

# Mohamed Aly, Ph.D.

Curriculum Vitae

## Work Address

Faculty of Sport Sciences, Assiut University, Assiut Governorate, 71515, Egypt  
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## Home address

Al-Shorouk City, Cairo, Postal Code 11866

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## Education

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- Aug 2022 – Sep 2023 Post-doctoral Scholar  
Faculty of Liberal Arts and Science  
Chukyo University, Japan
- July 2022 Research Internship (Staff Exchange)  
Institute of Sports and Sports Science  
Karlsruhe Institute of Technology (KIT), Germany
- Sep 2020 – March 2021 Post-doctoral Scholar  
Department of Psychology  
Kanazawa University, Japan
- Oct 2017– Sep 2020 Doctor of Philosophy  
Graduate School of Human and Socio-Environmental Studies (Psychology & Cognitive Science Lab.)  
Kanazawa University, Japan
- Sep 2011 – Dec 2013 Master of Science  
Department of Educational Sciences and Sports Psychology, Faculty of Sport Sciences  
Assiut University, Egypt
- Sep 2006 – Jun 2010 Bachelor of Science in Sport Sciences  
Faculty of Sport Sciences  
Assiut University, Egypt

## Professional Experience

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- Oct 2024 – Present Adjunct Professor  
Sport Management Program, ESLSCA University, Egypt
- May 2022 – Present Assistance Professor  
Department of Educational Sciences and Sports Psychology, Faculty of Sport Sciences,  
Assiut University, Assiut, Egypt
- Dec 2018 – Mar 2019 Teaching Assistant

Department of Psychology, Institute of Human and Social Sciences, Kanazawa University,  
Kanazawa, Japan

Dec 2013 – Sep2017 Teaching Assistant  
Department of Educational Sciences and Sports Psychology, Faculty of Sport Sciences,  
Assiut University, Assiut, Egypt

Feb 2011 – Nov 2013 Demonstrator  
Department of Educational Sciences and Sports Psychology, Faculty of Physical  
Education, Assiut University, Assiut, Egypt

### Research Interests

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My research focuses on the public health implications of cognition and brain health, specifically examining how physical activity and fitness influence brain health and cognition across the lifespan. I have explored these relationships using both behavioral and neuroimaging measures, investigating the effects of acute and chronic physical activity on cognitive functions. My goal is to deepen our understanding of the link between physical activity and cognitive health, with the hope of raising public awareness about the health risks of sedentary behavior and encouraging healthier lifestyles.

### Publications (\* Corresponding author, † Contributed equally)

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1. Giampieri, F., Rosi, A., Scazzina, F., Frias-Toral, E., Abdelkarim, O., **Aly, M.**, Zambrano-Villacres, ... & Grosso, G. Youth Healthy Eating Index (YHEI) and Diet Adequacy in Relation to Country-Specific National Dietary Recommendations in Children and Adolescents in Five Mediterranean Countries from the DELICIOUS Project. *Nutrients*, Vol 16, No. 22, November, **2024**. <https://www.mdpi.com/2072-6643/16/22/3907>
2. Rosi, A., Scazzina, F., Giampieri, F., Abdelkarim, O., **Aly, M.**, Pons, J., ... & Grosso, G. Adherence to the Mediterranean Diet in 5 Mediterranean countries: a descriptive analysis of the DELICIOUS project, *Mediterranean Journal of Nutrition and Metabolism*, 2024, (Accepted).
3. Abdelkarim, O., El-Gyar, N., Shalaby, A. M., & **Aly, M.\***, The Effects of a School-Based Physical Activity Program on Physical Fitness in Egyptian Children: A Pilot Study from the DELICIOUS Project, *Children*, Vol. 11, No. 7, pp. 842-853, July, **2024**. <https://doi.org/10.3390/children11070842>
4. Grosso, G.\*, Buso, P., Mata, A., Abdelkarim, O., **Aly, M.**, Pinilla, J., ... & Vázquez-Araújo, L., Understanding consumer food choices & promotion of healthy and sustainable Mediterranean diet and lifestyle in children and adolescents through behavioural change actions: the DELICIOUS project, *International Journal of Food Sciences and Nutrition*, Vol. 75, No. 5, pp. 1-9, May, **2024**. <https://doi.org/10.1080/09637486.2024.2353065>
5. **Aly, M.**, Ishihara, T., Torii, S., Kamijo, K.\*, Being underweight, academic performance and cognitive control in undergraduate women, *Archives of Women's Mental Health*, Vol. 27, No. 2, pp. 249-258, December, **2023**. <https://doi.org/10.1007/s00737-023-01410-4>
6. **Aly, M.\***, AlMarzooqi, M., Mohamed, S., Alzahrani, T. M., & Abdelkarim, O., Daily step counts before, during, and after COVID-19 pandemic: a smartphone-tracking study of university students in Egypt and Saudi Arabia, *BMC Public Health*, Vol. 23, No. 1, 1365, July, **2023**. <https://doi.org/10.1186/s12889-023-16068-x>
7. Abdelkarim, O.†, **Aly, M.\*†**, ElGyar, N., Shalaby, A. M., Kamijo, K., Woll, A., & Bös, K., The Association Between Aerobic Fitness and Attentional Functions in Egyptian Preadolescent Children, *Frontiers in Psychology*, Vol. 14, 1172423, July, **2023**. <https://doi.org/10.3389/fpsyg.2023.1172423>

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8. **Aly, M.**, Ogasawara, T., Kamijo, K., and Kojima, H.\*, Neurophysiological evidence of the transient beneficial effects of a brief mindfulness exercise on cognitive processing in young adults: An ERP Study, *Mindfulness*, Vol. No. 5, pp. 1102–1112, April, **2023**. <https://doi.org/10.1007/s12671-023-02120-9>
  9. **Aly, M.\***, and Kojima, H., Relationship of regular physical activity with neuroelectric indices of interference processing in young adults, *Psychophysiology*, Vol. 57, No. 12, e13674, December, **2020**. <https://doi.org/10.1111/psyp.13674>
  10. **Aly, M.\***, and Kojima, H., Acute moderate-intensity exercise generally enhances cognitive control in young adults: A randomized controlled ERP study, *Mental Health and Physical Activity*, Vol. 19, pp. 100363, October, **2020**. <https://doi.org/10.1016/j.mhpa.2020.100363>
  11. **Aly, M.\***, A. Ahmed, M., Hasan, A., Kojima, H., and R. Abdelhakem, A., Sport experience and physical activity: Event-related brain potential and task performance indices of attention in young adults, *Journal of Functional Morphology and Kinesiology*, Vol. 4, No. 2, 33, June, **2019**. <https://doi.org/10.3390/jfmk4020033>

### **Book chapters**

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12. **Aly, M.**, Sakamoto, M., & Kamijo, K.\* (**2024**). Chapter Four - Grip strength, working memory, and emotion perception in middle-aged males. In C.-H. Juan, C.-H. Wang, & S.-C. Kao (Eds.), *Progress in brain research* (Vol. 286, pp. 89-105). Elsevier. <https://doi.org/https://doi.org/10.1016/bs.pbr.2023.12.004>
13. **Aly, M.\***, Hassan, M. D., Hassan, M. M., Alibrahim, M., & Kamijo, K.\* (**2024**). Chapter Five - Association of aerobic fitness and grip strength with cognitive and academic performance in Arab children. In C.-H. Juan, C.-H. Wang, & S.-C. Kao (Eds.), *Progress in brain research* (Vol. 286, pp. 107-128). Elsevier. <https://doi.org/https://doi.org/10.1016/bs.pbr.2023.11.005>

### **Manuscripts Under review**

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14. **Aly, M.\***, Alzahrani, T., Fakehy, M., Abass, M., Mohamed, S., Motor skill experience modulates attentional processing regardless of open-closed typology: an ERP study, *Frontiers in Psychology*, **2024**.
15. Kamijo, K.\*, **Aly, M.**, Ishihara, T., Proposal for a standard approach for assessing the effects of acute exercise on cognitive performance, *Nature Human Behaviour*, **2024**.
16. **Aly, M.\***, El-Gyar, N., Shalaby, A. M., & Abdelkarim, O., Health-Related Physical Fitness Among Five Mediterranean Countries: A Cross-Cultural Study on Youth from the DELICIOUS Project, *Frontiers in Public Health*, **2024**.
17. Lifestyle factors associated with children's and adolescents' adherence to the Mediterranean Diet living in Mediterranean countries: the DELICIOUS project, *Nutrients*, **2024**.
18. Food security and adherence to the Mediterranean diet in five Mediterranean countries: the DELICIOUS project, *Children*, **2024**.

### **Manuscripts in Preparation**

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19. **Aly, M.\***, El-Gyar, N., Shalaby, A. M., & Abdelkarim, O., Cross-Country Evaluation of Physical Activity Programs on Health-Related Fitness Components in Children: Findings from Delicious project
20. **Aly, M.**, Kamijo, K., and Kojima, H.\*, Association between aerobic fitness and proactive interference in working memory
21. Ishihara, T., Ludyga S., Drollette, E., **Aly, M.**, Tottori, N., Hillman, C., Kamijo, K., Effects and moderators of acute exercise on cognitive performance: A systematic review and individual participant data meta-analysis
22. **Aly, M.\***, Morgan, H., Arabic validation of the screen for cognitive impairment in psychiatry

## **Academic Societies**

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- American Psychological Association
- Society for Psychophysiological Research
- Hokuriku Psychological Society of Japan
- Egyptian Sports Sociology Association

## **Ad-Hoc Journal Reviewer**

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- American Journal of Preventive Medicine
- Frontiers in Public Health
- Psychology of Sport and Exercise
- Mental Health and Physical Activity
- Frontiers in Neuroscience
- PLOS One
- Frontiers in Physiology – Topic Coordinator
- BMC Sports Science, Medicine and Rehabilitation
- Journal of Integrative Neuroscience
- Frontiers in Cognition
- Advances in Mental Health
- Frontiers in Pediatrics
- BMC Psychology
- Scientific Reports

## **Scientific Projects**

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### Ongoing Research Funding

*Understanding consumer food choices and promotion of healthy and sustainable Mediterranean diets and lifestyles in Children through behavioral changes actions (DELICIOUS)*

PRIMA program supported by the European Union (EU)

2022 –2025

Collaboration between Spain, Italy, Lebanon, Portugal, and Egypt

Role: CO-Principal Investigator

### Submitted Grants

*Boost hEalthy behaviours for cHildrEn and AdoLescents ThrougH smart adaptative digital tools (BE4Health)*

HORIZON-HLTH-2024-STAYHLTH-01-02-two-stage: Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society

Role: Principal Investigator

### Previous Grant Support

*Mindfulness and Cognitive Health in Young Adults*

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Kanazawa University

2020 –2021

Role: CO-Investigator

### **Presentations**

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1. Promoting healthy and sustainable lifestyles in the Mediterranean Region: the role of PRIMA EU funded projects on September 2024, in Catania, Italy: *“Fostering physical fitness in Mediterranean youth: insights from the DELICIOUS Project”*
2. *insights from the DELICIOUS Project”*
3. 3<sup>rd</sup> International Congress of Sport Sciences & Technology, November 2023: Invited Keynote Speaker Presentation *“Neurophysiological Evidence of the Impact of Acute and Chronic Exercise on Cognitive Functioning”*
4. Exercise and Brain Talk meeting on February 2023, in Nagoya, Japan: Invited Speaker Presentation *“Aerobic Exercise, Meditation, and Cognitive Functioning in Children and Young Adults”*
5. Exercise and Brain Talk meeting on August 2022, in Hokkaido, Japan: Invited Speaker Presentation *“Relationship between physical activity, exercise and cognitive functioning among young adults”*
6. Karlsruhe Institute of Technology (KIT), Symposium July 2022: Invited Speaker Presentation *“Exercise-Cognition Interaction Neuroscience Perspective”*
7. 1<sup>st</sup> International Congress of Sport Sciences & Technology, October 2021: Invited Keynote Speaker Presentation *“The Impact of Exercise on Cognitive Functioning”*
8. Kanazawa University Cognitive Science Symposium, March 2021. Invited Keynote Speaker Presentation *“Exercise and cognition: evidence for improved cognitive performance in young adults”*
9. Digital DAAD Conference, November 2020: Invited Speaker Presentation *“Physical activity and cognitive processing: event-related brain potential examinations”*
10. Yokohama Sport Conference, September 8-22, 2020, Japan *“Acute moderate-intensity exercise generally enhances neural resources related to perceptual and cognitive processes”*
11. St Petersburg University & Kanazawa University joint symposium on psychology, October 15, 2019, Japan, *“Acute effects of aerobic exercise on cognitive performance on flanker task in young adults: general or specific cognitive improvement?”*

### **Honours & Awards**

- 2023 Best International Publication Award, Assiut University
- 2023 Postdoctoral scholarship, Kamijo lab, Chukyo University
- 2022 Postdoctoral scholarship, Egyptian Ministry of Higher Education & Scientific Research (EJEP– JICA)
- 2022 Three-week staff exchange program, Karlsruhe Institute of Technology (KIT)
- 2021 International Publication Award, Faculty of Physical Education, Assiut University
- 2021 Scientific Excellence Award, Faculty of Physical Education, Assiut University
- 2017 PhD Scholarship, Egyptian Ministry of Higher Education & Scientific Research (EJEP– JICA)
- 2006-2010 Undergraduate monthly monetary for academic excellence, Assiut University

### **Skills**

- **Proficient** in SPSS, EEGLab, ERPLab, E-Prime, PsychoPy, Superlab, and Event-related potential.
- **Experience** using electroencephalography (EEG), electrocardiography (ECG), Eye tracking system, and field-

based physiological and psychological data collection.

## **Instructional Activities**

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### Undergraduate Courses

2024 – Present **Instructor:** ESLSCA University, Sport Management Program, Egypt

- Fundamentals of Sport Psychology
- History of Sport

2021 – Present **Instructor:** Assiut University, Faculty of Sport Science, Egypt

- Introduction to Sport Psychology
- Team Psychology in Sports
- Psychology of Training and Competition
- Philosophy and History of Physical Education
- Applied Statistics

Fall 2020 **Teaching assistant:** Kanazawa University, College of Human and Social Sciences, Japan

- Neuropsychology

### Post-Graduate Courses

2021 – Present **Instructor:** Assiut University, Faculty of Sport Sciences, Egypt

- Mental Health of Athletes
- Psychological Assessment of Athletes
- Scientific Research
- Directed Readings
- Statistics

### Master Dissertation Committee Member

In Progress Esraa Ali, Developmental Psychology, “Designing a Scale for Detecting Children with Developmental Coordination Disorder (Ages 6-9)”

In Progress Samia Ahmed, Kinesiology, “Contribution of Physical Fitness Elements in Predicting Cognitive Control Among Healthy Youth”

In Progress Mohamed Galal, Developmental Psychology, “Effectiveness of a Sensory Integration-Based Sports Program to Reduce Some Sensory-Motor Issues in Children with Autism Spectrum Disorder”

In Progress Hassan Abdelrahman, Sports Medicine, “Effect of a Rehabilitation Program on Certain Health and Psychological Variables in Patients with Depression”

In Progress Ahmed Mohamed, Neurocognitive Kinesiology, “Effect of Physical Exertion on Brain Activity and Mental Health Among Athletes”

In Progress Mohamed Abdelhafiz, Sports Management, “Professional Happiness and its Impact on the Performance of Employees at the Assiut Youth and Sports Directorate in Light of the PERMA Model”

2024 Yousef Adeb, Sport Psychology “Psychological Adjustment and its Relationship to Certain Educational Aspects Among Middle School Students Who Practice and Do Not Practice Sports

in Assiut”

- 2024 Jarrah Al-Yaqoub, Sport Psychology, “Emotions and Their Relationship to Achievement Motivation Among Athletes in Selected Individual Sports in Kuwait”
- 2024 Talal Al-Mutairi, Sport Psychology, “Personality Traits and Their Relationship to Burnout Among Coaches in Selected Sports Activities in Kuwait”
- 2024 Abdulrahman Al-Nami, Sport Psychology, “Sports Satisfaction and its Relationship to Achievement Motivation Among National Team Athletes in Kuwait”
- 2024 Faisal Al-Mutairi, Physical Education, “Development of a Scale for the Motivations of International Students Enrolling in the Faculties of Physical Education at Assiut University”
- 2023 Suleiman Gad, Sport Psychology, “Assertive Behavior and its Relationship to Psychological Adjustment Among Sports Participants and Non-Participants at Youth Centers in Assiut”

### **Professional Affiliation**

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- 2020 – 2023 American Psychological Association
- 2020 – 2021 Society for Psychophysiological Research
- 2019 – Present Hokuriku Psychological Society of Japan
- 2014 – Present Egyptian Sports Sociology Association

### **Certifications and Licensures**

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- 2014 Psychological Preparation for Athletes
- 2010 Swimming Lifeguard
- 2009 Sports Rehabilitation and Field Injuries
- 2007 Sports Marketing