level programs in Clinical Neuropsychology (see Appendix 3).

¹ Hokkanen et al., 2020;

² Godin et al., 2017; Kubu et al., 2016; Roper et al., 2018;

³ Hokkanen et al., 2019;

⁴ Federation of the European Societies of Neuropsychology (2020, April 27). Retrieved from https://www.fesn.eu/

⁵ The International Neuropsychological Society. (2020, April 27). Retrieved from https://www.the-ins.org/about-ins/

⁶ The Australian Psychological Society's College of Clinical Neuropsychologists. (2020, April 27). Retrieved from https://groups.psychology.org.au/ccn/

⁷ The Sociedad Latinoamericana de Neuropsicología. (2020, April 27). Retrieved from https://www.slan.org/

Croatia, Cyprus, Greece, Iceland, and Lithuania currently have no post-masters level programmes. In total, in the 11 countries, there are 43 different university programmes and 10 programmes of other providers, with approximately 1498 persons finishing them per year, based on the data of 13 answers. Most of these professionals would likely fulfil the criteria for the proposed Specialist Certificate in addition to being eligible for the basic EuroPsy (either Clinical/Health, Education, or 'Other' as their fields of practice). Combining this information with previous survey results by the SC on Clinical Neuropsychology, at least 16 of the 24 European countries currently offering the basic EuroPsy (the above 10 and also Denmark, Estonia, the Netherlands, Poland, Spain and Turkey) have been developing their own models for advanced level training in Clinical Neuropsychology.

4. Why is Clinical Neuropsychology important?

The prevalence, and health impact, of brain disorders are substantial. A study conducted in 2003 by the European Brain Council found that disorders of the brain are the largest contributor to the total morbidity burden in Europe, accounting for 35% of all disease burdens⁸. The economic costs of brain disorders are correspondingly large, constituting 24% of the total direct healthcare expenditure in Europe in 2010⁹. Since 2010 the burden in absolute terms has still increased¹⁰.

It is well recognised that Clinical Neuropsychology makes a significant contribution to the management of a host of neurological, neurodevelopmental, neurodegenerative, psychopathological, and neuroendocrine disorders from assessment to treatment. In many countries, a comprehensive neuropsychological assessment is considered standard for the management of a range of diseases and disorders affecting the nervous system and the brain. Clinical neuropsychologists are typically involved in integrated healthcare settings, participating in multidisciplinary collaborations, and contribute to the treatment and rehabilitation of patients¹¹.

Based on comprehensive clinical assessments of cognitive, affective and behavioural functioning, neuropsychological assessments provide information about the daily life functioning of children and adults. Schools and universities increasingly use this information for children and students with special needs and other institutions use it for adults in planning vocational and neuropsychological rehabilitation. The objective data provided by neuropsychological assessment has shown high utility in follow up of patients, either to measure the efficacy of treatment or rehabilitation or by measuring decline in neurodegenerative disorders¹².

The demands for clinical neuropsychological services are both increasing and diversifying. Within health care and community settings, Clinical Neuropsychology is the specialty with the most advanced scientifically based competencies in the analysis of cognitive, affective and behavioural consequences of the aforementioned disorders, as well as other neurobiological-based diseases and disorders interfering with mental functioning. Clinical neuropsychologists not only assess and diagnose deficits, but also have a key role in the differential diagnosis of psychological, psychiatric, neurological, and neurodevelopmental disorders.

3

⁸ Olesen & Leonardi, 2003;

⁹ Gustavsson et al., 2011; Olesen et al., 2012;

¹⁰ Raggi & Leonardi, 2020;

¹¹ Albert et al., 2011; American Psychiatric Association, 2013; Hokkanen et al., 2019; Litvan et al., 2011; Yeates, Levin, & Ponsford, 2017; Zink, 2001;

¹² Lezak et al., 2012;

5. Why a EuroPsy Specialist Certificate?

Clinical Neuropsychology is (1) a field with its own scientific knowledge base and tradition; (2) it is a fast growing field in Europe and world-wide; (3) there is a need for standardization in training and practice, given the huge diversity in training and level/quality of services across Europe; (4) the society and health care systems expect and benefit from a high level of specific knowledge and competent skills from clinical neuropsychologists; and (5) Clinical Neuropsychology can easily be part of the EuroPsy specialisation model.

Findings from surveys conducted by the EFPA SC on Clinical Neuropsychology have revealed that the level of training and the quality of service provided by Clinical Neuropsychologists throughout Europe varies considerably. In the European countries that offer advanced training, the profession of Clinical Neuropsychology has been developed into an important discipline for the neurocognitive and affective health care of children and adults. In some other countries in Europe this training and professional development hardly exists. The Specialist Certificate, the proposed training model leading to it, and the advanced competencies to be delineated, will provide an aspirational goal for countries that are still developing the training.

The profession of Clinical Neuropsychology is built on a unique scientific knowledge base, well-established training, unique methodology and clinical practice. A range of competencies has been identified that are specific to its practice, in line with the EuroPsy. An earlier European survey conducted by the Standing Committee on Clinical Neuropsychology demonstrated a high level of agreement among experienced senior professionals on the core competencies needed for the practice of Clinical Neuropsychology in the advanced level.

A universal minimum standard of training and practice is necessary to ensure an acceptable level of quality across Europe and to protect from malpractice. Common high-level standards for education, practical training and clinical practice in Clinical Neuropsychology within Europe would aid in the strengthening of clinical neuropsychological services. This has already been achieved in the countries with high standards in Clinical Neuropsychology. The proposed certificate will complement but not override national regulations and will not jeopardize the existing high standards.

Establishing a specialisation will protect the field from self-defined "specialists" and will help build a common ground for quality clinical neuropsychological services across Europe. Providing a specialist register of qualified neuropsychologists who have met the agreed minimum standards will contribute to ensuring minimum standards and competencies. Having a specialisation as an addition to the basic EuroPsy will protect the public by helping society identify who is trained to a particular standard endorsed by EFPA. To have a common definition of specialisation in Clinical Neuropsychology will also facilitate the free movement of neuropsychologists across Europe. This is important, as free movement of labour is an important EU foundation.

The Standing Committee on Clinical Neuropsychology therefore recommends establishing a EuroPsy Specialist Certificate in Clinical Neuropsychology.

6. Appendices 1 to 3

a. Appendix 1

Description of the requirements in the currently available Specialist Certificates within the EuroPsy framework, Psychotherapy and Work and Organizational Psychology along with the tentative proposed requirements for Clinical Neuropsychology.

Requirement	Psychotherapy	Work and Organizational Psychology	Clinical Neuropsychology
Education after basic EuroPsy	90 ECTS, of which 400 h theory	90 ECTS (2400h)*, of which 60 courses and 30 applied research/ assessment/ intervention	90 ECTS, of which 60 courses and 30 applied research/ assessment/ intervention 1
Content	Vary with curriculum and/or learning trajectory	Specialist curriculum framework	Specialist curriculum framework
Supervised practice	3 years, 500 h of work supervised	3 years, 400 h/year supervised, "coached professional practice"	3 years of supervised professional practice
Supervision	150 h (50h/y)	150h (50h/y)	150h (50h/y)
Competencies to be demonstrated	A list is being developed.	Those defined in EuroPsy regulations, applied to Work- and Organizational Psychology specialized level	A list is being developed, based e.g., on the US ² and UK ³ models and the work of The Standing Committee on Clinical Neuropsychology
Competence development	Implied in Psychotherapy training in one or more Psychotherapy methods	Based on an explicit system of Competence Development	Based on an explicit system (a program or a flexible model)
Continued Professional Development	Being developed	4 ECTS (100h) at the moment of application, included in the 90 ECTS	To be developed
Additional requirement	100 h personal therapy		

Notes. * = Early specialisation countries: 60 ECTS after Basic EuroPsy ECTS = European Credit Transfer and Accumulation System and h = hours

to be later translated into hours for non-university context
 Entry-level Competencies in Clinical Neuropsychology. Retrieved from https://www.cospp.org/clinical-neuropsychology
 Competency framework for the UK Clinical Neuropsychology profession. Retrieved from http://www.bps.org.uk

b. Appendix 2

Societies/associations or specific sections of clinical neuropsychology for psychologists in Europe		
Name of the society/association/section:	Number of members	webpage
The Norwegian Neuropsychological Association	400	http://www.nevropsyk.org/foreningen/om-nnf
Sveriges Neuropsykologers förening (Swedish Neuropsychological Society)	637	www.snpf.se
Società Italiana di neuropsicologica (SINP)	300	https://sinp-web.org
Società Psicologi di area neuropsicologica	200	https://www.neuropsicologia- span.it
Icelandic Neuropsychological Association (TSI). This is now (since October 2020) a very informal association, with no board of governors or other formalities.	8	https://www.facebook.com/groups/1428647230768737
Gesellschaft für Neuropsychologie Österreich	380	www.gnpoe.at
Portuguese Society of Neuropsychology (Sociedade Portuguesa de Neuropsicologia)	30	http://spnpsy.rf.gd
Ordem dos Psicólogos Portugueses	328	https://www.ordemdospsicolog os.pt/en
Czech Association for Neuropsychology (CANP)	44	Webpage: www.canp.cz
Section for Clinical Neuropsychology, Czech and Moravian Psychological Society (CMPS)	47	Webpage: https://cmpsy.cz/?page=neurop sy
Czech Neuropsychological Society	10	Webpage www.cenes.cz
Hellenic Neuropsychological Society	180	https://www.hnps.gr/en/hellenic -neuropsychological-society/
Hellenic Psychological Association, Division of Neuropsychology	11	www.hellenic-psych.org
British Psychological Society [Division of Neuropsychology]	600	www.bps.org.uk
Organisation Française des Psychologues spécialisés en Neuropsychologie (OFPN) / French association of neuropsychologists	517	www.ofpn.fr
Société de Neuropsychologie de Langue Française (OFPN) / French society of neuropsychology	250	www.snlf.net

c. Appendix 3

University progra	nmmes targeting licenced psycho	ologists in Europe
Czech Republic		
Charles University	Certificate course Clinical Neuropsychology of Adults	https://www.acvz.cz/detail- vzdelavaci-akce/767- Certifikovany-kurz-Klinicka- neuropsychologie-dospelych
Finland		
University of Helsinki / Finnish University Network of Psychology (Psykonet)	Neuropsykologian erikoispsykologikoulutus, Specialisation Programme in Neuropsychology	https://www.helsinki.fi/fi/laaketi eteellinen- tiedekunta/psykologia - section- 31161 http://www.psykonet.fi/english
France		, , , ,
Aix-Marseille Université	Psychology and neuropsychology of cognitive disturbances	www.univ-amu.fr
Université Catholique de Lille	Neuropsychology and cognitive neurosciences: clinical, anatomical and neurophysiological contributions	www.univ-catholille.fr
Université Côte d'Azur (Nice)	Neuropsychology and cognitive psychopathology	www.univ-cotedazur.fr
Université d'Angers	Neuropsychology	www.univ-angers.fr
Université d'Angers	Childhood neuropsychology and learning disorders	www.univ-angers.fr
Université de Bordeaux	Cognition and brain: neuropsychology and cognitive imagery	www.u-bordeaux.fr
Université de Bordeaux	Clinical neuropsychology	www.u-bordeaux.fr
Université de Caen	Clinical neuropsychology from children to adults	www.unicaen.fr
Université de Franche Comté (Besançon)	Cognitive psychology and neuropsychology	www.univ-fcomte.fr
Université de Lille	Clinical neuropsychology, therapeutic management from children to adults	www.univ-lille.fr
Université de Lille	Psychology of neurocognitive processes and affective sciences	www.univ-lille.fr
Université de Lorraine (Nancy)	Psychopathology of cognition and interactions	www.univ-lorraine.fr
Université de Nantes	Psychology of cognitive disturbances: cognitive and clinical assessments	www.univ-nantes.fr
Université de Paris	Neuropsychology	www.u-paris.fr
Université de Picardie Jules Verne (Amiens)	Clinical and integrative neuropsychology	www.u-picardie.fr

Université de Poitiers	Child and adult psychology and neuropsychology: language, cognition and learning	www.univ-poitiers.fr
Université de Reims Champagne-Ardenne	Psychology and neuropsychology of cognitive disturbances: adult clinic	www.univ-reims.fr
Université de Reims Champagne-Ardenne	Psychology and neuropsychology of cognitive disturbances: child and adolescent clinic	www.univ-reims.fr
Université de Rouen – Normandie	Cognitive neuropsychology: individualized assessment, diagnosis and remediation	www.univ-rouen.fr
Université de Strasbourg	Cognitive and clinical neuropsychology	www.unistra.fr
Université Grenoble Alpes	Childhood neuropsychology	www.univ-grenoble-alpes.fr
Université Lumière Lyon 2	Neuropsychology	www.univ-lyon2.fr
Université Paris 8 Vincennes Saint-Denis	Clinical psychology and neuropsychology	www.univ-paris8.fr
Université Paris Nanterre	Cognitive and clinical neuropsychology at all ages	www.parisnanterre.fr
Université Paul Valéry Montpellier 3	Clinical neuropsychology and cognitive psychopathology, adults and the elderly	www.univ-montp3.fr
Université Savoie Mont-Blanc (Chambéry)	Neuropsychology	www.univ-smb.fr
Université Toulouse Jean	Autism and other	www.univ-tlse2.fr
Jaurès Italy	neurodevelopmental disorders	
Universita`Cattolica del Sacro Cuore	Postgraduate Master in Clinical Neuropsychology	https://www.unipd.it/corsi- master/neuropsicologia-clinica
Universita' Cattolica	Postgraduate Master in Neuropsicologia: Valutazione, Diagnosi e Reabilitazione	https://asag.unicatt.it/asag- master-neuroscienze-cliniche- valutazione-diagnosi-e- riabilitazione-neuropsicologica- e-neuromotoria-1667
Lumsa	Postgraduate Master in Neuropsicologia Clinica	
Universita` del Salento	Postgraduate Master in Esperto di valuzione e Riabilitazione Neurocognitiva dell'eta Evolutiva, dell'adulto e dell'Anziano	https://www.lumsa.it/corsi_mast er_secondo_livello_neuropsicol ogia_clinica
Universita` del degli Studi di Verona	Postgraduate in Master in Neuropsicologia Clinica Eperimentale	https://www.emagister.it/corso_ master_neuropsicologia_clinica _e_sperimentale_ii_livello- ec2791509.htm
Portugal		
Universidade do Minho / Universidade de Coimbra / Universidade de Lisboa	Interuniversity Master in Clinical and Experimental Neuropsychology*	https://www.psi.uminho.pt/en/e ducation/imcen/Pages/default.a spx

Universidade do Algarve	Master in Cognitive Neuroscience and Neuropsychology*	https://fchs.ualg.pt/en/curso/15 26
Universidade de Aveiro	Master in Health Psychology and Neuropsychological Rehabilitation*	https://www.ua.pt/en/c/389/p
Universidade Católica & ISPA	Master in Neuropsychology*	http://en.ispa.pt/cursos/neurops ychology
Instituto Universitário de Ciências da Saúde	Master in Health Psychology and Neuropsychology*	https://www.cespu.pt/en/univer sity-education-instituto- universitario-de-ciencias-da- saude/master-in-health- psychology-and- neuropsychology/
Universidade Lusófona	Master in Applied Neuropsychology*	https://www.ulusofona.pt/en/ma sters/applied-neuropsychology
UK		
University of Glasgow	Post- Graduate Diploma in Clinical Neuropsychology	
University of Bristol	Master in Clinical Neuropsychology *	
University College London	Post-graduate Diploma in Clinical Neuropsychology [child]	

^{*)} In Portugal and in the UK, these master programmes are open to students who already have a master's or equivalent EuroPsy basic level of license to practice psychology

Programmes / courses	by other providers targeting licenced	psychologists in Europe
Austria		
Gesellschaft für Neuropsychologie Österreich	Curriculum Clinical Neuropsychology	www.gnpoe.at
Czech Republic		
Institute of Clinical Psychology and Czech Neuropsychological Society	Certificate course Clinical Neuropsychology of Adults	
Institute of Postgraduate Education, Ministry of Health	Certificate course Practical Clinical Neuropsychology	https://www.mzcr.cz/certifikovany- kurz/
Institute of Postgraduate Education, Ministry of Health	Certificate course Clinical Neuropsychology of Adults (starts in 2021)	https://www.mzcr.cz/certifikovany- kurz/
Motol University Hospital	Certificate course Clinical Neuropsychology - Child	
Germany		
Gesellschaft für Neuropsychologie (GNP)	Curriculum klinische Neuropsychologie der Gesellschaft für Neuropsychologie	www.gnp.de
Norway	, , ,	
The Norwegian Psychological Association (NPF)	Specialist education in clinical neuropsychology for authorized psychologists	http://www.nevropsyk.org/
Sweden	· • •	
Institutet för Högre PsykologiUtbildning (The institute for higher education in psychology, Swedish Psychological Association)	Specialist in Neuropsychology	https://opencorporates.com/companies/se/916609-2131
Russia		
Karvasarsky Institute of psychotherapy and clinical psychology, S-Petersburg	"Fundamentals of neuropsychological diagnostics, correction and rehabilitation"	
Moscow State Psychological and Pedagogical University, Moscow	"Neuropsychology of childhood. Neurodiagnostics"; "Neuropsychological approach to correction children developmental disorders"	
Department of Psychology Lomonosov Moscow State University, Moscow	"Propaedeutics of the neuropsychological approach", "Methods of neuropsychological and psychophysiological assessment", "Neuropsychological Rehabilitation", "Pediatric Neuropsychology: assessment and adjustment"	

7. References

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, DSM-5.* Washington, DC & London, UK.

Australian Psychological Society's College of Clinical Neuropsychologists. (2020, April 27). Retrieved from https://groups.psychology.org.au/ccn/

Albert, M.S, DeKosky, S.T., Dickson, D., Dubois, B., Feldman, H.H., Fox, N.C., Gamst. A., Holtzman, D.M., Jagust, W.J., Petersen, R.C., Snyder, P.J., Carrillo, M.C., Thies, B., Phelps, C.H. (2011). The diagnosis of mild cognitive impairment due to Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 7, 270-279.

European Federation of Psychologist's Association, EFPA. EuroPsy and EuroPsy Regulation. Retrieved from https://www-efpa.eu/europsy/

Federation of the European Societies of Neuropsychology (2020, April 27). Retrieved from https://www.fesn.eu/

Godin, J., Armstrong, J.J., Rockwood, K., Andrew, M.K. (2017). Dynamics of Frailty and Cognition after Age 50: Why It Matters that Cognitive Decline is Mostly Seen in Old Age. J Alzheimers Dis.; 58(1):231-242. doi: 10.3233/JAD-161280.

Gustavsson, A., Svensson, M., Jacobi, F., Allgulander, C., Alonso, J., Beghi, E., Olesen, J., & CDBE2010 Study Group. (2011). Cost of disorders of the brain in Europe 2010. European Journal of Neuropsychopharmacology, 21, 718–779.

Hessen, E., Hokkanen, L., Ponsford, J., van Zandvoort, M., Watts, A., Evans, J., & Haaland, K. (2018). Core competencies in Clinical Neuropsychology training across the world. The Clinical Neuropsychologist, 32, 642–656.

Hokkanen, L., Lettner, S.M., Barbosa, F., Constantinou, M., Harper, L., Kasten, E., Mondini, S., Persson, B., Varako, N. & Hessen, E. (2019). Training models and status of clinical neuropsychologists in Europe: results of a survey on 30 countries. The Clinical Neuropsychologist, 33, 32-56. doi: 10.1080/13854046.2018.1484169

Hokkanen, L., Barbosa, F., Ponchel, A., Constantinou, M., Kosmidis, M., Varako, N., Kasten, E., Mondini, S., Lettner, S.M., Baker, G., Persson, B. & Hessen, E. (2020). Clinical Neuropsychology as a specialist profession in the European health care – Developing a benchmark for training standards and competencies using the EuroPsy model? Frontiers in Psychology, 06 October 2020. https://doi.org/10.3389/fpsyg.2020.559134

International Neuropsychological Society. (2020, April 27). Retrieved from https://www.the-ins.org/about-ins/

Kasten, E., Barbosa, F., Constantinou, M., Kosmidis, M.H., Baker, G.A, Ponchel, A., Mondini, S., Jonsdottir, M.K., Harper, L., Pranckeviciene, A., Varako, N., Nikolai, T., Persson, B.A., Hokkanen, L., Lettner, S. & Hessen, E. (2020). European Clinical Neuropsychology: Role in Health Care and Access to Neuropsychological Services. Submitted manuscript.

Kubu, C.S., Ready, R.E., Festa, J.R., Roper, B.L., & Pliskin, N.H. (2016). The Times They Are a Changin: Neuropsychology and Integrated Care Teams. The Clinical Neuropsychologist, 30(1): 51-65. doi: 10.1080/13854046.2015.1134670

Litvan, I., Aarsland, D., Adler, C. H., Goldman, J. G., Kulisevsky, J., Mollenhauer, B., Weintraub, D. (2011). MDS Task Force on mild cognitive impairment in Parkinson's disease: Critical review of PD-MCI. Movement Disorders, 26(10), 1814-1824. doi: 10.1002/mds.23823

Lezak, M.D., Howieson, D.B., Bigler, E.D., & Tranel, D. (2012). Neuropsychological Assessment. 5th Ed. Oxford University Press.

Olesen, J., & Leonardi, M. (2003). The burden of brain diseases in Europe. European Journal of Neurology, 10, 471–477.

Olesen, J., Gustavsson, A., Svensson, M., Wittchen, H., Jönsson, B., CDBE2010 Study Group, & European Brain Council (2012). The economic cost of brain disorders in Europe. European Journal of Neurology, 19, 155–162.

Raggi, A., & Leonardi, M. Burden of brain disorders in Europe in 2017 and comparison with other non-communicable disease groups (2020). Journal of Neurology, Neurosurgery & Psychiatry, 91,104-105.

Roper, B.L., Block, C.K., Osborn, K. & Ready, R.E. (2018). Education and Training for Clinical Neuropsychologists in Integrated Care Settings. Archives of Clinical Neuropsychology, 33(3): 263-268.

Sociedad Latinoamericana de Neuropsicología. (2020, April 27). Retrieved from https://www.slan.org/

Visser, S.N., Danielson, M.L., Bitsko, R.H., Holbrook, J.R., Kogan, M.D., Ghandour, R.M., Perou, R., & Blumberg, S.J. (2014). Trends in the parent-report of health care provider-diagnosed and medicated attention-deficit/hyperactivity disorder: United States, 2003-2011. J Am Acad Child Adolesc Psychiatry, 53(1):34-46.e2. PMID: 24342384

Yeates, K.O., Levin, H.S., & Ponsford, J. (2017). The Neuropsychology of Traumatic Brain Injury: Looking Back, Peering Ahead. J Int Neuropsychol Soc, 23(9-10):806-817. doi: 10.1017/S1355617717000686.

Zink, B.J. (2001). Traumatic brain injury outcome: Concepts for emergency care. Annals of Emergency Medicine. 37 (3): 318–32. doi:10.1067/mem.2001.113505. PMID 11223769