

Financial Literacy and Investment Practices among Doctors in Karnataka – An Observational Study

Dhruva Nag M,¹ Dr. Radha R,² Dr. Shobharani HG³

¹Commerce student, ²Professor, ³Assistant Professor

^{1,2,3}Department of Community Medicine, Sri Siddhartha Institute of Medical Sciences,
T. Begur

Corresponding Author: **Dr. N G Pradeep Kumar**

Abstract:

Background: Financial literacy is a global concern, crucial for personal and family financial prosperity. Poor money management can make consumers vulnerable to financial crises. Financial knowledge refers to understanding financial concepts and procedures and applying this understanding to address financial challenges. Healthcare professionals (HCPs) often earn substantial salaries early in their careers. Therefore, strong financial knowledge is essential for making wise investments, securing future financial needs. Doctors often start their careers with limited financial knowledge, as subjects like banking, investment, and equities are unrelated to medical education. The study aims to explore the relationship between financial knowledge, attitudes, investment practices, providing insights into key areas requiring attention and enhancing understanding of financial literacy among Indian doctors. **Methods:** This observational study was conducted on 333 doctors in Karnataka at Sri Siddhartha Institute of Medical Sciences and Research Centre over three months, following ethical committee approval. Participants were contacted via phone, informed about the study, and encouraged to participate. The survey, administered via Google Forms using simple random sampling, assessed financial knowledge and practices related to financial management and investments. **Results:** The mean age of the study participants 38.1 ± 13.4 years. The gender distribution shows a slight majority of males 176 (52.85%) compared to females 157 (47.15%). Financial knowledge scores increase with age, peaking at 39.3 ± 13.5 for those aged 51–60 ($p = 0.04$). Males have significantly higher financial knowledge scores (34.4 ± 12.3) compared to females (21.5 ± 9.6). Financial knowledge is significantly associated with medical discipline ($r = 0.53$, $p = 0.032$), but not with annual income ($r = 0.41$, $p = 0.43$). It shows a strong positive correlation with investment preferences ($r = 0.67$, $p = 0.05$), suggesting that higher financial knowledge influences investment decision-making. **Conclusions:** Financial knowledge among Indian doctors, especially younger ones, is inadequate, highlighting the need for enhanced financial education and awareness programs. Incorporating finance management into healthcare curricula and repeated sensitization could improve financial practices and decision-making.

Keywords: Financial knowledge, Financial literacy, Doctors, Investment

Introduction:

Financial literacy is a global concern, crucial for personal and family financial prosperity. Poor money management can make consumers vulnerable to financial crises. Raising awareness about financial literacy is essential to reduce the risk of poor investment decisions and ensure informed financial behavior.¹ De Bassa Scheresberg² in his study highlighted that individuals with higher financial literacy make confident and appropriate financial decisions, utilizing both savings and investment tools effectively. They may also explore high-cost borrowing options strategically. Conversely, those with limited financial knowledge often rely on costly alternatives like credit cards and focus on managing debts. Improving financial literacy is crucial for enhancing living standards, but global studies, including those in India, reveal widespread financial illiteracy, necessitating urgent corrective actions.³⁻⁵

In a research study the importance of financial literacy for individual financial well-being and national economic growth was emphasized. It highlighted the role of a strong financial system in development and examined India's government initiatives and regulatory efforts to enhance financial literacy and inclusion. Drawing from diverse sources, the study explored the impact of financial literacy on individual and national financial stability.⁶

Financial knowledge refers to understanding financial concepts and procedures and applying this understanding to address financial challenges. It is essential for making informed financial decisions.^{7,8} Financial attitude refers to an individual's personal approach or mindset toward financial matters.⁹ Low financial knowledge is linked to suboptimal financial outcomes in areas such as retirement planning, borrowing decisions, and stock market participation.¹⁰⁻¹³

Financial principles and personal finance management are rarely included in medical or nursing curricula, despite recommendations from several studies advocating their inclusion.¹⁴⁻¹⁷ Healthcare professionals (HCPs) often earn substantial salaries early in their careers. Therefore, strong financial knowledge is essential for making wise investments, securing future financial needs, and safeguarding against financial fraud. The significance of financial literacy in ensuring the overall well-being of HCPs is undeniable.¹⁸ Doctors often start their careers with limited financial knowledge, as subjects like banking, investment, and equities are unrelated to medical education. This lack of understanding can result in poor financial decisions, unnecessary losses, and stress, highlighting the need for professional financial guidance.¹⁹

Despite limited studies on the financial literacy of Indian doctors, particularly in Karnataka, this online survey was designed to assess their financial literacy in Karnataka. The study aims to explore the relationship between financial knowledge, attitudes, investment practices, providing insights into key areas requiring attention and enhancing understanding of financial literacy among Indian doctors.

Methodology:**Study design, source of data and sample size:**

This was an online multi-institutional, cross-sectional study involving doctors across the state at various institutions (Medical colleges, private hospitals and government hospitals) on 333 doctors in Karnataka state (India) conducted between June and August 2024 and data was collected via google forms. The sample size was calculated based on the previous study conducted by Agarwal *et al.*²⁰ by considering the prevalence of financial literacy among Health care professionals in India which is 68.3%, the sample size was calculated. On applying one proportion formula, i.e; $n = Z^2 pq/d^2$, taking 5% absolute precision and 95% confidence interval, the sample size came to around 333.

Inclusion and exclusion criteria:

All Allopathy doctors who completed their postgraduation and working in hospitals and medical colleges were included in this study. Post Bachelor of Medicine, Bachelor of Surgery (MBBS) doctors and doctors working in clinics were excluded from this study.

Ethical consideration:

Ethical clearance was obtained from the Institutional Ethical Committee, and informed online consent was secured from each participant via Google Forms before administering the survey questionnaire.

Method of data collection:

After obtaining ethical clearance, participants were contacted via telephone or mobile, informed about the study's purpose on call, and encouraged to participate in the research. Based on simple random sampling, we administered the survey using google forms. A pretested semi-structured questionnaire was used after necessary modifications. The questionnaire aimed to assess financial knowledge, practices related to financial management and investments. The study utilized Likert and nominal scales, with knowledge-based questions designed using authentic information from reputed banks, Organization for Economic Co-operation and Development financial literacy questionnaire and previous studies. The study included questions on financial literacy and investment preferences. Financial knowledge was scored based on 5 questions, with 10 points for each correct answer. Financial literacy scores were calculated by awarding 1 point for each correct response and 0 for incorrect ones. Financial attitude was assessed by analyzing respondents' opinions on spending, saving, and investing behaviors. This evaluation is conducted using a Five-point Likert scale to gauge agreement or disagreement with specific statements. Domain-specific scores (savings, insurance, and investment) were summed, and the total financial literacy score was obtained by combining scores from all domains.^{17,21,22}

Statistical analysis:

The data collected was entered in the Microsoft excel sheet analysed using IBM SPSS version 27.0. Socio-demographic variables were analysed in terms of mean, standard deviation (SD), frequency (N) and percentage (%). Chi square test was used to compare categorical variables. Student t test and One-way Anova test was used to compare continuous variables depending on groups. Pearson's correlation coefficient was used to analyse binary correlations between variables. A p-value of ≤ 0.05 was taken as statistically significant. Data results were represented in the form of tables and figures.

Results:

The study included 333 doctors whose mean age was 38.1 ± 13.4 years. The majority of respondents 164 (49.25%) fall within the 31–40 age group, followed by 41–50 years 85 (25.53%), 21–30 years 46 (13.81%), and 51–60 years 38 (11.41%). The gender distribution shows a slight majority of males 176 (52.85%) compared to females 157 (47.15%). Among the respondents 274 (82.28%) are married, while smaller proportions are single 31 (9.31%), divorced 19 (5.71%), or widowed 9 (2.70%). Out of 333 respondents, the largest group is from clinical disciplines (210, 63.06%), followed by those in para-clinical (93, 27.93%) and pre-clinical disciplines (30, 9.01%). This highlights the predominance of clinical professionals in the study. The annual income of 82 (24.62%) was <10 lakhs, 156 (46.85%) was between 10–20 lakhs and 95 (28.53%) had income above 20 lakhs as shown in table 1.

Table 1: Demographic characteristics of study population (n=333)

Characteristics	N (%)
Age group (in years)	
➤ 21-30	46 (13.81%)
➤ 31-40	164 (49.25%)
➤ 41-50	85 (25.53%)
➤ 51-60	38 (11.41%)
Gender	
➤ Male	176 (52.85%)
➤ Female	157 (47.15%)
Marital status	
➤ Single	31 (9.31%)
➤ Married	274 (82.28%)
➤ Divorced	19 (5.71%)
➤ Widowed	9 (2.70%)
Medical branch/discipline	
➤ Pre-clinical	30 (9.01%)
➤ Para-clinical	93 (27.93%)

➤ Clinical	210 (63.06%)
Annual income	
➤ <10 lakhs	82 (24.62%)
➤ 10-20 lakhs	156 (46.85%)
➤ >20 lakhs	95 (28.53%)

In table 2, financial knowledge scores increase significantly with age, showing a mean score of 15.6 ± 7.2 in the 21–30 age group and progressively higher scores in older age groups, peaking at 39.3 ± 13.5 for those aged 51–60. This trend is statistically significant ($p = 0.04$), suggesting that age is an important factor influencing financial knowledge. Males have significantly higher financial knowledge scores (34.4 ± 12.3) compared to females (21.5 ± 9.6). This difference is highly significant ($p < 0.0001$), indicating a notable gender disparity in financial knowledge. Financial knowledge scores vary significantly across disciplines, with the para-clinical group scoring the highest (31.5 ± 10.8), followed by the clinical (28.4 ± 12.9) and pre-clinical groups (23.2 ± 9.2). This variation is statistically significant ($p = 0.001$), suggesting that the medical branch influences financial knowledge levels. While respondents earning 10–20 lakhs have the highest mean financial knowledge score (36.2 ± 14.5), followed by those earning >20 lakhs (31.4 ± 12.7) and <10 lakhs (30.6 ± 8.2), the difference is not statistically significant ($p = 0.15$), indicating that income may not be a strong determinant of financial knowledge in this sample.

Table 2: Comparison of financial knowledge score among various subgroups (n=333)

Characteristics	N	Mean financial knowledge score	p-value
Age group (in years)			
➤ 21-30	46	15.6 ± 7.2	0.04*
➤ 31-40	164	28.2 ± 11.4	
➤ 41-50	85	35.6 ± 10.3	
➤ 51-60	38	39.3 ± 13.5	
Gender			
➤ Male	176	34.4 ± 12.3	<0.0001**
➤ Female	157	21.5 ± 9.6	
Medical branch/discipline			
➤ Pre-clinical	30	23.2 ± 9.2	0.001*
➤ Para-clinical	93	31.5 ± 10.8	
➤ Clinical	210	28.4 ± 12.9	
Annual income			
➤ <10 lakhs	82	30.6 ± 8.2	

➤ 10-20 lakhs	156	36.2 ± 14.5	0.15
➤ >20 lakhs	95	31.4 ± 12.7	

Mean scores represented as Mean ± Standard deviation

*Statistically significant at p < 0.001

** Statistically significant at p < 0.0001

The distribution of financial literacy across background characteristics highlights varying levels of adequacy in savings, insurance, and investment knowledge. Savings literacy is relatively high across all groups, with the highest adequacy in the pre-clinical discipline (86.67%) and the <10 lakhs income group (84.15%). Insurance literacy shows significant gender and income-based differences (p = 0.006 and p = 0.002, respectively), with males (71.02%) and the <10 lakhs income group (69.51%) scoring higher. Investment literacy exhibits notable disparities across age, gender, discipline, and income groups. Older respondents (51–60 years, 60.53%), males (48.86%), para-clinical professionals (63.44%), and those earning 10–20 lakhs (60.26%) have significantly better investment literacy (p < 0.0001, 0.0013, and 0.049, respectively). These findings suggest significant variation in financial literacy components based on demographic and professional characteristics (Table 3).

Table 3: Distribution of the study subjects as per their background characteristics and financial literacy status(n=333)

Characteristics	N	Adequate financial literacy: (Yes); n(%)		
		Savings	Insurance	Investment
Age group (in years)				
• 21-30	46	38 (82.61%)	27 (58.70%)	12 (26.09%)
• 31-40	164	127 (77.44%)	108 (65.85%)	44 (26.83%)
• 41-50	85	68 (80.00%)	53 (62.35%)	21 (24.71%)
• 51-60	38	26 (68.42%)	31 (81.58%)	23 (60.53%)
p-value		0.424	0.128	0.0003**
Gender				
• Male	176	134 (76.14%)	125 (71.02%)	86 (48.86%)
• Female	157	123 (78.34%)	89 (56.69%)	34 (21.66%)
p-value		0.632	0.006*	<0.0001**
Medical branch/discipline				
• Pre-clinical	30	26 (86.67%)	21 (70.00%)	13 (43.33%)
• Para-clinical	93	67 (72.04%)	56 (60.22%)	59 (63.44%)
• Clinical	210	174 (82.86%)	105 (50.00%)	86 (40.95%)
p-value		0.06	0.05*	0.0013**
Annual income				
• <10 lakhs	82	69 (84.15%)	57 (69.51%)	36 (43.90%)

• 10-20 lakhs	156	120 (76.92%)	102 (65.38%)	94 (60.26%)
• >20 lakhs	95	74 (77.89%)	44 (46.32%)	49 (51.58%)
p-value		0.41	0.002*	0.049*

*Statistically significant at $p < 0.05$

** Statistically significant at $p < 0.001$

Table 4 depicts the distribution of respondents' preferences for investment instruments reveals diverse choices. Fixed deposits (FDs) and bank savings accounts are the most favored options, with 60.96% and 74.17% rating them as "highly preferable," respectively, reflecting a preference for low-risk, secure investments. Term insurance and medical insurance are also well-regarded, with 42.94% and 35.44% considering them "preferable," indicating moderate risk appetite for insurance-related options. Conversely, mutual funds and the stock market are among the least preferred, with 52.85% and 66.67%, respectively, rating them as "not preferable," highlighting a general aversion to higher-risk investments. Real estate/property and gold are moderately preferred, with gold receiving significant support as "preferable" (56.46%). Government bonds and the Post Office Savings Scheme show limited appeal, with a majority of respondents being neutral or not favouring these options. Overall, the findings suggest a conservative investment mindset, prioritizing safety and stability over higher-risk, high-return avenues.

Table 4: Distribution of the study subjects as per preferred instrument of investment (n=333)

Current investment	Highly preferable	Preferable	Neutral	Not preferable
Fixed deposits (FDs)	203 (60.96%)	84 (25.22%)	21 (6.31%)	25 (7.51%)
Mutual funds	51 (15.32%)	37 (25.22%)	69 (20.72%)	176 (52.85%)
Term insurance	48 (14.41%)	143 (42.94%)	93 (27.93%)	49 (14.71%)
Recurring deposits	83 (24.92%)	87 (26.13%)	124 (37.24%)	39 (11.71%)
Bank Savings account	247 (74.17%)	50 (15.02%)	15 (4.50%)	21 (6.31%)
Medical insurance	76 (22.82%)	118 (35.44%)	104 (31.23%)	35 (10.51%)
Post Office Savings Scheme	41 (12.31%)	85 (25.52%)	178 (53.45%)	29 (8.71%)
Real estate/property	30 (9.00%)	77 (23.12%)	192 (57.66%)	34 (10.21%)
Stock market	12 (3.60%)	24 (7.21%)	75 (22.52%)	222 (66.67%)
Gold	45 (13.51%)	188 (56.46%)	56 (16.82%)	44 (13.21%)
Government bonds	19 (5.70%)	19 (5.70%)	158 (47.45%)	137 (41.14%)

The correlation analysis shows that financial knowledge is significantly associated with medical discipline, with a moderate positive correlation ($r = 0.53$, $p = 0.032$), indicating that individuals in certain disciplines tend to have higher financial knowledge. However, the correlation between financial knowledge and annual income is weak ($r = 0.41$) and not statistically significant ($p = 0.43$), suggesting that income level does not play a major role in influencing financial knowledge. On the other hand, financial knowledge shows a strong positive correlation with investment preferences ($r = 0.67$, $p = 0.05$), meaning that individuals with better financial knowledge are more likely to have clear investment preferences. This indicates that financial literacy may influence investment decision-making (Table 5).

Table 5: Correlation between financial knowledge and other characteristics

Variables	r	p-value
Financial knowledge & age	0.85	0.001*
Financial knowledge & discipline	0.53	0.032*
Financial knowledge & annual income	0.41	0.43
Financial knowledge & investment preferences	0.67	0.05*

r = Pearson correlation coefficient

*Statistically significant at 0.05

Discussion:

The study provides valuable insights into the limited literature on financial literacy, particularly in the Indian context. Previous research has indicated that financial knowledge and financial attitude are key factors influencing financial management practices.

The study highlights varying levels of financial literacy across different demographic and professional groups. Savings literacy is high across all groups, with the pre-clinical discipline and <10 lakhs income group showing the highest adequacy. Insurance literacy shows significant gender and income differences, with males and the <10 lakhs group performing better. Investment literacy varies significantly across age, gender, discipline, and income, with older respondents, males, para-clinical professionals, and those earning 10–20 lakhs demonstrating better knowledge. These findings indicate significant variation in financial literacy based on these factors. Financial knowledge increases with age, peaking at 39.3 ± 13.5 in the 51–60 age group, with a significant trend ($p = 0.04$). Males have significantly higher financial knowledge than females ($p < 0.0001$). The para-clinical group has the highest financial knowledge scores (31.5 ± 10.8), followed by clinical and pre-clinical groups, with significant variation across disciplines ($p = 0.001$). Income does not significantly impact financial knowledge ($p = 0.15$), despite higher scores observed in the 10–20 lakhs income group. The study found that gender differences in financial knowledge were influenced by variations in socioeconomic

factors such as earnings, education, and employment levels between males and females. However, while the attitude of Indian doctors toward finances did not significantly vary with age or gender, it did show notable differences based on the type of medical discipline. This aligns with previous research, which also suggested that gender does not significantly affect Indian doctors' attitudes toward finance. This implies that financial attitudes may be shaped more by professional background and other contextual factors rather than gender alone.

In this study financial knowledge is directly proportional to the age. Similar findings were seen in Mulligan EP et al²³. As age and income increase among healthcare professionals, there is a greater need for financial instruments for savings and investment. This is supported by the significant correlation found between years of experience, yearly family income, and financial literacy status. The study found that males were more likely to be financially literate. This finding aligns with the results of studies by Jayakumar et al.¹⁷ in the US and Altan et al.²⁴ in Turkey. In contrast to the study by Ibrahim et al.,²⁵ where there was almost equal representation of both sexes (48% females), our study had a male predominance (65.6%), which may explain the differences in findings.

Respondents show a strong preference for low-risk, secure investments like fixed deposits and bank savings accounts. Insurance options are moderately preferred, while higher-risk investments like mutual funds and the stock market are less favoured. Overall, the findings reflect a conservative investment approach, favouring safety over high-return opportunities. Indian doctors tend to favour secure financial options that provide long-term financial security. The study found a statistically significant positive association between financial knowledge and age, indicating that older individuals tend to have better financial knowledge. This finding is consistent with previous studies, which also observed that financial knowledge tends to improve over time as individuals gain more life and work experience. As people age, they typically encounter more financial situations that require knowledge and decision-making, contributing to a gradual increase in financial literacy.^{26,27}

Financial knowledge is significantly associated with medical discipline and investment preferences, suggesting that certain disciplines and higher financial knowledge influence investment decisions. However, income level does not significantly affect financial knowledge. In this study the correlation between financial knowledge and age is strong and statistically significant ($r = 0.85$, $p = 0.001$), indicating that as age increases, financial knowledge also increases. This suggests that older individuals tend to have higher levels of financial knowledge. A previous study found no correlation between age and sex with financial attitude.²⁸ In contrast, other studies have shown that age is linked to financial management behaviour.^{29,30}

While high financial knowledge significantly influenced the financial practices of Indian doctors, the study suggests that a positive financial attitude and literacy do not necessarily lead to better financial or investment practices, or vice versa.

Conclusion:

The financial knowledge among Indian doctors, particularly younger ones, is inadequate, with many acknowledging their inability to manage finances effectively due to lack of desire or confidence. This highlights the need for improved financial awareness and a positive shift in financial attitudes. Providing financial education, especially through awareness programs targeted at young doctors, and incorporating finance management into healthcare curricula, could help improve financial practices. Repeated sensitization of healthcare professionals is essential to enable better financial decision-making for both personal and organizational goals.

Acknowledgements:

We thank doctors from across the state for their enthusiastic participation in our survey.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

References:

1. Braunstein, S., & Welch, C. (2002). Financial literacy: An overview of practice, research, and policy. *Federal Reserve Bulletin*, 88, 445
2. De Bassa Scheresberg, C. (2013). Financial literacy and financial behavior among young adults: Evidence and implications. *Numeracy*, 6(2), 5.
3. Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.
4. Brown, M., & Graf, R. (2013). Financial literacy and retirement planning in Switzerland. *Numeracy*, 6(2), 6
5. Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and planning: Implications for retirement wellbeing (No. w17078). Cambridge, MA: National Bureau of Economic Research
6. Pk, H., & Reddy, R. J. (2020). An Insight to financial literacy in India-A review of literature (Vol. 7).
7. Varela-Candamio L, Enríquez-Díaz J. Evaluating financial and fiscal knowledge for an inclusive society. *Emerging tools and strategies for financial management*. IGI Global; 2020: 280-300.
8. Haque A, Zulfiqar M. Women's economic empowerment through financial literacy, financial attitude and financial wellbeing. *Int J Bus Soc Sci*. 2016;7(3):78-88
9. Rai K, Dua S, Yadav M. Association of financial attitude, financial behaviour and financial knowledge towards financial literacy: a structural equation modeling approach. *FIIB Bus Rev*. 2019;8(1):51-60.

10. Lusardi A, Mitchell OS, Curto V. Financial literacy and financial sophistication in the older population. *J Pension Econ Finance* 2014;13:347-66.
11. Lusardi A, Mitchell OS. The Economic importance of financial literacy: Theory and evidence. *J Econ Lit* 2014;52:5-44.
12. Mahdzan NS, Tabiani S. The impact of financial literacy on individual saving: An exploratory study in the Malaysian Context. *Transform Bus Econ* 2013;12:41-55.
13. Fernandes D, Lynch JG, Netemeyer RG. Financial literacy, financial education, and downstream financial behaviors. *Manag Sci* 2014;60:1861-83.
14. Adetayo OA, Ford RS, Nair L, Eliann Reinhardt M. The oxymoron of financial illiteracy in a highly educated population: Are we appropriately equipping trainees? *Plast Reconstr Surg Glob Open* 2019;7:e2329.
15. Ahmad FA, White AJ, Hiller KM, Amini R, Jeffe DB. An assessment of residents' and fellows' personal finance literacy: An unmet medical education need. *Int J Med Educ* 2017;8:192-204.
16. Mills AM, Champeaux A. Financial health for the pathology trainee: Fiscal prevention, diagnosis, and targeted therapy for young physicians. *Arch Pathol Lab Med* 2018;142:12-5.
17. Jayakumar KL, Larkin DJ, Ginzberg S, Patel M. Personal financial literacy among U.S. medical students. *MedEdPublish* 2017;6:35.
18. Havasi V. Financial situation and its consequences on the quality of life in the EU countries. *Soc Indic Res* 2013;113:17-35.
19. Bar-Or Y. Empowering physicians with financial literacy. *J Med Pr Manage.* 2015;31(1):46-9
20. Agarwal N, Biswas B. Financial literacy and its correlates among healthcare professionals of India: An ignored educational need. *Journal of Education and Health Promotion.* 2022 Jan 1;11(1):246.
21. Mahapatra MS, Alok S, Raveendran J. Financial literacy of Indian youth: A study on the twin cities of Hyderabad–Secunderabad. *IIM Kozhikode Soc Manag Rev* 2017;6:132-47.
22. Ambarkhane D, Venkataramani B, Singh AS. Financial literacy index for college students. *Annu Res J Symbiosis Cent Manag Stud* 2015;3:1-25.
23. Mulligan EP, Dickson T, DeVahl J. Financial literacy among health professions graduate students. *J Allied Health* 2020;49:181-9.
24. Altan F, BiÇer EB. Determination of financial literacy levels of health personnel working in hospitals affiliated to the ministry of health: Sivas province example. *Bus Manag Stud Int J* 2017;5:481-99.
25. Ibrahim ME, Alqaydi FR. Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE. *Int J Econ Finance* 2013;5:126-38.

26. Henager R, Cude BJ. Financial literacy and long and short-term financial behavior in different age groups. *J Financ Couns Plan*. 2016;27(1):3-19.
27. Hilgert MA, Hogarth JM, Beverly SG. Household financial management: The connection between knowledge and behavior. *Fed Res Bull*. 2003;89:309.
28. Rajna A, Ezat WS, AlJunid S, Moshiri H. Financial management attitude and practice among the medical practitioners in public and private medical service in Malaysia. *Int J Bus Manag*. 2011;6(8):105.
29. Mugenda OM, Hira TK, Fanslow AM. Assessing the causal relationship among communication, money management practices, satisfaction with financial status, and satisfaction with quality of life. *Lifestyles*. 1990;11(4):343-60.
30. Davis EP, Carr RA. Budgeting practices over the life cycle. *AFCPE*. 2018.