Can online activities substitute in-person activities for older persons during Covid-19?

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Abstract

Background: Group activities are a strategy to address social isolation and loneliness among older adults. Due to the Covid-19 pandemic most of these activities had to be cancelled and online activities have been offered as an alternative by some organizations. Yet, the effectiveness of online group activities for older adults has scarcely been researched.

Objective: We aimed to understand the extent to which online activities for older adults provide an adequate substitute for in-person activities.

Methods: In this telephone survey, we interviewed 105 older adults in Israel who were offered the opportunity to participate in online activities after routine activities closed due to Covid-19. We inquired about background characteristics, satisfaction with activities, and reasons for participation or nonparticipation in the activities.

Results: Those who participated in the online activities tended to be highly satisfied with at least some of them. They rated enjoyment from the content of the activity as the most important motivator, followed by maintaining a routine, enjoying the activity, and the presence of others. Over 50% wished to continue with the exercise program after the end of the Covid-19 pandemic, and 40% with online lectures. The most common reasons cited by those who did not participate were not being aware of the online program (43%), lack of interest in the content (32%), and technical issues (23%), such as not owning or being able to fully utilize a computer. Both participants and nonparticipants were interested in a wide range of topics, with many being very particular about the topics they wished to access, and about half expressing willingness to pay for access.

Conclusions: Findings suggest a need for online activities for countering boredom and a sense of isolation. The main challenges in substituting in-person services are: promoting social relationships, which are currently not incorporated into most online programs, accommodating a wider range of topics, and making current programs accessible to the population who needs them. Such approaches are needed to help homebound older persons during and after the Covid-19 pandemic.

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Abstract

Background: Senior centers and other types of clubs provide activities to older adults in order to address boredom, social isolation and loneliness. Due to the Covid-19 pandemic most of these activities have been cancelled. A limited range of online activities have been offered as an alternative. Yet, the effectiveness of such online group activities for older adults has scarcely been researched.

Objective: We aimed to understand the extent to which online activities for older adults provide an adequate substitute for in-person activities.

Method: In this telephone survey, we interviewed 105 older adults in Israel who were offered the opportunity to participate in online activities after routine activities closed due to Covid-19. We inquired about background characteristics, satisfaction with activities, and reasons for participation or nonparticipation in the activities.

Results: Those who participated in the online activities tended to be highly satisfied with at least some of them. They rated enjoyment from the content of the activity as the most important motivator, followed by maintaining a routine, enjoying the activity, and the presence of others. Over 50% wished to continue with the exercise program after the end of the Covid-19 pandemic, and 40% with online lectures. The most common reasons cited by those who did not participate were not being aware of the online program (43%), lack of interest in the content (32%), and technical issues (23%), such as not owning or being able to fully utilize a computer. Both participants and nonparticipants were interested in a wide range of topics, with many being very particular about the topics they wished to access, and about half expressing willingness to pay for access.

Conclusions: Findings suggest a need for online activities for countering boredom and a sense of isolation. The main challenges in substituting in-person services are: promoting social relationships, which are currently not incorporated into most online programs, accommodating a wider range of topics, and making current programs accessible to the population who needs them. Such approaches

are needed to help homebound older persons during and after the Covid-19 pandemic.

Keywords: Online venues for older adults, social engagement, activities, boredom, technology barriers for seniors, Covid-19 pandemic.

Introduction

Covid-19 has harsh implications for older adults' quality of life. Stay-at-home orders, closure of senior centers, and restrictions on visits by friends and relatives have increased this population's social isolation and loneliness [1-3]. Some of the stressors experienced by older adults as a result of Covid-19 are related to being confined to home, concern for family and friends' health and safety as well as boredom [4]. The latter has also been reported as an impact of quarantine restrictions [5]. Homebound older adults may be at higher risk of feeling lonely during the pandemic [6] and at other times [7,8].

Social isolation and loneliness increase older people's risk of anxiety, depression [9], mortality [10], and dementia [11]. Activity and social engagement are important for psychological wellbeing [12], training of memory and executive function [13], greater happiness, and reduced mortality [14] of older adults.

Online technologies have been proposed as a way for addressing these issues while protecting older adults from Covid-19 infection [2,3]. These technologies are also cost-effective [15] and may benefit older adults in particular [16] because their social networks tend to be geographically less proximal [17].

Two categories of barriers have been identified concerning internet use among older adults: First, personal characteristics such as cognitive and physical impairments may limit their ability to use conventionally designed computer equipment [18,19]. Socio-economic, educational, and cultural background influence older adults' means to access computers and their pre-existing knowledge of, and experience using technology [20,21]. Living arrangements are also an important factor [22] as those who live alone are less likely to use the internet [20], and complete beginners and frail older adults require extensive support and assistance [23]. Second, older adults attitudes' towards the internet and technology, including computer anxiety [24] and data security and privacy concerns can present obstacles [25,26].

Studies investigating the impact of pilot social internet-based interventions reported positive effects on loneliness [27,28]. Information and communication technologies were found to reduce depression [29] and smart technologies increased self-efficacy, empowerment, and confidence in using technology [30].

Yet, most of these studies are qualitative with small sample sizes and thus may be less conclusive. In addition, positive impacts for social support and connectedness have been found to be only short term [31], and while the frequency of internet use was associated with reduced loneliness, it did not impact perceptions of social isolation [32]. The type of online activity influences impact, as only social activities (e.g. connecting with family and friends) was associated with decreased loneliness [33] and enhanced life satisfaction [34], whereas internet use for informational purposes or instrumental functions (e.g., banking) did not. Recreational activities were the only activity with a significant correlation with older adults' well-being after controlling for background variables [35].

Research on online group activities is scarce. We found only three studies that examined the impact of online physical exercise activities in different settings, comparing individual and group training [36-38]. Baez, Far, Ibarra, Ferron, Didino, Casati [37] found no differences in improvements in physical outcomes between group and individual formats. Nikitina, Didino, Baez, Casati [36], reported high usability, but did not find a decrease in loneliness that could be attributed to the group intervention itself. Importantly, the online group exercises in these two studies included avatars in a virtual gym instead of live video communication, which may impact the perception of the quality of social contact and hence loneliness.

There is a need to further investigate the potential of online activities to enhance the wellbeing of older adults, particularly in the current situation, where personal contact and interaction are severely restricted. Our specific research foci are (1) Reasons for older persons' use of online activities and for not utilizing them; (2) The effectiveness of use in terms of satisfaction with the activity and utilization of alternative online activities; and (3) Preferences for activities and

willingness to pay for them.

An opportunity to examine these issues arose when we heard, that “Healthy Aging, Ltd” (Beseva Bria), an organization providing rehabilitation services, started providing activities via the internet platform Zoom, a software which facilitates video group meetings, after being forced to close its doors due to Covid-19 regulations. After obtaining the organization’s agreement to cooperate, we embarked on a pilot study to clarify the utility of Zoom activities for the older population served by “Healthy Aging.”

Methods

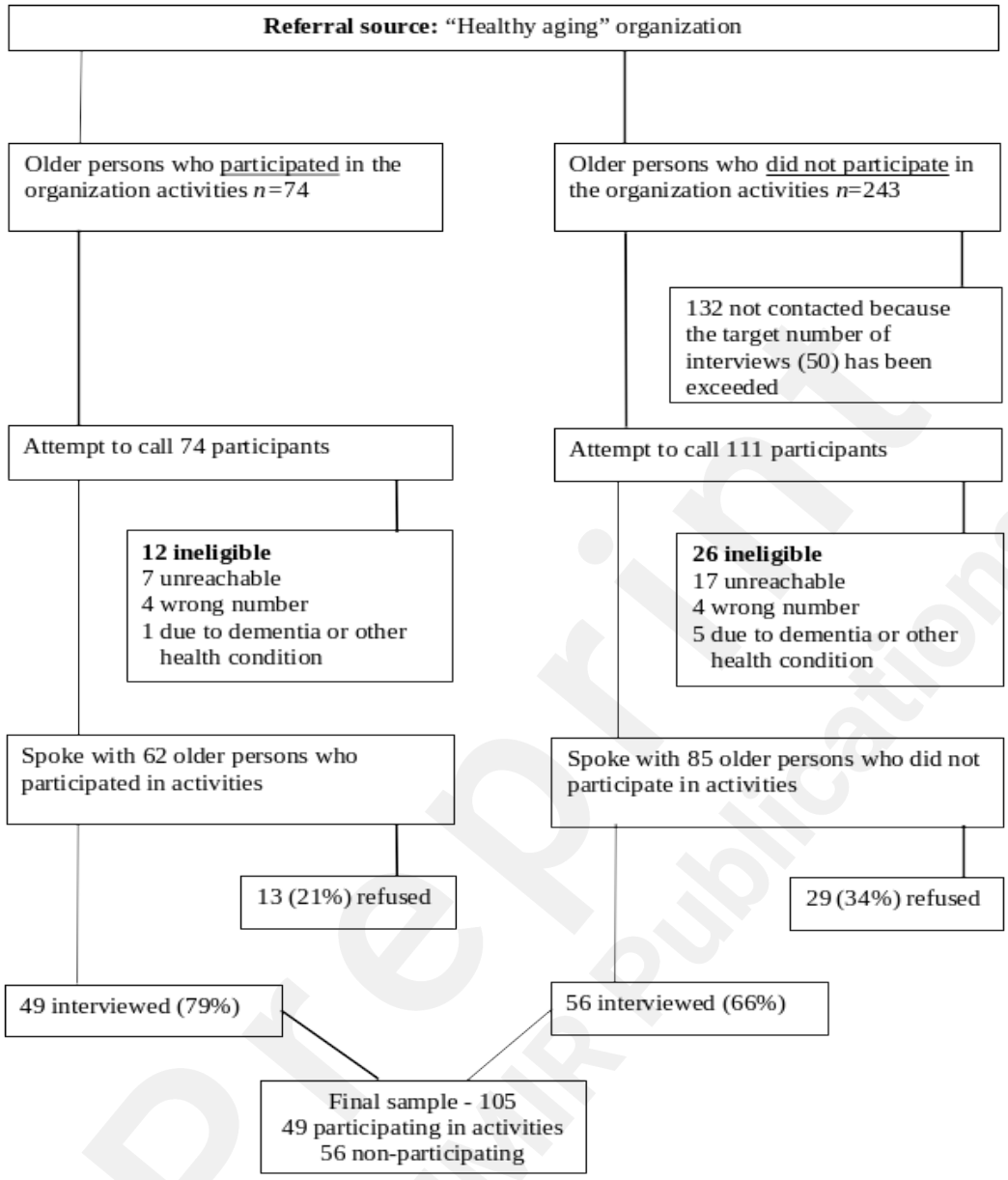
Ethical approval was obtained from the Institutional Review Board of Tel Aviv University. “Healthy Aging” organized Zoom-based activities for older adults, five days a week, three activities per day, each lasting for half an hour between 10:00 am and 11:30 am. The first activity was always some type of exercise to be performed while seated.

The other activities varied and included mindfulness, musical tai-chi, self-help, and lectures about assorted topics, including world travel, history, health, and mental health. When deemed appropriate by the organizers, some group members were invited to give a lecture.

Recruitment

“Healthy Aging” sent letters informing prospective interviewees of this study and offered them the opportunity to opt out. Letters were sent to all persons who either participated in the activities or were offered the opportunity to participate, but did not. “Healthy Aging” then provided us with the listings, excluding those who requested not to be contacted. The recruitment process is described in Figure 1. Although the percentage of refusal to be interviewed was higher among non-participants (34%) than among participants (21%) this difference was not statistically significant. We interviewed 49 participants and 56 non-participants.

Figure 1: Recruitment



Assessments

A separate questionnaire was developed for each group based on our research foci. Both questionnaires started with an explanation of the interview and a request for verbal informed consent. Both included queries about demographic background and when someone other than the older person was the interviewee, a question about the reason for this, and the relationship of the interviewee to the older person. The rest of the questionnaire for participants in the activities included 25 close- and open-ended questions, such as "how often have you participated in the activities?" to be rated on a scale of "less than once a week, once or twice a week, three or four days a week, and every day."

Comments offered in response to the questions were transcribed. The topics covered were: ease of using the technology, frequency of participation, the content of activities they participated in, reasons for participation and the degree of these reasons' importance, satisfaction with each of the activities, participation in alternative activities, wish for the promotion of social relationships through the Zoom activities, and willingness to pay for the online activities. The questionnaire for non-participants included 14 similar questions, which were adapted to non-participants such as reasons for non-participation. Interviews for older adults in both groups were conducted over the phone and lasted for about 20 minutes.

Analytic approach

Statistical analysis involved descriptive statistics using SPSS. The two groups were compared via t-tests for ordinal and interval data, and through the use of chi-square for nominal level data. When answers to two questions overlapped, such as "Why did you choose not to participate?" and "Would the following changes induce you to participate?" the responses were combined. Responses provided as comments were coded and those codes were checked independently by two or three research staff members.

Results

Interviewees

Table 1 shows the demographic characteristics of participants and non-participants. Both groups had a mean age of around 74 and around 15 years of education, and the vast majority – over 80% – of both groups were female. Over 90% lived in their homes, and 60% of those lived with a spouse. Differences between those who participated in the activities and those who did not were generally not significant. There was a trend for a larger percentage of those not participating in the activities to require help in walking (16% vs. 4%) or in reaching places outside of walking distance (20% vs. 6%). In 18% of interviews with non-participants, someone other than the older person completed the interview as compared to 2% in the case of participants (P<.01). In 13% of interviews

with non-participants who answered themselves, the interviewer thought the respondent had some cognitive difficulties as compared to 2% among those participating (P<.05).

Table 1. Background Variables

		Participate in Activities	Not Participating in Activities	Total sample	Diff between groups
Variable		(n=49) Mean (SD) or %	(n=56) Mean (SD) or %	(n=105) Mean (SD) or %	
Age		74.3 (6.6)	74.8 (8.7)	74.6 (7.8)	Ns
Years of Education		15.3 (4.2)	15.2 (3.6)	15.3 (3.9)	Ns
Gender	Female	88%	82%	85%	Ns
Country of birth (%)	Israel	55%	62%	59%	Ns
Marital Status (%)	Married	59%	55%	57%	Ns
Residence (%)	Home	96%	94%	95%	Ns
If living at home – With who (%)	Spouse	60%	60%	60%	Ns
	Alone	33%	32%	33%	
	Caregiver	7%	4%	5%	
	Other family member	0%	4%	2%	
Can Walk (%)	Without help	96%	84%	90%	$X^2_{(1)}$=3.614, P=.057
Can reach far places (not in walking distance) (%)	Without help	94%	80%	87%	$X^2_{(1)}$=3.718, P=0.054
Working?	% Yes	20%	31%	26%	Ns
Older person? answered himself/herself	% Yes	98%	82%	90%	$X^2_{(1)}$=6.971, P=.008
Impression of interviewer - Cognitive impairment of person interviewed	% Not at all	98%	87%	92%	$X^2_{(1)}$= 4.094, P=.043
Impression of	% Yes	100%	95%	97%	Ns

interviewer - Accurate information given

Feasibility: Extent and reasons for participation, and for non-participation

Over half (55%) reported participating in the activities every day, with another 22% reporting participation three or four days a week. Over three quarters had participated in the activities for over 20 days at the time of the interview.

Those who participated in the activities rated enjoying the content of the activity as the most important motivator (mean=4.4 on a scale of 1-5), followed by maintaining a routine (3.6), enjoying the activity and the presence of others (3.1), relief from loneliness (2.6), and being motivated by family members or friends (1.8). In addition, one commented that it helped her not to be completely alone and prevented depression. Most participants were able to access Zoom on their own (69%), but others were helped by family members (18%), by staff from “Healthy Aging” (8%), by their paid caregivers (2%), or by a hired technician (2%). When asked for reasons for participating, the most common response was interest in the activities and relief from boredom (61%, see Table 2). The next most common reasons were: opportunity to exercise, access to activities from home, and maintaining a daily routine. Only 16% mentioned social activity or relief from loneliness as a reason for participating.

Those who did not participate gave an average of 1.8 reasons for not participating (range: 1-4, SD=0.9). The most common reasons were: not having heard of the activities sponsored by “Healthy Aging” (43%), lack of interest in the content of the activities offered (32%), and technical issues (23%), such as not owning a computer, or inability to connect to Zoom (See Table 2). Other reasons were involvement in alternative activities (which are assumed to provide the same benefits) (16%), cognitive (13%) and sensory (7%) problems not enabling processing of activity content, and, a perception that the activity was appropriate for an older group (9%). The average age of those

providing this response was 72.8 (range 66-85) as compared to 74.6 for the full sample. The activities they were interested in were fixing things at home, yoga, and belly-dancing.

Table 2. Reasons for participating (n=49) and not participating (n=56)*

Reasons for participating	N	% of 49 Participants
Interest in content/ relieving boredom	30	61%
Provide exercise	15	31%
Activities accessible from home	14	29%
Maintaining a daily routine	11	22%
Social interest/ relief of loneliness	8	16%
Convenient hours	2	4%
Activities appropriate for older persons	2	4%
Total number of responses	82	
Reasons for not participating		% of 56 non-participants
Never heard of “Healthy Aging”	24	42.9%
Lack of interest in the activities’ content	18	32.1%
Technical issues	13	23.2%
Inconvenient time or duration of the activities[1]	12	21.4%
Participation in other activities/ organizations	9	16.1%
Problems due to cognitive impairment[2]	7	12.5%
The activities are designed for older persons (“I’m too young for these”)	5	8.9%
Hearing/ vision problems[2]	4	7.1%
Reluctance to take part in group activities	3	5.4%
Not willing to pay	3	5.4%
Reluctance to participate in activities with a camera	1	1.8%
The organization seems too commercial	1	1.8%
Total number of responses	102	

*Participants could provide multiple answers

[1] Out of the 12 participants, 8 reported participating in other activities, another one reported working, and another reported having no time due to caregiving for a spouse with dementia

[2] Two persons provided cognitive reasons **and** hearing/vision problems.

Efficacy and avenues for improvement: Participants' satisfaction with online activity and their ideas for improvement

Participants' level of satisfaction with the activities offered by "Healthy Aging" is presented in Table 3. Exercise was rated the highest (4.4 on a 5-point scale) and was attended by most of the participants. Participants' satisfaction was exemplified by the comment, "There is great diversity, every day, a different part of the body. Very good, not routine." (#110, 75yo (years old), F (Female)), whereas mindfulness received the lowest ratings (with an average of 3, denoting moderate satisfaction) as exemplified by the comment "I do not relate to it" (#112, 77yo, F). The ordinal order of levels of satisfaction for the different activities is somewhat reflected in attendance level (Table 3), with both showing the highest levels for exercise and lecture by an outside lecturer. The lowest attendance was reported for lectures provided by group participants, exemplified by the comment "Depends on who the lecturer is" (#141, 71yo, F).

Another indicator we examined concerning interest in the activities pertained to the wish to continue to participate in the activities after the end of the pandemic – as presented in Table 3, reflecting the same order of preference for the various activities, and showing that 57% expressed interest in continuing the exercise activities even after Covid-19 was over. The interest in other activities was 41% for lectures, and lower for other activities.

Table 3. Reported levels of satisfaction and wish to continue the activity after the epidemic by each type of activity offered by Healthy Aging (n=49)

Type of activity	Reported satisfaction levels per type of activity[1] M (SD)	n Number attending	Would like to continue the activity after the epidemic %
Exercise	4.4 (0.7)	44	57%
Lecture (Outside lecturer)	4.3 (1.0)	37	41%
Lecture (Lecturer from the participants' group)	3.8 (1.0)	17	27%

Caring for oneself	3.8 (1.4)	26	20%
"Travel from the couch" – a lecture by a tour-guide	3.7 (1.1)	25	29%
Mindfulness	3.0 (1.5)	24	14%

[1]1-not at all, 2 a little, 3 moderately satisfied, 4 satisfied, 5 very satisfied

Participants indicated several ways through which their interest in participating in the activities could increase, such as enhancing social contacts through the activities, enriching the content of the activities, and improving technical and timing issues. As to encouraging social activities among participants, 42% wished for this goal to become a component of the activity, whereas 48% expressed no interest, and 10% were ambivalent. Concerns regarding activity content ranged from stating that the content was not sufficiently interesting, or that its quality was too low, unprofessional, or simple (33%), to viewing it as too complicated (2%), requiring modifications in presentation, such as slower speech (4%), or requesting more pictures or music (4%). Especially common were requests for additional types of content (27%). Table 4 presents the general content preferences of participants and nonparticipants. The most commonly checked topics were in the categories of exercise (e.g., "I love Pilates" #296, 72yo, F), culture ("lectures in museums" #121, 85yo, M (Male)), music ("series of lectures about jazz" #108, 78yo, F), art ("activities in the field of painting" #224, 86yo, M), and travel ("lectures on trips around the world" #225, 85yo, M). However, the organization of the topics under categories is somewhat misleading because many participants requested very specific activities, for example, "play Remi," "Nordic walking," "psychology of the brain." Technical problems (6%) pertained to problems with the computer, Zoom, or with sound quality, and also included the request for recordings and for presentation of materials on other, simpler, media such as TV. Other requests referred to timing (20%), as in asking for different times, more time slots, or recording the activities in order to make them available at all times.

Table 4. Preferred areas of interest by participants (n=49) and nonparticipants (n=56).

Topic	Participants		Non-participants		Total	
	N	%	n	%	n	%

Lectures – General	20	41%	13	23%	33	31%
Exercise	14	29%	15	27%	29	28%
Art/ Culture/ Music	15	31%	10	18%	25	24%
Travel	6	12%	6	11%	12	11%
History/ Philosophy	4	8%	2	4%	6	6%
Coaching/ Body-mind	3	6%	3	5%	6	6%
Other[1]	13	27%	6	11%	19	18%

[1] Includes: Games/mind games/ bridge (# of participants & non-participants respectively: 4,1), literature (2,1), science/technology (3,0), education/social sciences (1,2), religion (2,0), food/cooking (0,2), language study (1,1), current affairs (1,0), business (0,1), gardening (1,0) and wills (1,0).

Sustainability: Competition from alternative activities and participants' willingness to pay

Participants were significantly more likely to report partaking in alternative activities (78%) than non-participants (61%) ($X^2_{(1)}$=4.131, P<.05). Alternative activities (Table 5) were accessed via TV – e.g., a show with exercise instruction, YouTube ("She studied Italian on YouTube and occasionally sees exercise for seniors" #234, 67yo, F), Zoom ("Different kinds of lectures" #265, 64yo, F), and websites of different organizations ("There is the website of the "retirees" where I keep track of lectures" #256, 62yo, F). Some reported that the activity was a continuation of a class they had taken in person prior to Covid-19. Sponsors of alternative activities varied, such as universities ("Lectures from the Open University, lectures on a film, and then [watching] the film" #110, 75yo, museums ("I have a subscription to a museum in Tel Aviv and I listen to their lectures" #120, 63yo, F), municipalities, synagogues ("Prayer in the Synagogue via Zoom" #103, 79yo, F), not-for-profit and for-profit organizations as well as private individuals.

Table 5. Characteristics of alternative activities used

		Participants		Non-participants		Total	
		n	% n[1]=39	n	% n[1]=34	n	% n[1]=73
Not participating in other activities		10		22[2]		32	
Platform	Zoom	20	51%	8	24%	28	38%
	TV	1	3%	2	6%	3	4%

	YouTube	1	3%	4	12%	5	7%
	Organization website	7	18%	4	12%	11	15%
Provider of activity	University/ museum	9	23%	8	24%	17	23%
	Municipality	13	33%	3	9%	16	22%
	Synagogue	1	3%	0	0%	1	1%
	Not-for-Profit Organization	3	8%	3	9%	6	8%
	Private person/ organization	26	67%	22	65%	48	66%

[1] n refers to the number of people who reported participating in alternative activities.
[2] Of the 22 who did not participate in any activity, 10 reported either cognitive, sensory or technological problems.

Of those participating in the activities, 60% said they would be willing to pay for them, and 26% unwilling, whereas the remaining participants said “maybe” (13%) and “don’t know” (2%). Activities were provided for free in the early period of our interviews but required a small fee by the end of the interview period. Indeed, seven interviewees who participated in the beginning period said they had stopped participating because of the fee, while 14 reported that they were paying for participation at the time of the interview. Some of the reasons participants provided for payment were fairness and wanting or needing the service: “It’s worth it to me, it’s fair, and you get a lot for it” (#103, 79yo, F), “I have no choice. If not for the activities, I'll be lost. There will be nothing. So as not to be left alone [I have to continue]” (#133, 87yo, F). Reasons against payment varied, including the availability of alternatives: “So far, I didn't feel the need to pay because there are a lot of options. If something is interesting, I try to find substitutes” (#138, 68yo, F); an ideological assertion that such service should be free at the time of a pandemic: “Healthy Aging” began [the program] nicely but then asked for money. I think it should continue for free until the end of Covid. Not willing to pay for Zoom activities.” (#121, 85yo, M), and a sense of “double billing”: “I used to participate in the exercise of “Healthy Aging,” but stopped when they required payment. I am not willing to pay because I am still paying a lot to my gym, despite not being able to go there.” (#116, 79yo, F).

When non-participants were asked whether they would be willing to pay for such activities,

50% answered in the affirmative, and 36% in the negative. Although these percentages reflect less readiness to pay for such activities than reported by participants, the difference is not statistically significant. Those willing to pay tended to have more years of education (Mean=15.8, SD=3.5) than those who either said they would not or did not know (14.2, and 3.6 respectively), $p<.05$.

Discussion

Principal findings

The closing of social clubs, senior centers, libraries, and gyms due to Covid-19 critically affected the living experiences of older persons who were instructed to limit social contact and stay at home. The main venue left to remaining engaged and somewhat active was provided by TV and online activities. Our goal was to understand the extent to which online activities provided an adequate substitute for in-person activities by examining the characteristics of those who did and did not utilize online activities, the reasons for participating or not, the degree of satisfaction with the available options, activity preferences and how online activities can be sustained.

Participants in “Healthy Aging’s” online activities reported very high levels of satisfaction from exercise and lectures; in addition, over 50% wished to continue with the exercise programs after the end of the Covid-19 pandemic, and over 40% wished to continue with the lectures. The activities provided the benefits of offering a venue for doing exercise, participating in interesting activities, and maintaining a daily routine. This suggests that they provided a reasonable substitute for this population’s pre-Covid-19 activities. This finding aligns with Whitehead, Torossian [39]’s report that digital social contact was among the most commonly reported sources of joy or comfort for older adults during Covid-19. However, one aspect that was missing for many participants was the provision of social contact and preventing loneliness – a benefit mentioned by only 16% of the participants. The lack of social cohesion may have also been reflected by low attendance when lectures were presented by other participants. This finding is in line with previous studies that examined online exercise group activities and found no impact on loneliness [36,37] and research

reporting that older adults generally prefer face-to-face interactions [40]. Yet, the lack of social interaction in online activities is not unlike senior centers: While they provide live lectures, concerts, or exercise classes, many participants arrive alone and leave without having social interactions [41]. Nevertheless, both in-person and online activities have the potential to promote social integration, and such features should be examined in future research.

The activities provided by “Healthy Aging” were an extension of its identity as a facility providing rehabilitation for older persons. Therefore, exercise focused on seated physical activity, and other activities included self-help, such as head massage and lectures. This was the strength of the program, but also a reason why some declined to participate, feeling that the offered options were designed for a frailer population, did not provide sufficient variety, or were not superior to alternative activities in which they were involved.

The main “objective” barriers to participation in activities were cognitive or/and sensory problems (16%) which interfered with benefiting from the content of the programs, and technical issues accessing Zoom (23%). Cognitive issues seemed more prevalent in the non-participant group, as both the percentage of interviews via a third party, and the percentage of interviewees for whom the interviewer suspected cognitive difficulty, were significantly greater in the non-participant group.

The prevalence of difficulties handling the technology was even higher among participants (31%) than non-participants. Nevertheless, participants’ technological problems were mostly handled via help from family members or staff of “Healthy Aging.” The meaning of “handling” technical issues encompassed a wide range of assistance, from teaching persons how to use Zoom, to actually starting each session for the person. Some non-participants may have had less access to assistance. Lack of support has been identified in the literature as a major barrier to internet and computer use [23].

Surprisingly, participants were more likely to be involved in other activities than non-participants. This may be partly due to higher rates of cognitive and sensory difficulties among non-

participants. An alternative explanation is that those who are generally more interested in activities may be more likely to consider multiple potential venues and to demonstrate greater willingness to try new options.

Both participants and nonparticipants were interested in a wide range of topics, and many were very particular about the topics they wished to hear about. This presents an opportunity for those who provide leisure services. As so many older adults were interested in lectures, the development of a wide range of lectures seems like an endeavor rich in potential, particularly during situations of heightened public health concern. We found that a sizable proportion of those who had been notified of the “Healthy Aging” program claimed they have not heard of it, suggesting that the subject of effective advertising and promotion targeted to reach this population warrants further study.

The plethora of competitive activities is one of the risks to the sustainability of online programming for older adults. About half of non-participants and 60% of participants said they would be willing to pay for the program. Others were not so inclined for a variety of reasons, including the availability of cost-free programs and multiple other reasons, some of which were unique to the unexpected pandemic, such as having a pre-existing payment obligation to a gym, despite not being able to use the facility.

The non-participant population seems to reflect a wider range of older persons than the participants, including both those with more severe cognitive and functional difficulties, and also those who felt they needed a more demanding physical or intellectual activity.

Limitations

This study is limited by a relatively small sample in one country and the focus on one online program, albeit the exploration of non-participants’ experiences and of alternative activities provided a greater insight into the scope of online activities for older adults.

Conclusions

The study sought to provide a preliminary investigation of the topic, with answers to questions concerning online activities' feasibility, efficacy, and sustainability. Each of these topics deserves a study of its own. Whereas some of the questions receive relatively clear answers – within the context in which they were studied, others only raise questions. Regarding feasibility these questions pertain to how to improve publicity and access to online programming; questions about efficacy relate to how to improve the match between activities and participants' needs and wishes as well as how to facilitate social interaction and to decrease loneliness; and sustainability raises issues regarding securing funding for developing activities and ascertaining appropriate participant contributions.

As previously mentioned, financial and educational resources affect the availability of technology (computers, etc.) to access the program and the know-how for its use [20]. Therefore, training and support are needed for some older persons to access online programs [see also 42,43]. These issues are beyond the scope of this study but need to be explored in future research.

The results are important for efforts to ameliorate the impact of Covid-19 related isolation on older persons. They have, however, implications beyond the current situation, as a modality to address the needs of homebound older persons. The main challenges in substituting in-person services seem to include challenges of promoting social relationships within the online platforms, accommodating a wider range of activities and contents online, and making current programs accessible to the population who needs them, both through better marketing of the available options and providing the level of help with the technology that will allow older persons to access the programs.

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Supplementary Files

Figures

Recruitment.