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A PERSPETIVA DOS SENIORES SOBRE AS REDES SOCIAIS, O STRESS PERCEBIDO E A QUALIDADE DE VIDA: O CONTEXTO DOS PARTICIPANTES DO PROJETO SEDUCE 2.0

SENIORS' PERSPECTIVE ON SOCIAL NETWORKS, PERCEIVED STRESS AND QUALITY OF LIFE: THE CONTEXT OF THE SEDUCE 2.0 PROJECT PARTICIPANTS

PERSPECTIVA DE LOS MAYORES SOBRE LAS REDES SOCIALES, ESTRÉS PERCIBIDO Y CALIDAD DE VIDA: EL CONTEXTO DE LOS PARTICIPANTES DEL PROYECTO SEDUCE 2.0

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RESUMO

Introdução: Estudar iniciativas que promovam um envelhecimento ativo é fulcral atendendo à demografia populacional global.
Objetivo: Estudar as redes sociais de apoio, o *stress* e a qualidade de vida dos participantes no projeto SEDUCE 2.0.
Métodos: Investigação descritiva transversal, quantitativa e qualitativa. A recolha de dados foi feita por: Inquérito por Questionário para caraterizar os participantes; Escala Breve de Redes Sociais de Lubben; Escala de *Stress* Percebido; WHOQOL-BREF; e um diário de bordo para registar as sessões *de co-design* de desenvolvimento da comunidade miOne. O estudo incluiu 31 participantes de duas Universidades Seniores, com idades entre os 56 e os 86 anos (M= 69.90; SD=7.04).
Resultados: Os participantes revelaram uma rede de apoio social relevante. A rede com quem se sentem próximos de forma a ligar e pedir ajuda e a falar sobre assuntos pessoais revela-se mais pequena. Todos os itens da análise ao *stress* percebido revelaram resultados positivos, exceto quando uma percentagem maior referiu sentir-se preocupados/nervosos/com *stress*. Os participantes apresentaram resultados positivos em todos os itens da escala da qualidade de vida, exceto na última questão onde referem que percecionaram algumas vezes sentimentos negativos.
Conclusão: Os participantes apresentam uma boa rede de apoio social, boa qualidade vida e níveis de *stress* baixos. Os dados não se podem generalizar, mas deixam pistas relevantes sobre a população mais velha.

Palavras-chave: redes sociais; *stress* percebido; qualidade de vida; cidadão sénior

ABSTRACT

Introduction: The study of initiatives that promote active ageing is crucial given the global population demography.
Objetive: To study the social support networks, stress, and quality of life of participants in the SEDUCE 2.0 project.
Methods: Cross-sectional descriptive research, quantitative and qualitative. Data were collected through: Questionnaire Survey for participants' characterization; Portuguese versions of the constructs Lubben's Brief Social Network Scale; Perceived Stress Scale; WHOQOL-BREF; and a logbook to record the co-design sessions for miOne community development. The study included 31 participants from two Universities of The Third Age, aged between 56 and 86 years (M= 69.90; SD=7.04).
Results: Participants revealed a relevant social support network. The network with whom they feel close enough to call and ask for help, and to talk about personal matters is smaller. The analysis of perceived stress reveals positive results, apart from who felt worried/nervous/stressed. All items of the perceived stress analysis showed positive results, except when a higher percentage reported feeling worried/nervous/stressed. Participants showed a good perception towards all items of the quality of life scale, except for the last question where they reported that they sometimes perceived negative feelings.
Conclusion: The participants show a good social support network, good quality of life and low stress levels. The results cannot be generalised, but it leaves interesting and relevant clues about the older population.

Keywords: social networks; perceived stress; quality of life; senior citizen

RESUMEN

Introducción: El estudio de las iniciativas que promueven el envejecimiento activo es esencial dada la demografía de la población mundial.
Objetivo: Estudiar las redes de apoyo social, el estrés y la calidad de vida de los participantes en el proyecto SEDUCE 2.0.
Métodos: Investigación descriptiva transversal, cuantitativa y cualitativa. La recogida de datos fue realizada por: Encuesta para caracterizar a los participantes; Escala Breve de Redes Sociales de Lubben; Escala de Estrés Percibido; WHOQOL-BREF; y un cuaderno de bitácora para registrar las sesiones de codiseño de desarrollo comunitario de miOne. El estudio incluyó a 31 participantes de dos universidades superiores, con edades comprendidas entre los 56 y los 86 años (M= 69,90; SD=7,04).
Resultados: Los participantes revelaron una red de apoyo social relevante. La red con la que se sienten cercanos para llamar y pedir ayuda y hablar de asuntos personales resultó ser menor. Todos los ítems del análisis del estrés percibido mostraron resultados positivos, excepto cuando un mayor porcentaje informó de que se sentía preocupado/nervioso/estresado. Los participantes mostraron resultados positivos en todos los ítems de la escala de calidad de vida, excepto en la última pregunta, en la que referían que a veces percibían sentimientos negativos.
Conclusión: los participantes tenían una buena red de apoyo social, buena calidad de vida y bajos niveles de estrés. Los datos no pueden generalizarse, pero dejan pistas relevantes sobre la población mayor.

Palabras Clave: redes sociales; estrés percibido; calidad de vida; personas mayores

INTRODUCTION

The World's population ageing is an irrefutable reality. Here are some facts: (i) in 2030, 1 in 6 people in the World will be 60 or older; (ii) between 2015 and 2050, the proportion of the World's population aged over 60 will increase from 12% to 22% (WHO, 2021); and (iii) in 2020, the resident population in Portugal was composed by 13.4% of youngsters, 64.1% of working-age people, and 22.4% of older adults (INE, 2021). This context challenges governors, researchers, societies, and families, and urges further studies and initiatives that promote a healthier, more active, and more integrative ageing. Alongside this reality, there is a growing ubiquity of Information and Communication Technologies (ICT) in all society segments, which can also play an important role in promoting a more active ageing (Ferreira & Veloso, 2020).

This study – framed within the scope of the SEDUCE 2.0 project – Use of Communication and Information in the miOne online community by senior citizens, and has as one of its goals to analyse the impact of using the miOne online community on the psychosocial variables quality of life, perceived stress and social support networks of participants in Universities of The Third Age, in addition to the development of the respective community – is a perfect example of the aforementioned initiatives. It was planned to assess the variables at pre-, during- and post-test stages, *i.e.* before, during and after the involvement with the miOne online community.

The development of the miOne online community began with the first iteration of the SEDUCE project in 2010. It included five key areas: (i) communicating through email and instant messaging service; (ii) health information; (iii) news information; (iv) games; and (v) accessing and sharing members' experiences (Veloso, 2014). It distinguished itself by the active involvement of elderly participants in the different research phases. With the SEDUCE 2.0 project, the community entered a re-design phase in 2018, maintaining the premise of involving participants in this process, both as co-designers and as users.

However, due to the COVID-19 outbreak and its associated restrictions, the activities planned for the Universities of The Third Age partners of the SEDUCE 2.0 project were (i) cancelled – due to the shutdown of the institutions; or (ii) underwent some changes – the during- and post-test moments were not performed. This pandemic context also hindered the expansion of the study to a larger group of participants, limiting it to only two institutions.

Thus, the main goal of this research was changed, and it is now intended to assess the integration and risk of social isolation, perceived stress and quality of life of the older adults participating in the SEDUCE 2.0 project from a descriptive perspective, considering individually each of the items integrated (and not by domains and dimensions) in the Lubben's Brief Social Network Scale (Lubben, Lubben & Gironda, 2003 adapted Ribeiro et al., 2012), Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983 adapted Mota-Cardoso et al., 2000) and the World Health Organization WHOQOL-BREF Quality of Life Scale (WHOQOL Group, 1998 adapted Vaz-Serra et al., 2006). In addition, a logbook was kept during the co-design sessions dedicated to the development of the miOne online community, whose collected information directly related to the variables was coded and qualitatively analysed.

This paper is divided into three sections, beyond an Introduction and Conclusions. The first section – 1. Literature Review – is devoted to describing the current ageing landscape, as well as reporting the results of literature review in Portuguese studies on social networks, perceived stress, and older adults' quality of life. Then, the second section – 2. Method – where it is described the cross-sectional descriptive research, based on quantitative and qualitative approaches. The third section – 3. Results and Discussion – is dedicated to present the results of the applied questionnaires and interviews. Lastly, the conclusions, limitations and future directions are reported.

1. LITERATURE REVIEW

2021-2030 was declared the Decade of Healthy Ageing by the United Nations. It builds on the World Health Organization's Global Strategy and Plan of Action, and on the United Nations Madrid International Plan of Action on Ageing, which seeks to reduce health inequalities and improve older adults' lives, as well as their families and communities. Four areas of action are foreseen: (i) to change the way one thinks, feels and acts about age and ageing; (ii) to provide older adults with access to quality long-term care; (iii) to provide integrated care; and (iv) to develop communities that empower older adults' skills (WHO, 2021). In the digital age, Information and Communication Technologies (ICT) can make a key contribution in promoting these actions, and a healthier and more active ageing. Although older populations lag behind younger ones regarding ICT use, the numbers have been changing. In 2019, in Portugal, 33,1% of people over 65 and 57,3% of people aged between 55 and 64 used Internet (INE, 2019). These numbers have risen, and, by 2021, 47.7% of seniors over 65 and 71% of people aged between 55 and 64 used Internet (PORDATA, 2021).

Several studies allow the assessment of benefits enhanced by technologically mediated communication, and by the access and share of information, based on computer and/or mobile devices. Some evidence shows that older adults are more likely to use ICT to keep in touch with family and friends (Vroman et al., 2015; Azevedo, 2016) which decreases the feeling of loneliness and improves social connection (Cotten, Anderson, & McCullough, 2013; Chopik, 2016). Rolandi and colleagues' (2020) study on the impact of social media use during the pandemic reveals that participants who were already using social networks experienced a reduced sense of exclusion and fewer physical social interactions. Other health-oriented studies reveal that internet use is

associated with better self-assessment of health (Deetjen & Powell, 2016) and less chronic illness (Chopik, 2016). Further research shows positive results related to synchronous communication. For a 3-month period, Tsai and Tsai (2011) developed a videoconferencing software to promote interaction between elderly nursing home residents and their relatives. The results revealed that the programme had a positive long-term effect on alleviating feelings of loneliness and depressive symptoms in the participants. There was no registered effect on informational social support. Teo, Markwardt and Hinton's (2019) study involving 1424 older adults in the American community links Skype use with a lower risk of developing depression.

Although no Portuguese studies that directly analyse the impact of ICT use on participants' social support networks were found, some report interesting clues about the potential of communication tools and services in accessing, retrieving, and maintaining personal relationships. The study by Azevedo (2016), for example, conducted with 21 seniors in the Lisbon region, reveals that participants use the computer and the internet mainly to keep in touch with family and friends who are physically distant, and as a source of entertainment and information. The majority of the participants see the mobile phone as "indispensable for social relationships, an aid in case of emergency, and useful in both domestic and professional environments." (Azevedo, 2016, p. 41). According to Rebelo (2015), the empirical testimonies of older adults clarify that the Internet is especially used to relive the past, their history, the places where they grew up, the traditions they kept, and the people they used to connect with. Facebook assumes an important role in monitoring events that define the lives of family members and close friends, as well as in maintaining or recovering support and social networks. Loneliness and the need to occupy free time are also pointed out as strong motivations for using the Internet, besides the easier access to useful information on daily life and health. However, in addition to these positive aspects, and although it is the focus of our study, participants also identified discomfort with the public nature of Facebook, remaining "careful and minimalist in its use" (Rebelo, 2015, p. 148).

Additionally, social support and perceived stress seem to be related. Social support may act not only as a buffer against the impact of stress, but also as a problem-solving resource that results in decreased stress (Cohen, Underwood, & Gottlielo, 2000). The Portuguese study by Barbosa and Araújo (2013), involving 110 senior participants aged 65+ in a rural setting, reveals a significant relationship between the two aspects – as social support increases, perceived stress decreases. The results also show that the place where people live has an impact on this relationship: for institutionalised older people, stress increases as they perceive greater social support; while for older people at home, stress increases as social support decreases.

Moreover, the interest in researching quality of life and its measurement has been growing. The debate is held by researchers from various scientific domains and includes the exploration of concepts such as successful ageing, subjective well-being, satisfaction, and happiness. The World Health Organisation defines quality of life as an individual's perception of their position in life; in the cultural context and system of shared values in which they live; and their goals, expectations, standards, and concerns (WHO, 2021). Several studies have been conducted attempting to understand seniors' perspective. These reveal that health is a key and determining element for a better quality of life (Murphy et al., 2009; Marques et al., 2014; Nosraty et al., 2015), as it is the basis for being able to perform meaningful activities such as taking care of oneself, performing household duties, communicating, and participating socially (Murphy et al., 2009). The study by Silva, Souza, and Ganassoli (2016) analyses the quality of life of 90 senior participants and correlates them with gender. The overall results reveal a general state of satisfaction with quality of life. By analysing the domains, the data show women have a high level of satisfaction regarding the psychological and environment domains, and a lower level regarding the physical domain. The psychological domain includes issues related to the perception of body image, self-esteem, concentration, and the environment to the physical space where one lives and socialises. In turn, men experience a high level in the social and physical domains. The social domain is directly related to interpersonal relationships and covers the person's activities in the community where they live. The study of Martins and Guerra (2020), whose sample includes 200 older people from a Portuguese and a Spanish municipality, shows that married male participants, who live with someone else, take fewer medications and sleep more hours, tend to experience a better quality of life.

The great difficulty and challenge encountered in finding studies that directly analyse the impact of ICT on the variables under analysis in this research, while involving senior participants, highlights the need for greater investment in studies of this nature and the relevance of the SEDUCE 2.0 project.

2. METHODS

This study presents a cross-sectional descriptive research, based on quantitative and qualitative approaches. The following sections describe the study's sample, the data collection instruments, and the ethical considerations involved.

2.1 Participants

The sociodemographic data show that 31 older adults from two computer science classes of two Universities of The Third Age participated in the study. 15 are female, and 16 are male, aged between 56 and 86 (M= 69.90; SD=7.049). The majority of participants are married (N=20). Regarding the distribution of participants by education level, 12 of the 31 participants attended

from 1st to 4th grade, 8th from the 10th to 12th grade, four from 5th to 6th grade, four from 7th to 9th grade, and one can read and write but did not complete any education level. Regarding professional activity, the majority (N=16) are retired.

2.2 Data Collection Instruments

A Questionnaire Survey was used to collect data regarding the participants' characterisation and the Portuguese versions of the constructs with the Lubben's Brief Social Network Scale (Lubben Lubben & Gironda, 2003 adapted Ribeiro et al., 2012), Perceived Stress (Cohen, Kamarck & Mermelstein, 1983 adapted Mota-Cardoso et al., 2000) and the World Health Organization WHOQOL-BREF Quality of Life Scale (WHOQOL Group, 1998 adapted Vaz-Serra et al., 2006). The data was collected between February and June 2020.

Lubben's Brief Social Networking Scale was originally developed for older people and consists of six items that analyse the perception of social support received from family and friends. The scale of Perceived Stress used has 10 items. Each item has answers according to a Likert-type scale of five values ranging from 0-Never to 4-Very often. According to Mota-Cardoso and colleagues (2000), the interpretation is made considering the total value obtained on the scale. The higher the value, the greater the degree of perceived stress. However, as previously mentioned, for this study and research project, the individual interpretation of each item is important. Moreover, the WHOQOL-BREF consists of 26 questions, two general and 24 assessing four domains: physical, psychological, social relationships and environment. In addition, the instrument has good psychometric qualities. All scales have good internal consistency indices, when considering both the individual items and the set of domains and dimensions. Furthermore, as previously stated in the introductory chapter, a set of nine co-design sessions were conceived and carried out with older adults from Universities of the Third Age, aiming to help redesign the miOne online community. The data from the co-design session were also registered in a logbook. Having an online or in-person configuration, this co-design sessions toolkit adapted to the needs imposed by the various contexts. Thus, the following sessions were conducted: (i) 'More than words'; (ii) 'Secret rules'; (iii) 'Lucky vs Unlucky Tourist'; (iv) 'Secret Friend'; (v) 'Find the Fake News'; (vi) 'News Match'; (vii) 'Win-Win'; and (viii) 'Doctor – Patient' (Machado et al., 2022). During this period, notes were taken of older adults' interactions with the miOne online community, as well as their spoken contributions.

2.3 Data analysis

Data were submitted to descriptive statistics, according to the nature of the variables and the purpose of the study, using the IMB's Statistical Package for the Social Sciences® (SPSS) version 23 and NVivo software (version 1.6.1.).

2.4 Ethical considerations

This is study safeguards to follow the Ethics and Deontology Council of the University of Aveiro Ethical Approval for the SEDUCE 2.0 project - use of communication and information in the miOne online community by senior citizens (Project nr. POCI-0145-FEDER-031696). Moreover, all the participants signed a written informed consent before participation.

3. RESULTS AND DISCUSSION

As previously mentioned, it is important to know the results concerning each of the questions/items under evaluation in the constructs, and to integrate the observations recorded in the logbook during the co-design sessions held throughout the development of the miOne online community.

The implementation of the Lubben's Brief Social Networking Scale and the analysis of the corresponding items on the size of the support network, calling for help, or discussing personal issues with relatives or friends (*cf.* Table 1) reveals that most participants see or talk to 5 or more relatives and 3 or more friends at least once a month. Regarding the proximity to relatives to call for help or to discuss personal matters, the support social network is smaller: 25.81% (N=8) rely on 5 to 8 relatives to call for help, 19.35% (N=6) on one, and 19.35% (N=6) on two. 25.81% (N=8) feel comfortable to talk about personal matters with 2 family members, and 25.81% (N=8) with three or four. The friends' network they feel comfortable calling for help or talking about personal matters is also smaller: 32.26% (N=10) reported having 3 or 4 friends they feel comfortable calling for help, and 19.35% (N=6) with two. Moreover, 25.81% (N=8) have 3 or 4 friends they feel comfortable talking about personal matters, and 25.81% (N=8) with two. 16.13% (N=5) reported not having any friends with whom they feel comfortable talking about personal matters. In fact, during the second community development session, one of the participants mentioned that they would like to "have more real friends" (Session 2 of co-design).

Table 1 – Results of the study on social support networks (N=31).

		0	1	2	3 or 4	5 to 8	9+	N/A
Q1. How many relatives do you see or speak to at least once a month?	N	0	5	4	2	9	9	2
	%	0	16.13	12.90	6.45	29.03	29.03	6.45
Q2. How many relatives do you feel close to so that you can call them for help?	N	0	6	6	4	8	4	3
	%	0	19.35	19.35	12.90	25.81	12.90	9.69
Q3. How many family members do you feel comfortable talking to about personal matters?	N	2	4	8	8	4	3	2
	%	6.45	12.90	25.81	25.81	12.90	9.68	6.45
Q4. How many friends do you see or speak to at least once a month?	N	1	3	3	5	6	11	2
	%	3.23	9.68	9.68	16.13	19.35	35.48	6.45
Q5. How many friends do you feel close to so that you can call them for help?	N	4	2	6	10	5	2	2
	%	12.90	3.23	19.35	32.26	12.90	3.23	6.45
Q6. How many friends do you feel comfortable talking to about personal matters?	N	5	2	8	8	3	3	2
	%	16.13	6.45	25.81	25.81	9.68	9.68	6.45

At the end of the fifth co-design session, participants were asked about their use of the Internet and social networks. Regarding the use of the Internet, contact with family and friends emerges as the third most performed activity by participants (61.7%; N=13), after accessing social networks and searching for content. Going deeper into the direct use of social networks, the most frequent activity is "viewing and posting topics of interest", followed by "chatting with friends and family". This evidence was also found in the literature review. According to Rebelo (2015), Facebook plays an important role in older adults' lives to monitor events of family and close friends and maintain or restore support and social networks.

Considering the results on perceived stress (*cf.* Table 2), relative to the month prior to the administration of the questionnaire, they are globally positive. A higher percentage of participants reported felling worried sometimes (41.13%; N=13), never felling unable to control the important things in life (38.71%; N=12), being nervous or stressed sometimes (29.03%; N=9), often felling confident in their ability to face their personal problems (35.48%; N=11), sometimes felt things were happening naturally (48.39%, N=15), never felling that they could not cope with all the things they had to do (35.48%; N=11), often being able to control their irritations (32.26%; N=10), felling they had everything under control (29.03%; N=9), and never felling angry about things that were beyond their control (19.03%; N=9) or that difficulties were piling up so much that they could not overcome them (32.26%; N= 10).

Table 2 – Results of the study on perceived stress (N=31).

In the last month, how often...		Never	Rarely	Sometimes	Often	Always	N/a
Q1. ...have you been worried about something that happened unexpectedly?	N	4	4	13	4	4	2
	%	12.90	12.90	41.94	12.90	12.90	6.45
Q2. ...felt unable to control the important things in your life?	N	12	8	5	2	1	3
	%	38.71	25.81	16.13	6.45	3.23	9.68
Q3. ...have you been nervous and stressed?	N	7	5	9	3	3	4
	%	22.58	16.13	29.03	9.68	9.68	12.90
Q4. ...did you feel confident in your ability to face your personal problems?	N	2	3	8	11	4	3
	%	6.45	9.68	25.81	35.48	12.90	9.68
Q5. ...did you feel that things were happening your way?	N	2	5	15	4	3	2
	%	6.45	16.13	48.39	12.90	9.68	6.45
Q6. ...you felt you couldn't cope with all the things you had to do?	N	11	6	4	4	3	3
	%	35.48	19.35	12.90	12.90	9.68	9.68
Q7. ...you were able to control your irritations?	N	2	7	6	10	3	3
	%	6.45	22.58	19.35	32.26	9.68	9.68
Q8. ...did you feel you had everything under control?	N	6	3	7	9	2	4
	%	19.35	9.68	22.58	29.03	6.45	12.90
Q9. ...you felt angry about things that were beyond your control?	N	10	9	7	1	1	3
	%	32.26	29.03	22.58	3.23	3.23	9.68
Q10. ...you felt that difficulties were piling up so much that you could not overcome the?	N	11	8	6	1	2	3
	%	35.48	25.81	19.35	3.23	6.45	9.68

The first two WHOQOL-BREF Quality of Life Scale's questions present a general approach on quality of life and health. As can be observed, most participants evaluate their quality of life as good (*cf.* Table 3) and feel satisfied with their health (*cf.*
Table **4**), even though six older adults reported facing health problems. The described diseases are related to diabetes (since 20 and 30 years ago), heart problems (since 30 years ago), respiratory problems (since four years ago), back problems (since 22 years ago) and Parkinson's disease (since five years ago). These health issues are followed up and treated in external consultations.
Table 3 shows also the results of the mobility assessment. Most of the assessed seniors consider it to be good (51,61%; N=16). According to Portugal and Loyola (2014), mobility is defined as the seniors' ability to move around and perform daily activities,

both at home and outdoors. The very positive results suggest that mobility (*cf.* Table 3) is not compromised and, consequently, there is a lower risk of falls and dependence in daily activities, which are considered to be important aspects for older adults (Oliveira & Gomes, 2013).

Table 3 – Results regarding the question "How do you rate your quality of life?" and results of the "mobility assessment" (N=31).

		Very bad	Bad	Neither good nor bad	Good	Very good	N/a
Q1. How do you rate your quality of life?	N	0	1	5	18	6	1
	%	0	3.23	16.13	58.06	19.35	3.23
Q15. How do you rate your mobility?	N	0	1	4	16	8	2
	%	0	3.23	12.90	51.61	25.81	6.45

Table 4 - Results regarding the question "How satisfied are you with your health?" (N=31).

		Very unsatisfied	Unsatisfied	Neither satisfied nor unsatisfied	Satisfied	Very satisfied	N/a
Q2. How satisfied are you with your health?	N	0	3	4	20	4	0
	%	0	9.68	12.90	64.52	12.60	0

As stated in the literature review, health is a primary factor for a better quality of life (Murphy et al., 2009; Marques et al., 2014; Nosraty et al., 2015), and the health topic was also highlighted during the co-design sessions. At the end of the fifth session, as an answer to the question "What would you like to see on the Internet or online communities/social network?", the third topic that emerged was "Health information" (N=4 citations). This was one main concern and a participant mentioned that they would like to have "a website of third age about healthy lifestyle, health, food, physical exercise...".

The next questions analyse the extent to which participants experienced/felt certain feelings/things (*cf.* Table 5). Regarding whether they felt any physical pain that might have prevented them from doing something, a large proportion said not at all (35.48%; N=11) or not much (32.26%; N=10). The majority report not needing medical care to carry on with their daily lives (51.61%; N=16), they enjoy their lives very much (58.06%; N=18), can concentrate neither too much nor too little (51.61%; N=16) and consider their physical space to be healthy (58.06%; N=18). As mentioned in the literature review, having good health is the basis for a better quality of life as it allows to perform meaningful activities such as caring for oneself, performing household duties, and communicating and participating socially (Murphy, et al., 2009). Martins and Guerra (2020) also revealed those who medicate less also experience better quality of life. Martins and Guerra (2020) also revealed those who medicate less also experience better quality of life. Most participants reported that their life is somewhat (32.26%; N=10) or very much (38.71%; N=12) meaningful, and that they feel neutrally (38.71%; N=12), somewhat (35.48%; N=11) or very much (22.58%; N=7) safe in their daily lives.

Table 5 – Results from the study on the extent to which participants felt about certain things (N=31).

		Not at all	Not really	Neutral	Somewhat	Very much	N/a
Q3. To what extent does your physical pain prevent you from doing what you need to do?	N	11	10	2	8	0	0
	%	35.48	32.26	6.46	25.81	0	0
Q4. To what extent do you need medical care to do your daily life?	N	16	5	4	6	0	0
	%	51.61	16.13	12.90	19.35	0	0
Q5. How much do you enjoy your life?	N	0	0	0	12	18	1
	%	0	0	0	38.71	58.06	3.23
Q6. To what extent do you feel that your life has meaning?	N	0	2	5	10	12	2
	%	0	6.45	16.13	32.26	38.71	6.45
Q7. How well can you concentrate?	N	1	4	16	7	2	1
	%	3.23	12.90	51.61	22.58	6.45	3.23
Q8. To what extent do you feel safe in your daily life?	N	0	1	12	11	7	0
	%	0	3.23	38.71	35.48	22.58	0
Q9. How healthy is your physical space?	N	0	1	6	18	5	1
	%	0	3.23	19.35	58.06	16.13	3.23

The survey on whether participants experienced or were able to do certain things (*cf.* Table 6) shows that the results continue to present high assessments. When questioned about having enough energy for their daily life, the data show that the answers somewhat and very much are given by 54.84% (N=17) of the older adults, and neutral by 41.94% (N=13). Concerning the eleventh

question on whether they were able to accept their physical appearance, 45.16% (N=14) accept somewhat their physical appearance, 35.48% (N=11) accept it very much, 12.60% (N=4) accept it neutrally, and 6.45% (N=2) don't accept it easily. Regarding financial issues, 38.71% (N=12) have moderately enough money for their needs, and 41.93% (N=9) have enough or completely enough. A large part of the participants has neutral access (48.39%, N=15) to the information necessary to organize their daily life or enough access (32.26%, N=10). Regarding opportunities to perform leisure activities, the result is also very positive, 38.71% (N=12) have neutral, 25.81% (N=8) high, and 22.58% (N=7) somewhat high opportunities.

Table 6 – Results regarding the extent to which participants experienced or were able to do certain things (N=31).

		Not at all	Not really	Neutral	Somewhat	Very much	N/a
Q10. Do you have enough energy for your daily life?	N	0	0	13	9	8	1
	%	0	0	41.94	29.03	25.81	3.23
Q11. Are you able to accept your physical appearance?	N	0	2	4	14	11	0
	%	0	6.45	12.90	45.16	35.48	0
Q12. Do you have enough money to meet your needs?	N	0	4	12	6	7	2
	%	0	12.90	38.71	19.35	22.58	6.45
Q13. How easily do you have access to the information you need to organise your daily life?	N	0	1	15	10	4	1
	%	0	3.23	48.39	32.26	12.90	3.23
Q14. Do you have opportunities for leisure activities?	N	0	3	12	7	8	1
	%	0	9.68	38.71	22.58	25.81	3.23

Moreover, it is interesting to draw a comparison with the answers to the question "What would you like to see on the Internet or online communities/social network?" posed during the co-design sessions, in which the first topic that emerged was "Leisure-oriented" activities (N=13 citations). In specific, participants mentioned they would like to have directions on hiking trails (n=2 citations), see the sea online (n=2 citations), watch a theatre play (n=2 citations), among other activities such as watch movies, craftworks… Furthermore, according to Rebelo's study (2015), the need to occupy free time is also pointed out as a strong motivation to use Facebook, in addition to overcome loneliness and the maintain the contact with family and friends.

The assessment of how well or satisfied participants feel about various other aspects of their lives (*cf.* Table 77) remains positive. Most are satisfied with their sleep (51.61%; N=16), with their ability to carry out daily activities (54.84%; N=17), with themselves (54.84%; N=17), with personal relationships (51.61%; N=16), and with access to health services (51.61%; N=16). A large part of the participants is satisfied or very satisfied with their capacity to work, with the support they receive from friends, with the conditions of the place where they live and with the means of transport they use. Regarding the question about sexual satisfaction, 38.71% (N=12) answered neither satisfied nor unsatisfied. This result may be associated with the discomfort that seniors usually feel regarding this topic.

Table 77 – Results regarding the survey regarding how well or satisfied participants feel about various other aspects of their lives (N=31).

		Very unsatisfied	Unsatisfied	Neither satisfied nor unsatisfied	Satisfied	Very satisfied	N/a
Q16. How satisfied are you with your sleep?	N	2	4	6	16	3	0
	%	6.45	12.90	19.35	51.61	9.68	0
Q17. How satisfied are you with your ability to carry out your day-to-day activities?	N	0	0	4	17	9	1
	%	0	0	12.90	54.84	29.03	3.23
Q18. How satisfied are you with your working capacity?	N	3	1	7	13	7	0
	%	9.68	3.23	22.58	41.94	22.58	0
Q19. How satisfied are you with yourself?	N	1	1	2	17	9	1
	%	3.23	3.23	6.45	54.84	29.03	3.23
Q20. How satisfied are you with your personal relationships?	N	0	1	5	16	7	2
	%	0	3.23	0	51.61	22.58	6.45
Q21. How satisfied are you with your sex life?	N	2	3	12	8	3	3
	%	6.45	9.68	38.71	25.81	9.68	9.68
Q22. How satisfied are you with the support you receive from your friends?	N	0	1	9	13	7	1
	%	0	3.23	29.03	41.94	22.58	3.23
Q23. How satisfied are you with the conditions of the place where you live?	N	0	0	6	12	12	1
	%	0	0	19.35	38.71	38.71	3.23
Q24. How satisfied are you with the access you have to health services?	N	0	2	5	16	7	1
	%	0	6.45	16.13	51.61	22.58	3.23
Q25. How satisfied are you with the means of transport you use?	N	2	0	7	15	7	0
	%	6.45	0	22.58	48.39	22.58	0

When asked about how often they have negative feelings (*cf.* Table 8), the majority stated that sometimes (51.61%; N=16) they have feelings such as sadness, hopelessness, anxiety, or depression.

Table 8 – Results of the study about how often they have negative feelings (N=31)

In the last month, how often...		Never	Rarely	Sometimes	Often	Always	N/a
Q26. How often do you have negative feelings such	N	4	8	16	1	1	1
as sadness, hopelessness, anxiety or depression?	%	12.90	25.81	51.61	3.23	3.23	3.23

During the co-design sessions nothing was reported or shared regarding this variable.

CONCLUSION

Recalling the goal that guided this study – to study the social network, the perceived stress, and the quality of life of the senior participants when onboarding the SEDUCE 2.0 project, and according to the results presented above, it is concluded that the participants have a significant social support network. Findings from the implementation of the Lubben's Brief Social Networking Scale (Lubben, Lubben & Gironda, 2003 adapted Ribeiro et al., 2012) show that most participants see or talk to 5 or more family members and 3 or more friends at least once a month. Regarding the proximity to family and friends in order to call for help, the network is smaller, but still with positive results. When talking to family or friends about personal matters, calls also become less frequent. It was noted that five of the 31 participants do not even have any friends with whom they feel comfortable doing so. However, 16 people report having 2 to 4 friends. The conducted co-design sessions as part of the miOne online community development allowed to conclude that participants use online social networks, specifically Facebook, not only as a medium to view and publish topics of their interest, but also to communicate with friends and family.

Regarding the participants' perception of stress, it is concluded that the results are globally positive. A higher percentage of older adults never felt unable to control the important things in life, often felt confident in their ability to face their personal problems, sometimes felt that things were going their way, never felt that they could not cope with all the things they had to do, were often able to control their irritations, felt that they had everything under control, never felt angry because of things that were beyond their control, or that difficulties were piling up so much that they could not overcome them. However, results are not as positive on 2 of the 10 questions from the Scale. Participants have reported feeling worried sometimes and that they had been nervous or stressed a few times in the last month.

Participants indicated health information as one of the themes that they would like to see portrayed on the Internet and online communities/social networks. Additionally, they suggested the creation of a website on healthy lifestyle, health, food, and physical exercise targeted at older adults. The participants' assessment of the World Health Organization WHOQOL-BREF Quality of Life Scale's (WHOQOL Group, 1998 adapted Vaz-Serra et al., 2006) items indicate a good perception of quality of life. In response to the first two general questions on quality of life and health, most participants rated their health as good and felt satisfied with their health. The items related to "experience/feel certain feelings/things", "experience or being able to do certain things", "mobility" and "feel good or satisfied regarding various aspects of their lives" are globally satisfactory or good. Thus, it should be highlighted that most of them do not need medical care to perform their daily activities; like their life very much; feel that their physical space is very healthy; rate their mobility as good; and are satisfied with their sleep, ability to perform daily activities, with themselves, personal relationships, and access to health care. Conversely, the majority perceive having occasional negative feelings, such as sadness, despair, anxiety, or depression.

The presented results are not representative, and caution must be applied when extrapolating to other contexts. However, they may leave interesting guidelines for the study of psychosocial variables in older adults. In fact, this is the main limitation associate this research: the low number of participants, as a result of the contingencies imposed by the COVID-19 outbreak, and the impossibility to carry out an in-depth and correlational study.

As a future perspective of this line of work, we would like to develop further this study with a larger group of seniors who are using the miOne senior community.

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