Cyberschool for grandparents: an innovative crowdfunded intergenerational educational program: Effects on grandparents' self-reported digital competences

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Purpose We have previously described the baseline features of grandparents attending our "Cyber School for Grandparents": a crowd-funded innovative intergenerational educational program aimed to train secondary school students (aged 15-17 years) to become cyber tutors for their grandparents, creating dyads (Colombo et al., 2022). At variance with previous intergenerational programs on ICT use, such initiative showed relevant innovative features: the educational lessons were embedded in the students' school program instead of being offered on a volunteering basis, the students independently planned and implemented the cyber sessions for their grandparents outside the school as extra-curricular activities (Rolandi et al., 2022). Here we aim to assess pre - post intervention changes on seniors' self-reported digital skills and attitude (primary outcomes), and psychosocial well-being (secondary outcome). **Method** The course consisted of 7 classroom lessons divided into 3 modules: theory (1 lesson), research methodology (2 lessons), practice (4 lessons). The training integrated 2 approaches: psychological-geriatric and media-educational. All selected instruments for quantitative measures were suitable for online self-compiling by both young students and older adults; Italian versions or translation were used. The students helped and supervised grandparents to manage possible technical and/or sensory difficulties with the online compiling procedure. We explored digital literacy [Mobile Device Proficiency Questionnaire (MDPQ) Short Form], attitudes toward Internet [Attitudes Toward Computer/Internet Questionnaire (ATCQ)], and wellbeing [Mental Health Continuum–Short Form (Italian MHC–SF)]. At the end of the sessions, the grandparents filled out a questionnaire with both closed and open answers. **Results and Discussion** The post-intervention questionnaire was compiled by 27 seniors out of 63 (43%). Comparing the main features of post-assessment respondents and non-respondents, no significant differences were found on seniors' socio-demographics, baseline ICT use, living arrangement and frailty. As regards primary outcome measures, we found a significant improvement on seniors' self-reported digital competences (MDPQ-SF, $p < 0.001$), while no significant differences were found on the attitude toward Internet dimensions (ATCQ). Considering secondary outcome measures, no significant changes were found on psychosocial well-being (MHC-SF). As from grandparents' responses to close-ended questions, satisfaction levels were very high for all of the questions, with a high prevalence of positive responses (83% on average considering the sum of "Completely agree" and "Quite agree" responses). The higher agreement was found for the following sentences: "The teaching sessions with my tutor were pleasant" (96%) and "I think that what I have learned will be useful in the future" (93%). The participants also reported a perception of improved social participation (74%), in the only questions not directly linked to technology usage or to the learning experiences with the students. Grandparents reported among the main strengths of the study the opportunity to relate and communicate with the younger tutors and learning new things. In the event of next similar initiatives, limitations of this experiences must be taken into account. Among the weaknesses seniors referred the lack of time ("Few sessions") and the difficulties to meet the tutor due to reciprocal other commitments or to the pandemic context ("We didn't always manage to see each other for a long time due to the commitments of both"). Others reported learning difficulties ("Not always being able to put the things learned into practice"; "The topics sometimes were complex and the tablet setup was confusing"), whilst some did not enjoy the survey questionnaires to be compiled.

References

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