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Risultati pubblici

23 marzo 2021
Su *Age and Ageing* [1] (British Geriatrics Society) i risultati del progetto My-AHA

DALLE APP UN AIUTO PER PREVENIRE IL DECLINO COGNITIVO
Prevenire la fragilità aiuta a mantenere una buona qualità di vita: lo conferma lo studio di 18 mesi su 200 persone over 65

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LO STUDIO CLINICO DI VALIDAZIONE DELLA

PIATTAFORMA MY-AHA

Dopo uno screening iniziale di alcune migliaia di persone in Italia (Università di Torino), Giappone (Università di Tohoku), Spagna (Istituto GESMED di Valencia), Austria (Johanniter Inst. di Vienna) e Australia (Università della Sunshine Coast), sono stati **selezionati 200 soggetti di età maggiore di 65 anni in condizione di pre-fragilità fisica, cognitiva o psicosociale**.
Le persone selezionate, divise in due gruppi, hanno partecipato per un periodo complessivo di 18 mesi allo studio clinico di validazione della piattaforma My-AHA, **coordinato dal prof. Innocenzo Rainero, della Clinica Neurologica del Dipartimento di Neuroscienze UniTo, Città della Salute e della Scienza di Torino, responsabile del workpackage clinico del progetto**.

I partecipanti di entrambi i gruppi hanno caricato sui loro smartphone le app My-AHA, e sono stati costantemente monitorati mediante la piattaforma tecnologica sviluppata per il progetto e delle visite regolari per valutarne l'attività fisica, cognitiva e sociale, l'alimentazione e il sonno.

Il primo gruppo (di controllo) è stato seguito secondo i normali standard assistenziali, mentre il secondo ha ricevuto anche l'intervento multifattoriale della piattaforma My-AHA: 100 soggetti hanno quindi utilizzato delle app con "giochi" per stimolare le funzioni cognitive e programmi per incoraggiare l'attività fisica. Inoltre, i partecipanti del secondo gruppo sono stati coinvolti in attività sociali (gite, visite ai musei, occasioni conviviali) e incentivati ad adottare una corretta alimentazione e una appropriata igiene del sonno.

"*Dopo 12 mesi abbiamo comparato i risultati dei soggetti che usavano regolarmente le diverse app con quelli del gruppo di controllo. Questi ultimi* - spiega il prof. Innocenzo Rainero - *hanno dimostrato al termine dello studio un peggioramento significativo della qualità di vita, misurato con una apposita scala dell'Organizzazione Mondiale della Sanità. Al contrario, i soggetti nel gruppo 'attivo' hanno mantenuto una buona qualità di vita e la differenza tra i due gruppi, come indicano i dati pubblicati su Age and Ageing, è risultata statisticamente significativa. Inoltre* - continua il prof. Rainero - ***i soggetti che hanno utilizzato la piattaforma e gli interventi suggeriti da My-AHA dimostrano un significativo miglioramento del tono dell'umore e del comportamento alimentare: due parametri molto importanti per la prevenzione delle patologie correlate all'età***".

"*Questo studio* - aggiunge il **coordinatore del progetto, il prof. Alessandro Vercelli** - *conferma che, se si interviene precocemente, è possibile mantenere una buona qualità di vita nelle persone anziane, prevenendo o rallentando l'evoluzione delle malattie neurodegenerative che causano demenza. Ancora, conferma che per prevenire la malattia di Alzheimer e le demenze correlate è necessario intervenire su diversi fattori di rischio, inclusi l'attività fisica, la funzione cognitiva, lo stato psicologico ma anche l'isolamento sociale. Un precoce intervento su più ambiti* - conclude il coordinatore del progetto My-AHA - *sembra essere la strada maestra per prevenire le demenze. Lo studio dimostra inoltre che la tecnologia della informazione e comunicazione (ICT) può essere di grande aiuto nell'assistenza dell'anziano*".

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2 settembre 2020
I risultati in breve del progetto My-AHA
CORDIS - Risultati della ricerca dell'UE
Un nuovo sistema contribuisce a prevedere e prevenire la fragilità [2]
Gli anziani sono inclini alla fragilità, ma è difficile valutare il rischio e prevenire il deterioramento. Un nuovo sistema individua i pazienti a rischio e fornisce consigli individuali per supportare un invecchiamento sano e attivo.

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Public Deliverables © MY-AHA consortium 2016 - 2019

Although in some deliverables it is indicated that the dissemination level of these published deliverables is restricted (or confidential) to the Consortium, they have been agreed with the European Commission to be published

D1.5 - Code of Conduct
The Code of Conduct provides a comprehensive framework for good research conduct and the governance of all research carried out during the development of the Horizon 2020 my-AHA project. The Code underpins the commitment to maintaining the highest standards of integrity, rigour and excellence in all aspects of our research and for all research to be conducted according to the appropriate ethical, legal and professional frameworks and standards. The Code outlines the duty of researchers including their responsibilities towards all participants and subjects of research, and it provides a basis for the transparent and appropriate communication and dissemination of research findings.
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D2.12 - Long-term Living Lab Studies and Participatory Design I

This deliverable refers to a set of end-user related tests in living labs connected to the user groups in the project (incl. secondary stakeholders) in order to give further support to the establishment of an evidence-based practice in the ICT design of the overall my-AHA platform. It is the first in a series of three deliverables with updates in M36 (intermediate) and M48 (final). Main focus of this series of deliverables is on real life end-user settings, and testing of usability, accessibility, user experience and acceptance (incl. secondary stakeholder perspectives).

download pdf [4]

D2.14 - Update on End user requirements

This deliverable D2.14 updates relevant primary end-user and secondary stakeholder requirements from D2.5.

A sample of 20 additional primary end-users (older adults with and without frailty) have been interviewed about different aspects of prevention (physical, cognitive, social and psychology domains, incl. topics like nutrition, depression, falls) as well as very relevant technology related topics like data privacy and protection, control and trust. Further, an additional set of 10 relevant secondary stakeholders (policy builders, health insurance, industry company, physician, NGOs, physiotherapists, professional care givers, nutritionist and ergo therapist) has been interviewed in detail regarding their attitudes towards the topics and domains mentioned above. Perspectives of primary and secondary stakeholders will be contrasted and negotiated for the design of my-AHA. In addition, we conducted a regression analysis for the quantitative data material

collected in D2.5 in order to identify relevant factors predicting health technology use in older adults.

Finally, implications for the design of my-AHA were derived from qualitative and quantitative results presented in this deliverable.

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D2.15 - Concepts/Update to Support End-User Development & Appropriation II

Update of Deliverable 2.9

The document presents the design and development solutions concerning the system MY-AHA, with specific focus on my-Dashboard, updating the document (D2.9) released at month M9.

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D2.16 - CSCW & CSCL Social Technology Design II

This task concerns the development of collaboration techniques that support information flows among different stakeholders. To successfully support end users, this task will provide them with languages and tools tailored to their specific needs and daily practices, offering a repository of predefined components (data, services and tools). These components can be resources providing data on prevention of dementia, collaboration artifacts for improving communication with other peers and welfare services for collecting user data and health plans as well as sharing them with other stakeholders. According to End-User Development approaches (referred to the personal information space in task 2.3), users will be able to flexibly integrate existing components and to create new components that supply additional knowledge, thus playing an active role in their own care. In this way they will be enabled to collaboratively (e.g., citizens, social networks, sport clubs and also caregivers if needed)

define new functionalities that can support their own health and care.

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D2.17 - Long-term Living Lab Studies and Participatory Design III

This deliverable D2.17 here refers to a set of end-user related tests in living labs connected to the user groups in the project in order to give further support to the establishment of an evidence-based practice in the ICT design of the overall My-AHA platform. It is the final series of three deliverables, providing updates from M36 until M51. Main focus of this series of deliverables is on real life end-user settings, and testing of usability, accessibility, user experience and acceptance.
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D2.18 - Ethical Roadmap and End-Users Ethical & Privacy Views – II

Based on legislation and general ethical principles a version of the project ethical roadmap has been previously established in all the my-AHA centers. In this updated version, ethical problems related to the alpha wave and adopted solutions to overcome these issues are discussed.
download pdf [9] **- Annex 1 (in Italian)** [10]

D2.19 - Ethical Roadmap and End-Users Ethical & Privacy Views – III

Based on legislation and general ethical principles a version of the project ethical roadmap was previously established in all the my-AHA Clinical Centres. In this updated version, ethical problems related to the Randomized Controlled Study (RCT) and Siegen Living Lab (LL). Adopted
solutions to overcome these issues are discussed.

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D2.20 - Long-term Living Lab Studies and Participatory Design II

This deliverable D2.20 here refers to a set of end-user related tests in living labs connected to the user groups in the project (incl. secondary stakeholders) in order to give further support to the establishment of an evidence-based practice in the ICT design of the overall my-AHA platform. It is the second in a series of three deliverables with a final update in M48. Main focus of this series of deliverables is on real life end-user settings, and testing of motivation, engagement, user experience, acceptance and long-term integration into daily life (incl. secondary stakeholder perspectives).
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D4.5 - Report of validation of My-AHA algorithms

This deliverable reports the results of the pilot experiments carried out in controlled conditions by IBV, IXP, DSHS and USI to validate six algorithms to process physiological signals, eye-tracking measures and user movements that can be measured with the sensors associated to My-AHA, namely: (1) analysis of heart rate variability, (2) speech analysis, (3) activity recognition by electrooculography, (4) detection of eye movements and blinks, (5) sit-to-stand power, and (6) gait complexity. The results of those tests will be used as a basis for forthcoming decisions about the development of My-AHA platform and its associated modules.
download pdf [13]

D5.6 - Main Wave prototype on nutrition monitoring and advice through Smart TV & mobile devices
This deliverable describes the prototypes on nutrition monitoring and advice for Smart TV and mobile devices to be used in my-AHA project during the main wave. A description of the functionalities of the prototype for Smart TV and mobile application are presented.
The Smart TV Nutrition app is kept as simple as possible with only read-only functionalities in food diary viewing and recipe search.
The mobile Android application allows users to monitor and plan their meals. The app includes a food diary and an automatic meal planner to help users planning their own meals. It also offers personalized nutritional advices based on the information on the food diary.

download pdf [14]

D5.7 - "My personal dashboard" version 2 update of D5.4
This deliverable (D5.7) describes the updates implemented for my-Dashboard available for the RCT. Due to the nature of the deliverable - D5.7 is a Demonstrator - and its dissemination level - "Confidential", only for members of the consortium – this document mainly aims at describing the functionalities of the dashboard in a sort of user manual.
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D6.11 - DSS Platform II
This deliverable describes the software package Decision Support System (DSS) developed by R as the implementation of the risk models described in the WP3. The present document contains the software model description and the description of the classes and modulus and their functionalities respectively.
download pdf [16]

D7.11 - Proposition of a new cumulative frailty index
Frailty is one of the greatest challenges for healthcare professionals in aging societies being associated with adverse health outcome, dependency, institutionalization, and mortality. However, even if frailty is widely recognized as a specific, clinical syndrome there are no universally accepted diagnostic criteria. Several frailty indexes have been described in the literature but few of them seem to be demonstrably valid, reliable and diagnostically accurate. We have created a new, composite frailty index, the My-AHA Frailty Index, that encompasses all the frailties (physical, cognitive, psychological, social) and the main functions (nutrition and sleep) that have been investigated in the My-Active and Healthy Aging study. This new frailty index has been investigated and tested in all the subjects involved in the My-Active and Healthy Aging study.

download pdf [17]

D7.12 - Final intervention plan to prevent cognitive, physical and social decline in the elderly
Finding an effective population-based strategy to prevent or delay cognitive, physical, and social decline is an increasingly salient public health priority for our aging societies. Several guidelines to prevent cognitive and physical decline have been suggested in recent years. Taking into consideration the results of the My-AHA RCT, we suggested: 1. to implement ICT programs for early detection of frailty, 2. to plan multidimensional strategies for the prevention of frailty, 3. to actively engage older adults in prevention of cognitive, physical

and social decline, 4. to validate new definitions as well as new frailty indexes that encompass all the frailty domains.

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D8.5 - Report on final Symposium

This deliverables summarizes the symposium and the related KPIs. As the Deliverable and Milestone was the symposium itself, which took place in November 2019 in Innsbruck, this is a short summary report.

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