Contents lists available at Science-Gate



### International Journal of Advanced and Applied Sciences

Journal homepage: http://www.science-gate.com/IJAAS.html

# A qualitative cross-case analysis of older adults' acceptance and resiliency behaviors amidst the COVID-19 pandemic crisis





Evelyn E. Feliciano <sup>1, 2, \*</sup>, Alfredo Z. Feliciano <sup>2, 3</sup>, Wedad A. Alanazi <sup>4</sup>, Zenaida S. Fernandez <sup>2</sup>, Karen D. Sembrano <sup>2</sup>, Joan Russel D. Feliciano <sup>2</sup>, Ma. Teresa T. Cabanayan <sup>2</sup>, Brenda B. Policarpio <sup>2</sup>, Jerry P. Ligawen <sup>2</sup>

<sup>1</sup>Eldon Nursing and Rehabilitation, Missouri, 65026, USA <sup>2</sup>College of Nursing and Graduate Studies, Angeles University Foundation, Angeles, 2009, Philippines <sup>3</sup>Encompass Health Rehabilitation Hospital, Arizona, 85206, USA <sup>4</sup>Department of Nursing, College of Applied Medical Sciences, Majmaah University, Al Majmaah, 11952, Saudi Arabia

#### ARTICLE INFO

Article history: Received 25 August 2022 Received in revised form 1 January 2023 Accepted 30 January 2023 Keywords: Adaptation Acceptance Coping Resilience Stress Successful aging

### ABSTRACT

Resilience has been identified as a dynamic process of sustaining healthy acceptance, adaptation, and effective coping strategies - multiplicity within the aging population is broadly acknowledged. Recognize the concept of resiliency with acceptance in aging interposes during successful aging. Seven 65-75-year-old adult purposive samples were interviewed, and data were collected, extracted, analyzed, and validated with four neutral major themes and 12 supporting subthemes using Colaizzi's method. The study was designed to validate a proposition in the aging-related resiliency theory, which states that when risks and adversities of aging are accepted, older adults tend to use adaptive strategies and supportive resources to improve their coping and resilience. Seven older adults (65-75 years old) purposive samples were interviewed, and data were collected, extracted, analyzed, and validated with four neutral major themes and 12 supporting subthemes using Colaizzi's method. During the COVID-19 pandemic, it is essential to include healthcare interventions that may augment acceptance and resilience in a manner of promoting older adults' healthy aging. It is also important to provide guidelines on how to reduce the negative effects on older adults during the pandemic.

© 2023 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

### 1. Introduction

As the aging population surges, the demand for knowledge on optimistic features of aging, and the influences of older people on one's individual wellbeing and of others are likewise increasing (Rantanen et al., 2018). Based on the United Nations, Department of Economic and Social Affairs, Population Division, in the year 2050, a projected 1.5 billion older persons aged 65 years or over in the world doubled the 703 million aged population in 2019. That is, they globally shared that the world population increased from 6% in 1990 to 9% in 2019. It is in this sense that maintaining a full and independent life is the essence of successful aging which is one of the gerontologists' most successful ideas that perhaps every individual desires to age

\* Corresponding Author.

Email Address: feliciano.evelyn@auf.edu.ph (E. E. Feliciano) https://doi.org/10.21833/ijaas.2023.04.022

Corresponding author's ORCID profile:

https://orcid.org/0000-0001-9120-1534

2313-626X/© 2023 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

successfully until even in their older years (Andersen et al., 2019; Katz and Calasanti, 2015). It has become imperative thought to define the eminence of the aged, a multifaceted idea, and the key emphasis is how to magnify purposeful years in an advanced life period (Annele et al., 2019). As a multidimensional cycle of life, it involves resiliency with positive coping to escape from age-related morbidity and frailty, the preservation of physiological and perceptive ability, and constant social and engagement to dynamic events (Martínez-Moreno et al., 2020; Moore et al., 2015). In the process of aging, health-related events occur that compromise activities or even independence emergent evidence have demonstrated concerns among older persons in achieving successful aging, especially during the COVID-19 pandemic crisis, which has resulted in difficulty achieving physical independence, satisfaction, and other related societal appreciation. However, older adults may exist with at least minimal ability to overcome difficulties and adjust to the challenges of advanced age despite advancing age in consideration of a phenomenon of a decline in every person's essential process (Chaves et al., 2018; Araújo et al., 2016; Martin et al., 2015). Therefore, an essential component that contributes to age successfully is developing resilience and coping effectively while acceptance of aging toward changing well-being later in life (Hochhalter et al., 2011).

Resilience defines and depicts the individual complexities and group responses to distressing and challenging events (Martin et al., 2019; Hadley et al., 2017; Aburn et al., 2016). In several studies, resilience is repeatedly used to advocate the capacity to overcome through recovery from a traumatic and the relative degree of coping successfully varies based on the confronting situations (Wang et al., 2015; Hicks and Miller, 2011). Resiliency in older adults is simply maintaining stability despite the loss, risk, or threats to physical and psychological health and likewise involves optimistic psychology, adult improvement, and stress and adaptive coping mechanisms inclusive of wisdom (Mlinac et al., 2011). Acceptance, on the other hand, is thought to be crucial for the attainment of integrity; maintains older people's well-being for which accepting ageare related changes considered normative concomitants of the aging process (Ranzijn and Luszcz, 2011).

Research incorporating models and theories of resilience, a concept featuring successful aging, a positive outcome, despite some presence of adverse stressful events, has the potential to identify possibilities for the promotion of the well-being of older people (Angevaare et al., 2020; Cosco et al., 2019; Pruchno and Carr, 2017; Moore et al., 2015; Wang et al., 2015; Yates et al., 2015). The idea of adapting and resilience play a role in achieving a positive outcome that can help promote quality of life in this population (Sun et al., 2020; Laird et al., 2019; Xu et al., 2019; Huisman et al., 2017; Jeste et al., 2013; van Kessel, 2013). Likewise, maintaining psychological, physiological, emotional, and social health support are possible domains to attain agingrelated resiliency in older adults that can influence their optimistic outlook toward aging (Carandang et al., 2020; Knepple Carney et al., 2021; Martínez-Moreno et al., 2020; Jeste et al., 2019; Kim et al., 2018; Laird et al., 2019; Musich et al., 2019; Legdeur et al., 2018; Wister et al., 2018; Hadley et al., 2017; MacLeod et al., 2016; Fredriksen-Goldsen et al., 2015).

In the face of challenges, resilience has been identified as a dynamic process of sustaining healthy acceptance, adaptation, and effective coping strategies especially since multiplicity within the aging population is broadly acknowledged that intensifies the need to recognize the concept of resiliency with acceptance in aging interposes to the course of successful aging (Allen et al., 2011; Hochhalter et al., 2011). The aging-related resiliency theory (ART) was efficaciously developed which implies that various deleterious events in life psychologically, physiologically, socially, and emotionally activate older persons to respond, adapt, and recover effectively. Acceptance emerges

as they acknowledge the natural effects of aging while taking adaptive strategies and supportive resources to be resilient to one's environment. In this sense, it impacts their optimistic outlook toward successful aging. Therefore, it is essential to include healthcare interventions-emphasizing improving their capacity to respond to natural decline to essential processes that could benefit them at promoting a healthier life span and may augment resilience in a manner of promoting older adult healthy aging.

Therefore, this study validated a proposition in the ART which states that when risks and adversities of aging are accepted–an impression of older adults' total capacity to adapt and to recover positively, they tend to use adaptive strategies and supportive resources to improve and maintain effective coping and resilience.

One of the assumptions states that getting older comes with the acceptance of the natural phenomenon while acknowledging the declining everyday essential processes of aging that tend them to use adaptive strategies and supportive resources as important initiatives toward improving and maintaining effective coping and resiliency. Therefore, this study aimed to validate a proposition in the ART which states that when risks and adversities of aging are accepted-an impression of older adults' total capacity to adapt and to recover positively, they tend to use adaptive strategies and supportive resources to improve and maintain effective coping and resilience. To further initiate this study, the following questions were fervently asked and eventually answered:

- 1. How may the older adults' demographic characteristics be described in terms of age, gender, and marital status?
- 2. What are the derived themes and subthemes related to older adults (a) level of acceptance and their (b) resiliency behavior of aging amidst the COVID-19 pandemic era?
- 3. What are the clustered older adult areas of similarities and differences towards acceptance and resiliency behavior of aging amidst the COVID-19 pandemic era?

# 2. Methods

# 2.1. Study design

A descriptive qualitative cross-case study was designed to appropriately investigate a current phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not yet clear. In this sense, this design focuses on "cases" and retains a holistic and realworld perspective through an in-depth exploration of similarities and differences across cases with a view to supporting empirical generalizability and theoretical predictions (Yin, 2018). Engaging in a case study is typically seeking to understand what is common about the cases and what is unique about these cases in new and interesting ways (Evans, 2022). Therefore, it is in this way to fully understand the commonalities and unique features of older adults especially in their level of acceptance and resiliency behavior amidst the pandemic crisis. This study included two particularistic cases with which these cases are examined independently and then a cross-case analysis was made between cases.

### 2.2. Sample and setting

The study included participants in a variety with the following criteria set such as that they are

- 1. Older adults aged 65 years of old and above
- 2. Either male or female
- 3. Those experiencing or without chronic illnesses such as diabetes, hypertension, cancer, etc.
- 4. Fully conscious and oriented with complete behavior and cognitive ability
- 5. Willingly to participate in the study

However, the study excluded those older adults with (1) neurologically disabled conditions, and (2) an inability to verbally express oneself due to illness and its complications. More so, participants can withdraw anytime even during the study without being penalized. Participants' review and approval of the informed consent form warrant the beginning of data collection. More so, this study was made up of two different clusters of participants and named these clusters case one and case two. Participants were assessed on how they perceive their level of acceptance (showing a productive, active lifestyle, positive mindset, tranquility, more trusting, etc.), and resiliency (having stress balance, good selfesteem, social engagement, practicing healthy behaviors, maintaining strong religious beliefs, etc.) at two different major cities of Pampanga, Central Luzon, Philippines over a two-year experience of aging amidst pandemic crises. Older adults in each case were assigned to one of two clusters based on predetermined interview assessment as case one (positively accept the effects of aging and are resilient) and case two (facing difficulties to and/or unable to accept and maintain calmness) in aging during COVID-19 pandemic crisis. In the study, case one consisted of four older adults, and three older adults in case two, were available and consented to participation.

The study used a non-probable purposive, snowball sampling technique with a sample of older adult informants aged 65 years old and above. With this sampling method, the researchers may strive to identify older adults' level of acceptance and resiliency behaviors while experiencing aging during the pandemic crisis to provide a complete picture of the situation that is under investigation (Evans, 2022). More so, it is in this manner that the researchers referred from one informant to another person from among those known by the informants. A reasonable sample size might be small as five or six participants, depending on the nature of the research question and data saturation (Evans, 2022).

### 2.3. Measurement/instrument

informal An conversational unstructured interview gears more toward the guiding openended question(s)-grand-tour question, "In your position right now, how do you consider yourself in terms of accepting and being resilient to the changes caused by aging within our pandemic setting" and occurs once in every participant for 20-35 minutes in a neutral nature that typically centers on the essence or structure of older adult acceptance and resiliency behaviors amidst pandemic crisis. The researchers identified patterns and themes to develop new questions as data emerge for data analysis can occur simultaneously with data collection. Rather than being an interested listener, the researchers engaged in the conversation with written notes taken during the interview process more than when in any other interview type (Guetterman, 2020). Aside from observation, the researchers performed bracketing with the identification of one's personal biases and beliefs about the level of acceptance and resiliency behaviors of older adults amidst the pandemic crisis and likewise set aside to fully understand the experience of the informants who are experiencing a similar event.

### 2.4. Data collection procedure

Upon voluntary consent by the participants, the interview (via person-to-person and phone) process began in an impulsive and freely structured way. The researchers, as an interviewer, served as a mediator that guides participants as they move between topics. Meanwhile, participants were clustered based on the preliminary interview assessment by directly asking their stand towards their acceptance and resiliency in aging and in support of their transcripts. Furthermore, the researchers initiated the actual discussion using a grand-tour question with the consideration of collecting both verbal and nonverbal data via journaling. By comparing nonverbal communication with verbal statements, the researchers made clarifications related to the meanings of the comments, and data were improved and facilitated. During the interview process, the researchers elected individual participants' statements, confessions, confrontations, and interview questions to transcribe verbatim for use. Likewise, the researchers maintained naturally a setting of the environment for the interviews to ensure that the surroundings are conducive to the interview and observation processes. Collected data end upon exhaustion of descriptions is achieved. As data saturation was reached, the number of participants established methodological integrity through criteria used to ensure study rigor that includes credibility, transferability, dependability, confirmability, and authenticity.

Likewise, a seven-step Colaizzi's (1978) method was adopted in this study that calls for the results' final validation by returning to the participants (Morrow et al., 2015).

These steps were strictly done systematically as follows: (1) Read entire protocols to gain a feeling for them; (2) Studied the protocol separately and extracted substantial accounts; (3) Implied the gist of each substantial statement; (4) Systematized the articulated meaning into groups of themes; (5) Integrated outcomes into a comprehensive elucidation of the phenomenon under study; (6) Formulated an in-depth description of the phenomenon in as clearly identified statement as possible; and, (7) Asked the participants regarding the findings so as its ultimate confirming stage (Polit and Beck, 2016).

### 2.5. Cross-case analysis

Each case was examined independently and then a cross-case analysis with the constant comparative method was made between cases-that is to accumulate case knowledge, compare, and contrast cases, and in doing so, produce new knowledge. The researchers synthesized-two cases with each individual case in the cross-case synthesis treated as a separate case, but a synthesis of the data of each case strengthens its own case study data (Yin, 2018). Data were gathered and analyzed, derive conclusions, and report results were independent. As the analysis of each case is completed, cross-case analysis commences. To build a general explanation, each of the individual cases must fit even though the cases vary in their details but are categorized, tabulated, and analyzed these cases as windows to compare and gave insight for the cross-case analysis which allows reconsideration categories and opportunity for renewed insight. Evidence from each case and/or participant is summarized and coded broad thematic headings, under and then summarized within themes across cases with commonalities and differences between cases noted. Such a method is not a prescriptive step-by-step procedure but in a high-level three-step methodcross-case displays primarily matrices to organize that data by variable and/or by case. Following the three concurrent flows of cross-case analysis activities, the researchers should essentially perform data reduction, data display, and conclusion drawing and verification (Yin, 2018).

Likewise, pressing for a high-quality analysis includes four principles to follow. First, the researchers should attend to all evidence by exhaustively covering evidence applying to key research questions. Second, all major rival interpretations must be addressed, and examining rivals is the best way to strengthen the study. Third, the analysis should address the most significant aspect of the case study which focuses on the most important issue. Finally, the researchers should use prior knowledge with the awareness of current thinking and discussion concerning older adult acceptance and resilience behavior amidst pandemic crises.

Likewise, in each case, the research requires to begin with observations to be made while reading the narrative data and look for patterns and themes toward depth of understanding of each case. The researcher performed a cross-case analysis of individual interviews by categorizing the narrative responses into themes. During analysis, the researchers consulted another research expert to independently read the transcribed narrative and then make a comparison of observations with the other expert before reaching a consensus on the final themes (Hagedoorn et al., 2017). The researchers strived for trustworthiness and interpretation of data to establish the integrity or validity and reliability of the study. Therefore, the researchers used the criteria to ensure the rigor of the study including (1) credibility, (2) transferability, (3) dependability, (4) confirmability, and (5)authenticity. The researchers achieved credibility of data and data analysis through which the data were taken back to older participants to ensure accuracy with the provision to participants an opportunity to clarify or deny the interpretation of the analysis. Data were coded and later checked and confirmed with available participants. Likewise, these coded data were independently reviewed and verified by experts in both the area of research and in the method used for the study to further support the quality of the data. More so, the researchers accomplished transferability by providing а thorough, description of the sample, setting, and data in the report with a detailed story (Amankwaa et al., 2022). Furthermore, the researchers achieved dependability with the inclusion of adequate evidence through documentation of information collected, stored, and analyzed data to reach conclusions. The researchers analyzed data in a way that keeps the researcher from biases, assumptions, and perspectives about the topic of interest to achieve confirmability. Likewise, the research reviewed the analyzed data with participants and by the experts with the assurance of results authenticity (Snelgrove, 2014). The researchers clearly and effectively addressed and reported how the results were determined.

### 3. Results

The findings of the study are presented and followed by a cross-case analysis. In cross-case analysis, the study considered the areas in which these two particularistic case studies suggest the same points and differences.

# 3.1. Profile of study key participants

Table 1 shows the clustered participants into two cases with their demographic characteristics in this descriptive qualitative cross-case study with seven older adult key informants consisting of both men (2 or 28.57%) and women (5 or 71.43%) aged between

65 to 76 years old. Most participants were married (4 or 57.14%) and currently residing in major cities of Pampanga–Central Luzon, Philippines. Most of the participants belonged to case two (4 or 57.14%) which outnumbered case one (3 or 42.86).

 
 Table 1: Participants' demographic characteristics and their cluster

their cluster									
Code	Cluster	Age (yrs.)	Gender Marital statu						
P1	C2	70	Female	Widowed					
P2	C2	65	Female Married						
Р3	C1	66	Male	Married					
P4	C2	69	Female	Widowed					
P5	C1	72	Female	Widowed					
P6	C1	76	Female	Married					
P7	C2	75	Male Married						
Destigingents D1 D2 D2 D7 Cases C1 C2									

Participants P1, P2, P3 ... P7; Cases C1, C2

### **3.2. Derived themes and supporting subthemes**

With 57 significant verbatim statements generated from seven older adult informants, four meaningful neutral major themes and 12 supporting subthemes were intensely extracted-explaining older adult acceptance and resiliency behaviors amidst the COVID-19 pandemic crisis. Such meaningful themes and corresponding subthemes are completely summarized and illustrated in Table 2. Discussion of these themes and supporting subthemes is presented following sequential order themes. The first theme, "recognizing vulnerability," involved three supporting subthemes. Even in times of crisis, older adults continuously require acknowledging, adapting, and recovering despite the natural declining processes of aging. Several of these participants reported a fundamental attitude of a dynamically productive lifestyle display (4 of 7), mitigating immunity against pandemic health illness (4 of 7), and dependency associated with disability (5 of 7).

Despite the potentiality of displaying vulnerability in older adults, especially during a pandemic crisis, older adults were able to emphasize the "impact of aging towards health and well-being," the second theme. Each theme consisted of three supporting themes that are equally related to older adults as to accepting and being resiliency to changes that aging brings amidst the COVID-19 crisis. All of them (7 of 7) expressed the essentiality of maintaining hold to a strong religious belief that may ease their mental and emotional health and well-being as the pandemic situation brings the feeling of fright and likewise, the physiological threat to them. With such risk, most of them (5 of 7) critically conferred at practicing healthy behaviors, and most of them (3 of 7) still perceived a positive mindset despite uncertainty and fear from a lifethreatening health crisis caused by COVID-19 while in the late stage of life. The third theme, "support and healthcare access" consisted of two supporting subthemes that solely related to older adult acceptance. The majority of them (4 of 7) stated that there is less access to governmental support, especially acquiring vaccination for highly vulnerable individuals that economic instability (3 of 7) augments the situation. Finally, "recuperating despite adversity" entailed four resiliency behaviorrelated supporting subthemes. In the face of challenges, resilience has been identified as a dynamic process of sustaining healthy adaptation and effective coping strategies such as mobilizing dormant reserves (2 of 7) and sustaining happiness from family support (2 of 7), yet few of them (2 of 7) restrict to a social engagement even at allowable measures and tranquility over threats of COVID-19 (3 of 7).

**Table 2:** Older adult' acceptance and resiliency-derived themes and subthemes

Themes	Supporting subthemes			
Themes	Acceptance	Resiliency		
Recognizing vulnerability	Dynamically productive lifestyle display	Dependency associated with		
Recognizing vullerability	Mitigating immunity against pandemic health illness	disability		
Impact on health and well-being	Positive mindset despite uncertainty and fear	Maintaining hold to a strong religious belief Practicing healthy behaviors		
Support and healthcare access	Less access to governmental support Economic instability			
Recuperating despite risks and adversities		Mobilizing dormant reserves Sustaining happiness from family support Restriction on social engagement Tranquility over threats of COVID-19		

# **3.3. Older adults' acceptance and resiliency behavior-related meanings**

Table 3 presents such a synthesis focused on the reduction of four broad themes into simple data of both cases with corresponding semantics and hyponyms in an un-ordered matrix. Both cases display similarities with given identical tags (e.g., VO1 Productive, VT1 Active, IO1 religious, IT1 spiritually strong, IO3 compliant, IT3 submissive).

However, some characteristics were rather specific (e.g., VT2 frail, AT1 inaccessible support, and RO2 socially engaged had one subcomponent, VT2.1 dependent, AT1.1 poor or needy, and RO2.1 calm, respectively). However, few of them had different terms derived from how cases evaluate they are being accepted and resilient to the changes of aging amidst the pandemic crisis regarding the impact towards health and well-being (e.g., IO2 positive mindset and IT2 uncertain) and attention towards

recuperating despite risks and adversities of older adults (e.g., RO1 resourcefulness, RT1 featureless, RO2 socially engaged, RT2 restricted/limited). Even though a hyponym (e.g., VT2.1 dependent) is identified, it still revealed a similarity to other characteristics (e.g., VO2 disable) while others highly expressed its difference in both cases (e.g., RO2.1 calm and RT3 unhealthy complacency). Eleven related meanings to older adult acceptance and resiliency behaviors appear equally in both cases-case one and case two.

Themes	Case one	F	Р	Case two	F	Р
	VO1 Productive	3	P3, P5, P6	VT1 Active	1	P4
Decognizing unla onobility	VO2 Immunocompromised	2	P6	VT2 Frail	3	P1, P2, P7
Recognizing vulnerability	VO3 Disable	1	P6	VT2.1 Dependent	4	P1, P2, P4, P7
Impact on health and well-	IO1 Religious	2	P3, P5, P6	IT1 Spiritually strong	2	P1, P2, P4, P7
being	IO2 Positive mindset	3	P3, P5, P6	IT2 Uncertain	2	P1, P4
-	IO3 Compliant	3	P3, P5, P6	IT3 Submissive	2	P2, P4
Support and healthcare	A01 Support uncertainty	2	P5, P6	AT1 Inaccessible support	2	P4, P7
access	AO2 Financially unstable	1	P3, P5	AT1.1 Poor or needy	1	P7
Decumenting decuite vieles	RO1 Resourceful ness	2	P3, P5	RT1 Featureless	3	P1, P2, P7
Recuperating despite risks and adversities	RO2 Socially engaged	2	P3, P5	RT2 Restricted/limited	2	P1, P7
and adversities	RO2.1 Calm	3	P3, P5, P6	RT3 Unhealthy complacency	3	P1, P2, P7

 Table 3: Participants' perceived acceptance and resiliency behavior-related meanings in two cases

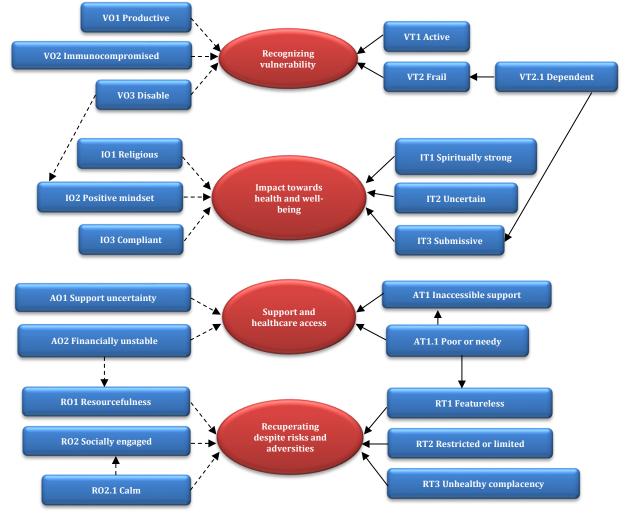
Frequency F; Participant P1-7; Codes of cases V01-3, I01-3, A01-2, R01-2.1, VT1-2.1, IT1-3, AT1-1.1, RT1-3

Table 3 shows that both VT2.1 dependent and IT1 spiritually strong of case two (4 of 7) are the most frequently mentioned semantics for recognizing the vulnerability of older adults and the impact on their health and well-being. On the other hand, several semantics in case one towards recognizing vulnerability (V01), impact towards health and wellbeing (IO1, IO2, and IO3), and recuperating despite risks and adversities among older adults of accepting and being resilient (RO2.1) are likewise most frequently mentioned. It is also clear from the matrix that participants in case one indicate the positively meaningful level of acceptance and resiliency towards changes of aging amidst the pandemic crisis (V01, I01, I02, I03, R01, R02, R02.1) while most semantics in case two are characterized with noticeable challenges of older adults in terms of accepting and being resilient (VT2, VT2.1, IT2, IT3, AT1, AT1.1, RT1, RT2, and RT3).

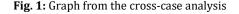
Fig. 1 illustrates the identification of relations between semantic characteristics in case one and case two with which these are expressed in a graph. These relations were expressed qualitatively in the analysis transcript of older adults in a verbatim manner. For example, most of the participants in case one stated that "being an old person who easily gets tired, experiences body aches, and complains, still needs to go out from that box and be productive, fit, and in healthy lifestyle. During pandemic, older adults are the most susceptible group to get infected of COVID-19 that adds-up for further disability." This statement was clearly captured where semantic characteristics V01 productive, V02 immunocompromised, and VO3 disable contribute to recognizing the vulnerability of older adults. Getting a dynamically active lifestyle with at least giving attention to potential disability and mitigating immunity against pandemic health threats should likewise be considered.

Due to the recognized vulnerability of participants in case two, older adults tend to state that "it is necessary for them to be engaged in

exercise or activity vet being accompanied most of the time and shouldn't be left alone for several care demands is presented in them due to disability caused by advancing age." This is interpreted as older adults require to have VT1 active yet VT2.1 dependent is expected due to its association to VT2 frail. Statements related to "dependence on religion and by faith in God help them to cope with illness or any negative effects of aging especially during crisis. Also, with family and friends, older adults are motivated towards self-monitoring and determining functional capacity" were likewise interpreted that aside from IO1 religious, older adults tend to maintain IO2 positive mindset and achieve IO3 compliant, which in turn impacts the health and well-being of older adults. Despite disability, a positive mindset is attained and sustained in case one. Similarly, statements extracted from case two described that "they keep a strong hold onto one's faith despite uncertainty towards health during the rise of pandemic crisis. Due to dependence brought by frailty, participants in this group tend to be passive at receiving care from family and relatives. Such interpretation led older adults to opting towards IT1 spiritually strong, IT2 uncertain, and especially IT3 submissive (associated with VT2.1 dependent). On the other hand, case one and case two expressed statements related to limited access to governmental support especially to COVID-19 vaccination. Despite governmental claims of their health priority, most were still on queue towards the improbability. Being old for them is coupled with several healthcare maintenances to secure and therefore, it necessitates financial sustainability. At this time of pandemic, they are waiting for the assistance provided by the government." These statements are interpreted and associated with A01 support uncertainty and AO2 financially unstable, AT1.1 poor or needy, a subset of AT1 inaccessible support, which in turn is related to older adult's perception of their support and healthcare access. Finally, remarkable differences were identified between case one and case two in terms of recuperating despite risks and adversities experienced in relation to aging amidst the pandemic era. Such statements from case one are described as "older adults' savings at its minimal are being used for healthcare maintenance and sustenance. Its common in older adults to experience physical discomfort yet not a major concern. Older adults value the presence of ones' old family for living with their children and grandchildren keeps every aged to socially engaged and relaxed despite presence of public restrictions due to pandemic health threats." An interpretation is made in relation to RO1 resourcefulness, RO2 socially engaged with a subset of RO2.1 calm of case one, which in turn drastically diverse with RT1 featureless, RT2 restricted or limited, and RT3 unhealthy complacency of case two.



Dash lines are relations from case one while solid lines comes from case two



### 4. Discussion

Older adults aged 60-80 years are among the age group that severely suffers from fatality (Lai et al., 2020). Aside from several conditions of chronic comorbidities, age is likewise a contributing factor to increasing fatal rates due to COVID-19 (Liu et al., 2020).

### 4.1. Derived themes and supporting subthemes

Among other age groups, the older population is mostly affected by the coronavirus disease (COVID-19) pandemic crisis and is known vulnerable with such physical, mental, social, and emotional stress (Yang et al., 2021). A much more communicable illness with easily transmitted one during pandemics and can be highly fatal for older adults aged 60-80 since they are immunosuppressed, less monitored due to social disengagement, and presence of comorbidities (Galica et al., 2021; Lai et al., 2020; Wu and McGoogan, 2020). Older adults with diseases and other related signs and symptoms of ailments are at greater risk for functional decline and therefore increase care dependency (Boltz et al., 2018). Older people are mostly taken care of by their children and relatives or other family members, keeping them at their homes unless they are ill or must be hospitalized to give special consideration, affection, and primary care. More and more of the aging population demands for basic older care needs (Yang et al., 2021). Older adults are also challenged

of their capabilities for adaptation and resilience behind their fragility coupled with financial instability as one of socio-ecological factors that likewise influenced older adult depression and anxiety (Amieva et al., 2021; Aruta, 2022; Li and Mutchler, 2020).

# 4.2. Older adults' acceptance and resiliency behavior-related meanings

The subsequent challenge to economic security is impacting older people while facing the crisis of COVID-19. Such insufficiency in older adults' economic security suggests the consequences could be devastating for many (Palermo, 2021). More so, understanding the idea that physical activity is required to achieve improvement in physical functioning and therefore perform every individual wish and enjoys doing. However, deteriorating capability related to age-related ailments affecting the performance of even the basic activities of living may limit achieving successful aging. Furthermore, several associated negative effects of social distancing with which social neglect, isolation, sadness, fear of the unknown, and psychological depression were identified during the COVID-19 pandemic crisis which older adults are potentially suffering these effects while they aged at these times (Armitage and Nellums, 2020; Banerjee, 2020). The loss of social connectedness and engagement, a result of one of the safety protocols for the COVID-19 pandemic and a well-recognized and serious public health issue, can have profound mental and physical effects which likely have more impact on vulnerable age groups (Brooks et al., 2020). As a source of strength, comfort, and hope for older adults during challenging events like the crisis of COVID-19, religion or spirituality or taking a stronghold of one's beliefs are just a few of many reasons why older adults are being resilient behind an increasing sense of isolation due to social restrictions (Buenaventura et al., 2020; Manning et al., 2019; Malone and Dadswell, 2018). Religion, a key factor of older adult resilience as older adult improves the feeling of calmness and well-being as they rely upon it in facing challenges as it relieves them from physical, social, emotional, and psychological sufferings due to consequences of social restriction or isolation (Fardin, 2020; Lucchetti et al., 2021; Manning et al., 2019). However, older adults are likewise leading to a sense of sadness and yearning which may exacerbate feelings of uncertainty due to social disengagement and disconnection. Aside from social restrictions caused by the COVID-19 pandemic crisis, physical inactivity is among the strongest predictors of physical disability in older adults leading to their dependency due to functional limitations (Fielding et al., 2017). Despite the increasing rate of older adults with poor physical activity levels and emotional instability, older adults expressed high resilience with lower depressive symptoms (Zach et al., 2021). Likewise, the ability to continue living at home due to lockdowns and priorities to COVID-19 infected

individuals, instead in a rehabilitation center is dependent on functional capacity which affects older adults' self-efficacy and management of everyday life (Cederbom et al., 2019; Soukkio et al., 2018). Therefore, it is a helping hand for vulnerable individuals to better understand the experiences of older adults and provide guidelines on how to reduce the negative effects on older adults during the COVID-19 pandemic and enlighten studies concerning the well-being of older adults or other vulnerable people in future crises.

The cross-case analysis does reveal contradictions between case one and case two older adults with respect to the impact towards health and well-being and recuperating despite risks and adversities-meaning that one did state the opposite of what the other states except for certain areas such as having a stronghold over one's faith in God as protection from uncertainty and fear towards threats of COVID-19 while in the late stage of life. Such differences between cases include that despite the perceived disability of case one older adults, they still conserve a positive mindset towards their health and well-being and that they are compliant and resourceful as to what should be done to at least maintain and sustain physiological, psychological, social, and emotional balance than case two older adults which are more uncertain at accepting and being resilient to age while crisis arising. Aside from religion or spirituality which both cases share similarities, in case one older adults express an improved feeling of calmness and well-being while likewise socially engaged with strict safety protocol compliance that case two older adults are restricted or limited due to fear of further dependency once inflicted of COVID-19. Therefore, they tend to demonstrate unhealthy complacency to recuperate from risks and adversities while aging amid the pandemic. Despite identified contradictions between cases, both cases still revealed similarities towards recognizing vulnerability in older adults and challenges in governmental support and healthcare access during rising pandemic challenges.

### 5. Conclusion and recommendation

Being old may somewhat affect essential aspects of life biologically, socially, and psychologically. Although medical advancement through technology may improve comfort and lengthen life expectancies, it can't prevent people from aging and dying. Older adults might be frailly caused by aging, yet they are undeniably not weak. In the dynamic process of aging, older adults further display to be accepting and resilient, improving their' resiliency that keeps them continuing to function and progress as positive management from natural detrimental consequences of age-related life risks and adversities. Their resilience can be significant if given a priority to take care of. Likewise, acceptance, as a primary phase to adapt, emerges to begin older adults take adaptive strategies and resources to effectively cope and be resilient. Amid challenges, resilience has been identified as a dynamic process of sustaining healthy adaptation and effective coping strategies especially since multiplicity within the aging population is broadly acknowledged that intensifies the need to recognize the concept of resiliency in aging interposes to the course of successful aging.

Therefore, it is a helping hand for vulnerable individuals to better understand the experiences of older adults and provide guidelines on how to reduce the negative effects on older adults during the COVID-19 pandemic and enlighten studies concerning the well-being of older adults or other vulnerable people in future crises. It is high time that pandemic-related policies and legislation in the country be made older adult-friendly. Aside from their potential vulnerability physiologically, their psychological, sociological, and emotional care needs are likewise essential for them to get protected for sustaining health and well-being. Likewise, it is essential to include healthcare interventions that may augment resilience in a manner of promoting older adults' healthy aging. More possible effects of a pandemic can affect significantly the older population so preparedness to deal with this crisis should be the governmental priority.

### 6. Theory validation

Assumptions generated from previously developed theory, the ART are the following: (1) As an older person advances with age, they assume to respond, adapt differently with their own appropriate judgments, and recover either positively or negatively to several challenging life events experienced that seriously threaten development; and (2) because of getting older, it comes with the acceptance of the natural phenomenon while acknowledging the declining everyday essential processes of aging that tend them to use adaptive strategies and supportive resources as important initiatives toward improving and maintaining effective coping and resiliency (Feliciano et al., 2022). Participants in the study established acceptance of age during the COVID-19 crisis, by adapting and recovering positively while using adaptive strategies and supportive resources to improve and maintain effective coping and resilience. This is one of the propositions of the ART that was intensely validated using cross-case analysis. It revealed contradictions between the two cases with respect to the impact on health and wellbeing and recuperating despite risks and adversities. Likewise, it still involved similarities towards accepting and being resilient to the changes in aging such as recognizing vulnerability in older adults which calls for the significant necessity to recuperate while providing the critical role of family, community, and the government towards access to care support and healthcare as few of the adaptive strategies and supportive resources to improve and maintain effective coping and resilience amidst the pandemic crisis. Therefore, accepting and being resilient of an older adult are products of being able

to cope positively which impacts an optimistic outlook towards achieving successful aging.

### Funding

The authors would like to thank the Deanship of Scientific Research at Majmaah University, Kingdom of Saudi Arabia under Project No. R-2022-333 for supporting this work.

### Acknowledgment

All authors would like to thank the older adult residents of Pampanga, who voluntarily and enthusiastically participated in this academic work.

### **Compliance with ethical standards**

### **Ethical consideration**

Since the interview is in an informal "personal touch" conversational form, the researchers provided participants with informed consent after explaining the nature and its study purpose. The participation was made voluntarily agreed within the participants. All who agreed to participate were asked to sign the said letter of consent as approved by the Institutional Review Board and likewise retained a copy for themselves.

### **Informed consent**

Informed consent was secured from the respondents of the study. The informed consent detailed the subject status, purpose, type of data, nature of commitment, subject selection, procedures, and potential risks and benefits. Moreover, an emphasis on subject confidentiality was maintained throughout the course of the study.

### **Conflict of interest**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### References

- Aburn G, Gott M, and Hoare K (2016). What is resilience? An integrative review of the empirical literature. Journal of Advanced Nursing, 72(5): 980-1000. https://doi.org/10.1111/jan.12888 PMid:26748456
- Allen RS, Haley PP, Harris GM, Fowler SN, and Pruthi R (2011). Resilience: Definitions, ambiguities, and applications. In: Resnick B, Gwyther L, and Roberto K (Eds.), Resilience in aging: 1-13. Springer, New York, USA. https://doi.org/10.1007/978-1-4419-0232-0\_1
- Amankwaa I, Nelson K, Rook H, and Hales C (2022). Association between body mass index, multi-morbidity and activities of daily living among New Zealand nursing home older adults: A retrospective analysis of nationwide InterRAI data. BMC Geriatrics, 22: 62. https://doi.org/10.1186/s12877-021-02696-8

PMid:35042475 PMCid:PMC8767739

- Amieva H, Avila-Funes JA, Caillot-Ranjeva S, Dartigues JF, Koleck M, Letenneur L, and Bergua V (2021). Older people facing the crisis of COVID-19: Between fragility and resilience. The Journal of Frailty and Aging, 10(2): 184-186. https://doi.org/10.14283/jfa.2020.60
  PMid:33575710 PMCid:PMC7680077
- Andersen SL, Sweigart B, Sebastiani P, Drury J, Sidlowski S, and Perls TT (2019). Reduced prevalence and incidence of cognitive impairment among centenarian offspring. The Journals of Gerontology: Series A, 74(1): 108-113. https://doi.org/10.1093/gerona/gly141
   PMid:29931286 PMCid:PMC6298187
- Angevaare MJ, Monnier AA, Joling KJ, Smalbrugge M, Schellevis FG, Hertogh CMPM, and Huisman M (2020). The application of the concept of resilience in aging research and older adult care: A focus group study. Frontiers in Medicine, 7: 365. https://doi.org/10.3389/fmed.2020.00365 PMid:32850888 PMCid:PMC7417312
- Annele U, Satu KJ, and Timo ES (2019). Definitions of successful ageing: A brief review of a multidimensional concept. Acta Bio Medica: Atenei Parmensis, 90(2): 359. https://doi.org/10.23750/abm.v90i2.8376 PMid:31125022 PMCid:PMC6776218
- Araújo L, Ribeiro O, Teixeira L, and Paúl C (2016). Successful aging at 100 years: The relevance of subjectivity and psychological resources. International Psychogeriatrics, 28(2): 179-188. https://doi.org/10.1017/S1041610215001167
  PMid:26205318
- Armitage R and Nellums LB (2020). COVID-19 and the consequences of isolating the elderly. The Lancet Public Health, 5(5): e256. https://doi.org/10.1016/S2468-2667(20)30061-X PMid:32199471
- Aruta JJBR (2022). Socio-ecological determinants of distress in Filipino adults during COVID-19 crisis. Current Psychology, 41(11): 7482-7492. https://doi.org/10.1007/s12144-020-01322-x PMid:33424204 PMCid:PMC7783297
- Banerjee D (2020). 'Age and ageism in COVID-19': Elderly mental health-care vulnerabilities and needs. Asian Journal of Psychiatry, 51: 102154. https://doi.org/10.1016/j.ajp.2020.102154
  - PMid:32403024 PMCid:PMC7198430
- Boltz M, Kuzmik A, Resnick B, Trotta R, Mogle J, BeLue R, and Galvin JE (2018). Reducing disability via a family centered intervention for acutely ill persons with Alzheimer's disease and related dementias: Protocol of a cluster-randomized controlled trial (Fam-FFC study). Trials, 19: 496. https://doi.org/10.1186/s13063-018-2875-1 PMid:30223870 PMCid:PMC6142366
- Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, and Rubin GJ (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. The Lancet, 395(10227): 912-920. https://doi.org/10.1016/S0140-6736(20)30460-8 PMid:32112714
- Buenaventura RD, Ho JB, and Lapid MI (2020). COVID-19 and mental health of older adults in the Philippines: A perspective from a developing country. International Psychogeriatrics, 32(10): 1129-1133. https://doi.org/10.1017/S1041610220000757 PMid:32349826 PMCid:PMC7235307
- Carandang RR, Shibanuma A, Asis E, Chavez DC, Tuliao MT, and Jimba M (2020). "Are Filipinos aging well?": Determinants of subjective well-being among senior citizens of the community-based ENGAGE study. International Journal of Environmental Research and Public Health, 17(20): 7636. https://doi.org/10.3390/ijerph17207636 PMid:33092078 PMCid:PMC7588882
- Cederbom S, Leveille SG, and Bergland A (2019). Effects of a behavioral medicine intervention on pain, health, and

behavior among community-dwelling older adults: A randomized controlled trial. Clinical Interventions in Aging, 14: 1207-1220.

https://doi.org/10.2147/CIA.S208102 PMid:31308644 PMCid:PMC6615714

- Chaves CF, Mazzotti DR, Cendoroglo MS, Ramos LR, Tufik S, Silva VCD, and D'Almeida V (2018). Genes related to maintenance of autophagy and successful aging. Arquivos de Neuro-Psiquiatria, 76: 831-839. https://doi.org/10.1590/0004-282x20180142 PMid:30698207
- Colaizzi P (1978). Psychological research as a phenomenologist views it. In: Valle RS and King M (Eds.), Existential phenomenological alternatives for psychology. Open University Press, New York, USA.
- Cosco TD, Kok A, Wister A, and Howse K (2019). Conceptualising and operationalising resilience in older adults. Health Psychology and Behavioral Medicine, 7(1): 90-104. https://doi.org/10.1080/21642850.2019.1593845 PMid:34040841 PMCid:PMC8114384
- Evans D (2022). Making sense of evidence-based practice for nursing: An introduction to quantitative and qualitative research and systematic reviews. Routledge, Oxfordshire, UK. https://doi.org/10.4324/9781003156017
- Fardin MA (2020). COVID-19 epidemic and spirituality: A review of the benefits of religion in times of crisis. Jundishapur Journal of Chronic Disease Care, 9(2): e104260. https://doi.org/10.5812/jjcdc.104260
- Feliciano E, Feliciano A, Palompon D, and Boshra A (2022). Agingrelated resiliency theory development. Belitung Nursing Journal, 8(1): 4-10. https://doi.org/10.33546/bnj.1631
- Fielding RA, Guralnik JM, King AC, Pahor M, McDermott MM, Tudor-Locke C, and LIFE Study Group (2017). Dose of physical activity, physical functioning and disability risk in mobilitylimited older adults: Results from the LIFE study randomized trial. PLOS ONE, 12(8): e0182155. https://doi.org/10.1371/journal.pone.0182155 PMid:28820909 PMCid:PMC5562326
- Fredriksen-Goldsen KI, Kim HJ, Shiu C, Goldsen J, and Emlet CA (2015). Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group. The Gerontologist, 55(1): 154-168. https://doi.org/10.1093/geront/gnu081 PMid:25213483 PMCid:PMC4542897
- Galica J, Liu Z, Kain D, Merchant S, Booth C, Koven R, and Haase KR (2021). Coping during COVID-19: A mixed methods study of older cancer survivors. Supportive Care in Cancer, 29(6): 3389-3398. https://doi.org/10.1007/s00520-020-05929-5
  PMid:33404813 PMCid:PMC7786158
- Guetterman TC (2020). Qualitative, quantitative, and mixed methods research sampling strategies. Oxford University Press, Oxford, UK. https://doi.org/10.1093/obo/9780199756810-0241
- Hadley EC, Kuchel GA, and Newman AB (2017). Report: NIA workshop on measures of physiologic resiliencies in human aging. The Journals of Gerontology: Series A, 72(7): 980-990. https://doi.org/10.1093/gerona/glx015 PMid:28475732 PMCid:PMC5861884
- Hagedoorn EI, Paans W, Jaarsma T, Keers JC, van der Schans C, and Luttik ML (2017). Aspects of family caregiving as addressed in planned discussions between nurses, patients with chronic diseases and family caregivers: A qualitative content analysis. BMC Nursing, 16: 37. https://doi.org/10.1186/s12912-017-0231-5

PMid:28701898 PMCid:PMC5504762

Hicks G and Miller RR (2011). Physiological resilience. In: Resnick B, Gwyther L, and Roberto K (Eds.), Resilience in aging: 89-103. Springer, New York, USA. https://doi.org/10.1007/978-1-4419-0232-0\_6

- Hochhalter AK, Smith ML, Ory MG (2011). Successful aging and resilience: Applications for public health and health care. In: Resnick B, Gwyther L, and Roberto K (Eds.) Resilience in aging: 15-29. Springer, New York, USA. https://doi.org/10.1007/978-1-4419-0232-0\_2
- Huisman M, Klokgieters SS, and Beekman ATF (2017). Successful ageing, depression and resilience research: A call for a priori approaches to investigations of resilience. Epidemiology and Psychiatric Sciences, 26(6): 574-578. https://doi.org/10.1017/S2045796017000348 PMid:28689499 PMCid:PMC6999036
- Jeste DV, Glorioso D, Lee EE, Daly R, Graham S, Liu J, and Kim HC (2019). Study of independent living residents of a continuing care senior housing community: Sociodemographic and clinical associations of cognitive, physical, and mental health. The American Journal of Geriatric Psychiatry, 27(9): 895-907. https://doi.org/10.1016/j.jagp.2019.04.002 PMid:31078382 PMCid:PMC7172111
- Jeste DV, Savla GN, Thompson WK, Vahia IV, Glorioso DK, Martin AVS, and Depp CA (2013). Association between older age and more successful aging: Critical role of resilience and depression. American Journal of Psychiatry, 170(2): 188-196. https://doi.org/10.1176/appi.ajp.2012.12030386 PMid:23223917 PMCid:PMC3593664
- Katz S and Calasanti T (2015). Critical perspectives on successful aging: Does it "appeal more than it illuminates"? The Gerontologist, 55(1): 26-33. https://doi.org/10.1093/geront/gnu027 PMid:24747713 PMCid:PMC4986584
- Kim ES, Grodstein F, and Kubzansky LD (2018). Optimism and healthy aging in women and men. Innovation in Aging, 2(Suppl 1): 802-803. https://doi.org/10.1093/geroni/igy023.2980 PMCid:PMC6228560
- Knepple Carney A, Graf AS, Hudson G, and Wilson E (2021). Age moderates perceived COVID-19 disruption on well-being. The Gerontologist, 61(1): 30-35. https://doi.org/10.1093/geront/gnaa106 PMid:32808660 PMCid:PMC7454676
- Lai CC, Shih TP, Ko WC, Tang HJ, and Hsueh PR (2020). Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. International Journal of Antimicrobial Agents, 55(3): 105924. https://doi.org/10.1016/j.ijantimicag.2020.105924

PMid:32081636 PMCid:PMC7127800

- Laird KT, Lavretsky H, Wu P, Krause B, and Siddarth P (2019). Neurocognitive correlates of resilience in late-life depression. The American Journal of Geriatric Psychiatry, 27(1): 12-17. https://doi.org/10.1016/j.jagp.2018.08.009 PMid:30262406 PMCid:PMC6298796
- Legdeur N, Badissi M, Carter SF, De Crom S, Van De Kreeke A, Vreeswijk R, and Visser PJ (2018). Resilience to cognitive impairment in the oldest-old: Design of the EMIF-AD 90+ study. BMC Geriatrics, 18: 289. https://doi.org/10.1186/s12877-018-0984-z PMid:30477432 PMCid:PMC6258163
- Li Y and Mutchler JE (2020). Older adults and the economic impact of the COVID-19 pandemic. Journal of Aging and Social Policy, 32(4-5): 477–487. https://doi.org/10.1080/08959420.2020.1773191 PMid:32543304
- Liu K, Chen Y, Lin R, and Han K (2020). Clinical features of COVID-19 in elderly patients: A comparison with young and middleaged patients. Journal of Infection, 80(6): e14-e18. https://doi.org/10.1016/j.jinf.2020.03.005 PMid:32171866 PMCid:PMC7102640
- Lucchetti G, Góes LG, Amaral SG, Ganadjian GT, Andrade I, Almeida PODA, and Manso MEG (2021). Spirituality, religiosity and the mental health consequences of social isolation during COVID-19 pandemic. International Journal of Social Psychiatry, 67(6):

672-679. https://doi.org/10.1177/0020764020970996 PMid:33135559 PMCid:PMC7649649

- MacLeod S, Musich S, Hawkins K, Alsgaard K, and Wicker ER (2016). The impact of resilience among older adults. Geriatric Nursing, 37(4): 266-272. https://doi.org/10.1016/j.gerinurse.2016.02.014 PMid:27055911
- Malone J and Dadswell A (2018). The role of religion, spirituality and/or belief in positive ageing for older adults. Geriatrics, 3(2): 28. https://doi.org/10.3390/geriatrics3020028 PMid:31011066 PMCid:PMC6319229
- Manning L, Ferris M, Narvaez Rosario C, Prues M, and Bouchard L (2019). Spiritual resilience: Understanding the protection and promotion of well-being in the later life. Journal of Religion, Spirituality and Aging, 31(2): 168-186. https://doi.org/10.1080/15528030.2018.1532859 PMid:33335455 PMCid:PMC7743140
- Martin AV, Eglit GM, Maldonado Y, Daly R, Liu J, Tu X, and Jeste DV (2019). Attitude toward own aging among older adults: Implications for cancer prevention. The Gerontologist, 59(Supplement\_1): S38-S49. https://doi.org/10.1093/geront/gnz039 PMid:31100140 PMCid:PMC6524756
- Martin P, Kelly N, Kahana B, Kahana E, Willcox BJ, Willcox DC, and Poon LW (2015). Defining successful aging: A tangible or elusive concept? The Gerontologist, 55(1): 14-25. https://doi.org/10.1093/geront/gnu044 PMid:24840916 PMCid:PMC4542894
- Martínez-Moreno A, Ibáñez-Pérez RJ, Cavas-García FF, and Cano-Noguera F (2020). The influence of physical activity, anxiety, resilience and engagement on the optimism of older adults. International Journal of Environmental Research and Public Health, 17(21): 8284. https://doi.org/10.3390/ijerph17218284
  PMid:33182468 PMCid:PMC7665151
- Mlinac ME, Sheeran TH, Blissmer B, Lees F, Martins D (2011). Psychological resilience. In: Resnick B, Gwyther L, Roberto K (Eds.), Resilience in aging: 67–87. Springer, New York, USA. https://doi.org/10.1007/978-1-4419-0232-0\_5
- Moore RC, Eyler LT, Mausbach BT, Zlatar ZZ, Thompson WK, Peavy G, and Jeste DV (2015). Complex interplay between health and successful aging: Role of perceived stress, resilience, and social support. The American Journal of Geriatric Psychiatry, 23(6): 622-632. https://doi.org/10.1016/j.jagp.2014.08.004 PMid:25217186 PMCid:PMC4329284
- Morrow R, Rodriguez A, and King N (2015). Colaizzi's descriptive phenomenological method. The Psychologist, 28(8): 643-644. https://doi.org/10.1016/j.jcin.2015.03.004 PMid:25907096
- Musich S, Wang SS, Slindee L, Kraemer S, and Yeh CS (2019). Association of resilience and social networks with pain outcomes among older adults. Population Health Management, 22(6): 511-521. https://doi.org/10.1089/pop.2018.0199 PMid:30801238 PMCid:PMC6885755
- Palermo S (2021). "Neurocovid": An analysis of the impact of COVID-19 on the older adults: Evolving psychological and neuropsychological understanding. In: Baddour MM (Ed.), Fighting the COVID-19 pandemic: 215-228. Books on Demand, Norderstedt, Germany. https://doi.org/10.5772/intechopen.99414
- Polit DF and Beck CT (2016). Nursing research: Generating and assessing evidence for nursing practice. 8<sup>th</sup> Edition, Lippincott Williams & Wilkins, Philadelphia, USA.
- Pruchno R and Carr D (2017). Successful aging 2.0: Resilience and beyond. The Journals of Gerontology: Series B, 72(2): 201-203.

https://doi.org/10.1093/geronb/gbw214 PMid:28364520

- Rantanen T, Saajanaho M, Karavirta L, Siltanen S, Rantakokko M, Viljanen A, Rantalainen T, Pynnönen K, Karvonen A, Lisko I, and Palmberg L (2018). Active aging-resilience and external support as modifiers of the disablement outcome: AGNES cohort study protocol. BMC Public Health, 18: 565. https://doi.org/10.1186/s12889-018-5487-5 PMid:29716566 PMCid:PMC5930766
- Ranzijn R and Luszcz M (2011). Acceptance: A key to wellbeing in older adults? Australian Psychologist, 34(2): 94-98. https://doi.org/10.1080/00050069908257435
- Snelgrove SR (2014). Conducting qualitative longitudinal research using interpretive phenomenological analysis. Nurse Researcher, 22(1): 20–25. https://doi.org/10.7748/nr.22.1.20.e1277 PMid:25251816
- Soukkio P, Suikkanen S, Kääriä S, Kautiainen H, Sipilä S, Kukkonen-Harjula K, and Hupli M (2018). Effects of 12-month home-based physiotherapy on duration of living at home and functional capacity among older persons with signs of frailty or with a recent hip fracture-protocol of a randomized controlled trial (HIPFRA study). BMC Geriatrics, 18(1): 1-10. https://doi.org/10.1186/s12877-018-0916-y PMid:30285645 PMCid:PMC6167829
- Sun C, Yu Y, Li X, Cui Y, Ding Y, Zhu S, Li X, Chen S, and Zhou R (2020). The factors of adaptation to nursing homes in mainland China: A cross-sectional study. BMC Geriatrics, 20(1): 517. https://doi.org/10.1186/s12877-020-01916-x PMid:33256628 PMCid:PMC7708906

van Kessel G (2013). The ability of older people to overcome adversity: A review of the resilience concept. Geriatric Nursing, 34(2): 122-127. https://doi.org/10.1016/j.gerinurse.2012.12.011 PMid:23332474

Wang JL, Zhang DJ, and Zimmerman MA (2015). Resilience theory and its implications for Chinese adolescents. Psychological Reports, 117(2): 354–375. https://doi.org/10.2466/16.17.PR0.117c21z8

PMid:26444835

- Wister A, Lear S, Schuurman N, MacKey D, Mitchell B, Cosco T, and Fyffe I (2018). Development and validation of a multi-domain multimorbidity resilience index for an older population: Results from the baseline Canadian longitudinal study on aging. BMC Geriatrics, 18: 170. https://doi.org/10.1186/s12877-018-0851-y PMid:30053838 PMCid:PMC6062931
- Wu Z and McGoogan JM (2020). Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: Summary of a report of 72 314 cases from the Chinese center for disease control and prevention. Journal of the American Medical Association, 323(13): 1239-1242. https://doi.org/10.1001/jama.2020.2648 PMid:32091533
- Xu W, Li YX, and Wu C (2019). Incidence of frailty among community-dwelling older adults: A nationally representative profile in China. BMC Geriatrics, 19: 378. https://doi.org/10.1186/s12877-019-1393-7
   PMid:31888498 PMCid:PMC6937935
- Yang Q, Wang Y, Tian C, Chen Y, and Mao J (2021). The experiences of community-dwelling older adults during the COVID-19 lockdown in Wuhan: A qualitative study. Journal of Advanced Nursing, 77(12): 4805-4814. https://doi.org/10.1111/jan.14978 PMid:34258806 PMCid:PMC8447433
- Yates TM, Tyrell FA, and Masten AS (2015). Resilience theory and the practice of positive psychology from individuals to societies. In: Joseph S (Ed.), Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life: 773-788. John Wiley and Sons, Hoboken, USA. https://doi.org/10.1002/9781118996874.ch44
- Yin RK (2018). Case study research and applications: Design and methods. Sage, Los Angeles, USA.

Zach S, Zeev A, Ophir M, and Eilat-Adar S (2021). Physical activity, resilience, emotions, moods, and weight control of older adults during the COVID-19 global crisis. European Review of Aging and Physical Activity, 18: 5. https://doi.org/10.1186/s11556-021-00258-w PMid:33648448 PMCid:PMC7917372