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#### Research project working title

Resilience Training for People with Multiple Sclerosis (MS): Development, and Evaluation of the Australian READY Program in Italy (READY It MS Project)

#### Description of the project

Living with multiple sclerosis (MS) can be a consistent source of stress. People with low resilience risk experiencing psychological distress and interpersonal difficulties. Pakenham and colleagues (Burton, Pakenham & Brown, 2010) created an ACT based group resilience training intervention called READY(REsilience for every DaY), and developed a specific version for MS. This project aims to adapt the “READY for MS” to Italians with MS, evaluate its efficacy in improving their QoL, and training psychologists working in the field of MS in Italy. The project is composed of three phases.

1) Translation into Italian of the “READY for MS” manuals and linguistic validation of the Drexel Defusion Scale (DDS) and the Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT).

2) A single blind RCT with a nested qualitative study will be performed at Besta Institute (Italy) to compare “READY for MS” with relaxation (ratio 1:1). Thirty-seven participants will be enrolled. Quality of life (MSQOL-54) is the primary outcome. Secondary outcomes include: distress (HADS; PSS), resilience (CDRISC-25), mindfulness (MAAS), values (VLQ), acceptance (AAQ-II), defusion (DDS), psychological flexibility (CompACT), individualized QoL (SEIQOL-DW). Data will be collected at baseline (T0), 12 weeks (T1) and 24 weeks (T2). Data will be analysed according to the intention-to-treat principle using multiple regression analysis. Half of the participants assigned to the “READY for MS” will be interviewed to evaluate intervention weaknesses and strengths. Thematic analysis will be used for qualitative data. 3) Italian psychologists of the MS network will be trained in the ACT and be READY for MS Program. Participants’ satisfaction, knowledge and psychological flexibility will be measured before and after the training.

Resources required to complete the project (for example, expertise, facilities, funding, travel).

The project has been supported by FISM (Fondazione Italian Sclerosi Multipla). Prof. Kenneth Pakenham’s supervision will be fundamental to assure a correct application of the “READY for MS” program and an adequate development of The ACT and be READY for MS Training Program. Dr. Alessandra Solari will mentor me during all the duration of the project with particular attention to the methodological issues.

## **RESEARCH PUBLICATIONS**

1 **Giovannetti AM**, Giordano A, Pietrolongo E, Confalonieri P, De Luca G, Tortorella C, Trojano M, Messmer Uccelli

M, Torri Clerici V, Gitto L, Kopke S, Borreani C, Heesen C, Solari A. Managing the transition (ManTra) – A resource for persons with secondary progressive multiple sclerosis and their health professionals: protocol for a mixed methods study in Italy. *BMJ Open*. 2017 Aug 23;7(8):e017254. doi: 10.1136/bmjopen-2017-017254.

2 Rossi S, Studer V, Motta C, Polidoro S, Perugini J, Macchiarulo G, **Giovannetti AM**, Pareja-Gutierrez L, Calo A, Colonna I, Furlan R, Martino G, Centonze D. Neuroinflammation drives anxiety and depression in relapsing-remitting multiple sclerosis. *Neurology* (accepted for publication).

3 Sattin D, Schnakers C, Pagani M, Arenare F, De Valle G, Giunco F, Guizzetti G, Lanfranchi M, **Giovannetti AM**, Covelli V, Bersano A, Nigri A, Minati L, Rossi Sebastiano D, Parati E, Bruzzone MG, Franceschetti S, Leonardi M. Evidence of altered pressure pain thresholds in persons with disorders of consciousness as measured by the Nociception Coma Scale-Italian version. *Neuropsychol Rehabil*. 2017 Feb 28:1-16. doi: 10.1080/09602011.2017.1290532. IF: 2.082 CITATION:0

4 Sattin D, Lovaglio P, Brenna G, Covelli V, Rossi Sebastiano D, Duran D, Minati L, **Giovannetti AM**, Rosazza C, Bersano A, Nigri A, Ferraro S, Leonardi M. A comparative study on assessment procedures and metric properties of two scoring systems of the coma recovery scale-revised items: standard and modified scores. *Clin Rehabil*. 2017 Mar 1:269215517694225. doi: 10.1177/0269215517694225. IF: 2.403 CITATION: 0

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6 Raggi A, **Giovannetti AM**, Leonardi M, Sansone E, Schiavolin S, Curone M, Grazzi L, Usai S, D'Amico D. Predictors of 12-months relapse after withdrawal treatment in hospitalized patients with Chronic Migraine associated with Medication Overuse: a longitudinal observational study. *Headache.* 2017 Jan;57(1):60-70. doi: 10.1111/head.12979. Epub 2016 Nov 14. IF: 2.707 ; CITATION: 2

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8 Quintas R, Cerniauskaite M, **Giovannetti AM**, Schiavolin S, Raggi A, Covelli V, Villani F, Didato G, Deleo F, Franceschetti S, Binelli S, Canafoglia L, Casazza M, Sabariego C, Cieza A, Leonardi A. Psychosocial difficulties, quality of life and disability levels in patients with epilepsy: the PARADISE 24 instrument. *Epilepsy Behav.* 2016 Nov;64(Pt A):160-165. doi: 10.1016/j.yebeh.2016.08.019. Epub 2016 Oct 12. IF: 2.332 CITATION: 0

9 **Giovannetti AM**, Schiavolin S, Raggi A, Quintas R, Cerniauskaite M, Confalonieri P, Mantegazza R, Torri V, Antozzi C, Brenna G, Leonardi M. Psychosocial Difficulties of persons with multiple sclerosis: the PARADISE-24 questionnaire. *Int J Rehabil Res.* 2016 Dec;39(4):339-345. IF: 1.284 CITATION: 0

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12 **Giovannetti AM**, Brambilla L, Torri Clerici V, Antozzi C, Mantegazza R, Cerniauskaite M, Confalonieri P. Difficulties in adjustment to multiple sclerosis: vulnerability and unpredictability of illness in the foreground. *Disabil Rehabil.* 2017 May;39(9):897-903. doi: 10.3109/09638288.2016.1170212. Epub 2016 May 20. IF: 1.985 CITATION: 2

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17 Covelli V, Sattin D, **Giovannetti AM**, Scaratti C, Willems M, Leonardi M. Caregiver's burden in disorders of consciousness: a longitudinal study. *Acta Neurol Scand.* 2016 Nov;134(5):352-359. doi: 10.1111/ane.12550. Epub 2016 Jan 8. IF: 2.395 CITATION: 6

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#### **CHAPTER BOOK**

Leonardi M, Sattin D, Quintas R, **Giovannetti AM**, Raggi A. Functioning and Disability Evaluation as an Asset for Vocational Rehabilitation in Neurological Conditions. *Handbook of Vocational Rehabilitation and Disability Evaluation*, 199-238.