5-2024

Financial Literacy for Life: Mandating Financial Literacy in the Classroom

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by

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An Honors Thesis in partial fulfillment of the requirements for the degree Bachelor of Science in Business Administration in Finance.

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May 11, 2024

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Abstract

This paper presents literature review and qualitative analysis of the need to mandate financial literacy courses at the high school level. It breaks down the importance of financial education and highlights the benefits in terms of confidence and mental health and its current state in the US with states that require the curriculum. Then it discusses the consequences on mental and physical health by studying the impact of cortisol, the "stress hormone", within the scope of necessary policy change and in the context of country comparisons around the world. Next it provides counter arguments and objections that debate which classes are deemed necessary in a high school degree. The paper ends with successful models and best practices that high schools have already implemented.

Introduction

Financial literacy is defined by Investopedia as, “the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing”. With an increasing number of financial services and products, understanding the basics has a growing importance. It is imperative for a modern society to understand financial literacy so as to not intensify the long-term damage of lacking this knowledge. Understanding the great need that personal financial literacy has in each person’s life is undeniably important to the success of any push towards explaining why high schools should mandate classes covering the subject. For the majority of people, early financial literacy comes from their parents/guardians. The bank you are likely to use is that of your parents. How you feel about credit cards versus cash likely comes from your parents, along with your tendency to save and tight fist earnings or spend excessively. Financial literacy is a concept that affects practically every person on the planet. We all use money as a means of payment on an almost daily basis. Everything that people touch can be measured in monetary value. Given this truth, the limited amount of financial literacy courses offered, much less required, in high school is startling. Financial literacy is a fundamental skill that directly impacts quality of life. There is a wide breadth of information readily available covering the central concepts of personal finance as well as free financial literacy curriculum available for teachers. Despite the availability of such resources, there are overwhelming statistics that point to how financially illiterate a large portion of the American population is. A recent study showed that only about 4 out of 10 adults have enough money to cover a $1,000 emergency, such as a medical, car, or house (Bennett, 2022). Another glaring number shows that 20% of employees are out of funds by the time their next paycheck comes around (Fox, 2021). Living paycheck to paycheck is undeniably stressful and offers no avenue to building wealth. Financial illiteracy impacts retirees too, with 49% of adults aged 55-66 having no personal retirement savings (King, 2022). These types of heartbreaking statistics are endless, with the main point proving the same. Financial literacy is not federally mandated for high schoolers, and the real-life implications that has on each person should be enough to make the case for how badly we need a change. It is a subject that will have lifelong relevance to every single student.

Benefits of Teaching Financial Literacy in High School

The reason financial literacy is imperative to teach is because money touches every facet of our lives. By educating students on how to save, budget, and invest we are teaching them the essential skills they will need throughout their entire lives. The need for it to be taught in high schools is necessitated by important financial decisions occurring before adulthood such as, "deciding how to pay for college, managing a credit card or auto loan, boosting your credit score, paying taxes, and starting to save for retirement despite it being decades away" (O'Brien, 2023). Based on Bankrate's 2023 annual emergency savings report, "Over 1 in 3 Americans have more credit card debt than emergency savings" with Millennials and Gen Z being the most likely (Gillespie, 2023). This report shows the discrepancy not only among financial literacy and savings, but also among generations. With the younger generations suffering the most from poor education, this only proves more why financial literacy education must be mandated in high schools before statistics like these are trending in the negative direction. We can explicitly see the effects, "53% of individuals with a higher financial literacy spent less than their income, and 65% had set aside a three-month emergency fund" (Camberato, 2022). The impacts of these smart money decisions will be evident throughout their entire adulthood, and by failing to start making these choices at a young age there will be a drastic result. Michelle Fox, a reporter for CNBC, has found that young adults who have financial literacy knowledge prove to make smarter decisions with a reduction in the likelihood that they will use payday loans and a positive link to asset accumulation by the time they turn 25. For those even younger, she has found that there is a greater chance of these students applying for financial aid for college and even a smaller private loan balance by around $1,300 for those who take out one (Fox, 2021). Student loan debt is a heavily discussed topic, and with students who lack financial literacy not knowing what good terms and conditions should be, or even how much debt to take on, the benefit of teaching financial literacy underscores the importance of understanding these concepts. Even FAFSA, Free Application for Federal Student Aid, which provides grants and scholarships, has a lengthy process that could be taught in the classroom. This type of course work would provide students with the knowledge of federal grants versus private loans and how to weight the costs and benefits of each choice. Forbes Councils Member Joe Camberato found that financial literacy classes can, "teach the importance of saving, even if it's just a small amount". He also found that "even teachers who lead financial literacy courses tend to experience an increase in their own savings" (Camberato, 2022). A clear benefit between teaching the subject and consequently having better financial health fortifies the argument as to why this is imperative to implement early. The effects of a persistent lack of financial literacy in high school permeates through adulthood. The TIAA Institute releases a report each year titled "GFLEC Personal Finance Index" which surveys adults on their personal finances. In its 2023 report, it found that U.S. Adults only answered 48% of the 28 index questions correctly. The low literacy rates among adults show that they were:

> More than four times as likely to have difficulty making ends meet in a typical month; nearly three times as likely to be debt constrained; three times more likely to be financially fragile; more than four times as likely to lack emergency savings sufficient to cover one month of living expenses; and more than three times as likely to spend 10 hours or more per week on issues and problems related to personal finances (Yakobosk, 2023).

Without the proper financial knowledge, situations ranging from immediate emergencies all the way to retirement are affected. A benefit that is not as readily thought about can be seen between financial instability and mental health. With financial stress topping the list of worries among many adults, this high stress level is often correlated with reports of, “compromised immune systems, digestive issues, high blood pressure and other health problems” (Camberato, 2022). Relieving the burden of financial worries can have a positive impact on a person’s mental and physical health, which in turn benefits all those around them. Across the United States, Ramsey Solutions surveyed 76,000+ students who were enrolled in high school to measure their confidence and knowledge on money. Through this survey, the authors found that of those who had taken some sort of financial literacy teaching, “87% feel confident about their ability to invest for the future” and “86% of students reported a complete understanding of the difference between a debit card and credit card, 87% said they understand how to pay income taxes, and 90% said they understand how home, auto and life insurance work”. The study suggests that the effects of this will play out further into adulthood, with 80% of those who have had literacy curriculum, compared to 63% without, comprehending what a 401(k) is and how it functions. The confidence that this knowledge brings to these students positively impacts them for life, “95% of students are confident about budgeting, 87% about investing, and 94% about saving money” (“Students and Money”, 2021) To summarize the need for financial literacy, a quote by Anthony ONeal, “If you make the wrong choice in class, you get a bad quiz grade. If you make the wrong choice in real life, you could end up paying for it for years”! The benefits of financial literacy extend beyond an individual. With more educated members of society, a country has lower mental and physical ailments, lower crime rates, and better economic factors.

Current State of Financial Literacy Education in US

The COVID-19 Pandemic exposed just how poorly the average American citizen was prepared to deal with financial turmoil. An article by the Journal of Financial Education summarizes Jerome Powell's words in a 2021 FOMC press conference, "given incomplete knowledge and other lures, people can get into trouble by not understanding the basic concept of diversification. Like those hurt most financially by the pandemic, these are people who can ill afford the loss" (Ryan and Sriram, 2021). Following COVID-19, a new wave of states began talks of imposing curriculum. In recent years, laws have been passed in Nebraska, Ohio, Rhode Island, and Florida to add a rolling start towards such curriculum. This year 2024, North Carolina will enact its graduation requirement. While not all are officially mandating the coursework, thirty-four states, and DC have bills which touch on financial literacy, with 20 focusing on high schools. Republicans and Democrats seem to agree on this issue with, "Florida Republican Gov. Ron DeSantis signed a bill calling for students who enter high school in the 2023-24 school year to take a financial literacy course as a graduation requirement" and "Rhode Island Gov. Dan McKee, a Democrat, sounded a lot like DeSantis when he signed Rhode Island's requirement for financial literacy education in high schools last year" (Povich, 2022). The TIAA Institute's survey findings also show gender discrepancy in financial literacy, "analogous to overall financial literacy, functional knowledge levels among women tend to lag those of men, and the gender gap is statistically significant across all functional areas". The United States Census Bureau also found that women were about 3% more likely to have zero retirement savings and men about 8% more likely to have $100,000 or more as compared to women (King, 2022). CNBC found that a lack of financial literacy cost 15% of Americans at least $10,000 in 2022 alone. This percentage being 4% more than 2021 (O'Brien, 2023). "Various industry research found that 2 in 3 families lack any type of emergency savings; 78% of adults live paycheck to paycheck, and 3 in 5 adults do not maintain a monthly budget" (Fox, 2021). Despite the importance and benefits that financial literacy has on every individual, the curriculum itself is still yet to be fully mandated in every state in the United States. Next Gen Personal Finance, a nonprofit which offers free curriculum to teach a multitude of financial topics and advocates for all students to get this knowledge, keeps a live updated map of states which mandate financial literacy courses. As of May 2024, twenty-five states "guarantee a semester-long personal finance course for graduation" this number is remarkable considering in 2019, only six states were a part of this movement. States differ in terms of degree of implementation – ranging from "fully implemented" to "are in progress of this". It is mandated in ten states, with the remaining fifteen having specific timelines laid out to fully implement this curriculum into a requirement before graduation. Without a mandate, on average only 10% of high school students in non-guarantee states will take a personal finance course before they graduate ("2024 State of Financial Education", 2024). Teaching financial literacy has clear impacts as shown in a study that measured Texas, Georgia, and Idaho. After only 3 years of personal finance education these states "saw severe delinquency rates go down and credit scores rise". With a direct correlation between crime rates and financial literacy education, it is unacceptable that only 40.5% of students will take a course before graduation (O'Brien, 2023).

Consequential Effects Substantiating Policy Change

The findings of the benefits of financial literacy extend broadly from individuals to the economy as a whole. The following data and experiments will show firsthand how pertinent it is to educate our citizens. This section will dive deeper into the detrimental impact a lack of literacy has on financial stress which leads to chronic stress that causes chronic diseases. When there is a lack of financial literacy education in the classroom, the burden of teaching proper money habits falls onto the parents, "the positive and negative financial attitudes and knowledge young adults have about money are primarily influenced by their parents" (Jorgensen, 2010). This can be visualized in Figure 1, a conceptual model which comes from a study done by the Virginia Polytechnic Institute and State University in 2010. When there is a flow of information onto the offspring of parents, it is only logical to recognize that impoverished adults are in turn likely to have impoverished children. When education that is known by those who have wealth is not given to those who do not via required program in high schools, we are left with the landscape we have today of faulting the parents/guardians. Connecting poverty, or less severe poor money habits to stress is a visible correlation. When decisions involving personal finances come into account, the more prepared one is the less stressful the pressure is. A study done by the Department of Design and Environmental Analysis and Human Development at Cornell University in 2009 looked at the link between poverty, chronic stress, and adult working memory. The research looked at the term "allostatic load" which is "an index of cumulative wear and tear on the body caused by repeated mobilizations of multiple physio-logical systems over time in response to environmental demands" (Evans, 2009). The study looked further into the psychology behind persistent poverty and the outcome that the chronic stress caused by it can have which in turn produces a vicious cycle that is immensely hard to escape. However, for our purposes looking at it in a more cause-effect way, "emerging data suggests that the duration of childhood spent in poverty accumulates over time to adversely affect morbidity and mortality in later adulthood" (Evans, 2009). Figure 2, which comes from the same Cornell University study in 2009, depicts this graph with data to support this statement. Poverty is on the extreme end of the spectrum with the problems the nation is facing with illiteracy, however we can recognize it as a contributing factor to argue how much this curriculum is needed. We have seen so far how financial literacy is passed down from parents, and how financial decisions adults make can impact their children's wellbeing. Now we will learn what the mental and physical consequences of this sustained stress are. When looking at countries with increasing income, such as in Figure 3 from a review by Johannes Haushofer and Ernst Fehr in 2014, "larger and newer data sets now suggest that higher incomes are associated with more happiness and life satisfaction both within and across countries" which is to say that as countries have more wealth they have more happiness (Haushofer, 2014). This can be seen scientifically through what is known as the "stress hormone" or cortisol, "income and socioeconomic status are also correlated… several studies have shown elevated cortisol levels in persons with lower income and education and lower lifetime economic position as measured by occupational status" (Haushofer, 2014). The article continues to say this is true across children and infants. A controlled study that looked further into psychological wellbeing found that when households were transferred money, there was a reduction in distress and depression. Ill preparation can come at a high cost, with one example in this study that measured cortisol in workers who lost their jobs finding a much higher level of the hormone than when they were previously employed. If financial literacy has not educated members of society to prepare for job loss, the effect can be damaging. Finances are reported to be the number one stress in life for 73% of Americans, with other major stressors being job loss and the economy (White, 2023). In the article *Financial Well-Being in the United States: The Roles of Financial Literacy and Financial Stress* White points out - "studies have found that an inability to manage one's finances can lead to a higher likelihood of reporting financial stress" and when looking at America as a whole they find that, "to have sustainable social welfare programs… it is important to create a more financially resilient population where the majority of the retiring adults have sufficient savings to experience sustainable well-being through their expected retirement life" (Zhang, 2023). This is looking at the policy change that is crucial for our country to properly care for its citizens. The severe amount of stress that is caused by an inadequate education is reason enough to implement laws that mandate this type of curriculum, "it can be argued that investment in financial education and having sufficient wealth is similarly associated with more efficient management of individuals retirement portfolios" (Zhang, 2023). A study published by the Department of Financial Planning, Housing and Consumer Economics, and College of Family and Consumer Sciences by the University of Georgia in 2023 measured the link between financial literacy and financial stress and the results were as expected in their hypothesis which show that the number of hours that an individual has received financial education as well as having received this education in school were both "positively associated with financial literacy" and that there was an inverse relation between financial literacy and a person's financial stress with a coefficient of -0.718. The study ends with a push towards implementing this education in schools to help build, "financially sustainable and resilient communities across the country" and for policymakers to prioritize their budget in order to achieve the goal of well-being for each citizen (Zhang, 2023). Knowing that finances are the number one stressor in America, on a personal level we will look into just how detrimental this stress can be on the physical and mental health of those who endure it. As previously mentioned, cortisol has shown to increase in stressful environments. When chronic stress and depression occur the body has a visceral reaction in an overall "immune dysregulation" which can have a major effect to a person's health, "including prolonged cell and tissue damage, increased vulnerability to acute and chronic diseases, and even premature aging" (Robles, 2005). When chronic stress is in the brain "proinflammatory cytokines" are produced which are responsible for initiating any number of different reactions. In particular, a study published by the Department of Psychology by the Ohio State University looks at one named IL-6. This proinflammatory cytokine has been "linked to chronic diseases, such as cardiovascular disease and certain cancers". They observed evidence that suggests "major depression, depressive symptoms, and chronic stress enhance production of proinflammatory cytokines" and that, "chronic stressors may be capable of substantially augmenting normal age-related increases in proinflammatory cytokine production. Put simply, chronic stress may contribute to premature aging of the immune system" (Robles, 2005). These studies, while not done to directly link financial illiteracy to chronic disease, provide a pathway to where plausible conclusions might infer that this is a correlation. This lends itself to further research which might contribute towards these cause-and-effect connections. Certainly, if the government is to look deeper into policy action on financial literacy, they should consider a holistic view of the benefits to the economy, including the decreased strain on government programs that are serving only to mitigate the effects rather than proactively affecting the source.

Objections and Counterarguments

It is hard to find explicit arguments against mandating financial literacy in high school, with the majority of articles, studies, and research only offering a counter or debate on how the curriculum *should* be implemented. The first is that every individual's personal finance is handled in a different way. For instance, some people like to save every penny, whereas others like to spend money on frivolous purchases. Because of this, teaching how to manage one's own money cannot be a "one-size-fits-all" type of curriculum. With differences in risk tolerance, anxiety towards the future, and a variety of investment vehicles, there is no way to teach everyone at once (Alsemgeest, 2015). While acknowledging that the curriculum needs to be adjusted to differing preferences, this does not dilute the argument for mandated financial literacy courses in high school. Excessive spenders may not spend as much if they knew how poorly it would affect their retirement accounts. Excessive savers might invest in safe index funds rather than let their all their money lose to inflation year after year. There must be a middle ground but how can adults find it when they have no knowledge of what “best practices” look like? Live below your means, invest early and often, and budget. These same principles hold true for building wealth and can be applied to any style of spending, earning, or to fit any needs. Liezel Alsemgeest, who holds a PhD in business management, proposes that when teaching financial literacy there is the issue of managing people’s behavior as people tend to do what they have always done. If a highly risky option works out, they will continue to try and repeat this developing, “negligent consumption, excessive risk-taking or short-sightedness” (Alsemgeest, 2015). She also makes the case for properly teaching these courses; financial literacy cannot be taught in the same way a typical high school core class is. Unlike science or math, there is not one “proper way” to do it. She says that schools should “aim to create individuals that are ‘knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes’” (Alsemgeest, 2015). Gabrielle Emanuel, a reporter for NPR, writes in April of 2016, “there's a problem: Research suggests financial education may not lead to better financial choices. That doesn't mean we should stop teaching about money. It just means we need to do it better”. A study published by the Journal of Financial Education tested the knowledge of basic financial literacy concepts with those who self-reported high financial literacy knowledge. It also looked at those who had been required to take a course in financial education. The results of the study suggest that “those that claim to have strong financial education or have had a required course in financial education are ill-equipped to understand basic financial concepts". The article continues saying, "while this may be partially explained by hubris or not remembering some concepts, it calls for a national standard for financial education to ensure that upcoming generations better understand basic finances" (Ryan and Sriram, 2021). This is a call to action for our nation. The lack of understanding that is present in these studies combined with the clear consequences a lack of any education has, should push lawmakers to enact immediate change. In 2016, Emanuel also has found that there is a positive relation between students taking more math and in turn having, "better credit, higher return on investments, and fewer foreclosures". This could make the argument that high schools can look at integrating current math curriculum to include personal finance as a topic. She also found that:

> Many experts recommend 'just-in-time' financial education. This is when you learn about a very specific topic, just before you do it. Therefore, teaching high schoolers about mortgages may not very helpful. But a class on college loans is useful. And a class on credit scores just before a young adult gets a credit card could make a big difference (Emanuel, 2016).

It makes since that when taught in a way that is simply memorization, you would find this to be true. The reason mandated high school classes should occur is because these principles need to be engrained, which takes more than a few lessons in another math class. It is not about knowing exactly how to get a mortgage, but rather, where do you go to find information that would tell you that in the future. What seems like a proper interest rate or insurance for it. These courses need to teach students what questions to ask in the future. When looking at how the government feels on this matter, there are many laws that have been passed in recent years supporting the need for personal financial curriculum. However, a bill out of Wisconsin was not approved due to the Wisconsin Association of School Boards finding fault with its timeline for implementation, "Ben Niehaus, director of member services for the association, was concerned about the quick timeline of a year and the possible 'compromising of elective choices'". For instance, Wisconsin high schools offer a manufacturing fabrication elective (among other career-training ones), and Niehaus worries that a financial literacy course would take away time from doing this, "“We are trying to add these experiences to meet the needs of the labor market with more than a high school diploma and less than a four-year degree. There are only so many hours in a day’" (Povich, 2022). This argument poses a great point that high schoolers feel a sort of negative sentiment towards relevance; “when am I going to use this in the real world?”. These career readiness electives that Wisconsin offers show that college is not the only way to make a living and teaches these students early. However, perhaps adjusting the amount of required curriculum (i.e., higher-level science, math, and English) that is already taking away from the option for real world electives, and that students do not feel will contribute to life after high school, would be the solution to this.

Successful Models and Best Practices

When the pressure is taken off teachers to individually craft their own curriculum on financial literacy, the idea of implementing these courses seems much more achievable. The book “Using Deliberative Techniques to Teach Financial Literacy” by Nancy Claxton provides a framework to teach personal financial literacy in ways at which it is assumed students will learn. It notes in the beginning that it is used to teach the concepts in ways that will be, “exciting and thought provoking”. It focuses in on three specific areas of which the course work pertains, including the basic principles of money management, responsible credit and debt management, and savings, investing, and retirement planning. The book includes many lessons over different concepts of financial literacy which will help students learn in ways that will be memorable, such as:

> Fostering interactive instruction, democratic dialogue, student-teacher partnerships, and cooperative learning. Promoting student ownership of learning and application of knowledge. Developing students' listening and communication skills, developing students' critical thinking and argumentation skills, developing students' research (traditional and computer) and critical reading and evaluation skills (Claxton, 2008).

The lessons in this book can be used to affirm the correct information is being taught and to provide a framework for plans that have already been thought out and studied. The first teaching could be a basic financial plan, allowing teachers to describe the concepts of savings, credit, and investments to help students figure out their goals. Starting this curriculum early will help the concept of money and where to put it be a thought in students' minds. Even to get them thinking about these core concepts before they must do them would be helpful to engrain the value of money. Next Gen Personal Finance, the nonprofit in support and advocacy for mandating personal financial literacy courses in high schools offers free financial literacy courses. The website provides a large amount of financial information and lessons with tangible resources that can be projected onto a screen (called Nearpods) which are like PowerPoints. This website offers different subjects within the personal finance realm in a variety of ways and in different course lengths such as 9-week, semester, or full academic year. They also provide free virtual professional development for teachers. Similar to Next Gen, Money Confident Kids is a website which aims to break down financial literacy teaching into 5 lessons available for free download: goal setting, decision-making, money and inflation, asset allocation, and diversification. They stress that, "you don't have to be a financial expert to talk with kids about money" and their lessons can begin with middle schoolers. It is disappointing how free course work like this is available across a large platform of resources, and yet such courses so pertinent to the real world are not mandated.

Conclusion

Financial literacy for life begins way before decisions have to actually be made. From learning the value of a dollar to learning what a mortgage is, the principles that mandated curriculum can teach will be carried with students for life. Studies and statistics show increased levels of financially savvy decisions will limit the damage that might be caused by reckless or uniformed parties. Benefits of financial literacy are not only on the individual level, but also support the economy and in turn the country as a whole, with consequential effects on mental and physical health being a major contributor. There are valid concerns for the way financial literacy must be taught in order to achieve the desired effects, and with a multitude of free resources, teachers and school boards can figure out which ways work best for them. Students are deserving of education that will extend beyond the walls of high schools. They are deserving of knowledge and information that will be applicable no matter what career they choose or where they end up. Financial literacy extends from the personal level to the health of our nation, and therefore implementing mandated coursework should not be a question.

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Appendix

Figure 1- “Conceptual Model of Study” from a study done by the Virginia Polytechnic Institute and State University in 2010

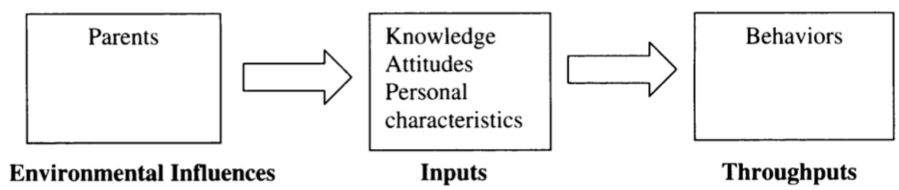

Figure 2- “Duration of childhood poverty and children’s levels of chronic stress” published by Cornell University study in 2009

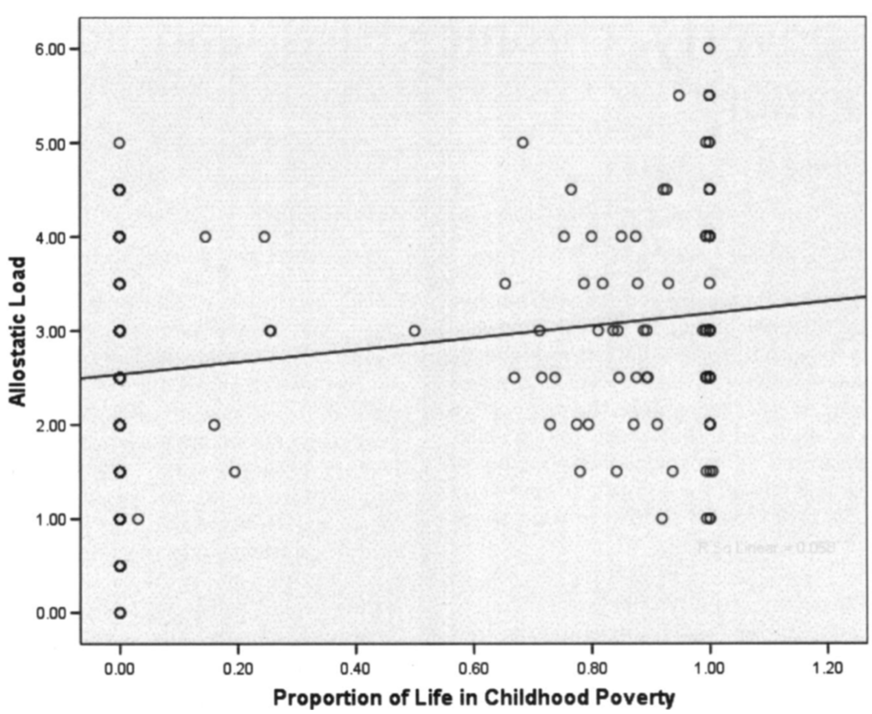

Figure 3- “The relationship between poverty, affect, and stress” from a review by Johannes Haushofer and Ernst Fehr in 2014