

# The role of financial literacy when paying for aged care

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This research was funded by an unconditional grant from the Ecstra Foundation



# Background

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- 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 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

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- 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 (interest, inflation, risk) self reported financial literacy and a two-part measure.

# Related literature

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- 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

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- 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

**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>
<b><i>Contextual factors around decision-making</i></b>		
Informal carer felt there was enough time to make an accommodation payment decision	589	76%
<b><i>Sources of help used to assist decision-making:</i></b>		
Help from family and friends	589	49%
Help from a GP or healthcare professional	589	11%
Used online information	589	71%
<b><i>Financial adviser use:</i></b>		
Consulted a financial adviser	564	37%
Followed financial adviser's payment advice	198	87%
Financial adviser price was >\$2000	206	13%
<b><i>Provider behaviour</i></b>		
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>
<b><i>Financial literacy ('Big Three' questions)</i></b>		
- 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%
<b><i>Self-rated ability to work with financial information<sup>a</sup></i></b>		
- Poor	589	3%
- Fair	589	25%
- Good	589	39%
- Very good	589	25%
- Excellent	589	7%
<b><i>Two-part financial literacy measure<sup>b</sup></i></b>		
Perceived High / Actual High	589	15%
Perceived High / Actual Low	589	17%
Perceived Low / Actual High	589	31%
Perceived Low / Actual Low'	589	37%
<b><i>Appetite for financial risk</i></b>		
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>
<b><i>Decision confidence</i></b>		
[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%
<b><i>Perceived decision complexity</i></b>		
[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%
<b><i>Decision stress</i></b>		
[v] "Deciding on how to pay for accommodation was stressful for me". ('strongly agree' or 'agree' = 1, zero otherwise)	589	54%

# Method

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- 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)

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**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>
<b><i>Resident characteristics:</i></b>			
Age	-0.007	0.013	0.577
Gender	0.002	0.224	0.992
Single	-0.014	0.275	0.959
<b><i>Resident situation:</i></b>			
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>
<b><i>Provider characteristics/influence:</i></b>			
Suggested consulting a financial adviser	2.138 <sup>***</sup>	0.214	0.000
Informed informal carer about 28-day decision-making period	0.694 <sup>***</sup>	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 <sup>***</sup>	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
<i>Provider behaviour:</i> 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 p-value		Coeff.	Robust p-value		Coeff.	Robust p-value		Coeff.	Robust p-value		Coeff.	Robust p-value	
	s.e.			s.e.			s.e.			s.e.			s.e.		
<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

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- 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

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- 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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