

The role of financial literacy when paying for aged care

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Background

- Around 60,000 people enter residential aged care each year, of which 60% pay for their accommodation
- Accommodation can be purchased using a refundable accommodation deposit (RAD), daily accommodation payment (DAP) or combination of both
- Means testing and different treatment of primary home means choosing between a RAD, DAP or combination can impact income and wealth
- Many sell their home to pay for accommodation, with assets left over
 - Average RAD value was \$318,000 in 2018-19
- Choosing an accommodation payment type is potentially the most complex financial decision a person will make in their lifetime.

Background

- Our paper measures the role of financial literacy when making aged care accommodation payment decisions
- We surveyed 589 informal carers (in 2020) that significantly helped a resident make an accommodation payment decision
- We use three sets of regressions:
 1. The relationship between informal carer characteristics and financial literacy
 2. The relationship between financial literacy and using a financial advisor
 3. The relationship between financial literacy and perceived decision complexity, certainty and stress
- Financial literacy is represented by the ‘Big Three’ questions, self reported financial literacy and a two-part measure.

Related literature

- **Our study is the first to measure financial literacy and its impact on making an aged care accommodation payment decision in Australia.**
- **Australian studies have identified poor financial literacy among older Australians but these focus on general financial decisions** (National Seniors Productive Ageing Centre, 2013, Xue et al., 2019, Agnew et al., 2013)
- **Several studies have focused on the relationship between financial literacy and complex financial decisions, such as retirement planning** (Agnew et al., 2013, Van Rooij et al., 2011, Van Rooij et al., 2012)
- **Other studies have explored the relationship between financial literacy and using a financial advisor**
 - **Financial literacy complements financial advice** (Collins, 2012, Calcagno and Monticone, 2015)
 - **Financial literacy has no impact or substitutes financial advice** (Kim et al. 2019., Kramer., 2016)

Related literature

- **Our study is the first to evaluate the impact of financial literacy on emotive decision characteristics**
 - **Decision confidence, perceived decision complexity, and decision stress**
- **People simplify complex decisions by ignoring complex information, by being myopic, or using simplifying decision heuristics** (Gabaix et al., 2006, DellaVigna., 2009).
- **Acute stress can interfere with rational decision-making by modulating risk-taking behaviours, or inducing biased heuristics** (Porcelli and Delgado., 2009, Morgado et al., 2015, Kahneman and Frederick., 2002).
- **Our results provide some indication on the likelihood of making a suboptimal accommodation payment decision**

Data

Table 1: Survey questions

| <i>Question theme</i> | <i>Description of questions</i> |
|---|--|
| Accommodation payment choice | Question on whether the resident paid a RAD, DAP or a combination of both. |
| Assistance with accommodation payment choice and provider involvement | Questions on whether the respondent consulted a financial adviser, other information sources used, whether providers expressed a payment type preference or suggested using a financial adviser. |
| Paying for accommodation | Questions on factors considered when making the accommodation payment decision. |
| Feelings toward the payment process | Questions on whether provider informed the respondent of time available to make a decision, whether respondent felt they had enough time, and questions on perceived decision complexity, confidence and stress. |
| Factors in choosing aged care home | Questions on the time period deciding on an aged care home, waiting period to enter an aged care home, and most important factors considered when choosing an aged care home. |
| Financial circumstances of the resident | Questions on how much the resident pays for accommodation, basic daily activities, care services, and extra services. Questions on income support received, along with personal and financial circumstance of the resident before moving into aged care. |
| Financial literacy of the respondent | Questions to test understanding of inflation, interest rate and risk diversification. Question asking the respondent to self rate their ability to understand financial information. |
| Sociodemographics of the respondent | Questions on age, gender, location of home, language spoken at home, education, and relationship to resident |
| Sociodemographics of the resident | Questions on age, gender, location of aged care home |

Data

Table 3: Decision context

| <i>Variable</i> | <i>N</i> | <i>Proportion</i> |
|---|-----------------|--------------------------|
| <i>Contextual factors around decision-making</i> | | |
| Informal carer felt there was enough time to make an accommodation payment decision | 589 | 76% |
| <i><u>Sources of help used to assist decision-making:</u></i> | | |
| Help from family and friends | 589 | 49% |
| Help from a GP or healthcare professional | 589 | 11% |
| Used online information | 589 | 71% |
| <i><u>Financial adviser use:</u></i> | | |
| Consulted a financial adviser | 564 | 37% |
| Followed financial adviser's payment advice | 198 | 87% |
| Financial adviser price was >\$2000 | 206 | 13% |
| <i>Provider behaviour</i> | | |
| Aged care home expressed payment type preference | 589 | 48% |
| Aged care informed informal carer about 28-day decision-making period | 589 | 54% |
| Aged care home suggested speaking to a financial adviser before making payment decision | 589 | 40% |

Data

Table 4: Financial literacy, self-rated financial ability, and financial risk appetite

| <i>Variable</i> | <i>N</i> | <i>Mean/Proportion</i> |
|---|----------|------------------------|
| <i>Financial literacy ('Big Three' questions)</i> | | |
| - Number of questions answered correctly | 589 | 2.25 |
| - Zero questions answered correctly | 589 | 4% |
| - One question answered correctly | 589 | 16% |
| - Two questions answered correctly | 589 | 32% |
| - Three questions answered correctly | 589 | 48% |
| - Interest rate question answered correctly | 589 | 86% |
| - Inflation question answered correctly | 589 | 71% |
| - Diversification question answered correctly | 589 | 69% |
| <i>Self-rated ability to work with financial information^a</i> | | |
| - Poor | 589 | 3% |
| - Fair | 589 | 25% |
| - Good | 589 | 39% |
| - Very good | 589 | 25% |
| - Excellent | 589 | 7% |
| <i>Two-part financial literacy measure^b</i> | | |
| Perceived High / Actual High | 589 | 15% |
| Perceived High / Actual Low | 589 | 17% |
| Perceived Low / Actual High | 589 | 31% |
| Perceived Low / Actual Low' | 589 | 37% |
| <i>Appetite for financial risk</i> | | |
| Takes substantial/above average risks in investments with spare cash (0/1) | 589 | 24% |

Data

Table 5: Summary of primary outcome variables

| <i>Variable</i> | <i>N</i> | <i>Proportion</i> |
|---|----------|-------------------|
| <i>Decision confidence</i> | | |
| [i] How certain do you feel that your accommodation payment decision was the best for the resident financially? ('Very certain or certain' = 1, zero otherwise) | 589 | 67% |
| [ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered care? ('Yes' = 1, zero otherwise) | 589 | 90% |
| <i>Perceived decision complexity</i> | | |
| [iii] Did you understand the difference between a lump sum payment and daily payments when making a decision on how to pay for accommodation? ('Yes' = 1, zero otherwise) | 589 | 84% |
| [iv] "I found deciding on how to pay for accommodation complex" ('strongly agree' or 'agree' = 1, zero otherwise) | 589 | 60% |
| <i>Decision stress</i> | | |
| [v] "Deciding on how to pay for accommodation was stressful for me". ('strongly agree' or 'agree' = 1, zero otherwise) | 589 | 54% |

Method

- **Financial literacy and respondent characteristics**
 - Ordered logit regression model
- **Financial literacy and financial adviser use**
 - Binomial logit model
- **Financial literacy and decision complexity, confidence and stress**
 - Binomial logit model
- **Sensitivity analyses undertaken using self-rated financial literacy and two-part financial literacy measures**
- **Huber-White robust estimator of variance to estimate heteroscedasticity consistent standard errors across all estimations.**

Results (1)

Table 6: Relationship between financial literacy and respondent characteristics

| <i>Variable</i> | <i>Coeff.</i> | <i>Robust s.e.</i> | <i>p-value</i> |
|--|---------------|--------------------|----------------|
| Male | 0.697*** | 0.183 | 0.000 |
| English-speaking background | -0.857* | 0.489 | 0.080 |
| <i>Age group (reference group: 65+ years):</i> | | | |
| Less than 45 years | -0.704** | 0.314 | 0.025 |
| 45-64 years | 0.223 | 0.223 | 0.319 |
| <i>Highest educational attainment (reference group: tertiary degree):</i> | | | |
| Year 12 or below | -0.776*** | 0.209 | 0.000 |
| Certificate/diploma | -0.661*** | 0.191 | 0.001 |
| Reports taking substantial or above-average investment risks | -0.078 | 0.207 | 0.707 |
| <i>Self-rated ability to work with financial information (reference group: very good/excellent):</i> | | | |
| Poor/fair | -0.867*** | 0.218 | 0.000 |
| Good | -0.027 | 0.187 | 0.884 |
| Intercept 1 | -4.663 | 0.605 | |
| Intercept 2 | -2.711 | 0.556 | |
| Intercept 3 | -1.066 | 0.549 | |
| Chi-Square: | | 61.29 | |
| Prob > Chi-Square: | | 0.000 | |
| N | | 589 | |

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

| <i>Variable</i> | <i>Coeff.</i> | <i>Robust s.e.</i> | <i>p-value</i> |
|---|---------------|--------------------|----------------|
| <i>Resident characteristics:</i> | | | |
| Age | -0.007 | 0.013 | 0.577 |
| Gender | 0.002 | 0.224 | 0.992 |
| Single | -0.014 | 0.275 | 0.959 |
| <i>Resident situation:</i> | | | |
| Received government income support prior to residential aged care | 0.120 | 0.218 | 0.581 |
| Moved from other residential aged care home | 0.808** | 0.400 | 0.043 |
| <i>N</i> | | 555 | |

p < 0.1*

p < 0.05**

p < 0.01***

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

| <i>Variable</i> | <i>Coeff.</i> | <i>Robust s.e.</i> | <i>p-value</i> |
|--|---------------|--------------------|----------------|
| <i>Informal carer characteristics:</i> | | | |
| Male | -0.206 | 0.226 | 0.362 |
| English-speaking | 0.063 | 0.502 | 0.900 |
| <i>Age group (reference group: 65+ years):</i> | | | |
| - Less than 45 years | -0.364 | 0.456 | 0.424 |
| - 45-64 years | -0.122 | 0.387 | 0.752 |
| Financial literacy – all ‘Big Three’ questions correct (1 = all correct) | 0.289 | 0.223 | 0.195 |
| <i>Highest educational attainment (reference group: tertiary degree):</i> | | | |
| - Year 12 or below | 0.187 | 0.290 | 0.520 |
| - Certificate/diploma | 0.042 | 0.252 | 0.869 |
| Reports taking substantial or above-average investment risks | 0.186 | 0.250 | 0.458 |
| Felt had enough time to make payment decision | 0.124 | 0.292 | 0.670 |
| Agreed that the decision was stressful | 0.570** | 0.237 | 0.016 |
| Agreed that the decision was complex | 0.174 | 0.299 | 0.559 |
| <i>N</i> | | 555 | |

p < 0.1*

p < 0.05**

p < 0.01***

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

| <i>Variable</i> | <i>Coeff.</i> | <i>Robust s.e.</i> | <i>p-value</i> |
|---|----------------------|--------------------|----------------|
| <i>Provider characteristics/influence:</i> | | | |
| Suggested consulting a financial adviser | 2.138 ^{***} | 0.214 | 0.000 |
| Informed informal carer about 28-day decision-making period | 0.694 ^{***} | 0.237 | 0.003 |
| Expressed payment type preference | 0.135 | 0.229 | 0.555 |
| Aged care home in outer-regional or remote area | -0.464 | 0.367 | 0.207 |
| Intercept | -2.152 | 1.329 | 0.105 |
| <i>N</i> | | 555 | |

p<0.1⁺

p<0.05⁺

p<0.01^{***}

Results (3)

Table 8: Financial adviser and alternative financial literacy measures

| <i>Variable</i> | <i>Coeff.</i> | <i>Robust s.e.</i> | <i>p-value</i> |
|---|----------------------|--------------------|----------------|
| <i>Self-rated financial literacy (reference: self-rating of 'poor'/'fair'/'good')</i> | | | |
| Perceived high financial literacy – self-rating of 'very good' or 'excellent' | -0.248 | 0.240 | 0.301 |
| <i>Two-part financial literacy (reference: perceived low/actual low)</i> | | | |
| - Perceived high/Actual high | -0.179 | 0.341 | 0.601 |
| - Perceived high/Actual low | 0.439 | 0.330 | 0.183 |
| - Perceived low/Actual high | 0.725 ^{***} | 0.274 | 0.008 |

$p < 0.1^*$

$p < 0.05^{**}$

$p < 0.01^{***}$

Results (4)

Table 9: Factors impacting decision confidence, complexity, and stress

| Outcome variable | Decision confidence | | | | | | Perceived decision complexity | | | | | | Decision stress | | |
|---|---|-------------|---------|---|-------------|---------|---|-------------|---------|---------------------------|-------------|---------|----------------------------|-------------|---------|
| | [i] Decision confidence: 'decision was best for the resident financially' | | | [ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care? | | | [iii] Understood difference between lump sum and daily payments | | | [iv] Decision was complex | | | [v] Decision was stressful | | |
| Covariate of interest: | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value |
| Financial literacy – all 'Big Three' questions correct (1 = all correct) | 0.076 | .232 | 0.742 | 0.357 | .347 | 0.304 | 0.642** | 0.312 | 0.039 | -0.124 | 0.208 | 0.550 | -0.303 | 0.257 | 0.239 |
| Informal carer felt they had enough time to make the decision | 1.429*** | 0.261 | 0.000 | 0.785** | 0.371 | 0.034 | 1.207*** | 0.323 | 0.000 | -0.976** | 0.465 | 0.036 | -1.793*** | 0.293 | 0.000 |
| <u>Provider behaviour:</u> Informed informal carer about 28-day decision-making period | 0.743*** | 0.237 | 0.002 | 0.538* | 0.325 | 0.098 | 0.320 | 0.329 | 0.330 | -0.516* | 0.303 | 0.089 | -0.397* | 0.228 | 0.082 |
| Expressed payment type preference | -0.558** | 0.238 | 0.019 | -0.274 | 0.350 | 0.434 | -0.256 | 0.329 | 0.436 | 0.714** | 0.281 | 0.011 | -0.190 | 0.211 | 0.368 |
| Intercept | -2.160 | 1.563 | 0.167 | -2.332 | 2.075 | 0.261 | -2.912 | 2.073 | 0.160 | 2.431 | 2.267 | 0.283 | -2.835* | 1.709 | 0.097 |
| Chi-Square | 111.45 | | | 76.57 | | | 81.35 | | | 86.67 | | | 97.96 | | |
| Prob > Chi-Square | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| N | 555 | | | 555 | | | 555 | | | 555 | | | 555 | | |

Note: See Appendix B for full list of additional covariates.

$p < 0.1^*$

$p < 0.05^{**}$

$p < 0.01^{***}$

Results (5)

Table 10: Sensitivity analyses using two alternative financial literacy measures

| Outcome variable | Decision confidence | | | | | | Perceived decision complexity | | | | | | Decision stress | | |
|---|---|-------------|---------|---|-------------|---------|---|-------------|---------|---------------------------|-------------|---------|----------------------------|-------------|---------|
| | [i] Decision confidence: 'decision was best for the resident financially' | | | [ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care? | | | [iii] Understood difference between lump sum and daily payments | | | [iv] Decision was complex | | | [v] Decision was stressful | | |
| Covariate of interest: | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value | Coeff. | Robust s.e. | p-value |
| <i>Individual 'Big Three' questions (1 = correct)</i> | | | | | | | | | | | | | | | |
| Interest rate | 0.163 | 0.293 | 0.578 | -0.020 | 0.426 | 0.963 | 0.223 | 0.413 | 0.589 | -0.743 | 0.455 | 0.103 | -0.205 | 0.298 | 0.493 |
| Inflation | -0.073 | 0.249 | 0.769 | 0.361 | 0.343 | 0.292 | 0.581* | 0.317 | 0.067 | 0.311 | 0.285 | 0.274 | 0.297 | 0.240 | 0.217 |
| Risk diversification | -0.020 | 0.244 | 0.936 | 0.351 | 0.345 | 0.309 | 0.210 | 0.314 | 0.504 | -0.202 | 0.272 | 0.456 | 0.060 | .221 | 0.787 |
| N | 555 | | | 555 | | | 555 | | | 555 | | | 555 | | |
| <i>Perceived high financial literacy – self-rating of 'very good' or 'excellent' (reference: self-rating of 'poor'/'fair'/'good')</i> | | | | | | | | | | | | | | | |
| | 0.367 | 0.237 | 0.121 | 0.236 | 0.348 | 0.497 | 0.571* | 0.326 | 0.079 | 0.148 | 0.211 | 0.482 | -0.353 | 0.278 | 0.204 |
| N | 555 | | | 555 | | | 555 | | | 555 | | | 555 | | |
| <i>Two-part financial literacy (reference: Perceived low/Actual low)</i> | | | | | | | | | | | | | | | |
| Perceived high/Actual high | 0.499 | 0.359 | 0.165 | 0.348 | 0.521 | 0.504 | 1.059** | 0.511 | 0.038 | -0.633* | 0.370 | 0.088 | 0.008 | 0.289 | 0.979 |
| Perceived high/Actual low | 0.223 | 0.320 | 0.487 | 0.667 | 0.451 | 0.139 | 0.704* | 0.420 | 0.093 | -0.177 | 0.419 | 0.672 | 0.210 | 0.302 | 0.487 |
| Perceived low/Actual high | -0.026 | 0.276 | 0.925 | 0.685 | 0.420 | 0.104 | 0.730** | 0.372 | 0.049 | -0.170 | 0.340 | 0.618 | -0.095 | 0.263 | 0.718 |
| N | 555 | | | 555 | | | 555 | | | 555 | | | 555 | | |

Note: See Appendix B for full list of additional covariates.

p<0.1*

p<0.05**

p<0.01***

Results (6)

Table 11: The impact of high financial literacy interacted with having enough time and provider behaviour on outcomes

| Outcome variable | Decision confidence | | Perceived decision complexity | | Decision stress |
|---|---|---|---|---------------------------|----------------------------|
| | [i] Decision confidence: 'decision was best for the resident financially' | [ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care? | [iii] Understood difference between lump sum and daily payments | [iv] Decision was complex | [v] Decision was stressful |
| Without enough time to decide | -0.734 | -0.518 | 0.542 | 0.725 | -0.183 |
| p-value | 0.864 | 0.329 | 0.262 | 0.455 | 0.715 |
| With enough time to decide | 0.133 | 0.762* | 0.703* | -0.410 | -0.114 |
| p-value | 0.616 | 0.080 | 0.066 | 0.140 | 0.613 |
| Not informed of 28 day period by provider | 0.433 | 0.136 | 0.621 | -0.565 | 0.238 |
| p-value | 0.174 | 0.677 | 0.130 | 0.203 | 0.433 |
| Informed of 28 day period by provider | -0.311 | -0.087 | 0.673 | -0.155 | -0.383 |
| p-value | 0.323 | 0.865 | 0.142 | 0.635 | 0.178 |
| Provider did not express a payment preference | 0.391 | 1.346*** | 0.932** | -0.452 | -0.118 |
| p-value | 0.232 | 0.007 | 0.036 | 0.173 | 0.665 |
| Provider expressed a payment preference | -0.184 | -0.528 | 0.369 | -0.050 | 0.132 |
| p-value | 0.554 | 0.285 | 0.387 | 0.906 | 0.671 |

Note: These results are for respondents with high financial literacy (defined as answering all 'Big Three' questions correctly). See Appendix B for full list of additional covariates.

$p < 0.1^*$

$p < 0.05^{**}$

$p < 0.01^{***}$

Discussion

- Higher financial literacy associated with being male, middle age (45 to 64 years) and education
- Financial adviser use was associated with ‘Perceived low / Actual high’ financial literacy
 - Underconfidence in financial ability increases chance of using financial adviser
 - No relationship with ‘Big Three’ questions or self-rated financial literacy
 - Providers influenced decision to use a financial adviser
- Financial literacy had some relationship with reduced decision complexity but little relationship with decision confidence or stress

Discussion

- **Financial literacy education is unlikely to substantially reduce suboptimal accommodation payment decisions**
 - Complexity means decision heuristics and biases are likely to remain
- **Significant heterogeneity in financial and personal circumstance means financial advice needed**
- **No guarantee increasing access to financial advice would work**
 - Lack of trust, anxiety, unable to understand advice, overconfidence, lack of interest
- **Australian Government should consider simplifying the accommodation payment decision**
 - Removing means testing, exempting income from tax, removing RADs.

Thank you

END

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