

Attitudes and Preparedness of Older Adults for Future Health Care Needs

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Abstract

Background: Many older persons do not make specific plans regarding their future care, or very few do, despite the possibility of health care demands. This is often because they do not see the need for it or choose not to consider the possibility of being dependent on others in their later years. **Aim:** assess attitudes and preparedness of older adults for future health care needs. **Method:** A descriptive cross sectional design was used on 243 older adults diagnosed with at least one chronic disease from geriatric outpatient clinics at Mansoura University Main hospital and Specialized Medical Hospital affiliated to Mansoura University. Data were collected using; demographic and health related data structured interview schedule, Preparation for Future Care Needs Attitude Scale and Preparation for Future Care Needs. **Results:** The mean scores of low usefulness of planning, expectations for care needs and expectations for no care needs that related to the older adults' preparation for future care needs attitudes were (23.74 ± 9.15 , 19.23 ± 4.53 , and 15.95 ± 4.10) respectively. Also, the total score of preparation for future care needs was (45.75 ± 10.66) and the mean of overall awareness of future care needs and avoidance of care planning were (11.53 ± 3.26 and 5.35 ± 2.05) respectively. **Conclusion:** Older adults had moderate positive attitudes about planning future care needs and their awareness of future care needs tends to be high. Avoidance of planning was positively related to both low usefulness of planning and expectation of no care, while, it was negatively related to expectation of care need. **Recommendation:** To support the notion of care preparation and future care requirements, additional behaviorally based outcome measures must be investigated in future studies.

Keywords : Attitudes, Future, Health Care Needs, Older Adults, Preparedness

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Introduction

As people age, chronic illnesses become more prevalent and are frequently linked to lower life expectancy and decreased capacity for independent living. Decision-making and medical interventions become more and more necessary when diseases worsen. End-of-life (EOL) planning refers to the process of making financial, housing, and care plans for future requirements of older persons and their carers. Early EOL planning would be ideal in order to promote decision-making involvement and raise the possibility that the care is in line with personal values^(1,2).

Behavioral intentions are determined by attitudes towards the behavior and subjective norms, and information influences an individual's attitude⁽³⁾. Beliefs or attitudes of older adults can affect on planning for their future care. Two major elements are crucial to PFCN: first, it's

critical to determine whether a person believes they will require care in the future; second, a key component of PFCN is the conviction that making plans for future medical needs is beneficial⁽⁴⁾.

Future care planning is the process of getting ready to use social and environmental resources in case an older adult develops a chronic condition or experiences a health event that requires care in the future. Relatively few older persons make preparations for their future because they do not see the need or do not want to consider about possible dependency in later life, despite the fact that many of them are aware of their impending fragility and mortality^(5,6).

A theory-driven concept called "preparation for future care needs" (PFCN) might help to comprehend the processes in the risk-appraisal and planning process. According to this view, a pattern of elevated awareness of the possibility of requiring care in the future is indicative of future care planning. People who become more aware of this risk are more inclined to gather social and informational resources. With these tools, people can then be more equipped to manage changes in their environment and make educated decisions when they arise. It has been demonstrated that this type of active planning improves therapeutic results and encourages older persons to maintain their autonomy. Getting the right care is crucial for ageing in a healthy way. Indeed, some theorists contend that PFCN is an essential part of healthy ageing in and of itself, and that throughout the next two decades, it will likely become a public health priority^(7,8).

When an individual, couple, or family contemplates the prospect of frailty or impairment as a future health state, they are engaging in planning for future care, or PFC. This awareness may spark discussion about decisions pertaining to those health states as well as preferences for carers, environments for care, and the best times and methods for transitioning into those environments. PFC should ultimately result in specific behaviours that represent those choices and preferences. Consequently, PFC is a kind of behavior-and thought-based health promotion⁽⁹⁾.

There are four stages involved in future care planning: First, risk awareness and anticipation for future care, which evaluates older persons' knowledge of the likelihood of disability and future support needs; The second step involves gathering information regarding the need for care as well as the resources available to address those requirements. It is centred on evaluating the existing circumstances, potential future goal states, and available means of achieving these states; Third: making decisions, like selecting an assisted living facility, requires analyzing available options and getting clarity on care and health preferences; Fourth: concrete planning of care arrangements: this phase evaluates if a care plan was started on time and whether family members were informed of one's preferences for care, such as placing one's name on a waiting list. Seniors who are well aware of their possible care needs but haven't made any significant plans for them report feeling more anxious and depressed^(10,11).

Numerous elements, both individual and contextual, as well as the interactions between the two, have an impact on planning. Individual aspects include a person's personality, ideas about the value of preparation, expectations about whether or not they will require care in the future, and susceptibility to urgent medical needs⁽¹²⁾. The social welfare and healthcare systems that the person lives in, as well as the degree to which the person's social-structural milieu facilitates or obstructs successful planning, are examples of contextual elements that might help with future care planning. Sex, education, culture, accessibility to service information, and health policy are significant contextual factors that influence PFC and health decision-making⁽¹³⁾.

Making decisions about end-of-life care and future care planning is becoming more crucial as an increasing proportion of older persons age into extreme poverty. However, not many older persons make adequate plans for their long-term care. This study aims to shed insight on older individuals' attitudes and preparedness for future care needs by focusing on a particular angle on the problem⁽¹⁴⁾. There are no previous studies held in Egypt about attitudes and preparations of older adults for future health care needs.

Significance of the study

As proactive coping and proactive planning for upcoming stressors or transitions can minimize the worsening of issues and aid in general adjustment and well-being, planning for future care can have several advantages⁽¹³⁾. Better health outcomes are experienced by older persons who participate in future care planning. Additionally, they express less anxiety about the future. On the other hand, a lack of preparation and understanding can result in rash decisions and raise the possibility of choosing a residential or care setting that is not a good fit for the requirements and values of the person. Low planning and high avoidance of future care planning may be the reason why these behaviours are linked to anxiety and despair later on^(4, 15).

Elderly people seem to benefit most from preparing for future care when it includes tangible tasks like making decisions or creating concrete care plans⁽¹⁶⁾. Therefore, making decisions may entail establishing preferences for particular care arrangements, and making concrete plans for care may entail sharing these preferences with other family members, finding out if the options are covered by insurance, or setting aside money to be able to pay for them⁽¹⁷⁾.

Aim of the study:

Assess attitudes and preparedness of older adults for future health care needs.

Research question

What are older adults' attitudes and preparedness for future health care needs?

Subjects and Method

I- Research Design: A descriptive cross sectional design was used.

II- Setting:

The study was carried out in the geriatric outpatient clinics in Mansoura University Main hospital and the Specialized Medical Hospital affiliated to Mansoura University, it worked every Saturday and Wednesday.

III- Subjects:

This study included 243 older adults diagnosed with at least one chronic condition from the above-mentioned setting fulfilling the following inclusion criteria: both sexes, aged 60 year and more, able to communicate, and accept to participate in the study.

Sample size calculation

Sample size was calculated using Medcalc 15.8 (<https://www.medcalc.org/>). The primary outcome of interest is the mean PFCN score. A previous study found that the mean PFCN score was 39.08 ± 12.024 ⁽¹⁸⁾. With alpha error of 0.01 and study power of 90%, then the sample size is 243 elderly.

IV-Tools:

Three tools were used to collect the necessary data:

Tool I: Demographic and Health Related Data Structured Interview Schedule

This tool was developed by the researchers based on review of relevant literature. It consists of two parts:

Part 1: Demographic characteristics of the older adults including age, sex, marital status, level of education, place of residence and income.

Part 2: Health related data of the older adults including medical history, chronic diseases, and medication used.

Tool II: Preparation for Future Care Needs Attitude Scale

It was developed by Sörensen & Pinquart ⁽¹⁹⁾. It consists of three factors, the first factor is **low usefulness of planning**, and it is composed of seven items that reflect ideas about the usefulness or not of planning. Low perceived usefulness is indicated by high numbers on this measure. The second factor is **expectation for care needs**, is made up of five items and denotes the belief that one will eventually need assistance or care. On this scale, respondents who scored highly are inclined to feel that they will probably require care in the future. The third factor is **expectation for no care needs** it also contains five items and evaluates the likelihood that a person won't require assistance or care in the future and includes five other items. Respondents will be asked to rate their level of agreement on a 5-point Likert scale:, where strongly disagree equal one (1), disagree equal two(2), neither agree or disagree equal three (3), agree equal four (4) and strongly agree equal five (5). The total score was computed using summary scores from each scale.

Tool III: Preparation for Future Care Needs scale (PFCN)

It was developed by Sörensen & Pinquart ⁽¹⁹⁾. The process of making plans for future care requirements is outlined by this multifaceted framework. It is a fourteen-item assessment tool for future care planning. There are five subscales in this tool: awareness of future care needs, gathering information, decision making, concrete planning, and avoidance of care planning. A 5-point Likert-type scale, ranging from 1 (not at all true of me) to 5 (totally true of me), is used to score agreement with each statement. The avoidance of care planning subscale had three items with reversed scores. An overall total sum score was calculated; higher scores demonstrated greater levels of awareness and a sense of preparedness for future care needs. Total score ranges from 14-70 ⁽²⁾.

V- Data collection process:

Phase I: Preparatory phase

- The Mansoura University Faculty of Nursing's governing authority granted formal approval.
- After explaining the goal of the study and the timing of data collection, permission to perform the study was granted by the heads of the geriatric outpatient clinics at Mansoura University Hospital and the Specialized Medical Hospital connected to Mansoura University.
- The researchers translated Tool II, the Preparation for Future Care Needs Attitude Scale, and Tool III, the Preparation for Future Care Needs scale (PFCN) into Arabic. An English

language specialist from the Mansoura University English Department's Faculty of Education utilized back translation to confirm the accuracy of the tool translation.

- Study tools were assured of their content validity by a jury of five experts in Gerontological nursing and Geriatric medicine. The necessary modifications were carried out accordingly.
- The tools' reliability for internal consistency was statistically examined using Cronbach's alpha coefficient, which revealed that tool II was 0.85 and tool III was 0.87, indicating that the tools were very reliable.
- A pilot study was conducted on 10% (25) of older adults at the geriatric outpatient clinics at Mansoura University hospital and the Specialized Medical Hospital to evaluate the clarity, applicability, and the required time to fill in the study. Those older adults were not a part of the study sample and no modifications were made.

Phase II: Operational phase

- Based on the schedule of the geriatric outpatient clinics at Main Mansoura University hospital and the Specialized Medical Hospital the researcher visited geriatric outpatient clinics two days per week for each (at Saturday and Wednesday) from 9:00 am to 1:00 pm and were able to interview 6 to 7 elderly patients each day.
- Survey all older adults attended the geriatric outpatient clinic for one month, and selected elderly persons who fulfilled the study criteria and agreed to participate in the study.
- The researchers introduce themselves to the older adult before the interview began. In order to gather the necessary data, the researchers conducted (one-to-one interviews) with each older adult in the waiting space of the outpatient clinics.
- The study tools needed time taken from 30 -40 minutes to be filled.
- Data collection took 5 months, from the middle of October 2023 till the middle of February 2023.

Ethical Considerations:

The current study's conduct was approved by the research ethics committee of Mansoura University's Faculty of Nursing with reference number (0534). Elderly people were informed about the goal of the study and asked to sign a written consent form. There was an assurance of privacy, confidentiality, anonymity, and the ability to withdraw at any moment.

Statistical Analysis:

Version 22 of the statistical software for social science (SPSS) was used to analyze the data. Using the one-sample Kolmogorov-Smirnov test, the data's normality was initially assessed. The following descriptive appropriate statistical tests were used: mean, standard deviation, frequency, and percentage. In addition to inferential statistics, the Student t test and the Analysis of Variance (ANOVA) test were employed to compare the means of the two groups and any additional groups. The correlation between variables was tested using Pearson's correlation coefficient. In cases where the chance of mistake is less than 5% ($P < 0.05$), the results are deemed significant.

Results

Table 1 shows distribution of the older adults according to their demographic characteristics. This table shows that 39.5% of the older adults were in middle old with a mean of 68.3 ± 6.4 years, 58.8% of them were males and 63.0% living in rural areas. 43.2% were married and 41.6% were read and write. 57.6% of the older adults worked before retirement while 58.8% of them are not currently working. 62.6% reported that their monthly income was not enough and 55.1% were living with their families.

Table (1): Demographic characteristics of the older adults

| Items | | N | % |
|------------------------|------------------------------|-------------------|------|
| Age(years) | 60 < 65 | 82 | 33.7 |
| | 65 < 75 | 96 | 39.5 |
| | ≥ 75 | 65 | 26.7 |
| | Mean ± Std. Deviation | 68.3 ± 6.4 | |
| Sex | Male | 143 | 58.8 |
| | Female | 100 | 41.2 |
| Residence | Rural | 153 | 63.0 |
| | Urban | 90 | 37.0 |
| Marital status | Single | 29 | 11.9 |
| | Married | 105 | 43.2 |
| | Widowed | 83 | 34.2 |
| | Divorced | 26 | 10.7 |
| Level of education | Illiterate | 36 | 14.8 |
| | Reads and writes | 101 | 41.6 |
| | Basic education | 72 | 29.6 |
| | University education | 34 | 14.0 |
| Work before retirement | Work | 140 | 57.6 |
| | Don't work | 103 | 42.4 |
| Currently working | No | 143 | 58.8 |
| | Yes | 100 | 41.2 |
| Monthly income | Not enough | 152 | 62.6 |
| | Enough | 91 | 37.4 |
| Living condition | With family | 134 | 55.1 |
| | Alone | 85 | 35.0 |
| | With sons | 24 | 9.9 |

Table 2 illustrates distribution of the older adults according to their medical history. This table shows that the majority 85.6% of the older adults were suffering from more than one chronic disease. Hypertension was the most prevailing chronic disease among them 85.6%, followed by

76.5% had pulmonary disorders, 65.4% had musculoskeletal disorders and 59.3% had urinary disorders. The most medication used was medications for hypertension in 85.2%, followed by diabetic and liver diseases medications in 75.1%, and medications for heart diseases 68.4 %.

Table (2): Distribution of the older adults according to their medical history

| Items | N (243) | 100% |
|--|---------|------|
| Number of diseases (co-morbidity) | | |
| No disease | 14 | 5.8 |
| One disease | 21 | 8.6 |
| More than one disease | 208 | 85.6 |
| Types of diseases | | |
| Hypertension | 208 | 85.6 |
| Pulmonary disorders | 186 | 76.5 |
| Musculoskeletal disorders | 159 | 65.4 |
| Urinary disorders | 144 | 59.3 |
| Heart diseases | 143 | 58.8 |
| Liver and gastrointestinal disorders | 115 | 47.3 |
| Diabetes Mellitus (DM) | 94 | 38.7 |
| Others * | 50 | 20.6 |
| Types of medication used # | | |
| N =209 % 86.0 | | |
| Treatment of hypertension | 178 | 85.2 |
| Treatment of liver disease | 157 | 75.1 |
| Treatment of diabetes | 157 | 75.1 |
| Treatment of heart diseases | 143 | 68.4 |
| Treatment of musculoskeletal disorders | 113 | 54.1 |
| Others \$ | 76 | 36.4 |

* (auditory- visual problem-prostatic hyperplasia- hypothyroidism)

\$ Others (Ophthalmic antifungals eye drops- bronchodilator-treating for hypothyroidism)

More than one answer was given

Table 3 shows descriptive statistics preparation for future care needs attitudes score. This table shows that the highest mean score of low usefulness of planning was 3.51 ± 1.42 in item” planning is not useful because other people can make better plans for my future care needs than I can myself”, the highest mean score of expectations for care needs was $4.00 \pm .80$ in item” people I know have needed or need help or care, so I think the same will probably happen to me” ,and the highest mean score of expectations for no care needs was $3.55 \pm .98$ in item “because I have never required help or care, I don’t have to think about future care needs.

Table (3): Descriptive Statistics of the Preparation for Future Care Needs Attitudes Score

| Item | Mean ± Std. Deviation |
|--|-----------------------|
| Low Usefulness of Planning | |
| Since I can't predict whether I will need care in the future, it's not worth making plans for that occasion | 3.19 ± 1.12 |
| It is impossible to plan for future care— you must take life one day at a time. | 3.43 ± 1.31 |
| I can't plan for my future care when our society is changing all the time. | 3.43 ± 1.31 |
| I can't plan for my future need for help because I lack important resources (like finances, knowledge, available relatives). | 3.43 ± 1.31 |
| Planning is not useful because other people can make better plans for my future care needs than I can myself. | 3.51 ± 1.42 |
| I do not want to plan for future care needs because I'd rather not think about negative things. | 3.36 ± 1.47 |
| If I worry about future care needs now, I won't have enough energy to deal with the actual situation when it arises. | 3.36 ± 1.47 |
| Expectations for Care Needs | |
| At my age there is a good chance that I will need care in the future. | 3.46 ± 1.39 |
| Because living an independent, healthy life has become more difficult in the last 5 years, I will probably need more care. | 3.92 ± .92 |
| Because I have trouble doing some tasks of daily living, I should be preparing for future care needs. | 3.92 ± .92 |
| I am quite sure that I will need help or care in the future. | 3.92 ± .92 |
| People I know have needed or need help or care, so I think the same will probably happen to me. | 4.00 ± .80 |
| Expectations for No Care Needs | |
| Because I have never required help or care, I don't have to think about future care needs. | 3.55 ± .98 |
| I think I will die unexpectedly, without needing help or care. | 3.13 ± .92 |
| I don't think I will ever be ill long enough to require help or care. | 3.08 ± .83 |
| People in my family have lived independently until their death so I don't think I will need help or care in the future. | 3.08 ± .83 |
| Because I am relatively healthy, I do not need to think about or plan for future care | 3.08 ± .83 |

Table 4 shows distribution of the older adults according to the overall PFCN attitude scales. This table shows that mean of total low usefulness of planning, total expectations for care needs, and total expectations for no care needs was (23.74 ± 9.15, 19.23 ± 4.53 and 15.95 ± 4.10) respectively.

Table (4): Distribution of the Overall PFCN Attitude Score

| Item | Mean ± Std. Deviation |
|---|-----------------------|
| Total Low Usefulness of Planning | 23.74 ± 9.15 |
| Total Expectations for Care Needs | 19.23 ± 4.53 |
| Total Expectations for No Care Needs | 15.95 ± 4.10 |

Table 5 displays descriptive statistics of preparation for future care scale. This table shows that the highest mean score of awareness of future care needs was 3.92 ± 1.09 in “paying attention to information in the media on the risks of needing help or care in old age”, the highest mean score of gathering information was 3.67 ± 1.09 , the highest mean score of decision making about care preference was 3.67 ± 1.18 in “knowing my general preferences for care in the future even though I am not sure how I will get what I want”, the highest mean score of concrete planning activities was 3.73 ± 1.123 in item having gathered information about options for care by talking to health care professionals , and the highest mean score of avoidance of care planning was $1.85 \pm .70$ in item don’t like to think about the risk of needing help or care in the future.

Table (5): Descriptive statistics of preparation for future care scale

| Items of Process of Preparation | Mean ±SD |
|--|-----------------|
| Awareness of future care needs | |
| I pay close attention to how my physical and mental capabilities are changing to assess whether I may soon need help or care. | 3.82 ± 1.21 |
| I pay attention to information in the media on the risks of needing help or care in old age. | 3.92 ± 1.09 |
| Talking to other people has made me think about whether I might need help or care in the future. | 3.77 ± 1.07 |
| Gathering information | |
| I have gathered information about options for care by talking to friends and/or relatives. | 3.67 ± 1.09 |
| Decision making about care preference | |
| I have compared different options for obtaining help or care in the future. | 3.57 ± 1.19 |
| I know what options for care I don’t want. | 3.57 ± 1.19 |
| I know my general preferences for care in the future even though I am not sure how I will get what I want. | 3.67 ± 1.18 |
| Concrete planning activities | |
| I have gathered information about options for care by talking to health care professionals (doctors, nurses, home health care agencies). | 3.73 ± 1.12 |
| If I ever need help or care, I can choose between several options that I have considered in some depth. | $3.58 \pm .89$ |
| I have explained to someone close to me what my care preferences are. | 3.37 ± 1.15 |
| I have identified how I want to be cared for and taken concrete steps to ensure that option is available. | 3.67 ± 1.15 |
| Avoidance of care planning | |
| I try not to think about things like future loss of independence | $1.75 \pm .71$ |
| I don’t like to think about the risk of needing help or care in the future. | $1.85 \pm .70$ |
| I avoid negative topics like future dependence. | $1.75 \pm .74$ |

Table 6 shows distribution of the studied subjects according to the process of preparation of future care needs. This table shows that mean of overall awareness of future care needs and avoidance of care planning was (11.53 ± 3.26 and 5.35 ± 2.05) while the mean of overall gathering information, overall decision making about care preference, and overall concrete planning activities was (3.67 ± 1.09 , 10.82 ± 3.53 and 14.37 ± 4.03) respectively. The mean of total score of PFCN scale was (45.75 ± 10.66).

Table (6): Total Subscale Score of Preparation for Future Care Needs

| Items | Mean \pm Std. Deviation |
|---|-------------------------------------|
| Overall Awareness of future care needs | 11.53 ± 3.26 |
| Overall Avoidance of care planning | 5.35 ± 2.05 |
| Planning subscales | |
| Overall Gathering information | 3.67 ± 1.09 |
| Overall Decision making about care preference | 10.82 ± 3.53 |
| Overall Concrete planning activities | 14.37 ± 4.03 |
| Total score of PFCN scale | 45.75 ± 10.66 |

Higher scores demonstrate greater levels of awareness and a sense of preparedness for future care needs

Table 7 shows variation of preparation for future care needs attitudes score according to demographic characteristics

This table shows that, a significant relation was found between all demographic characteristics and low usefulness of planning except in currently work and income. Also, a significant relation was found between all demographic characteristics and expectation for need care except in sex and income. While, a significant relation was found between all demographic characteristics and expectation for no need care except in sex and residence.

Table (7): Variation of preparation for future care needs attitudes according to demographic characteristics

| Item | | Preparation for future care needs attitudes | | |
|--------------------------------|---------------------------|---|------------------------------|---------------------------------|
| | | Mean ± Std. Deviation | | |
| Age | 60 to less than 65 years | Low usefulness | Expectation of need for care | Expectation of no need for care |
| | | 24.04±10.6 | 16.26±5.29 | 12.63±4.31 |
| | 65 to less than 75 years. | 21.56±9.66 | 19.35±2.82 | 17.21±2.5 |
| | 75 years and above | 26.58±4.55 | 22.83±2.44 | 18.29±2.99 |
| Test of significant (P) | | F=6.148 (0.002)* | F=55.348 (0.000)* | F=63.325 (0.000)* |
| Sex | Male | 15.78±4.27 | 19.22±4.87 | 21.36±10.33 |
| | Female | 16.2±3.87 | 19.26±4.03 | 27.15±5.65 |
| Test of significant (P) | | T=5.100 (0.000) | T=0.061 (0.951) | T=0.778 (0.437) |
| Level of education | Illiterate | 31.72±0.97 | 14.59±6.03 | 20.72±0.97 |
| | Reads and writes | 27.53±5.94 | 19.28±5.27 | 17.54±2.68 |
| | Basic education | 20.96±10 | 19.63±2.34 | 12.91±4.83 |
| | University education | 15.53±6.39 | 22.44±1.95 | 12.78±2.5 |
| Test of significant (P) | | F=36.731 (0.000)* | F=23.193 (0.000)* | F=85.643 (0.000)* |
| Income | Enough | 12.46±3.55 | 18.89±5.65 | 23.63±8.93 |
| | Not enough | 18.05±2.79 | 19.45±3.71 | 23.81±9.32 |
| Test of significant (P) | | T=0.150 (0.881) | T=0.927(0.355) | T=13.617 0.000) |
| Living condition | Alone | 27.28±3.62 | 20.81±1.7 | 17.79±2.83 |
| | With family | 20.73±11.12 | 18.1±5.71 | 14.07±4.12 |
| | With one of the sons | 28.00±0.00 | 20.00±0.00 | 20.00±0.00 |
| Test of significant (P) | | F=18.551(0.000) | F=10.402(0.000)* | F=47.397(0.000) |

*Correlation is significant at the 0.05 level (2-tailed).

Table 8 reveals variation of preparation for future care needs score according to demographic characteristics.

This table shows that, a statistically significant relation was found between all demographic data of the older adults including (age, residence, marital status, level of education, work before retirement, currently work, monthly income and living condition) and PFCN process score (P=.000, P=.004, P=.000, P=.000, P=.000, P=.000, P=.000 and P=.000) respectively.

Table (8): Variation of preparation for future care needs score according to demographic characteristics

| Item | | Preparation for Future Care Needs | |
|------------------------|----------------------|-----------------------------------|--------------------------|
| | | Mean \pm Std. Deviation | Test of significant |
| Age | 60 to less than 65 | 61.57 \pm 10.07 | F= 47.462 P= (0.001)* |
| | 65 to less than 75 | 49.01 \pm 16.56 | |
| | 75 years and above | 40.92 \pm 10.12 | |
| Sex | Male | 52.43 \pm 16.17 | T= 1.642 P= (0.102) |
| | Female | 49.16 \pm 13.93 | |
| Residence | Rural | 53.27 \pm 15.82 | T= 2.935 P= 0.004* |
| | Urban | 47.38 \pm 13.8 | |
| Marital status | Single | 48.93 \pm 14.48 | F= 33.653 P= 0.001* |
| | Married | 59.74 \pm 8.21 | |
| | Widower | 45.92 \pm 17.74 | |
| | Divorced | 35.04 \pm 7.35 | |
| Level of education | Illiterate | 27.89 \pm 3.9 | F=61.476 P=0.001* |
| | Reads and writes | 53.12 \pm 14.17 | |
| | Basic education | 51.97 \pm 14.88 | |
| | University education | 59.42 \pm 7.74 | |
| Work before retirement | Work | 60.18 \pm 11.11 | T=14.894 P= 0.001* |
| | Does not work | 38.73 \pm 11.07 | |
| Currently work | Yes | 57.31 \pm 11.32 | T= 5.611 P= 0.001* |
| | No | 46.73 \pm 16.29 | |
| Income | Enough | 57.86 \pm 11.74 | T= 5.653 P= 0.001* |
| | Not enough | 47.03 \pm 15.84 | |
| Living condition | Alone | 41 \pm 11.49 | F= 113.112 P= 0.001* |
| | With family | 60.54 \pm 11.71 | |
| | With sons | 34.00 \pm 0 | |

* Correlation is significant at the ≤ 0.001 level (2-tailed).

Table 9 shows correlation between PFCN attitudes and PFCN process. It was observed from the table that avoidance related to low usefulness of planning and expectation of no care and this means that there was positive correlation between avoidance and both low usefulness of planning and expectation of no care, on the contrary, there was negative correlation between avoidance and expectation of care needs.

Table (9): Correlation between PFCN attitudes and PFCN process

| Correlation | PFCN process | | | | | |
|------------------------------|---------------------|-----------|-----------------------|-----------------|-------------------|-----------|
| | | Awareness | Gathering information | Decision making | Concrete planning | Avoidance |
| Low usefulness of planning | Pearson Correlation | -.473* | -.505* | -.493* | -.514* | .479* |
| | Sig. (2-tailed) | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 |
| Expectation of care needs | Pearson Correlation | .426* | .271* | .26* | .409* | -.346* |
| | Sig. (2-tailed) | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 |
| Expectation of no care needs | Pearson Correlation | -.722* | -.764* | -.762* | -.645* | .774* |
| | Sig. (2-tailed) | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 | P= 0.001 |

* Correlation is significant at the 0.05 level (2-tailed).

Discussion

The requirement for personal care and domestic task management will become increasingly important for older persons living in communities due to the ageing of the population. As previously mentioned, although older persons may think about or be aware of their future care needs, they hardly ever take decisive action to choose a support provider. This demand is greater, particularly for older persons who live in rural areas with restricted access to services ⁽⁵⁾.

Concerning the preparation for future care needs attitudes, the present study showed that the total mean score of low usefulness of planning tends to be moderate and this indicates moderate perceived usefulness. In relation to the mean score of expectations for no care needs tends to be moderate. These findings may be justified by many of the older adults were females, low educated, living in rural areas, had less knowledge about planning future care and had limited opportunity to acquire and share knowledge through different social media. Similarly, a study done in China by Sørensen et al., (2021) ⁽¹³⁾ reported that more than half of the subjects expected that they will not need care in the future.

For the process of preparation of future care needs, the current study revealed that the total mean scores of awareness of future care needs, planning subscales including (overall gathering information, overall decision making about care preference, and overall concrete planning activities) tend to be high. While, the total mean score of avoidance of care planning tends to be low.

Moreover, the total mean score of PFCN process also tends to be high. This may be due to the majority of the participants were males, educated, working before retirement and still work even after being retired, have more responsibilities and have more chances to exchanges experiences with their peers and friends and update their knowledge through different social media. These results in line with other studies done in Utah, Georgia, in New York State by Sørensen et al.,(2017) ⁽⁴⁾, in France by Apouey, (2018) ⁽²⁰⁾ and in the U.S. state of Colorado by Yun et al., (2021) ⁽²⁾, who reported the same finding. Contradictory to the present study a study done in Hong Kong by Bai et al., (2022) ⁽¹⁸⁾, revealed that older persons showed lower levels of planning in all subdomains and appeared less likely to participate in care preparation activities.

As for, variation of preparation for future care needs attitudes according to demographic characteristics, the current study revealed that a significant relation was found between low usefulness of planning and each of sex and education. As males with higher education reported that they have low level of low usefulness than females. This may be related to most of the elderly were males and had positive beliefs about future care planning, in addition the education may increase awareness and create positive beliefs about future care planning. In the same line with the present finding a study done in USA by Sörensen et al.,(2014) ⁽¹⁰⁾ who reported that the participants who had higher education had less negative planning beliefs.

Regarding variation of preparation for future care needs score according to demographic characteristics, the current study found that young old, males, living in rural areas, married, have higher education, living with family, worked before retirement and still currently working and had adequate income, were considered factors associated greater PFCN. This finding may be justified by many reasons, older adults have increased risk of comorbidities with advancing age, most men are usually educated, have more family responsibilities, and work in various jobs to meet the needs of their families, therefore, they have a greater opportunity to gain information and experience about planning for future care from others, most of the older adults were lived in rural areas so they had difficulty accessing medical services and they were more preoccupied with thinking about planning future care.

Also, older adults who are married and living with their families often have a greater opportunity to have people caring for them and thinking about their future care, and they also have the opportunity to make and discuss decisions about planning their future care with their family members. Moreover, most of them were working before retirement, still currently working, and they had reported sufficient income. In addition they lived with their families who are responsible to support them, so all of these factors make them preoccupied with thinking in planning for future care. Contradictory to the present finding, a study done in the U.S. state of Colorado by Yun et al., (2021) ⁽²⁾, and in Hong Kong by Bai et al., (2022) ⁽¹⁸⁾, who revealed that being older and females would be associated with greater PFCN. Moreover, the same studies agree with our finding that being educated could result in greater PFCN. Also, a study done in USA by Sörensen et al.,(2014) ⁽¹⁰⁾ who found that the participants in primary care had lower levels of concrete planning and decision making while having higher incomes and educational levels.

Individuals typically don't plan until they believe it will help them achieve their objectives. Planning may not be considered beneficial in a situation where resources are extremely scarce or the environment is unpredictable. Just as agency attitudes are likely to encourage control-enhancing behaviours, so too are views regarding the value of planning likely to influence preparedness, as is the case with expectations for care ⁽²¹⁾.

Concerning the correlation between PFCN process and PFCN attitudes, the current study reported that there was a significant positive correlation between avoidance and both low usefulness of planning and expectation of no care, on the contrary, there was negative correlation between avoidance and expectation of care need. This finding can be justified by thus individuals who have high level of avoidance of care planning will endorse that they are actively trying not to think about future care or discomfort with such thoughts. A study done in USA by Sörensen et al.,(2014) ⁽¹⁰⁾, revealed that there were a significant positive correlation between avoidance and both the belief that planning is not useful and the expectation that care will not be needed in the future. Also, a study done in Utah, Georgia, and New York State by Sörensen et al.,(2017) ⁽⁴⁾ reported that avoidance negatively correlated with care expectation. Additionally, the expectation

that no care will be needed will be required had a negative correlation with all preparatory tasks and a positive correlation with avoiding care planning.

Conclusion

We present preliminary evidence that older adults' awareness of future care needs tends to be high, and they had moderate positive attitudes about planning future care needs. Specifically, our data suggest that the avoidance of planning is positively related to both low usefulness of planning and expectation of no care. While, it was negatively related to expectation of care needs.

Recommendations

- To support the conceptualization of care readiness and future care requirements, additional behaviorally based outcome measures must be included in future study.
- Support services and policies should be developed for vulnerable older adults to better prepare them for their future care needs. Policymakers and service providers should also encourage public education stressing the value and advantages of care preparation, particularly for older adults.
- Service providers should create public education campaigns that encourage seniors to make proactive plans for a range of future needs, such as the need for care, meaningful activity, and socializing, in order to detach planning for future care needs from death-related subjects.

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Declaration of Competing Interest

The researchers affirm that they do not have any competing interests. Upon a reasonable request, the corresponding author will provide all information needed, including statistics.

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