

Experiencing the Unprecedented COVID-19 Lockdown: Abu Dhabi Older Adults' Challenges and Concerns

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Research Article

Keywords: Older adults, COVID-19, social isolation, technological challenges, Abu Dhabi

Posted Date: September 15th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-902742/v1>

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Abstract

This study focused on older adults (60 + years old) in Abu Dhabi during the COVID-19 pandemic before vaccines were made available to them. They faced more strict rules of movement restriction and isolation that might have resulted in certain psychological feelings and social reactions. Data were gathered through an online survey of community members conducted from April to July of 2020, in which 574 older adults responded. The main objective was to understand Abu Dhabi older adults' main psychological feelings during the pandemic and to identify their main concerns and challenges considering the various COVID-19 related policies and restrictions. The influence of the pandemic on older adults' health and weight was also investigated. Results of descriptive analyses show that some negative psychological feelings were common among older adults' during the pandemic. However, the psychological feelings did not portray significant changes with time, except for sleeping disorders and overeating. The movement restrictions imposed on elderlies and not being able to see children and grandchildren when wanted were the two main concerns reported. The research summarizes some policy guidance while noting some limitations of this study and future research directions.

Introduction

The World Health Organization (WHO) has identified older adults as especially vulnerable to the novel coronavirus outbreak (WHO, 2021). COVID-19 virus has created some complications, showing more fatal implications among older adults (OCHA Services, 2021). Meanwhile, the United Nations in May 2020 published a report warning that the COVID-19 pandemic is causing untold fear and suffering for older people across the world. As the virus spreads rapidly and health and social protection systems get overwhelmed, older people may increasingly face vulnerability, abuse, and neglect, which should become the focus of policy considerations (United Nations, 2020). Moreover, mortality data from Oxford COVID-19 Evidence Service (2020) indicated a risk of mortality of 3.6% for people in their 60s and the percentage increases to 8.0% and 14.8% for people in their 70s and 80s.

In an effort to curb the spread of coronavirus, most countries issued regulations that encouraged people to stay at home and to avoid contact with other people, possibly for an extended time, in order to shield older adults. There were also enforced lockdowns and curfews. The global recommendation for older population, therefore, has stressed the issue of social isolation (Public Health England, 2020; Käll et al., 2020). In its more general context, social isolation may include avoiding social contact with family members and friends, social distancing, organizing the delivery of essential goods and items such as groceries and medications.

This research focuses on older adults (60 + years old) in the Emirate of Abu Dhabi of the United Arab Emirates (UAE) during the COVID-19 pandemic. It investigates specific psychological and social concerns and other health challenges reported by older adults, including but not limited to social isolation and loneliness, technology awareness and challenges, health and psychological self-perception, and physical health challenges. A descriptive approach is adopted drawing on the Abu Dhabi COVID-19 survey results. This research also aims to test the effect of time on certain feelings and challenges amongst older adults.

An Overview of COVID-19 Counter-Measures in the UAE and Abu Dhabi

While promoting awareness and prevention as the most effective ways of handling the pandemic (Federal Competitiveness and Statistics Authority, 2020), the UAE government issued policies and rules concerning older adults during the COVID-19 pandemic as it progressed (Ministry of Health and Prevention, 2021; UAE Government Portal, 2020). The rules and policies covered many aspects of everyday living, including but not limited to isolation, limits of family visits, and maintaining required distances at home. The recommended COVID-19 prevention protocol and rules also highlighted the necessity to avoid certain conventional social behaviors such as shaking hands, embracing, and kissing (The Middle East Explained, 2021a; Emirates Policy Center, 2020). In addition, the rules prohibited older adults from going to public places, shopping centers, worship places, and other public gatherings (UAE Health, 2021). The UAE government also warned about social distancing through various communication channels, i.e., broadcasts, TV announcements, newspapers, and social media. Acknowledging that social

distancing may aggravate loneliness among older people, the messages had a positive and promising tone that conforming to such rules will increase the chances to end the pandemic sooner (Ministry of Health and Prevention, 2020).

In the Emirate of Abu Dhabi, as part of its efforts to improve the health level of older adults, the Family Development Foundation (FDF) implemented several initiatives to control and minimize the spread of the COVID-19 (Family Development Foundation, 2020). In cooperation with the Department of Health, the FDF focused on campaigns of “Educating Senior Citizens and Residents” in various regions of Abu Dhabi, with the ultimate goal to “increase their health awareness levels and enable them to adopt the preventive precautionary measures that contribute to maintaining their health and safety.” As a step further, family members, friends, local charities, voluntary organizations, and community organizations were encouraged to develop comprehensive networks to ensure each older person has some meaningful social contact to support (Authority for Social Contribution, 2021). Through such organized and comprehensive approaches, social charities, organizations, and healthcare providers were allowed to work together to support older people through this period of social isolation and loneliness. The government also communicated with older adults in Abu Dhabi to inform them that they were not required to go to testing centers for testing for the COVID-19 (SEHA, 2020). Instead, related government units called them and recommended a public health representative to visit them at home for the testing. All services for older adults were provided free of charge.

The role of technology in combating the pandemic was apparent in Abu Dhabi. The public messages sent by concerned government agencies stressed the influential roles of technology in keeping communications active, especially concerning older adults (The Middle East Explained, 2021b). Older adults were encouraged to take advantage of those communication technologies during this social crisis to think about uncommon opportunities for individual learning, career development, and for communicating with family and friends (Ministry of Health and Prevention, 2020).

Literature Reviews

Older adults are at a significantly increased risk of severe disease following infection from COVID-19. The WHO announced in April 2020 that more than 95% of COVID-19 deaths were among people over 60 years of age, and more than half of all deaths occurred in people of 80 years plus (WHO, 2020). In Sweden, for example, 90% of the deaths from COVID-19 were among people more than 70 years of age (Medical News Today, 2020). There have been distressing international news and reports of older people abandoned in care homes during the pandemic (Keeley, 2020; Sparks, 2020). In addition, numerous media coverage and online commentary about potential rationing of care with older people suggest older adults are potentially more disadvantaged than persons in other age groups (Haffower, 2020; Lee, Jeong, & Yim, 2020).

The COVID-19 pandemic literature in general has reflected concerns related to common health issues and mental health risks associated with older adults. Apart from some physical health issues such as weight losses (Owen et al., 2021; Constandt et al., 2020), the literature has recorded a wide range of psychological feelings, challenges, and concerns reported by people during the pandemic. These psychological feelings and challenges include untold fear and suffering (United Nations, 2020), sadness (Santini et al., 2020), loneliness (Käll et al., 2020; Santini et al., 2020), stress (Klaiber et al., 2020; van Tilburg et al., 2020), irritability (Patel, 2021), emotional exhaustion (Jeste et al., 2020), depression (Santini et al., 2020), sleeping disorder (Pires et al., 2021), overeating (Altena et al., 2020), and excessive screen use (Colley, Bushnik, & Langlois, 2020). Research has also concentrated on various concerns and challenges affecting the whole community in general and older adults in particular, including imposed restrictions (Käll et al., 2020; Santini et al., 2020), not being to go out in public (Takashima et al., 2020), disturbance of social life (Klaiber et al., 2020), less physical activities (WHO, 2020), less access to regular medical visits (Mishra et al., 2020), less get together with younger children (Takashima et al., 2020), and loneliness (Käll et al., 2020; Santini et al., 2020).

Social isolation, in particular, has been identified as a severe public health concern among older people (Gerst-Emerson & Jayawardhana, 2015; Heidinger & Richter, 2020). Loneliness, as a subjective and complex emotion, reflects a lack of contact with or physical separation from family and friends. The isolation might be broader to include social networks and the lack of involvement in social activities. Victor et al. (2005) stressed that social isolation is usually experienced as a feeling of anxiety and dissatisfaction associated with a “lack of connectedness or communality with others, and a deficit between the actual and

desired quality and quantity of social engagement.” It is worth noticing that social isolation and loneliness are correlated and often used interchangeably (Steptoe et al., 2013). Most studies acknowledge that older people’s social isolation and loneliness are essential and paramount due to the detrimental and influential impact on their mental and physical health (Barth, Schneider, & Kanel, 2010). Loneliness is a real risk factor to the health and well-being of all people, where older people can be more vulnerable to being lonely (Santini et al., 2020). More specifically, social isolation and loneliness increase older people’s risk of anxiety, depression, cognitive dysfunction, heart disease, and mortality (Holt-Lunstad, Smith, & Layton, 2010). Social isolation might lead to other outcomes, affecting older adults’ level of awareness and knowledge.

In addressing the challenges faced by older people, Sigh (2020) elaborated that we need to examine both physical and social impact and the underlying reasons. Empirical research has shown that COVID-19 negatively impacted older adults’ body weight and nutritional status (Constandt et al., 2020; Li et al., 2020; Owen et al., 2021), which may suggest a higher risk for lockdown-induced weight loss for the older population. The results of the Canadian Perspective Survey indicated a significant impact of COVID-19 on screen time and mental health (Colley, Bushnik, & Langlois, 2020), as more than 60% of respondents reported increasing TV time and internet usage. Similarly, Helander, Cushman, and Monnat (2021) reported that the COVID-19 pandemic had increased people’s screen time due to various reasons including increased time spent on virtual education, working from home, online shopping, and electronic communication with friends and family. The positive association between numbers of family member’s older adults’ wellbeing have been studied in many different settings (Margolis & Myrskyl, 2011). Díaz-Venegas, Sáenz, and Wong (2017) used logistic regression to determine how family size affects psycho-social, economic, and health wellbeing in old age in Mexico. The results of their study showed that having fewer children is associated with lower economic wellbeing and higher odds of being uninsured for the older cohort. Older adults with children are more likely than older adults without children to have frequent social interactions, and social contacts like this offer opportunities for providing emotional and instrumental support that enhances wellbeing throughout the life course, and the importance of these contacts is especially evident at advanced ages (Baranowska-Rataj & Abramowska-Kmon, 2019).

In terms of public policies and programs, health and social care policies and campaigns worldwide acknowledged the issue of loneliness and social isolation well before COVID-19. For example, the Campaign to End Loneliness (2011) in the UK helped create a wide network of national, regional, and local organizations to work cohesively and ensure that social isolation and loneliness of older people remain a public health priority. The New Zealand government has emphasized its commitment to an aggressive vision of positive aging principles to promote community participation and prevent social isolation and loneliness (Ministry of Social Development, 2001). However, in most developed countries, a different population of older people at risk of becoming more socially isolated resides in residential care homes. During the COVID-19 pandemic, such elderlies encountered challenges as their family members and friends were not permitted to visit them, although most countries adopted regular consultation with medical and related professionals in order to support older people (Berg-Weger & Morley, 2020). Therefore, there is an urgent need to support older people since there might be more negative impacts on their physical and mental health from social isolation and ageist discourses around COVID-19. In such conditions, older adults might require more support to have and retain their connectedness and communality to better enable a sense of belonging. In the United Kingdom (UK), an example of support was rendered by the Public Health England, which issued a publication of guidance on maintaining mental health and well-being during COVID-19 social restrictions (Public Health England, 2020). The UK government also embarked on a media campaign to recruit volunteers to support older people who needed assistance. The campaign was taken as an inclusive approach to ensure that older people are not left isolated over an extended period. Other responses to socially support older people included the development of social networks through online technologies.

The negative effects of COVID-19 are more severe and compounded for older adults who do not have access to modern technology platforms or could not acquire more effective means of communication (Johns Hopkins University, 2020). It is apparent that empirical research has focused on the technical aspects of the pandemic related to older adults (Berg-Weger & Morley, 2020; Käll et al., 2020). Several studies promoted the use of online technologies to provide social support networks and a sense of belonging during the pandemic (Newman & Zainal, 2020). Some also suggested that cognitive-behavioral and psychological therapies be delivered online to decrease loneliness and improve mental wellbeing (Käll et al., 2020). Other creative ways of supporting the general population, including older people, included more creative online applications and

online platforms (Shankar et al., 2017). However, such technological aiding facilities might be inhibited by disparities among older population in access to or literacy in digital resources (Berg-Weger & Morley, 2020). As a result, some analysts recommended that interventions should involve more frequent communications via telephone, messaging, SMS, or other simple social media resources (Brian Suffoletto, 2016; Kuerbis, van Stolk-Cooke, & Muench, 2017; WHO, 2017).

Methods And Design

The survey instruments

The Abu Dhabi Community Development Department (ADDCCD) developed the survey instrument in cooperation with the Statistics Department Abu Dhabi (SCAD). Relevant literature provided the basis for the essential dimensions in the survey to be developed, mainly threats and challenges that elderlies might experience during rough times such as COVID-19. Several international surveys were consulted (Elder, 2020; *Frontiers in Psychiatry*, 2020; *PLOS ONE*, 2020; S&P Global, 2020).

The original instrument included a multitude of dimensions such as time-related expectations, COVID-19 awareness and attitude, economic and business challenges, education-related concerns, health concerns, mental health concerns, community and daily practices, technology-related challenges, and concerns about and trust in government responses. The survey was modified as time went by to include relevant variables according to the pandemic developments. This current study selected the following elements from the survey relevant to the theme of the study. The survey asked respondents to rate on a scale of 5 the extent of some psychological feelings being developed since the outbreak of the COVID-19 pandemic: fear, loneliness, sadness, stress, irritability, emotional exhaustion, depressive symptoms, sleeping disorder, overeating, and excessive screen use. The survey also asked older adults to rate on a scale of 5 the degree of eight specific challenges, including more restrictions imposed, not being to go out to public places, social life disturbed more than before, lack of physical activity, lack of access to regular medicine /physiotherapy, not having necessities like food, not being able to see grandchildren whenever desired, and being lonely. In addition, the survey asked older adults to portray their level of agreement on a 5 scale with the role of technology. Four items were included: new technologies contribute to a better quality of life; I can usually figure out new high-tech products and services without help from others; sometimes technology systems are not designed for use by ordinary people; and technology lowers the quality of relationships by reducing personal interactions. The survey also asked older adults to rate their level of interest, from 1 (not at all interested) 5 (very interested), in seeing their primary care physician via virtual visit. For those selected 'very interested' or 'somewhat interested', a list of reasons was provided to understand better why they were interested in seeing their physicians online. Finally, a question asked respondents about the status of their weight if the pandemic had any impact. The options included a 5-point Likert scale from underweight to overweight. A further question was asked to identify the number of kilograms gained or lost for those who were overweight or underweight.

With regards to demographics of respondents, the survey collected various information concerning age, gender, level of education, residential location and region, type of residents, monthly household income, nationality, marital status, number and type of family members, type and category of work, and health characteristics.

Study sample and survey distribution

The study sample included residents across the three regions of Abu Dhabi: Abu Dhabi region, Al Ain region, and Al Dhafra region). The survey team made extra efforts to reach all community residents in order to achieve representative samples. The survey acquired more than 33,000 responses, among which older adults (60+ years old) accounted for 578. The breakdown by gender was about 60% male and 40% female. Most of them were married. About 40% were Emiratis and 60% were non-Emiratis. About 35% of the elderlies held a bachelor's degree, and 75% lived in Abu Dhabi region. 9.36% of the older adults in the sample lived alone, while 93.64% of them had at least one person living with them. Meanwhile, more than 42.8% lived in a villa, 46.9% in an apartment, 2.9% in collective housing, and 7.4% in other forms of housing.

The survey was available in Arabic, English, and six other Asian languages. The survey was distributed online. More than 50 survey links were created and distributed amongst the various segments of the community. Both ADDCCD and SCAD were involved in distributing the survey links. ADDCCD also sent encouraging calls to the communities, inviting their participation in

the survey. The survey was distributed in two stages, at the start of the COVID-19 pandemic and after four months. Means of distribution included phone calls, messengers, emails, and social media. Survey representatives also appeared in several national TV newscasts to encourage participation.

Analysis methods

The analysis used descriptive analysis, trend analysis, and analysis of variances. Descriptive statistics were used to present responses concerning psychological feelings and challenges faced during the pandemic. Trend analysis, simple regression with time being the independent variable, was deployed to test the effect of time changes concerning the ten psychological feelings. The two-staged survey distribution allowed us to capture the effect of more restrictions imposed on older adults in Abu Dhabi in the post COVID-19 era. Some additional descriptive analyses were performed to understand the effect of the number of family members living in residence concerning the ten perceived psychological feelings.

Results

Psychological feelings - The results in Table 1 show the means and standard deviations regarding self-reported psychological feelings during the pandemic. The mean values for these psychological health attributes are relatively low (below 3.0), with the highest mean 3.2314 for excessive screen use, 2.6552 for fear, 2.6534 for loneliness, and 2.6063 for stress. The feelings of depressive symptoms and overeating scored among the lowest, at 1.9203 and 1.9059 respectively.

Table 1
Psychological feelings during the pandemic

	Mean	Rank	Standard deviation
Fear	2.6552	2	1.165
Loneliness	2.6534	3	1.301
Sadness	2.4960	5	1.230
Stress	2.6063	4	1.252
Irritability	2.2941	7	1.201
Emotional exhaustion	2.3571	6	1.261
Depressive symptoms	1.9203	9	1.203
Sleeping disorder	2.0745	8	1.293
Overeating	1.9059	10	1.150
Excessive screen use	3.2314	1	1.355

Trends in psychological feelings - The analysis took each of the ten psychological feelings as dependent variables, where time was treated as the only independent variable. Table 2 shows the parameters resulted in ten individual regression analysis. Only two variables, sleeping disorder and overeating, showed significance at the 0.05 level. The positive standardized coefficients and t-values note more negative development for the two feelings for older adults, suggesting that time has a negative effect on the development of the two feelings. The same analysis for those below 60 years shows significant differences concerning four variables - stress, irritability, emotional exhaustion, and excessive screen use.

Table 2
Regression analyses of perception of the ten psychological feelings

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
	B	Std. Error	Beta		
Fear	0.012	0.011	0.055	1.057	0.291
Loneliness	0.004	0.013	0.018	0.335	0.738
Sadness	-0.010	0.012	-0.045	-0.845	0.398
Stress	0.014	0.012	0.060	1.137	0.256
Irritability	0.013	0.012	0.060	1.132	0.258
Emotional exhaustion	0.014	0.012	0.059	1.121	0.263
Depressive symptoms	0.006	0.012	0.028	0.524	0.601
Sleeping disorder	0.027	0.012	0.114	2.181	0.030
Overeating	0.025	0.012	0.114	2.177	0.030
Excessive screen use	0.019	0.013	0.075	1.412	0.159

Pandemic concerns - Table 3 shows the most severe challenges that elderlies feel during the pandemic. Three variables scored a value above 3.0. Regarding the most severe challenges that elderlies are experiencing during the pandemic, the variable 'more restrictions imposed' on elderlies stand alone with the highest level of concern (3.462), followed by 'unable to see children and grandchildren whenever desired or wanted' (3.124) and 'not being allowed in public places' (3.056). On the contrary, the three variables that received the lowest concern were 'lack of access to regular medicine/physiotherapy', 'being lonely', and 'not having necessities like food'.

Table 3
Older adults major concerns and challenges

Challenges	Means	Ranks	Standard deviations
More restrictions imposed	3.462	1	1.287
Not being to go out to public places	3.056	3	1.343
Social life disturbed more than before	2.921	4	1.194
Lack of physical activity	2.654	5	1.261
Lack of access to regular medicine/physiotherapy	2.315	8	1.303
Not having necessities like food	2.555	6	1.403
Not being able to see my grandchildren whenever I want	3.124	2	1.323
Being lonely	2.427	7	1.207

Other pandemic effects and reactions - Results in general do not indicate that the pandemic had a significant effect on the body weight of older adults. Only 2.47% felt that they gained too much weight. About 20.85% felt that they gained weight. The majority (65.37%) felt that they maintained their weight. Meanwhile, 9.47% perceived that they lost weight and 1.77% said they lost too much weight. For older adults and those who reported a gain in weight, the mean of gained weight is 4.32 Kilograms. For those who reported weight lost, the mean of lost weight is 5.52 Kilograms. 29.24% of older adults indicated that they are interested in seeing their primary care physician via video during and after COVID-19. The four main reasons why elderlies are interested to see their physician via virtual visit after COVID-19 were prescription renewals, addressing a common illness (i.e., cold, flu), managing chronic illness, and psychological consultation.

Table 4
Overall level of agreement with the role of technology

Technology	Mean
New technologies contribute to a better quality of life	3.866
I can usually figure out new high-tech products and services without help from others	3.543
Sometimes technology systems are not designed for use by ordinary people	3.665
Technology lowers the quality of relationships by reducing personal interactions	3.795

Communication and technology - For staying at home during the pandemic, it was necessary to explore further the perception and readiness of elderlies to deal with new technology. The mean scores for the four statements concerning the role of technology are shown in Table 4. The highest mean is assigned to 'new technology contributes to a better quality of life', as older adults record a mean of 3.866. The statement 'I can figure out new high-tech products and services without help from others' recorded a mean of 3.543. The statement 'sometimes new technologies are not designed for use by ordinary people' scored a mean of 3.665. Finally, 'technology lowers the quality of relationships by reducing personal interactions' scored a mean of 3.795. In general, all four means are above the middle point of 3.0.

Discussions

The study investigated significant developments concerning older adults during the pandemic. It explored their perception regarding ten psychological feelings. Moreover, it examined if the feelings changed during the pandemic. The analysis also looked into older adults' concerns and challenges faced during the pandemic. The investigation looked closer at their perception of health and related issues concerning losing or gaining weight and opportunities for seeing their medical advisors. Finally, it presented older adults' opinion about the role and effect of technology while staying at home.

Relevant research in other countries supports the presence of certain psychological feelings with older adults in Abu Dhabi. The significance of fear and older adults' feelings during the pandemic is evident as warned by the United Nations (2020). The result of excessive screen time during the pandemic for older adults in Abu Dhabi is consistent with results reported in several studies (Colley, Bushnik, & Langlois, 2020; Helander, Cushman, & Monnat, 2021). Among these findings, the issue of loneliness as a significant feeling for older adults has taken center stage attention in older adult's related research around the world, for which the present Abu Dhabi study provides further support. Our results are consistent to suggest that loneliness is a real risk factor to the health and well-being of all people, especially older people who could be more vulnerable to being lonely (Armitage & Nellums, 2020; Santini et al., 2020). In addition, the reported feeling of stress is evident in the Abu Dhabi study, which is in line with the empirical findings reported by Klaiber et al. (2020) and van Tilburg et al. (2020). Overall, the results from Abu Dhabi echo other international research that shows that the COVID-19 pandemic has been a significant stressor that has affected older adults worldwide (Jeste et al., 2020).

However, we should also note that the perceived level of various psychological feelings or disorders associated with the COVID-19 pandemic tends to be low among Abu Dhabi's older adults. Some psychological feelings such as irritability, emotional exhaustion, depressive symptoms, sleeping disorders, and overeating received relatively low means. Such results are not consistent with similar surveys of elderlies in other communities worldwide (Brooks et al., 2020; Jeste et al., 2020; Patel, 2021). It is worth emphasizing that, on the one hand, Abu Dhabi and the UAE in general has government institutions and specific policies dealing with the wellbeing of older adults. For example, the government of Abu Dhabi issued many policies that centered on older adults and the issue of social connection (Lotoala et al., 2014). On the other hand, the traditionally extensive and strong social connection has remained in the modern life of Abu Dhabi, where older adults usually live at home with other family members. Inside the family, they are afforded the opportunity to practice minimum isolation procedures during the pandemic (i.e., reduced visits from family members and social distancing among family members). In this case, the circumstances in other countries may be relatively different from Abu Dhabi (i.e. Käll et al., 2020; Santini et al., 2020; Victor & Bowling, 2012).

It should be added in this context that the UAE as a whole is known for nursing care at home or Home Health Care (HHC) rather than nursing homes. Home care has multiple benefits, from companionship to promoting aging with dignity (New-Wave Homecare, 2021). Home care has also carefully selected nurses and professionals who are passionate and well-trained. Indeed, HHC for the aging has become the preferred solution for the older adult population. When provided the opportunity, most senior citizens prefer to live out their later years in the comfort and familiarity of their homes. With the help of licensed medical professionals, they can avoid moving to an unfamiliar, assisted living facility. There are relatively few older adult care facilities in the UAE, where the norm remains that caring for older adults is the duty of family member.

For Abu Dhabi's older adults, the ten perceived psychological feelings experienced relatively minor changes during and post COVID-19. The few months had some adverse effects only on sleeping disorder and overeating. It seems that spending more time at home produced some restrictions and plenty of spare time. Research in other countries also produced such effects (Pires et al., 2021). However, it should be noted that most research concerning sleeping or overeating covered the general population (Altena et al., 2020; De Mello et al., 2020; Jahrami et al., 2020).

Regarding COVID-19 related challenges, it was clear that older adults saw more restrictions imposed on them to be more of a challenge than other age categories. This specific result entails the feelings of isolation noted by Valtorta and Hanratty (2012). Social isolation might be due to environmental and policy restrictions rather than an individual's ability to create or maintain social relationships (Käll et al., 2020; Santini et al., 2020). The COVID-19 related restrictions imposed by the Abu Dhabi government also included fewer or restricted visits of family members, which explains the second highly rated challenge by older adults, that is, 'unable to see children and grandchildren whenever desired or wanted'. Such a concern was referred to in many OECD reports (OECD, 2020). Furthermore, elderlies in Abu Dhabi also ranked 'not being allowed to go to public places' as a significant concern. Similar results are reported in other countries such as Japan (Takashima et al., 2020). Those three low rated challenges or concerns, i.e., lack of access to regular medicine/physiotherapy, loneliness, and lack of necessities such as food and medicine, however, are not consistent with research findings in other countries (Mishra et al., 2020; Steinman, Perry, & Perissinotto, 2020).

The results of this study pointed out that older adults in Abu Dhabi felt comfortable figuring out new high-tech products and services without the help from others. They also tended to have a more favorable attitude towards virtual technology and appreciate the role of new technology in contributing to a better quality of life, which is consistent with research findings in other countries (Sparks, 2020). However, Abu Dhabi's older adults realized that sometimes new technologies are not designed for use by people who have low technology literacy. Moreover, they pointed to the adverse effects of technology in lowering the quality of relationships by reducing personal interactions. Such results support the efforts of public institutions in Abu Dhabi and elsewhere (Keeley, 2020; Lee et al., 2020). In Abu Dhabi, Public messages sent to communities by government authorities encouraged all family members, especially older adults, to upload mobile applications that facilitate visual communications online. They also offered tutorials for educating older adults.

This research explored people's understanding the effect of the COVID-19 pandemic on their preference to shift in health care delivery platforms, necessitating a new reliance on technology and telemedicine. The results indicated that a relatively low percentage of older adults in Abu Dhabi reported a positive response of their interest to see their primary care physician via virtual visit during and after the COVID-19 pandemic, much lower than some reported figures of older adults that completed or scheduled telemedicine visits in other parts of the world (Eberly et al., 2020; Eberly, Kallan, & Julien, 2020; Nouriel al., 2020). This may be explained by the privileges that the government of Abu Dhabi has given to older adults during the pandemic, as government medical facilities were encouraged to call elderlies to request home visits (SEHS, 2020) and all services to elderlies were provided free of charge.

Conclusions

This research acknowledges that many papers already discuss older adults' mental health issues during the COVID-19 lockdown. However, we should stress that the Abu Dhabi community has unique features. Older adults in Abu Dhabi live within a unique culture where they have special uniqueness regarding tradition, respect, and social connection. This paper adds many

new pieces of knowledge in this area. In a relative sense, older adults in Abu Dhabi rated some specific psychological health attributes as more challenging, including excessive screen use, fear, loneliness, and stress. They rated the feelings of depressive symptoms and overeating relatively low. Trend analysis showed significant changes in sleeping disorder and overeating and pointed to improvements in other feelings but not significantly. Older adults revealed several concerns associated with the pandemic such as more restrictions imposed on elderly, not seeing children and grandchildren whenever desired or wanted, and not being allowed to go public places. On the other hand, they did not show much concern concerning lack of access to regular medicine/physiotherapy and not having necessities.

During difficult times such as the COVID-19 pandemic, a powerful family bond can make all the difference in the world for older adults. Families provide a stable foundation for emotional support for their loved one. The home environment is the least restrictive place for older adults to remain engaged with their typical daily activities in the community and with family and friends around them.

Abu Dhabi government institutions could further design volunteer schemes to better communicate with older adults. For example, special volunteers could have home visits to educate older people to use IT and virtual applications. Such initiatives might increase their health awareness levels and contribute to enriching their pandemic knowledge. In addition, such home visit projects by volunteers or medical teams could act as ambassadors to educate older adults and senior citizens about coronavirus-related preventive measures.

The research included specific symptoms such as fear, loneliness, sadness, stress, irritability, emotional exhaustion, depressive symptoms, sleeping disorder, and overeating. One limitation in this study has to do with the fact that each symptom was asked by one question. Hence, one might doubt if respondents could accurately reflect the situation. Future research should investigate if different people had a different definition of these symptoms. At least, future research should investigate the existence of significant differences in gender, age, education status, income status, marital status, nationality, and other relevant characteristics. Future research could also provide elaborations on the meanings or definitions of each term to guarantee they meant the same thing.

Future research should also investigate the effect of the number of people and older adults' quality of life in more comprehensive ways. Further research should revisit the issues raised by this study to confirm the results and continue exploring the effects of family settings. When it comes to times of more complex circumstances such as pandemics, being consistent with other international research, it might be more informed to include other related variables such as smoking, sport and activities, specific social behaviors, and economic-related variables in order to generate a more comprehensive picture of older adults wellbeing. In addition, a comparison between Abu Dhabi and another aging, developing country may be helpful for better policy makings.

Declarations

Acknowledgements

The Abu Dhabi Department of Community Development and the Statistics Center Abu Dhabi approved this study. The data was part of the Second Cycle of Abu Dhabi Quality of Life Survey.

Author Contributions: Masood Badri: conceptualization, methodology, software, validation, formal analysis, investigation, and original draft preparation. Mugheer Al Khaili: validation, investigation, review, editing, and supervision. Hamad Al Dhaheer: validation, supervision, and project administration. Guang Yang: methodology, validation, project administration, review, and editing. Muna Al Bahr: methodology, validation, review, and editing. Lyla Alhyas: methodology, validation, review, and editing. Asma Al Rashdi: software, data curation, review, editing, visualization, and project administration. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy restrictions.

Conflicts of Interest: The authors declare that there has been no conflict of interest.

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