

The impact of ICT use on feelings of loneliness and isolation during the COVID-19 lockdown among older people

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Abstract

Background: Older adults are at risk of psychological consequences along home segregation during COVID-19 pandemic. Information Communication Technologies (ICTs) are crucial in such context even among older people. Aim: to explore the impact of being ICTusers on loneliness and ICTs use among older adults from pre to lockdown period.

Methods: Data were extracted from the fourth follow-up (2018) of the InveCe.Ab, a multidimensional population-based study (NCT01345110) on 70-75 older people living in Abbiategrasso (Milan, Lombardy) at baseline (2009). Sixty-six of them were trained for SNS use in 2019, as a part of the ANS-SE study (NCT04242628). A telephone interview was administered during the lockdown period (March-May 2020), collecting information on self-perceived loneliness measured by the 3-item UCLA loneliness scale and ICT use [smartphones, computers, internet and Social Network Sites (SNSs)]. Participants in the pre-lockdown assessment reporting use of any ICT were defined as ICTusers. Cross-sectional differences between ICTusers and non-users were explored using Independent Sample t-test or Chi-square test. Analysis of covariance (ANCOVA) was applied to compare the long-term effect of being ICTusers and non-users on loneliness change (UCLA 3-item total and subscales) and ICT use change, including the pre-lockdown measures and being trained for SNSs use as covariates, followed by post-hoc comparisons.

Results: Pre-lockdown participants with ICT use data available were 623 (163 ICT users, 460 non-users). Table 1 shows that ICTusers were mostly men, more educated, showed fewer depressive symptoms (GDS) and higher global cognition (MMSE) than ICTnon-users. ICTusers felt less total loneliness, fewer feelings of a lack of companionship and isolation from others than ICTnon-users. Pre-lockdown ICT use was on average 2.11 (DS 1.05). Longitudinal significant difference emerged between the two groups on total loneliness, with ICTusers (n=130), showing a decrease (mean difference (SE): -0.382 (0.179); 95% CI: -0.733, -0.030; p=0.033) compared to non-users (n=296). ICTusers (n=130), reported fewer feelings of isolation (mean difference (SE): -0.213 (0.068); 95% CI: -0.348, -0.079; p=0.002) than non-users (n=300).

Conclusions: During the COVID-19 lockdown, former ICTusers were protected against feelings of loneliness and isolation. The ICT use did not change in both groups.

TABLE 1

Table 1. Baseline characteristics of the overall study population and comparisons between older people defined as ICTusers and non-users

	N= 623	ICT Users (N= 163)	ICT non users (N= 460)	p *
Sex, female	342 (54.9)	67 (41.1)	275 (59.8)	< 0.001
Age	82.6 (1.48)	82.44 (1.52)	82.66 (1.47)	0.106
Years of education	7 (3.35)	9.43 (3.93)	6.14 (2.63)	< 0.001
GDS (range 0-15)	3.05 (3.03)	2.03 (2.14)	3.42 (3.21)	< 0.001
MMSE (range 0-30)	26.53 (3.62)	28.08 (2.01)	26 (3.89)	< 0.001
UCLA 3-item total (range 0-9)	1.01 (1.46)	0.75 (1.17)	1.1 (1.54)	0.003
Feeling a lack of companionship (range 0-3)	0.53 (0.72)	0.41 (0.65)	0.57 (0.74)	0.011
Feeling left out (range 0-3)	0.27 (0.55)	0.22 (0.47)	0.28 (0.57)	0.151
Feeling isolated from others (range 0-3)	0.21 (0.50)	0.11 (0.35)	0.24 (0.55)	0.001

Values denote mean \pm SD for continuous variables. counts (percentages) for dichotomous variables.

* *p* values indicate significance in the Independent Sample t-test for continuous variables and Chi-square test for dichotomous variables. In bold statistically significant *p* value ($p < 0.05$).

TABLE 2

Table 2. Differences between ICTusers and non-users on change in loneliness and ICT use during the COVID-19 lockdown.

	ICTusers (n=130)	ICTnon-users (n=296)	F	p
UCLA 3-item total net change	0.116 (0.14)	0.476 (0.09)	4.130	0.043
Feeling a lack of companionship net change	0.104 (0.07)	0.168 (0.046)	0.561	0.454
Feeling left out net change	-0.063 (0.05)	0.047 (0.032)	3.399	0.066
Feeling isolated from others net change	0.055 (0.056)	0.263 (0.037)	9.410	0.002
ICT use net change	0.575 (0.084)	0.555 (0.04)	0.031	0.861

Values denote adjusted mean (SE). *p* values indicate significance in the one-way ANCOVA (loneliness and ICT use) with pre-lockdown measures and being trained for SNS as covariates. In bold statistically significant *p* value ($p < 0.05$).