

Article

Sustainable Debt Behaviour and Well-Being of Young Adults: The Role of Parental Financial Socialisation Process

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Abstract: Literature shows that parental financial socialisation plays an important role in attaining financial literacy as well as in shaping sustainable financial behaviours and that both translate into increased well-being indicators and financial security on micro- and macroeconomic levels. However, debt literacy and debt behaviour seem to be unique. Very little is known about the childhood financial socialisation process through which adults' sustainable debt behaviour is shaped and how debt behaviour may affect well-being. This study tests a hierarchical model of childhood financial socialisation consisting of five levels: the anticipatory parental socialisation, and later life financial learning outcomes (particularly, debt literacy levels), financial attitudes, debt behaviour, and well-being. Using data collected from a purposive sample of young adult Poles (N = 600) during the period from 10 to 13 November 2018 and employing structural equation modelling, we have found evidence confirming the hierarchical relationship of literacy–attitude–behaviour. Our data do not support, however, either the hypothesised positive relationship between parental socialisation and objectively measured debt literacy or the assumed relationships between debt behaviour and well-being indicators. We posit that country-specific factors related to generational differences entailed by system-wide transition and the specificity of debt behaviour, respectively, are key for explaining these empirical deviations from the assumed conceptual framework. Finally, we found no significant differences between the models estimated separately for maternally conditioned and paternally conditioned respondents.

Keywords: debt; debt behaviour; financial socialisation; parental socialisation; financial literacy; debt literacy; well-being; young adults

1. Introduction and Background

In ‘David Copperfield’, Wilkins Micawber, one of the most recognised debtors, equated living without debts with happiness. In Mr Micawber’s reasoning, debt leads to misery. Today, indebtedness still raises many concerns regarding not only its impact on long-run prosperity but also the stability and security of households and entire economies. After the ‘deleveraging’ period, which followed the latest global (sub-prime mortgage) crisis, household sectors worldwide show a rise in debt levels again, including the level of debt to gross domestic product (see, e.g., [1–3]). On the microeconomic level of individual households, wrong borrowing decisions may be costly in many different ways—economic,

social, health, and, ultimately, in terms of general well-being. From the economic perspective, borrowing mistakes may lead to excessive charges related to debt, exaggerated debt loads, payback problems, and, finally, delinquency and personal bankruptcy [4]. Debt also creates opportunities for abuses leading to scandals and causes social tensions (e.g., credit unions scandal in Poland, as well as Swiss franc mortgage problem experienced by many European countries, or the whole issue of unethical behaviour on the part of financial market professionals during the sub-prime crisis, including the LIBOR manipulation scandal. See, for instance, [5–8]). Further, debt—particularly excessive debt—has an adverse effect on health, both mental and physical [9–13], and eventually on financial well-being and overall life satisfaction [14–16].

However, on the other hand, it is documented that borrowing, on certain conditions—and as opposed to ‘Micawber’s principle’—may also be beneficial and, ultimately, prosperity enhancing. Credits and loans enable income smoothing [17]: due to credits and loans consumers can afford commodities unattainable at current income. Moreover, refraining from credits and loans may deny consumers the opportunity to accelerate wealth accumulation [2,18]. In this way, debt—due to better provision of needs and resultant higher life standard—may have a positive effect on well-being measures. Given this two-sided nature of debt and its related ambiguity, the effective use of credits and loans requires relevant knowledge and skills allowing individuals to make debt-related decisions accordingly to favourable or unfavourable circumstances.

The aforementioned income smoothing through credits and loans is particularly important for young adults. The life cycle hypothesis [17,19] posits that individuals in early adulthood have the most reason for borrowing. Young adults turn to credits or loans to close the gap between their desired level of consumption and insufficient current income, predicting that they will be able to pay off the debt later in their life. As saving is more likely to be available at a later age, in light of the life cycle hypothesis the grown-up individuals are more likely to borrow when they are young. However, research shows that young adults are poorly prepared to borrow effectively: they are at a significant disadvantage in terms of nearly all applied measures of financial competencies and behaviours [20]. In the US, only 24% demonstrate basic financial literacy, while only 8% demonstrate high financial literacy [21]. Hence, they may form a group that is particularly vulnerable to the downside of credits and loans.

The goal of this article is to check whether sustainable debt behaviour of young adults is modelled by parental socialisation processes in childhood and whether their well-being, both financial and overall, relates to this debt behaviour. To meet this goal, we extend previous research regarding antecedents and consequences of debt behaviour in young adults. Specifically, we focus on the hierarchical process in which parental financial socialisation at childhood predicts debt literacy in adulthood, and debt literacy influences debt behaviour, while debt behaviour predicts financial well-being, overall life satisfaction, and financial anxiety.

Previous studies have shown that more financially literate persons are more likely to make better (i.e., more healthy, more responsible or more sustainable) financial choices, including borrowing [4,22–25], and that the effect of financial literacy on financial behaviour is transmitted further to well-being or satisfaction indicators [16,26]. Financial literacy is considered a prerequisite for citizens’ economic security [27]. On the other hand, some studies have shown that financial literacy is modelled during childhood within a financial socialisation process [26,28–31], with a special role played by parents [26]. Hence, in light of the empirical research carried out so far, a hierarchical process seems to exist, leading from childhood experiences through adulthood financial literacy levels and financial behaviours to satisfaction and well-being states. However, former studies focused on a broad and diversified set of financial behaviours, such as budgeting, spending, saving, investing, and paying off debt, without scrutinizing the choices regarding credits and loans (the exception is [29]. However, this study focused solely on credit card debt). Additionally, although the importance of parental financial socialisation is well documented, very little is known about the separated roles of the mother and father in the socialisation framework. In this article, we aim to fill these gaps.

Firstly, we concentrate on debt-related issues instead of a wide gamut of financial matters. Some studies suggest that the acquisition of debt literacy is more difficult compared to the acquisition of more general (more diversified) financial literacy [32]—perhaps not only through formal education, but also within the (informal) parental socialisation channel. The relevant literature also shows that the vast majority of children receive an allowance [33,34], while only some of them borrow on their own [34]. Hence, it seems rational to assume that children are more likely to be exposed to asset-oriented experiential learning compared to debt-oriented issues. However, the majority of them will end up as adult debtors, as shown by the official statistics (for instance, in Poland more than three-quarters of adults aged 18–64 report that they had at least one credit or loan in their life to date. See [35]). Secondly, the literature on the isolated maternal and paternal contribution to the economic socialisation process is at a very early stage, with research on financial socialisation being exceptionally rare (see, e.g., [36–39]).

To sum up, given the ambiguity and dichotomy of debt—which has both a ‘bright’ and a ‘dark’ side—it is interesting and policy-relevant to investigate how the hierarchical relation of financial anticipatory socialisation–literacy–attitudes–behaviour–well-being is shaped. Do parents play a role in this process during childhood? Does the role of the mother differ from the role of the father in the process? Does the relation between borrowing behaviour and well-being depend on what individuals know about credits and loans, and on what debt-related skills they have? How do attitudes towards healthy financial behaviours contribute to this process? These are the key research questions addressed in this article. To deal with them, we surveyed a purposive sample of young adults (N = 600) living in Poland.

2. Literature Review

2.1. Theoretical Background

The conceptual framework proposed in this article rests on an interdisciplinary approach which integrates three prominent theories: (i) the social learning theory [40], (ii) the theory of consumer socialisation [41], and (iii) the theory of planned behaviour [42].

The theory of social learning states that children learn, encode, and later imitate behaviours through observing others (so-called ‘models’) or by being provided with direct instructions within an environment, such as family, school, or work. Bandura’s theory [40] is concerned with how people (children and adults) operate cognitively on their previous social experiences and how these cognitive operations influence their behaviour and future development. From this point of view, children raise and integrate information that is encountered in various social experiences, such as exposure to models, verbal discussions, and discipline encounters. In our study, the theory of social learning provides a basis for explaining the relationship between parental teaching in childhood and later adulthood characteristics related to debt: debt literacy, debt behaviour, and debt behaviour outcomes (including well-being measures).

The theory of consumer socialisation indicates financial socialisation agents (family, school, peers, work) and the process through which young individuals—being influenced by the agents—acquire knowledge and skills that are related to their later adult roles in the marketplace and, more generally, in the society. The knowledge and skills may not be relevant in childhood, however, due to socialisation, they may be invoked in adult life when they become relevant. Importantly, socialisation need not be acquired through direct teaching. It may be carried out by an observation and imitation of behaviours of others.

The theory of planned behaviour explains how behaviour is shaped by the attitude-related factors: the attitude towards a behaviour, subjective norm, and perceived behavioural control. Parents influence the attitude of children to specific (e.g., financial) behaviours because children can copy some of their parents’ behaviours. In addition, children are disciplined (they feel pressure) from their parents to behave in a certain way.

2.2. Conceptual and Analytical Framework

On a less general level, our conceptual and analytical framework is a combination and development of the models proposed and tested previously by [26] and [29]. In developing the framework, we started with the four-level hierarchical financial socialisation process introduced by [26]. The process leads from parental financial socialisation at childhood through financial learning outcomes and financial attitudinal indicators in early adulthood, to a profile of debt behaviour. Then, in a way similar to [29], we augmented the original model of [26] with a fifth level: debt behaviour outcomes. Ultimately, we obtained a coherent model consisting of three large components: (i) the antecedents of debt behaviour explained by the theories of [41] and [40], (ii) the module integrating key variables emphasised in the theory of [42], and (iii) the module that groups a diversity of debt behaviour outcomes: from standard economic measure of debt position through more interdisciplinary measures of well-being or satisfaction (both financial and overall) to a purely psychological measure of anxiety. The final model is presented in Figure 1.

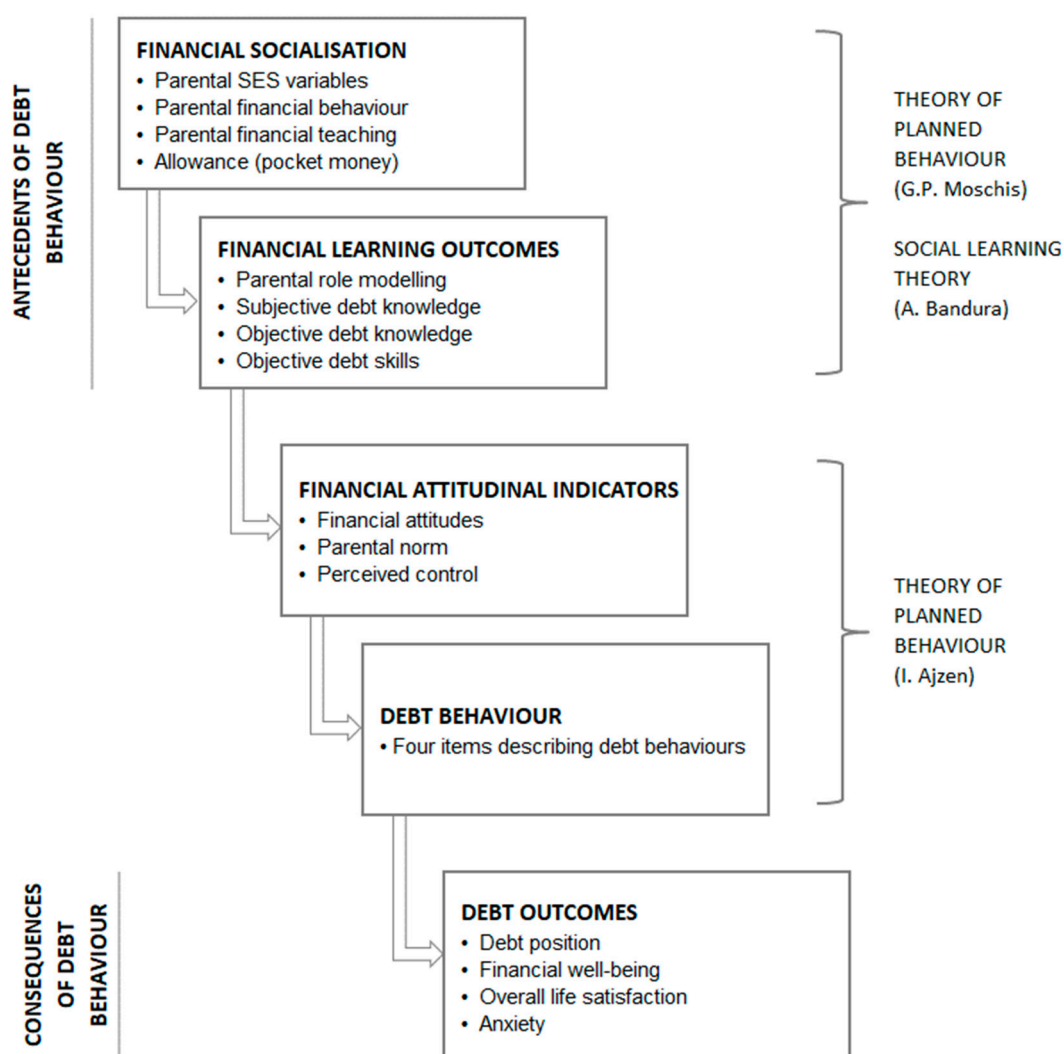


Figure 1. The conceptual and analytical framework.

Our conceptual approach and the hypotheses consistent with the approach were based on the assumed five-level hierarchical model leading from anticipatory socialisation through financial learning outcomes, financial attitudinal indicators, debt behaviour, and to outcomes resulting from the behaviour. When testing the hypotheses, we investigated only the links between variables from the adjacent

(neighbouring) levels (e.g., the link between debt knowledge and financial attitudes, or the link between financial attitudes and debt behaviour, but not the link between debt knowledge and debt behaviour) assuming that there is a hierarchical process leading gradually from anticipatory socialisation to positive debt outcomes. However, previous studies imply that except for such level-to-level relationships (and except for indirect relations between non-adjacent levels), some direct connections may exist. For instance, although debt knowledge can influence debt behaviour through financial attitudes, the knowledge can also affect behaviour directly, i.e., without the mediation of attitudes (see [43] for an overview of research on this association). The structural model we applied (see Methods section) allowed us to capture not only the indirect but also the direct effects. Below we provide a brief review of the empirical literature on direct effects. In the next section (2.3) we review the extant empirical literature on indirect effects and use its findings to formulate expectations regarding the present study. This is followed by the literature review regarding direct effects (Section 2.4).

2.3. Previous Empirical Evidence on Indirect Effects

Previous studies have shown that individuals start acquiring financial literacy at an early age (i.e., at childhood) within a financial socialisation process [26,28–31], with a special role in the process played by parents [26]. Therefore, we expected that, generally, individuals more exposed to parental financial socialisation should report higher financial learning outcomes, that is, debt knowledge levels, debt skills levels, and financial confidence (i.e., subjective debt knowledge). They also should be more likely to indicate their parents as their role models. We used four indicators of parental financial socialisation as depicted in Figure 1. These indicators are demonstrated in detail in the Methods section.

Shim et al. and Xiao et al. [26,29] found that higher levels of financial knowledge (both objectively measured and self-assessed) were significantly related to more positive attitudes towards healthy financial behaviours. Similarly, financial knowledge was associated with financial attitudes in [16]. In differently designed and differently aimed studies of [36,44], pro-debt attitudes were found to be positively related to knowledge of credit. Białowolski, Cwynar, Cwynar and Węziak-Białowolska [45] established that attitudes towards debt are strongly linked either to debt knowledge or debt skills, or both. Additionally, debt skills were revealed as a particularly strong predictor of debt attitudes. Shim et al. [26] showed also that adopting parents as role models predicted higher parental subjective norms, perceived behavioural control, and more positive attitudes towards healthy financial behaviours. Hence, we hypothesised that individuals with higher financial learning outcomes should display higher levels of attitudinal indicators (i.e., attitudes towards healthy financial behaviours, parental subjective norms, and perceived behavioural control regarding finances).

In social psychology, there are three theoretical schools of thinking on the causal direction in the relationship between attitude toward behaviour and the behaviour: attitude influences behaviour in [46], behaviour affects attitude in [47], and both directions are allowed in [48]. Sometimes the attitude and behaviour could even be unrelated [49]. However, most studies in consumer finance show that attitude is positively related to behaviour, i.e., the more positive an attitude toward a specific behaviour (particularly, unambiguously healthy behaviour), the more likely is the incidence of that behaviour (see, e.g., [16,29,50]). This applies to research on the link between debt attitude and debt behaviour, as well (e.g., [51–54]). Based on this, we anticipated that our survey participants should express more healthy debt behaviour if they display higher attitudinal indicators.

It seems reasonable to expect that more occurrences of unhealthy debt behaviour will lead to worse debt position measured in purely economic terms. The effect was confirmed by previous studies, for instance, see [29]. It is also well documented that expressing healthy financial behaviours is positively related to financial satisfaction (see, e.g., [50,55,56]), and further to overall life satisfaction [57]. Moreover, debt and particularly excessive debt caused by wrong (unhealthy) behaviours lead to both deterioration in overall life satisfaction [14,16] and to increased anxiety levels [58]. The existing literature [59] offers two perspectives on how debt may adversely influence overall well-being: (i) a bottom-up spill-over perspective in which financial management is one of the key life domains and,

as such, may have significant side effects on other life domains (e.g., marriage), and (ii) a resource perspective in which debt limits the financial resources and, as a result, diminishes a stress (strain) buffer. Based on this, we formulated the following expectation: individuals performing more healthy debt behaviours should be more likely to display better debt position, to report higher financial well-being levels as well as higher overall life satisfaction levels, and to report lower financial anxiety.

2.4. Previous Empirical Evidence on Direct Effects

A growing body of research shows a correlation between the extent of financial socialisation in childhood and the incidence of multiple healthy financial behaviours in adult life. Bernheim, Garrett, and Maki [60] found that children of parents with above-average saving behaviour saved more than others and that those who were encouraged by parents to save in childhood saved more than others in adult life. Webley and Nyhus [33] reported similar results. Additionally, in [33] the individuals who were encouraged to save and were taught about budgeting turned out to be more conscientious, more future-oriented, and more able to control spending. Jinhee and Swarn [61] evidenced a positive relationship between financial socialisation experiences in childhood and financial asset ownership in young adulthood. Using structural equation modelling and a large sample of first-year college students, Shim et al. [26] established that parents, financial education at school, and having a work experience during adolescence are strong predictors of a broad range of healthy financial behaviours in young adulthood.

Some studies have confirmed the positive association between childhood financial socialisation and downstream financial behaviour in adult life by focusing on the debt-related domain, which is essential for our article. Hancock, Jorgensen and Swanson [62] found that students who reported that their parents argued about finances were also the most likely to report \$500 or more in credit card debt as well as two or more credit cards. The findings of [63] suggest that children who were exposed to a hands-on approach to teaching about the handling of money reported lower levels of credit card debt in college. Xiao, Tang, Serido and Shim [29] showed how parental norm and socioeconomic status prevent students from performing risky credit behaviours.

There is also a vast body of evidence showing that more financially literate individuals are more likely to engage in desired financial behaviours. They are more likely to save [64] and to invest in the stock market [65–69], they are better prepared for retirement [70–74], they make better borrowing decisions [4,23–25], and—ultimately—accumulate more sizable wealth throughout their life [75–78].

3. Materials and Methods

3.1. Data

We fielded the questionnaire-based survey during the period of November 10–13, 2018. The data were collected through Computer-Assisted Web Interviewing (CAWI) from a purposive sample of 600 Poles aged 18–35 years. CAWI was selected instead of Computer-Assisted Telephone Interviewing due to the sensitivity of some issues we queried when surveying the participants. We decided to survey young adults instead of a nationally representative sample of the entire population for three reasons. Firstly, as mentioned in the Introduction, according to the life-cycle hypothesis, credits and loans are particularly important for this specific age cohort. Secondly, in the classical approach to development tasks proposed by [79], early adulthood is a stage of many activities that are crucial for the quality of further life and well-being [80,81]. Thirdly, we asked the survey participants many questions regarding their childhood-related memories. We assumed that the longer the interval that elapses from childhood, the more difficult it may be for respondents to remember their childhood experiences. The lack of Polish research regarding this group of respondents is a gap worth filling.

Respondents were randomly assigned to two subsamples: respondents in the first group were asked to report on the behaviour and attitudes of their mothers before the respondents reached the age of maturity, while respondents in the other group were asked the same questions but in regard

to their fathers. For ease in reporting the results, these two groups of respondents have been named ‘maternally conditioned’ and ‘paternally conditioned’, respectively.

We partnered with a professional market and opinion research agency, DRB Polonia, to conduct the survey. The sample was controlled by cross-section quotas for two demographic variables: gender and place of residence. Table 1 reports the sample distribution in terms of key socio-demographic variables.

Table 1. Sample composition in terms of main socio-demographic variables.

	%	N
Gender		
Male	55	330
Female	45	270
All	100	600
Place of residence (inhabitants)		
Village	18.2	109
Town up to 20,000	10.3	62
City 20,001–50,000	18.8	113
City 50,001–100,000	13.5	81
City 100,001–200,000	14.5	87
City 200,001–500,000	13.2	79
City 500,001 or more	11.5	69
All	100	600
Educational attainment		
Primary school	0.5	3
Junior high school	1.7	10
Basic vocational school	3.7	22
High school (upper secondary education)	17.2	103
Vocational school (upper vocational education)	13	78
Post high school	9.3	56
Higher school	51.5	309
PhD or higher	3.2	19
All	100	600
Income (PLN)		
Less than 1500	22.6	136
1500–2500	29.3	176
2500–3500	23	138
3500–4500	10.5	63
4500–6000	7.1	43
More than 6000	7.3	44
All	100	600

3.2. Measures

Most measures used in our study are based on the previous literature. The measures were first piloted in a sample of 137 university students to test their validity, reliability, and factorial structure. All data demonstrated in this article reflect the final designs of the measures, refined according to the pilot study results. The basic statistics regarding the variables we measured in our study are reported in Table 2.

Table 2. Definitions and basic descriptive statistics of the variables used in this study.

Abbreviation	Variable	Min	Max	Median
SES	Parental socioeconomic status variables	1.6	7	5
PFB	Parental financial behaviour	1	5	3.75
PFT	Parental financial teaching	1	5	3
ALL	Allowance (pocket money)	1	2	2
PRM	Parental role modelling	1	5	3
SDK	Subjective debt knowledge	1	5	3
ODL	Objective debt knowledge	0	9	4
ODS	Objective debt skills	0	4	1
FAT	Financial attitudes	1	5	4.5
PSN	Parental subjective norms	1	25	15
PBC	Perceived behavioural control	1	5	3
DB	Debt behaviour	1	5	4.25
DP	Debt position	0	3	1
FWB	Financial well-being	1	5	3
OLS	Overall life satisfaction	1	7	4
FAN	Financial anxiety	1	7	2.8

3.2.1. Financial Socialisation

We used three measures to gather data on parental socioeconomic status (SES): (i) education level of the mother, (ii) education level of the father, and (iii) financial situation of the respondent's household during her or his childhood (reported on a 5-point Likert scale from 1 (very bad) to 5 (very good)). Parental socioeconomic status was estimated on the basis of the Computerised Status Index method [26,82].

Parental financial behaviour was measured through participants' reports on a 5-point Likert scale (where 1 meant 'Never' and 5 meant 'Always') regarding their parents' behaviours before the respondents reached the age of maturity. Among five behaviours demonstrated to the survey participants, two were adapted from [26,29] ('Spend within the budget' and 'Save money each month for the future'), while we developed the other three ('Borrowed money for at least one of the following purposes (or for similar purposes): the purchase of expensive clothing or haberdashery (e.g., branded suit or purse), holiday abroad, technological novelties or gadgets (e.g., the newest model of a cult brand smartphone)', 'Paid bills on time', and 'Insured oneself, family, and assets against life contingencies'). However, in the confirmatory factor analysis, we found that the third item ('Borrowed money for at least one of the following purposes') did not reach a reliable level, increasing the error term in the model. As a result, we removed this item from the final parental financial behaviour scale. Eventually, the scale had a theoretical range of values from 4 to 20. Cronbach's alpha was 0.66. The same four items were used to measure three other variables—(i) respondents' financial attitudes, (ii) parental normative expectations, and (iii) respondents' motivation to comply—with the same theoretical range of values (from 4 to 20) in each case.

To measure parental direct financial teaching, we used the instrument proposed by [26]. The Cronbach's alpha was 0.91 for the scale. Childhood experiences with money (i.e., the allowance) were estimated with the following 'Yes/No' question: 'Did your parents or other relatives regularly give you money (allowance/pocket money)?' with 'Yes' coded as '1' and 'No' coded as '0'.

3.2.2. Financial Learning Outcomes

The scale developed by [26] was used to discern the readiness of participants to adopt their parents as financial role models. The Cronbach's alpha of the scale (with the theoretical range of values from 4 to 20) was 0.93.

Respondents' self-assessments of their debt-related knowledge (i.e., confidence) were measured with a 5-point Likert scale. This variable came from a survey item, used in many previous studies

(e.g., [4,69,83,84]), that asked: ‘On a scale of 1 to 5, where 1 means very low and 5 means very high, how would you assess your debt knowledge?’ This question preceded the objective diagnosis of debt literacy.

We measured actual (i.e., objectively determined) debt knowledge with a 9-question multiple-choice test (‘True/False/Don’t know’) (see Appendix A) that constituted a combination of items used previously by [85] and developed by us. Correct answers were coded as 1 while all remaining options (incorrect answers as well as ‘Don’t know’ responses) were coded as 0. Hence, the objective debt knowledge index ranged between 0 and 9 in value. Originally, the test consisted of 10 questions. However, in light of the item response theory, the third item in the test (‘When you use your home as collateral for a loan, there is no chance of losing your home’) did not add significant information in the low range of the measured ability. As a result, this item was removed from the objective debt knowledge instrument.

We used an expanded [4] instrument to measure objective debt skills (see Appendix B). [4] indicated that this test concentrates on three debt-related competencies: (i) comprehension of interest compounding, (ii) knowledge on how to pay off a credit card effectively, and (iii) understanding of the time value of money concept. When expanding this instrument, we started from the premise that the ability to make healthy debt decisions depends to a great extent on skills regarding the computation of the annual percentage yield (APY, henceforth). APY includes all costs of a loan—not just the nominal interest. Also, APY takes into account compounding of the interest and reflects the frequency as well as the timing of payments. Although [4] did not refer to APY explicitly in their instrument, the questions the instrument consists of (and competencies linked to them) are closely related to three different properties of APY. Firstly, APY depends on the frequency of interest compounding (this issue is reflected in the first area raised by [4]). Secondly, APY shows the costs of a loan as per cent, while borrowers are repaying their debts as an amount of currency (the second [4] area). Thirdly, APY is determined by how often the payments (e.g., instalments on debt) are made (third [4] issue). However, APY is also affected by when the payments are made: at the beginning or at the end of a settling period (pre-paid or post-paid, in advance or afterwards). Therefore, we decided to augment the [4] test with another question on the timing of the payments. The exact wording of the novel question is as follows (for the sake of brevity, we do not provide the wordings of [4] test questions since they can be found in the original article [4]):

You took a PLN 5000 loan for one year and the interest rate you are charged is 10% per year. You are given the following two options to pay the interest on the loan:

- (a) One-time payment of PLN 500 in advance (at the beginning of the year), which means that PLN 4,500 will be effectively available for you on the day of grant.
- (b) One-time payment of PLN 500 at the end of the year, which means that PLN 5,500 will have to be returned to the lender on the day of repayment.

Which is the more advantageous option?

- (i) Option (a).
- (ii) Option (b).
- (iii) They are the same.
- (iv) Do not know.
- (v) Prefer not to answer.

As a result, we obtained a battery of four questions, allowing us to learn to what extent our participants have debt skills regarding APY computation. Correct answers in our objective debt skills test were coded as 1, while all remaining options (incorrect answers and ‘Don’t know’ responses) were coded as 0. Hence, the objective debt skills index ranged between 0 and 4 in value. The higher the index, the more debt skilled the respondent.

Following the related literature on the conceptualisation and operationalisation of financial literacy [86–88], we assumed that the objective debt knowledge, objective debt skills, and subjective debt knowledge (that is, debt-related confidence) form a broader construct, namely debt literacy.

3.2.3. Financial Attitudinal Indicators

We used the instruments developed by [26] to measure financial attitudes, parental subjective norms, and perceived behavioural control. However, compared to [26], we applied a different range of financial behaviours when measuring these three variables, as mentioned earlier. The Cronbach's alphas for the financial attitudes and parental norms scales were 0.83 and 0.87, respectively. We do not report the alpha for perceived control as it was measured by a single item.

3.2.4. Sustainable Debt Behaviour

We follow [89] and we use the term 'sustainable debt behaviour' to indicate healthy (beneficial, desired or responsible) debt behaviour. Specifically, by 'debt behaviour' mean how individuals transact in debt markets or, in other words, how they borrow (i.e., for what purposes they borrow, do they make a 'comparison shopping' when looking for a loan, do they pay off debts timely, etc.) assuming that such 'debt behaviour'—as the behaviour in any other domain—may be more or less sustainable. In this article, sustainable debt behaviour means the behaviour that is responsible in terms of both pre-contractual and post-contractual consumer actions in relation to credit. Not only irresponsible debt behaviour can jeopardise the financial security of an individual household or even entire economy, but also it can entail more general, non-financial adverse consequences for societies and, eventually, even whole humankind. This is because 'The driving economic force in most advanced nations is no longer personal savings, but rather purchases sustained by consumer debt' ([90], p. 59). It is documented that consumers' decisions to borrow may be largely supported by materialistic attitudes and consumerism [91]. This is particularly visible among younger generations, studied in this article, that broadly share the attitude 'I want it fast and I want it now' [92]. As a result, the excessive reliance on debt may be a threat to security not only in the purely financial sense but also in a much broader sense of a menace to long-term economic, social, cultural and environmental sustainable development. For instance, over-consumption funded by credit, particularly consumption of goods that satisfy consumers' wants rather than needs, may lead not only to concerns regarding the ability to repay the debts, but also to more universal concerns as to the environmental consequences of such debt-driven over-consumption (more pollution, more emission, more waste, etc.). Gonzalez-Redin, Polhill, Dawson, Hill and Gordon [93] show that in their model, environmental and economic collapse are not caused by debt growth, but emerges as a consequence of the inappropriate use of debt by private actors.

To develop a sustainable debt behaviour scale, we started with the instrument proposed by [94]—the only financial management behaviour scale to date that has been psychometrically validated using a representative sample of adults. This instrument includes, apart from scales for other financial domains, a credit management subscale comprising three items. However, for the purpose of our study, we decided to reject the subscale and develop our own debt behaviour scale instead. We did this because two of the items comprising the credit management subscale of [94] regard credit cards as a debt vehicle. This well reflects the specificity of the US credit market, where credit cards are common, but not necessarily the Polish market. According to the [95], only one in six adult Poles has a credit card. Nevertheless, we decided to adapt to debt specificity some of the [94] items representing other financial domains.

Firstly, we assumed that a careful comparison of available options is equally important while selecting a credit or a loan as it is when shopping. Hence, we included the item 'Borrowing money without a thorough examination of all pros and cons as well as careful consideration of all available options' in the debt behaviour scale. This item was modelled after the proposition by [85] phrased as 'Compare offers before applying for a credit card' as well as the proposition by [69], 'Did you compare offers from different lenders (or mortgage brokers?)'. To compare, [94] used 'Comparison shopping' in their cash management subscale. Next, we extended the item 'Pay bills on time' used by [94] in their cash management subscale. We reversed the statement and, to conform it to debt specificity, we added a phrase regarding credit or loan obligations ('I get behind on bills payment or/and debt repayment'). Finally, we added two other items suggested by previous studies as being good markers of unhealthy

debt behaviour: (i) 'Borrowing to repay former debts' [96], and (ii) 'Borrowing simultaneously from more than one source (e.g., banks, personal loan/payday loan companies, instalment purchases, pawnshops, family etc.)' [78]. To avoid 'Not applicable' responses on the part of the consumers who have never borrowed, the last item of our debt behaviour scale—'I get behind on bills payment or/and debt repayment'—was universal and applicable to all consumers, as one can reasonably assume that everyone needs to pay bills. The Cronbach's alpha was 0.87 for the debt behaviour scale. The scale ranged between 1 and 5 in value. For ease of interpretation, the scale was reversed, the higher the value on the scale, the healthier the debt behaviour.

3.2.5. Debt Behaviour Outcomes

We distinguished four very diverse markers of the outcomes entailed by particular debt behaviour: (i) a purely objective indicator of the debt burden measured in terms of the number of credits or loans (a similar approach was applied by [97], who used the number of credit cards as a key indicator of debt status), (ii) a subjective assessment of general (i.e., not just debt-related) financial well-being, (iii) a self-reported measure of overall life satisfaction, and (iv) the anxiety caused by the respondent's financial situation.

Financial well-being was measured by a single question which asked the respondents to rate on a 1–5 scale how satisfied they are with their overall current financial satisfaction, where 1 denotes 'very dissatisfied' and 5 denotes 'very satisfied'. This single-item measurement of financial satisfaction is widespread in the financial literacy literature as well as in financial satisfaction research (see, e.g., [15,26,58,97,98]).

To assess overall life satisfaction, the SWLS scale was used [99]. The scale has been translated into Polish and displayed strong internal reliability ($\alpha = 0.89$). The SWLS asked the respondents to rate on a 5-point Likert-type scale (where 1 is 'I strongly disagree' and 5 is 'I strongly agree') the extent to which they agree with five statements (e.g., 'In most ways my life is close to my ideal', 'The conditions of my life are excellent', 'If I would live my life over, I would change almost nothing'). The result of the measurement is a general indicator of a sense of life satisfaction, specifically global cognitive judgments of satisfaction with one's life [100]. Some researchers [101] have shown that self-satisfaction is an important component of life satisfaction and have equated well-being with high self-esteem.

The Financial Anxiety Scale (FAS, henceforward) was used to measure the effect of financial stress on mental health. The tool stems from Generalized Anxiety Disorder diagnostic criteria set forth by DSM-IV-TR [102]. The scale has been developed and described by [58]. We adapted the diagnostic criteria for anxiety to financial domain specificity. Generalized anxiety disorders were characterized by excessive anxiety that occurs for six months or longer due to events or activities. Respondents were asked to assess their reaction on a 7-point Likert scale (from 1, 'never' to 7, 'always'). Examples of items in the FAS included: 'I have difficulty sleeping because of my financial situation', 'I have difficulty concentrating on my school or work because of my financial situation', 'I am irritable because of my financial situation' (see Archuleta, Dale and Spann [58], see Table 3 for details). It was found that internal reliability using Cronbach's alpha was high ($\alpha = 0.96$). The Polish translation of the scale was used in the research.

Table 3. Factor loading of indicators with latent constructs and alphas for scales. Only $p < 0.001$ indicators are presented.

Construct/Indicator	Items Comprising the Scale	Standardised Factor Loading	Cronbach's Alpha
Parental SES	SES	1.00	N.A.
Parental financial behaviour	Spent within the budget	0.594	0.66
	Saved money each month for the future	0.783	
	Paid bills on time	0.572	
	Insured against life contingencies	0.62	
Parental financial teaching	Discussed family financial matters with me	0.72	0.91
	Spoke to me about the importance of saving	0.84	
	Taught me how to be a smart shopper	0.795	
	Taught me how to use a credit card appropriately	0.713	
	Discussed how to establish a good credit rating	0.66	
Allowance	Discussed how to finance my college education with me	0.75	
	'Yes/no' question	1.00	N.A.
Parental role modelling	I make financial decisions based on what my parent(s) have done in similar situations	0.86	0.93
	When it comes to managing money, I look to my parent(s) as my role models	0.89	
	My parent(s) are role models for me about how to manage financial matters	0.878	
	My parent(s) have a positive influence on me when it comes to managing money	0.856	
Subjective debt knowledge	Self-assessment on a 5-point Likert scale	1.00	N.A.
Objective debt knowledge	Nine 'True/false' questions	1.00	N.A.
Objective debt skills	Four single-choice questions	1.00	N.A.
Financial attitudes	Spent within the budget	0.76	0.83
	Saved money each month for the future	0.86	
	Paid bills on time	0.74	
	Insured against life contingencies	0.62	
Parental subjective norm	Spent within the budget	0.902	0.87
	Saved money each month for the future	0.849	
	Paid bills on time	0.787	
	Insured against life contingencies	0.732	
Perceived behavioural control	Self-assessment on a 5-point Likert scale	1.000	N.A.
Debt behaviour	Borrowing money without thorough examination of all pros and cons as well as careful consideration of all available options	0.597	0.87
	Borrowing money to repay former debts	0.71	
	Borrowing money simultaneously from more than one source (e.g., banks, personal loan/payday loan companies, instalment purchases, pawnshops, family etc.)	0.83	
	I get behind on bills payment or/and debt repayment	0.705	

Table 3. Cont.

Construct/Indicator	Items Comprising the Scale	Standardised Factor Loading	Cronbach's Alpha
Debt position	Self-reported number of credits and loans	1.000	N.A.
Overall life satisfaction	In most ways, my life is close to my ideal	0.82	0.86
	The conditions of my life are excellent	0.77	
	I am satisfied with my life	0.86	
	So far I have gotten the important things I want in life	0.89	
	If I would live my life over, I would change almost nothing	0.76	
Financial well-being	Self-assessment on a 5-point Likert scale	1.000	N.A.
Financial anxiety	I feel anxious about my financial situation	0.758	0.96
	I have difficulty sleeping because of my financial situation	0.837	
	I have difficulty concentrating on my school or work because of my financial situation	0.844	
	I am irritable because of my financial situation	0.863	
	I have difficulty controlling worrying about my financial situation	0.936	
	My muscles feel tense because of worries about my financial situation	0.933	
	I feel fatigued because I worry about my financial situation	0.921	

3.3. Data Analysis Procedure

Once the data was collected, the database was refined for further analysis. An initial demographic analysis was carried out and frequencies for categorical variables and descriptive for quantitative variables were computed. As the questionnaire was configured as a set of subscales measuring different aspects of interest, for each subscale an exploratory factor analysis was carried out obtaining correlation between items with the underlying subscale, and between subscales. For each subscale, the Cronbach's alpha was computed as a measure of reliability. To test the psychological construct measured by each subscale, confirmatory factor analysis was computed for the underlying construct. For these analyses, the package Psych [103] was used. In order to test our conceptual framework, a series of hierarchical structural equation models were run over the underlying constructs. The final iterative model achieved was evaluated attending to the common indices of the goodness of fit allowing covariance between constructs and covariance between items. The final model was tested for invariance on intercepts and slopes attending to gender and paternally conditioned respondents. Structural equation analysis was carried out with the package Lavaan [104]. We only present a significative relationship in the model according to alpha 5% of type one error.

4. Results

To test the conceptual framework and the hypothesised relationships, we first ran a series of confirmatory factor analyses to evaluate the measurement model for each construct included in the model (see Table 3).

Once we tested the goodness of fit of each construct, we ran a structural model to see the paths of relationships between the constructs. We ran an initial model to test the main relations between latent constructs. Only significant path relationships were assumed after modifying the model attending to error modification indexes (see Figure 2).

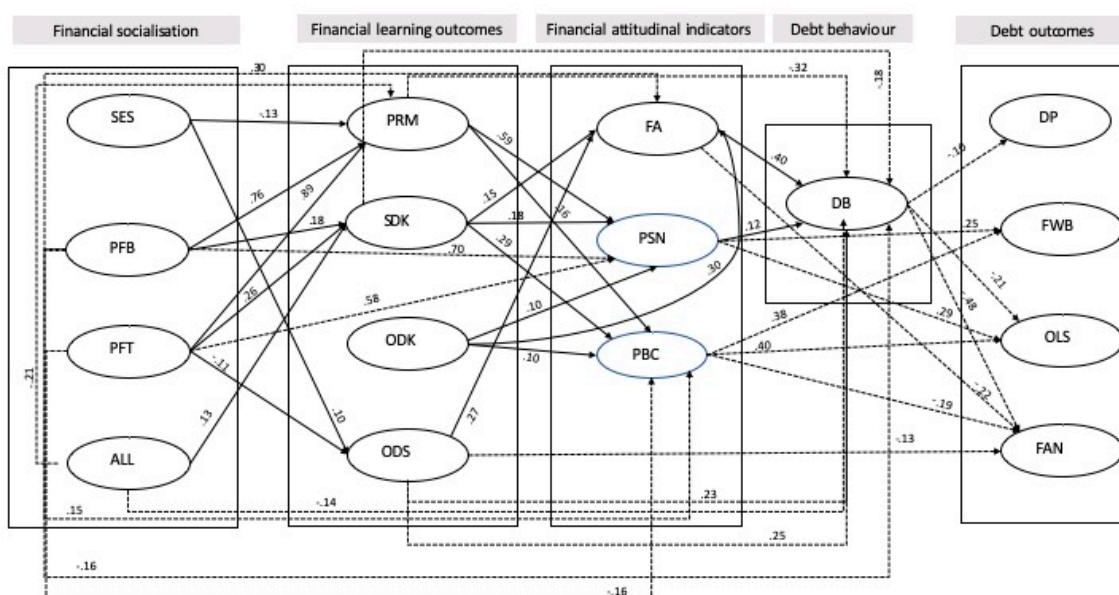


Figure 2. Results of the structural equation modelling (see Table 2 for the full names of the variables).

The results of the first model fit were as follows: (χ^2 (700, $N = 600$) = 1677.02, χ^2 adj = 2.39, CFI = 0.90, RMSEA = 0.056 ci (0.052–0.059)). Only significant direct paths are presented in the final model (see Figure 2). Age was used as a covariate in the structural model to control for the possible effect of the age of respondents but did not reach a significant effect in the final model. Indirect paths predicting relationships of non-adjacent levels in the hierarchical model were accounted for and demonstrated in Figure 2, especially those related to debt behaviour.

4.1. The Hierarchical Relationship of Parental Financial Socialisation–Financial Learning Outcomes

Parental SES shows a positive correlation with objective debt skills (0.10) and a negative correlation with parental role modelling (−0.13).

Parental financial behaviour shows a strong positive relationship with parental role modelling (0.76) and subjective debt knowledge (0.18). There is also a path relationship to some financial attitude constructs, in the sense of a positive relationship with perceived control (0.15), parental subjective norm (0.70), and financial attitude (0.30). There is also a pattern of a negative relationship with debt behaviour (−0.16).

Parental financial teaching shows a close positive relationship with parental role modelling (0.89), a positive relationship with subjective debt knowledge (0.26), and a negative relationship with objective debt skills (−0.11). At the same time, there is a significant negative relationship between parental financial teaching and perceived control (−0.16).

Allowance shows a negative relationship with parental role modelling (−0.21) and a path of a positive relationship with subjective debt knowledge (0.13). There is also a negative relationship with debt behaviour (−0.14).

4.2. The Hierarchical Relationship of Financial Learning Outcomes–Financial Attitudinal Indicators

Parental role modelling shows a strong positive relationship with parental subjective norm (0.59), perceived control (0.16), and a path of a negative relationship with debt behaviour (−0.32).

Subjective debt knowledge shows a positive relationship with financial attitude (0.15), parental subjective norm (0.18), and perceived control (0.29). There is also a significant negative association of subjective debt knowledge with debt behaviour (−0.18).

Objective debt knowledge shows a positive relationship with financial attitude (0.30), parental subjective norm (0.10), and perceived control (0.10).

Objective debt skills show a strong positive relationship with financial attitude (0.27) and debt behaviour (0.25). At the same time, objective debt skills show a negative relationship with financial anxiety (−0.13).

4.3. *The Hierarchical Relationship of Financial Attitudinal Indicators–Debt behaviour*

Financial attitudes show a strong positive correlation with debt behaviour (0.40) and a negative relationship with financial anxiety (−0.22).

Parental subjective norm shows a positive relationship with debt behaviour (0.12), overall satisfaction scale (0.29), and financial well-being (0.25).

Perceived control shows a strong positive correlation with financial well-being (0.38) and overall life satisfaction (0.29). There is a negative relationship between perceived behavioural control and financial anxiety in our model (−0.19).

4.4. *The Hierarchical Relationship of Debt Behaviour–Debt Behaviour Outcomes*

Finally, testing the relation of debt behaviour and debt outcomes, we found a negative correlation of debt position (−0.10) with overall life satisfaction (−0.21) and with financial anxiety (−0.48).

4.5. *Maternally Conditioned versus Paternally Conditioned Respondents*

In the model presented in Figure 2, we have assumed the same regression coefficients irrespective of how the respondent was assigned in our study—as maternally conditioned or paternally conditioned. To test whether the gender of the parent who financially socialises the offspring matters, we estimated additional models assuming invariance on loading and regressions coefficients. These models were compared using a chi-square difference (deviance) test. The analysis yielded no significant differences between both groups (that is, maternally conditioned and paternally conditioned respondents) [$\chi^2(26) = 19.88, p > 0.1$]. As a result, we assumed a model of invariance on loading and regressions for both subsamples of respondents.

5. Discussion

5.1. *Overall Results: The Hierarchical Model*

Our results confirm the proposed conceptual framework only to some extent. Given that our model consisted of five levels and four links between these levels, we found that the constructs to the left of the model predict constructs to the right regarding two links. Firstly, we found that financial learning outcomes predict in large part attitudinal indicators, and, secondly, that these indicators predict debt behaviours. Simply put, this finding supports the hierarchical relationship of literacy–attitude–behaviour. Our results, however, do not support the hypothesised mechanisms through which financial socialisation in childhood relates to young adulthood financial learning outcomes or the mechanisms through which young adults' debt behaviour relates to their well-being measures.

Specifically, our results do not support the hypothesis that objectively measured debt knowledge and debt skills are positively related to key indicators of parental financial socialisation: behaviour and teaching. Leaving aside for a moment the issue of subjective debt knowledge, the only measure of financial learning outcomes that links positively to both the parental financial behaviour and parental financial teaching is parental role modelling. This implies that although the parental financial teaching and behaviour do not support the adult offspring in developing their actual financial knowledge and skills, the offspring take their parents as the role models in terms of managing finances. Apparently, these observations seem to be inconsistent. Nevertheless, they can be reconciled and explained in a coherent way (more discussion appears below). On the other hand, our findings do not confirm the proposition that healthy debt behaviour relates to less debt burden or, particularly, to increased financial well-being and overall life satisfaction. Importantly, we found no significant differences in

the model between maternally conditioned and paternally conditioned respondents. This implies that it does not matter who financially socialises the offspring—the mother or the father. The results in terms of debt literacy, debt behaviour, and well-being indicators—as well as the correlations among them—are similar for both parents.

Such findings are thought-provoking given that similar models were found as a good fit for explaining the antecedents and consequences of financial and debt behaviour in the US [26,29]. Therefore, our findings may be interpreted as suggesting that the process through which young adults develop healthy debt behaviours and the process through which these adults attain well-being may be subject to some country-specific factors that are related to the system-wide, economic, social, institutional, and cultural background. We refer to this possibility, as well as to potential implications, in what follows.

5.2. The Confirmed Effects: The Hierarchical Relationship of Literacy–Attitude–Behaviour

As expected, both the objective debt knowledge and the objective debt skills turned out to be statistically significant in predicting the attitudes towards healthy financial behaviours (this pertains to subjective debt knowledge as well, however, we provide a separate discussion on the effects of subjective debt knowledge in the further part of this section). We found that attitudes become more positive along with increases in objective debt knowledge and skills. Such a result suggests that attitudes towards healthy financial behaviours have strong cognitive foundations, which is in line with the findings of former researchers [26,29]. On the other hand, we confirmed that financial attitudes played an important role in predicting debt behaviour of our survey participants. This result contributes to a growing body of previous evidence pointing to the positive association between attitudes towards a specific financial behaviour and the likelihood of performing this behaviour (for instance, [26,29,50]).

It must be noted here that we also found some apparent mediation effects in our study regarding the hierarchical relationship of literacy–attitude–behaviour. For instance, financial attitudes mediate between objective debt knowledge and debt behaviour. At the same time, our model showed that objective debt knowledge, as well as objective debt skills, translate positively into debt behaviour. This means that debt literacy contributes to debt behaviour both directly and indirectly through financial attitudes. The combination of direct and indirect effects of financial literacy on financial behaviour has been shown in previous studies (e.g., [26]).

Further, we noticed a particularly important role of perceived behavioural control in our analytical model. The control proved to be significantly and positively related not only to debt knowledge (both objective and subjective—an effect present in the study of [26]) but also to parental role modelling. This suggests that—in spite of the lack of evidence in our research on the link between anticipatory financial socialisation and downstream debt literacy (and debt behaviour, too)—socialisation may play a role in shaping perceived behavioural control. However, as opposed to [26], we did not find a significant relationship between perceived behavioural control and debt behaviour. Instead, our model revealed significant associations between such control and all indicators of well-being used in our study. We did not hypothesise on these associations, however, they seem to be in line with both reason and intuition. In our model, financial well-being and overall life satisfaction increase along with behavioural control, while the link between control and financial anxiety is negative, meaning that higher subjective control goes hand in hand with reduced anxiety. Such results reinforce findings of [105], who established that individuals with good self-control are more likely to report higher financial well-being—that is, they feel less anxious about financial matters and feel more secure as to their current and future financial situation.

Finally, our findings reinforce the view that subjective financial knowledge captures some aspects of financial literacy that are not covered by financial knowledge quizzes (that is, by objective financial knowledge). The belief is shared by a growing number of researchers (see, for instance, [26,69,106,107]). In this sense, subjective knowledge—as compared to objective knowledge—seems to convey different informational content and, as a result, deserves separate treatment in studies of the interlinkages

between financial literacy and financial behaviour. Interestingly, among three components of debt literacy included in our investigation—objective debt knowledge, objective debt skills, and subjective debt knowledge—only the last one, that is, confidence, turned out to be significantly and positively related to key anticipatory financial socialisation indicators: parental financial teaching and parental financial behaviour. At the same time, unlike the other two components of debt literacy, which showed positive links to debt behaviour, subjective knowledge was found to be significantly and *negatively* related to behaviour. We provide an additional discussion on this important observation in the next subsection.

5.3. The Unconfirmed Effects

5.3.1. The Effect of Parental Financial Socialisation on Young Adults' Financial Learning Outcomes

Although our findings on the link between parental financial socialisation in childhood and downstream adulthood financial learning outcomes are divergent from what we hypothesised and, as such, they may be surprising, similar results have been found by other researchers. For instance, [108] found a nonsignificant relationship between perceived parental financial influence and financial knowledge of young adults. We propose three explanations for such results.

Firstly, it is not unlikely that what our respondents were taught by their parents deviates considerably from what is treated nowadays as a debt-related primer in terms of knowledge and skills (or, in other words, from what we measured as 'debt literacy'). This is particularly likely given the generational differences between our respondents and their parents. It must be noted that our respondents were financially socialised by their parents at the turn of the 1980s and 1990s. At this time, presumably, a substantial number of the respondents' parents had financial knowledge and skills acquired within a political, social, and economic system entirely different from the democratic and capitalistic system of their children. In Poland, 1989 separates two radically different periods: almost 50 years (1945–1989) of the communist system coupled with a centrally planned economy from the 30 post-Soviet years of democracy and largely free-market mechanisms. The knowledge, skills, attitudes, and behaviours displayed and performed by parents of our respondents were formed by forces incomparable to those that played a key role for their children. In particular, at the time of our respondents' childhood, their parents had financial knowledge that was adequate to the system they lived in. Importantly, the system can be characterized by very low private property and private enterprises, financial institutions congruent with the state-controlled economy, the absence of almost all financial products known and widespread today, and central regulation of key economic parameters. In such a system, the personal financial—or, more broadly, economic—the prosperity of individuals was determined mostly by their cleverness, resourcefulness, and self-help. Instead of detailed knowledge on the workings of non-existent financial products, the individuals needed to know how to deal with the daily deficits of goods and services. Hence, it can be argued that the lack of a statistically significant relationship between parental financial socialisation measures and financial learning outcomes in our study may result from the inconsistency of current standards regarding basic financial knowledge and skills with the knowledge and skills of respondents' parents at the time when those respondents were financially socialised. Such a rationale is in line with the explanation provided by [108], who indicated that parental socialisation measures may not capture what parents did to promote financial knowledge and skills of their offspring.

One might argue that the above explanation is tenuous given that the parental financial teaching scale applied in our study comprised plainly defined forms of financial teaching. If a respondent claimed that in childhood she was taught about finance by her parents, then she had to select from such clearly indicated aspects of parental learning, leaving no room for other teaching activities performed by parents to promote financial knowledge of their children (we used closed-ended questions to infer about parental financial teaching and behaviour). However, we cannot rule out the possibility that respondents had different understandings of what was meant by at least some items comprising our

parental financial teaching construct. In particular, the three initial items of our parental teaching scale allow for diverse interpretations (especially the first one: 'Discussed family financial matters with me'). Similarly, the items comprising our parental financial behaviour scale can be described as indicating general, healthy principles of economic behaviour which are universal and remain valid independent of circumstances. On the other hand, in our debt literacy test, we were asking detailed factual questions (knowledge quiz) and checking the degree to which respondents mastered the workings of the time value of money concept (skills quiz). It remains an open question whether one needs to know the facts we asked about and the time value of money calculations to effectively 'spend within budget' or 'pay bills on time'—i.e., to perform healthy financial behaviours indicated in our parental financial behaviour construct.

Secondly, perhaps those parents who were identified as active in teaching our respondents were unable to teach them successfully because of the low level of their own financial literacy. Such a view is supported by numerous studies pointing out significant shortcomings in financial literacy among adult Poles, especially in the oldest cohorts that can be matched to parents of our respondents (see, e.g., [84]).

Thirdly, it is possible that general financial knowledge (and general financial skills, as well) is insufficient to attain adequate debt-related competencies. Previous studies have found that debt literacy is lower than generic financial literacy in the same sample [32]. Also, it has been evidenced that borrowing behaviour may be more resistant to formal educational treatments compared to other financial behaviours [109,110]. This may suggest that the acquisition of debt literacy is more difficult compared to the acquisition of more general (more diversified) financial literacy. This is important given the assumptions of our conceptual framework, in which we studied the link between financial socialisation of respondents in their childhood and their later adulthood debt literacy.

Overall, however, our findings outline a consistent and interesting picture of the antecedents and consequences of young adults' debt behaviour. In light of our data, parents do not play a significant role in forming the actual debt knowledge and skills of their offspring. These competencies must have some other sources. However, the examination of such additional sources was beyond the scope of our research and this article. Nevertheless, it should be noted that although the knowledge and skills are low on average in the sample we surveyed, they positively translate into both financial attitudes and debt behaviour. The only consistent channel through which parents affect the objective debt knowledge and skills, as well as the debt behaviour of their children when they reach the age of maturity, is subjective debt knowledge. Even though neither parental financial behaviour nor parental financial teaching links significantly to objective debt knowledge, both parental behaviour and parental teaching are significantly and positively linked to subjective debt literacy, that is, to debt-related confidence. After all, this may be consistent with the rest of our findings. Our data show that, on average, the survey participants reported that their parents were engaged in financial teaching. As mentioned above, the analysis also shows that teaching, as well as parental financial behaviour, is significantly and positively linked to parental role modelling. Perhaps, for the reasons outlined above, the message (or the contents) of parental financial socialisation covered aspects of financial (or, more broadly, economic) competencies considerably different from the aspects that seem to be crucial for financial health, prosperity, and well-being nowadays (and, as a result, different from those we strive to capture today in financial literacy quizzes). Possibly, such parental (direct and indirect) financial education pumped their children's confidence in their own financial capabilities, however, leaving them without real financial competencies required in the financial world completely different from the one they have been prepared for by their parents. Such an effect of financial education that fuels only confidence without improving actual knowledge and skills is discussed in the related literature [111]. Perhaps this is the reason for which, ultimately, confidence is negatively linked to healthy debt behaviour in our study.

5.3.2. The Effect of Debt Behaviour on Well-Being Indicators

The discussion of our results is constrained by limited literature on the effect debt behaviour has on well-being indicators. Former researchers investigated the influence debt has on well-being indicators—both financial and overall—however, little is known about the role of debt-related behaviour in attaining high levels of well-being (see the meta-analysis of [59]). In our conceptual framework, we assumed that more healthy debt behaviour links to higher financial well-being, more overall life satisfaction, and lower financial anxiety. Our results confirm such expectations only regarding the association between debt behaviour and anxiety, which may be received as a surprising result. Equally surprising is that we established an inverse and significant link between our debt behaviour index and overall life satisfaction. Interestingly, these are not unique findings. Although we used different indicators of behaviour and well-being, Hunter and Heath [97] found that none of the credit card behaviour measures applied in their study was significant in explaining the financial well-being of the household. [112] observed, similarly to our research, that the participants who exceeded their credit card limits and those who received cash in advance in the past 12 months—namely, those who performed unhealthy credit card behaviours—were shown to be more satisfied with their overall life.

We believe that our findings as to the effect debt behaviour have on well-being indicators may be explained by the nature of debt behaviours as they have been measured in our study. It must be noted here that we did not examine the link between respondents' debt position (i.e., whether they have a debt, or what their debt load is in terms of the number of loans or the relation of debt-related payments to their income) and well-being. Instead, we measured the link between how respondents behave, given that they deal with credits, loans, and resulting financial obligations, and their well-being. It seems that from a hedonistic point of view at least some behaviours which we treated as unhealthy in our research (for instance, 'Borrowing money simultaneously from more than one source' or 'Borrowing money for at least one of the following purposes (or for similar purposes): the purchase of expensive clothing or haberdashery (e.g., branded suit or purse), holiday abroad, technological novelties or gadgets (e.g., the newest model of a cult brand smartphone)') may lead to more life satisfaction, at least in the short run, i.e., as long as the negative consequences of such behaviour are not fully revealed. In this regard, our argumentation is similar to the rationale put forward by [112], p. 214, who argue that in spite of the negativity of the studied behaviours in the long term, 'the potential for them to provide immediate increases in liquidity possibly explain the positive association with current level of financial satisfaction'.

Moreover, it should be noted that in light of the meta-analysis conducted by [59], the way well-being relates to debt may be complex and ambiguous, let alone the link between debt behaviour and well-being. Tay, Batz, Parrigon, Kuykendall [59] showed that to effectively capture the channels through which debt affects well-being, it is important to distinguish between objective debt and subjective debt. In their study, they equated subjective debt with financial worry—which is similar to our financial anxiety—and showed that the impact of objective debt on overall life satisfaction is mediated by financial worry. Even though we used some counterparts of the measures applied by [59] (i.e., the measure of objective debt, the measure of subjective debt, and the measure of overall financial satisfaction), we embedded our investigation in a conceptual framework significantly different from the model proposed by [59]. Nevertheless, the combined interpretation of our results and those of [59] may suggest that it is a consumer's debt status (debt position) rather than her debt behaviour that predicts well-being. Certainly, an all-encompassing study that would take into consideration both the debt status and the debt behaviour in terms of their linkages to well-being within different theoretical frameworks would be a valuable direction for future research.

6. Conclusions, Limitations, and Future Research

Our study showed that the model of anticipatory parental financial socialisation, confirmed in the sample of university students living in a stable economy with a long history of free-market institutions and capitalistic foundations [26,29] may not be appropriate to fully explain the investigated

hierarchical process in economies sharing different economic and social experiences, like the Polish economy. Presumably, in these different settings, some other factors exist that play an important role in the hierarchical relationship of socialisation–literacy–attitude–behaviour–well–being, as implied by our findings. Given that our research is a first attempt to test the proposed model in an economic system different from the Anglo-Saxon one, future research should continue such tests in other economies. In particular, it would be interesting to establish whether similar results would be obtained in other post-Soviet economies.

There are some limitations to the present study that, at the same time, suggest directions for future research. Firstly, this study constituted cross-sectional research with data collected at one point in time. This means that although we assumed the predictive relations in our model, the relations must be interpreted carefully due to the concurrent nature of our data set. Moreover, our interpretation of the observed relationship between debt behaviour and well-being measures implies a need for a longitudinal study (i.e., a study allowing us to learn whether well-being states alter after some time and, as a result, to verify if our explanation is plausible). Such a study would seem to be particularly warranted and desired given the intertemporal nature of many loans or credits.

Secondly, we extracted the data on parental socialisation exclusively from a sample of young adults, assuming that the survey participants were able to provide us with accountable assessments regarding their parents' behaviours and attitudes. Given that the socialisation process requires a two-sided relationship which engages both the children and the parents, it is evident that the inclusion of direct parental reports would make the study much more insightful. Hence, we recommend a fusion of parental and children's reports in the same survey when designing future research.

Thirdly, we cannot rule out the effect of social desirability in our study. Respondents may have been unwilling to report their true attitudes, behaviours, or well-being states. However, to an extent these concerns may be mitigated because there is literature showing that individuals credibly self-report even their suboptimal behaviours [113,114].

Fourthly, in our study, we focused on debt-related issues. Consequently, we used debt literacy measures and a debt behaviour index instead of general financial literacy and financial behaviour indicators which embrace a wider spectrum of financial affairs, getting far beyond loans, credits, and debts. However, following [26], as well as [29], we maintained at the same time general (that is, not just debt-related) measures of parental financial socialisation, attitudinal indicators, financial well-being, and anxiety. Perhaps a fully debt-to-debt approach would yield different results. It is an open question whether such a fully debt-oriented study would be more consistent or whether it would ensure better insight into issues regarding the debt behaviour of consumers. Nevertheless, it is worth checking in a future study the results of our model within a different, purely debt-focused analytical framework.

Fifthly, the debt literacy test that has been applied in our study turned out to be very difficult for the participating individuals (median score = 1). This may have affected the relations between debt skills and other variables used in the examined framework. However other studies focused on debt literacy report similarly low average performance of respondents [4,32]. In light of these results, it is recommended to test other instruments measuring debt literacy in future research.

Finally, the existing research shows that debt is not a unidimensional construct. Its impact on well-being depends on the type of debt [59]. Hence, future studies should test our model depending on the form the debt takes (payday loan, student loan, mortgage, etc.).

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Appendix A. Debt Knowledge Test

Based on your knowledge, classify the following statements as true or false (note that all of them regard Polish circumstances). If you don't know whether they are true or false, indicate "I don't know".

Table A1. Debt knowledge test applied in the current study.

	True	False	I Don't Know
Creditors are required to tell you the APY you will pay when you get a loan.	x		
Your credit rating is not affected by how much you charge on your credit cards.		x	
If the interest rate on an adjustable-rate mortgage loan goes up, your monthly mortgage payments will also go up.	x		
Total amount of interest on a 15-year mortgage is lower than total amount of interest on the same, however a 30-year mortgage.	x		
A 15-year mortgage typically requires higher monthly mortgage payments than the same, however 30-year mortgage.	x		
The most important thing to look at when comparing a loan or credit offers is total amount of interest you will have to pay in the future.		x	
Consumer can waive already granted loan during short-period of time after the day of grant.	x		
Bank margin is another name for bank commission applied when granting loans to private individuals.		x	
A list of warnings regarding dishonest lending institutions is maintained by the Polish National Bank.		x	

Appendix B. Debt Skills Test

Suppose you owe PLN 1000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double?

- (1) 2 years
- (2) Less than 5 years (*correct*)
- (3) Between 5 and 10 years
- (4) More than 10 years
- (5) Do not know

You owe PLN 3000 on your credit card. You pay a minimum payment of PLN 30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?

- (1) Less than years
- (2) Between 5 and 10 years
- (3) Between 10 and 15 years
- (4) Never, continue to be in debt (*correct*)
- (5) Do not know

You purchase an appliance which costs PLN 1,000. To pay for this appliance, you are given the following two options:

- (a) Pay 12 monthly instalments of PLN 100 each
- (b) Borrow at a 20% annual interest rate and payback PLN 1200 one year from now.

Which is the more advantageous offer, in other words, which one will cost less?

- (1) Option (a)
- (2) Option (b) (*correct*)
- (3) They are the same
- (4) Do not know

You took a PLN 5,000 loan for one year and the interest rate you are charged is 10% per year. You are given the following two options to pay the interest on the loan:

- (a) One-time payment of PLN 500 in advance (at the beginning of the year), which means that PLN 4,500 will be effectively available for you on the day of grant
- (b) One-time payment of PLN 500 at the end of the year, which means that PLN 5500 will have to be returned to the lender on the day of repayment.

Which is the more advantageous option?

- (1) Option (a)
- (2) Option (b) (*correct*)
- (3) They are the same
- (4) Do not know.

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