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Happy to Zoom: a New Frontier in Online Delivery of Day-care for Older People During COVID-19

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Cover Page Footnote

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Introduction

Generalist Community Day-care (CD) centres are found in most communities in Ireland, as elsewhere, where older people have an opportunity to engage in organised recreational activities, share a meal and socialise together. Generalist CD for older people do not provide specialist care for specific groups of people such as stroke survivors or people living with dementia but support independent living through the provision of rehabilitative and social care services as well as recreational and leisure activities for older people in general (Orellana, Manthorpe & Tinker, 2020; Citizens Information, 2021). CD services in Ireland are usually delivered by the voluntary sector, often with part funding from the health service. As is found internationally (Orellana, Manthorpe and Tinker, 2021), the type of provision across CD centres in Ireland is varied, with some offering services such as chiropody, counselling and welfare advice, either in local community centres or in purpose-built facilities. Most CD centres offer social and leisure activities along with a meal and refreshments, for those who attend the day-care sessions. Participation in CD services and activities increases quality of life and reduces mental health morbidity for older people (Jacob, Abraham, Abraham, & Jacob, 2007; Orellana et al., 2020; Yang, Wang, & Dai, 2021).

Those most likely to attend CD services often have greater frailty as well as impairment in the instrumental activities of daily living (IADL), when compared to their more independent and robust counterparts (Sewo Sampaio, Sampaio, Yamada, & Arai, 2014; Orellana et al., 2020). During the COVID-19 pandemic, older people with chronic health conditions, living alone, or requiring help with IADLs were found to have endured the most significant impacts, including increased loneliness and depression due to pandemic restrictions (Ward, Mc Garrigle, Hever, O'Mahoney, Moynihan, Loughran & Kenny, 2020). Day-care services in Ireland began to close from March 16th 2020, in line with COVID-19 government restrictions on physical and social distancing, requiring older people to 'cocoon' (to stay at home and avoid contact with others outside the home). Those with daily living impairments - such as cooking, driving, or ability to do housework - faced the challenge of

not having access to some basic daily living supports provided by CD services, such as a regular cooked meal. Furthermore, social engagement opportunities and the associated psychological, physiological, and social benefits of CD were removed for those already most at risk from frailty and least likely to be socially active (HSE 2020).

Opportunities for social connection, with others outside immediate family, are an important source of satisfaction and life meaning for older adults (Gallagher 2012; Orellana et al., 2020). However, during the COVID-19 pandemic, 80% of older people reported not visiting friends (Ward, O'Mahoney, & Kenny, 2021). Unsurprisingly, calls to a COVID-19 Support Helpline between March 9th and July 5th 2020 reported that cocooning measures contributed to loneliness and isolation among older groups (Ward et al., 2020). It was recommended that the health benefits of sustaining social connections should be considered when setting government guidelines (Donovan & Blazer, 2020; Ward et al., 2020).

Living alone is associated with loneliness but data show that men living alone are more likely to be lonely than women in the same situation (Ward et al., 2020). Despite this, women are overwhelmingly more likely than men to use community services, such as CD (Dwyer & Hardill, 2011; Orellana et al 2020). During the early stages of the pandemic, older women reported greater changes in how they behaved in different settings (such as outdoor and indoor public places) when compared to men, with older women and those living alone also most likely to be lonely during the pandemic (Ward et al., 2021).

Where CD had been mitigating loneliness, service closures threatened this lifeline for some. Some research has suggested that older people, in general, may be more resilient than expected (Pan et al., 2021; Wells, 2012) and this resilience has been noted during the COVID-19 pandemic (Herrera, Elgueta, Fernández, Giacomani, Leal, Marshall, Rubio & Bustamante, 2021). However, it is more difficult for those with functional limitations, daily living impairments, or chronic conditions to maintain resilience (Lee, Tung, Peng, Chen, Hsu, & Huang, 2020). Indeed, a study of CD users in Ireland during the pandemic, found 21% reported missing CD social activities and 28% were less motivated to remain active without the routine of attending day-care services (HSE, 2020).

Early concerns about the short and long-term impact of sustained social distancing suggested endeavours to meet the needs of older people should go beyond that of meeting basic daily living needs. A report by the Irish Health Service Executive (HSE), noted high levels of participation in socially interactive group activities by older CD service users prior

to the pandemic (HSE, 2020). Finding ways to return to active social connection opportunities was seen as urgent. In response to government restrictions, some CD services restructured or repurposed their services. Many, already aware of potentially increased social isolation and loneliness among older people, sought to maintain services remotely through telephone or video conference calls with service users (HSE, 2020).

Taking a broader societal view, Chen (2020) proposed that recovery from the pandemic would require not only personal resilience but also ‘strong resilience of communities’ and pointed to the potential for digital technologies and web-based services (such as conference calling) to continue as fundamental components of reshaped service delivery for and with older people. Indeed, in line with the NICE guidelines (NICE, 2015), Sims, Reed, and Carr (2017) suggested that using digital tools to facilitate social interaction may be particularly worthwhile for the wellbeing of older populations. However, there has been little examination of remotely delivered interventions to maintain pre-pandemic social engagement, with and by older people, or of how such interventions might be adapted to an ongoing or a post-pandemic environment (Gorenko, Moran, Flynn, Dobson, & Konnert, 2021).

During the COVID-19 pandemic, many of those without internet connection, devices, or the digital skills necessary to use technology to maintain contact with others, were left without social interaction as well as, sometimes, interaction with those who support their self-care decision making (Age Action 2021). Nonetheless, awareness of the potential of digital technologies grew among older adults, with increased internet use, driven by a desire for greater social support or connection with friends and family during the pandemic (Tirado-Morueta, Aguaded-Gómez, Ortíz-Sobrino, Rodríguez-Martín, & Álvarez-Arregui, 2020). However, there remains no examination of the willingness of older service users to use technology to access CD activities specifically. This study examines the engagement of older service users with a generalist CD service in a town (pop. 33,441) in Ireland, six months after government ‘cocooning’ guidelines were implemented in March 2020. As social distancing restrictions remained in place, the CD service surveyed members to evaluate receptiveness to using technology to access social activities remotely. The findings presented in this paper will inform the development of a hybrid (remote and in-person) CD pilot-project, as a response to COVID-19 pandemic service delivery challenges.

Methods

A 12-question survey was designed by the CD service provider to explore service use since the beginning of the COVID-19 pandemic and the openness of service users to remote delivery of CD social activities. All service users were invited to complete the survey. Service personnel, as co-researchers, conducted the survey by telephone, with verbal consent from service users for responses to be analysed by the academic research team. Answers were recorded on a paper survey form. In line with the principle of ongoing informed consent, and in recognition of the potential for misunderstanding of either questions or consent given by telephone, written consent was acquired when service users were next visited in person by co-researchers from the service team. The survey answers, provided by telephone, were reviewed with respondents during this visit and changes made to responses if directed by the service user. Informed consent and survey responses were received from all service users. Two surveys were returned with an answer page missing (2 questions).

Survey respondents were assigned an ID code by the CD research coordinator, which was written on the survey for identification purposes. The ID code and related demographic data (age, living arrangements, and membership status) were provided to the academic research team in a Microsoft Excel document. The key to the respondent's name and ID code was retained by the CD research team and was not available to the academic researchers, thus ensuring pseudo-anonymity. Responses were added to the Excel document, from the paper surveys provided to the academic research team. Only responses specifically indicated with a written answer were included in the data. Questions without an answer were interpreted as non-responses rather than as a response of 'No' to the question.

Using SPSS (Version 27) software, a descriptive data analysis was undertaken independently by [author 1] and [author 2], and validated by [author3]. The research ethics committee, for the School of Health and Science, at the academic institution of the lead author, provided ethical approval.

Results

The findings present an overview of CD membership, followed by data summaries on pre-pandemic service participation, COVID-19 support service use, day-care social activity engagement, and findings on willingness and ability to engage with an online day-care pilot project.

Day-care Members

All CD service users (n=81) completed the survey, comprising mostly women (n=63, 78%). Respondents mostly lived alone (n=55, 68%). Slightly more than half of respondents were over 85 years of age (n=42, 52%). A full breakdown by sex, living arrangements, and age groups of respondents is provided in Table 1. All CD users were registered as members of the CD service. Those who were members prior to the COVID-19 pandemic are referred to in this paper as Former Members (FMs). Those who joined the CD service after the pandemic began are referred to as Outreach Members (OMs). A significant increase (42%) in CD membership occurred, following the closure of many community services for older adults in response to the COVID-19 pandemic, and is reflected in 30% (n=24) of respondents identified as OMs.

New OMs comprised mostly of referrals from community services including other CD centres (n=12, 50%). Self-referrals (n=7, 29%) and those from the CD service waiting list (n=5, 21%) comprised the remainder of OMs. It is notable that men were more highly represented among OMs (n=9, 38%) than among FMs (n=9, 16%). Those joining the CD service during the pandemic were also slightly more likely to be younger than those already members of the CD prior to the pandemic, with 50% (n=12) of OMs under 85 years of age compared with 47% (n=26) of FMs.

Pre-COVID Day-care Attendance

Based on evaluated need and availability of day-care places, FMs attended on-site day-care services and/or activities from one to five days weekly, prior to the pandemic. Most FMs (n=51, 91%) reported attending the CD at least once weekly, with 54% (n=30) reporting more frequent attendance of twice to three times per week. Only one OM reported regular attendance at CD services prior to the pandemic. The most popular social activities attended by FMs (see Table 2), included Bingo (n=50, 89%) and spiritual activities (primarily the rosary) attended by 77% (n=43) prior to COVID-19. However, participation was also strong in group activities/games (n=29, 52%).

Community Day-care COVID Supports

As part of the COVID-19 restructured CD delivery, the service began to provide daily living supports (Table 3) in the form of meal delivery, as well as help with shopping and prescription collection. To maintain social connection with all members, the CD also

provided regular telephone support, making check-in calls to ensure service users were not isolated. At the time of the survey, almost all (n=79, 96%) members were using at least one of the services offered, with only two respondents not availing of any services.

Home delivered meals, referred to as 'meals-on-wheels', were being provided to most respondents (n=61, 75%), six months into the pandemic. More than half of those in receipt of meals-on-wheels were aged between 85 and 94 years (n=31, 51%). Those living alone (n=45, 82%) were most likely to use meals-on-wheels. Use of the shopping support service was also high across all respondent categories. Most of those using the shopping service lived alone (n=30, 63%). More than half of those living alone (n=30, 55%) or with a spouse (n=9, 60%) used shopping support, though few used the service to collect prescriptions. The category with the highest uptake of shopping support was those living with another family member (n=8, 73%). Furthermore, women (n=39, 62%) were more likely to use the shopping service than men (n=8, 44%).

Telephone support, a service provided only since the imposition of the pandemic restrictions, was used by the majority of respondents (n=71, 88%). Unsurprisingly, a high number of those living alone (n=47, 86%) reported using telephone support; however, respondents living with a spouse (n=13, 87%) or family members (n=11, 100%) were even more likely to use the telephone support service than those living alone. Older age was clearly associated with telephone support uptake, with almost half of those using this service from the 85-94 years age cohort.

Openness to Online Day-care Activities

While daily living supports were the primary focus of CD service delivery early in the pandemic, it was recognised that social activities were an important element of CD service provision. At the time of the survey, some limited online social activities, mindfulness and gardening classes, had been offered to CD users, by a local adult education service. However, engagement with these online classes was limited (n=6, 7%). This is unsurprising given that only a fifth of all respondents reported having access to a digital device or the internet (Table 4).

To explore the potential to re-engage service users with social activities, using an online format, survey respondents were asked about their willingness to participate in a pilot online day-care project and to identify potential barriers to such participation. Over two thirds

of respondents (n=56, 69%) indicated willingness to engage in social activities online (Table 4). However, almost a third of respondents (n=24, 30%) indicated a reluctance to engage with the CD using digital technology. Those not interested in participating were distributed evenly across all age groups, but a slightly higher proportion of men (n=6, 33%) than women (n=18, 29%) were reluctant to engage online.

Openness to engaging in online CD activities was considerable, with most respondents (n=68, 84%) willing to take part in the pilot project. All ten respondents living alone, who also had access to a device, expressed willingness to engage. Women living alone (n=33, 72%) were more open to online day-care than men, of whom only half were willing to try CD activities in an online format. Conversely, men living with a spouse (n=7, 78%) were more open to online engagement than were women living with a spouse (n=2, 18%).

Despite willingness to engage, respondents identified several barriers to online participation. A lack of equipment (n=42, 52%) was the most frequently cited barrier, followed by a lack of internet connection (n=35, 43%) and a lack of 'know-how' (n=34, 42%). A fifth of respondents identified cost (n=16, 20%) as a concern. Fear of technology (n=31, 38%) was also a cited barrier, though female respondents reported being less afraid of the technology and more concerned about not knowing how to use it.

Discussion

The National Institute for Health and Care Excellence (NICE) Guidelines (NICE, 2015) recommend the provision of activities and services targeted at older people considered most at risk of declining independence and of experiencing challenges to mental wellbeing. The COVID-19 pandemic exacerbated such risks, as evidenced by a surge in demand from new clients for restructured CD services to meet daily living needs such as help with meals, shopping, and collecting prescriptions (HSE, 2020). An increase of 42%, as reported by the CD in this study, with half of those referred by community services, reflects the need for supports for older people during the COVID-19 pandemic and mirrors the membership surge reported by CD services elsewhere (HSE 2020). Prior to the implementation of government COVID-19 restrictions, most former members (91%) of the subject CD were regular and active service users, attending on-site services and activities from one to three times weekly. Such participation was particularly high, when compared with already high attendance of 74%, reported across nine CD centres elsewhere in Ireland (HSE 2020). The findings show high pre-COVID engagement was maintained, by the subject CD service, even after

government restrictions were implemented, suggesting CD services play an important support network role for community-dwelling older people.

Restructured CD services played an important role in meeting a range of daily living needs for older people. In particular, meal delivery uptake was higher among FMs (72%) of the subject CD service than was reported in other CD services (49%), though delivery of meals to OMs was lower than elsewhere (83% compared to 94% respectively) (HSE, 2020). While the frequency with which meals were provided was not compared between the two data sets, limiting detailed comparison, it remains clear that CD services played a key role in meeting the basic food needs of many older people early in the pandemic. The high uptake of meal delivery by FMs reflects the high level of participation in the pre-COVID services (96%) for the CD in this study. This, combined with the high uptake by OMs, reflected nationally, supports growing international concerns about food insecurity among older adults, exacerbated by the pandemic and which requires further examination. Furthermore, over half of people over 60 years of age in Ireland reported shopping less often due to social distancing restrictions (Ward et al., 2021). As such, in addition to meal delivery, by providing shopping support for 58% of all service users, the CD service assisted members to remain safe from Coronavirus transmission while meeting basic needs, such as shopping for food.

It is notable that FMs were more likely to use the newly available shopping supports than were new OMs. Likewise, telephone support use by FMs was significantly higher than for OMs (96% and 67% respectively). Daily delivery of meals was undertaken by CD service staff and, generally involved handing meals to recipients at the doorstep. Exchange of social pleasantries and an inquiry about additional needs, or checking how people were managing, would have taken place during meal delivery. However, the engagement was essentially transactional and uni-directional, as no reciprocal action was required of the meal recipient. By contrast, using telephone and shopping support may have required trust, rapport and interpersonal engagement between service users and CD personnel. It is already accepted that older people are reluctant to seek help unless in dire need. Cornally and McCarthy (2011) have proposed that after recognising the inability to self-manage a challenge, the next step in help-seeking is identification of and access to a trusted person from whom to seek such help. The greater uptake of these interpersonal connection supports by FMs suggests pre-COVID engagement in CD services and activities may have facilitated the establishment of trust and rapport, enabling FMs to be willing to request help from the CD during the pandemic. CD

services, therefore, have an essential role to play in establishing a pre-crisis network, from whom community-dwelling older adults can seek help in times of need.

Society faces uncertainty about the future impact of COVID-19 and other anticipated pandemics, in a global context of certain demographic ageing. The findings presented suggest facilities, such as CD services, provide valuable community resources to support resilience for community-dwelling older people. The increase in CD membership prompted by the pandemic suggests CD services are well placed to meet some of the needs of older people in a national or global crisis scenario. The younger age profile of OMs suggests there is scope for CD services to target membership to include potentially more robust members at an earlier age. In doing so, the foundation of trust and rapport may be established earlier to facilitate help-seeking by CD members when needed as well as to support the self-sufficiency capability of this cohort of ageing citizens.

When examining the openness of service users to engage with an online delivery of CD activities it is important to note that, for many, surveys were completed without any prior experience of using internet or digital-based methods for social connection or interaction. As such, the willingness of 69% of respondents to consider joining online activities is both surprising and encouraging, especially in light of widely held assumptions about older people as a cohort reluctant to use digital technologies. Indeed, Astell, McGrath, and Dove, (2020) suggest that some older adults may believe use of various devices portrays an image of dependency and frailty, foregoing use of digital wellbeing support technologies to maintain an image of competence and independence. Considerable willingness to participate in a pilot digital day-care project (n=68, 84%) may conceal a full understanding by service users about what engaging in online CD activities might involve. However, it does reflect the trust service users had in the CD service delivery team, to provide support for the transition to an online day-care delivery model while pandemic restrictions remained in place.

Notwithstanding willingness to engage with CD online, our findings echo the considerable existing literature in identifying access to the internet and digital devices, fear of technology and lack of digital knowledge or skills as key barriers to engagement. Lack of digital skills is an additional barrier to internet use for many, with 72% of those aged 75 years or older in the UK reporting this as a common barrier to digital engagement during the COVID-19 pandemic (Age UK, 2021). Meanwhile, Irish research shows home internet access decreases with age, with only 38% of those over 80 years of age reporting internet

access in their home, though 25% more men than women, over 80 years, have internet access (Doody et al., 2020). Furthermore, CD service users are also the least likely cohort of older people to have internet access, digital skills, or to be willing to engage with digital technologies for social connection purposes.

NICE guidelines (NICE, 2015) recommend group-based activities should consider offering training and support to encourage older people to use information and communication technologies. Systemic responses to address such challenges are often slow and cumbersome. However, the urgency presented by the COVID-19 pandemic provided some measure of cover for usual systems and processes to be by-passed, with emergency funding quickly provided across many community organisations and both regional and national campaigns to encourage older people and their family members to connect digitally. Nonetheless, overcoming the barriers of the digital divide for older adults requires more than simply providing tablets or smartphones to all.

Remote delivery of CD activities and services offers potential for inclusion in day-care activities, to address the shortage of face-to-face socially based activities available to community-dwelling older people during the pandemic and beyond. Remotely delivered CD may also go some way to addressing the unequal distribution of day-care services between urban and rural communities already identified in the research literature (Dahlberg & McKee, 2018; Ward, McGarrigle, Carey, & Kenny, 2021; Yang et al., 2021) and exacerbated by the COVID-19 pandemic (Henning-Smith, 2020). In addition to a prevailing view of older adults as isolated and frail, Seifert (2020) suggests non-users of technology may also be seen as outsiders in society. Online and remotely delivered CD activities, aimed at older people, must therefore be guided and co-designed by service end-users to maximize efforts to bridge the digital divide and increase the potential for both engagement and inclusion. However, no research has been conducted in this area to date.

Support from 'social partners', has been shown to play an important role in influencing and facilitating older people to access and engage with digital technologies (Fingerman, Birditt, & Umberson, 2020; Pirhonen, Lolic, Tuominen, Jolanki, & Timonen, 2020). Personnel in CD services are likely to be called upon to facilitate digital access and use by CD members, but there has been no examination to date of CD service teams as social partners or digital facilitators. The resources and skills required by service providers, who will deliver this new form of CD, also requires examination. Development of online day-care

delivery models, therefore, should include exploration of the role and needs of social digital access facilitators for older CD participants.

Gender Dimension

Despite evidence that older men living alone are more likely to suffer from loneliness, men are under-represented in the membership of the CD service studied. Findings elsewhere show older men are more receptive and more likely than older women to engage with digital technologies, for a variety of reasons (Kim, Lee, Christensen, & Merighi, 2017). If this cohort typically have greater access to devices and the internet than older women, an online day-care offering may present an opportunity for engagement of older men in CD activities.

The findings presented, while limited, suggest older women from the subject CD service were more open to engage in remotely delivered day-care activities, and in learning to use digital technologies to achieve this. Previous research indicating that male technology use is more likely to be driven by the prospect of fun and exploration, while female users seek engagement and social connection (Kim et al., 2017; Sobieraj & Krämer, 2020), suggests online day-care delivery models should consider tailoring activities to specifically appeal to male CD members, to encourage greater participation. If online day-care is to have potential to build a bridge for older men to engage with CD, further study is required to explore and examine the relevant design elements necessary to achieve greater gender representation in CD services both online and offline.

Study Limitations

This study was completed approximately six months after initial government restrictions were implemented in Ireland. By then, stakeholders had recognized that resumption of services ‘as normal’ would take longer than originally expected, as society struggled to contain virus transmission and manage illness, especially among older cohorts of citizens. The focus then had been on securing systems to meet the basic needs of CD members. By the time the survey was conducted, social connectedness needs were gaining attention with members, families, and service providers. The CD centre had begun to offer online mindfulness and gardening classes. Exposure by service users to existing online delivery of activities was, therefore, limited at the time of the survey. Nonetheless, the findings present useful insights into the willingness of service members to engage in online day-care activities.

The survey method used for data collection, while less onerous for respondents to complete, offers limited data to examine contextual influences and nuances influencing survey responses provided. Furthermore, data collection by the CD staff may have introduced bias, if respondents were seeking to please the CD provider. However, when conducting survey-based research with older adults, the support of trusted individuals is recognized as helpful in improving reliability of responses (Isaksson, Santamäki-Fischer, Nygren, Lundman & Åström, 2007; DeVries, Leppa, Sandford & Vydelinquum, 2014), facilitating participation by older people and representation of those often excluded from research. Therefore, familiarity and trust between staff and service users are expected to have positively contributed to data collection in this case.

Finally, the data presented in this paper pertains to the study of a single CD service. As such, the findings are not representative of CD services for older people across Ireland or elsewhere. Nonetheless, the data demonstrate the subject CD service was highly engaged with its members during the early months of the COVID-19 pandemic. This comprehensive engagement of members with the day-care services and activities, as well as full participation by all service users, offers some insights into CD for older people, therefore, contributing to the limited literature on community day-care services for older adults.

Conclusion

The COVID-19 pandemic required dynamic and constantly evolving responses. As such, these findings represent a snapshot in time, early in the COVID-19 pandemic, during a turbulent period of social and public health history. Overall, the findings show members of the subject community day-care sustained engagement with existing, though modified, services during the first six months of the COVID-19 pandemic. Encouragingly, service users were willing to consider further engagement using online methods.

In the post-pandemic era, there is potential for greater digital connection, building on the newly developed digital technology usage patterns, as well as increased societal pervasiveness of the internet and digital connection gained during the pandemic. Seifert (2020) cautions, however, that older people who remain offline are at risk of social disadvantage. Our findings, while limited, suggest gender differences in CD participation requires further examination. Additional research is required, considering gender and age, to identify ways to mitigate marginalization and disadvantage in the potential uptake of CD services in general and potentially in online or digital CD activities specifically. The findings

presented in this paper contribute to the limited literature on CD for older people. However, further study is required to evaluate the impact of online day-care delivery on older CD service users. Bridging the digital divide also requires urgent evaluation of the needs of stakeholders, who may be expected to facilitate digital engagement for older people, including family members, carers, and staff or community volunteers.

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