CEBUD Working Paper

May 2016

# IDENTIFYING SUCCESSFUL ELEMENTS FOR FINANCIAL EDUCATION AND COUNSELING IN GROUPS:

# A LITERATURE REVIEW

Nele Peeters, Kathinka Rijk, Barbara Soetens, Bérénice Storms and Koen Hermans

CEBUD WORKING PAPER 1601

www.cebud.be

CEBUD – THOMAS MORE

Kleinhoefstraat 4

2440 Geel

APPLIED PSYCHOLOGY – THOMAS MORE

Molenstraat 8

2018 Antwerpen



CEBUD | CENTRUM VOOR BUDGETADVIES EN -ONDERZOEK @THOMAS MORE

THOMAS MORE

## ABSTRACT

This study reviews the literature available on contents, form and effectiveness of group-based programs for combined financial education and counseling aimed specifically at populations at risk for financial difficulties. Despite the widespread application of these programs, relatively little is known about their effectiveness. In general, evidence points to positive effects of several programs on knowledge, confidence and (intended) behavior, but the exact mechanisms through which this is achieved remain unclear. The topics covered differ among studies, but common themes can be identified. It appears of importance to combine education with practical exercises allowing participants to apply the skills they learn. Motivating clients is another important recurring theme. Working in groups provides an added benefit through recognition and peer support. It is important that future research focuses on the mechanisms of change and on long-term effects, since these remain largely unknown in the current body of literature.



dr. Nele Peeters
Researcher at Thomas More University College, CEBUD, Belgium
nele.peeters@thomasmore.be

dr. Kathinka Rijk
Assistant Professor at Thomas More University College, Applied Psychology, Belgium

dr. Barbara Soetens
Assistant Professor at Thomas More University College, Applied Psychology, Belgium and Affiliated Researcher at the Centre for the Psychology of Learning and Experimental Psychopathology, KU Leuven, Belgium

dr. Bérénice Storms
Assistant Professor and Research Coordinator at Thomas More University College, CEBUD, Belgium, and postdoctoral researcher at the Centre for Social Policy Herman Deleeck, University of Antwerp, Belgium

dr. Koen Hermans
Assistant Professor at KU Leuven, Centre for Sociological Research, Belgium


CEBUD | CENTRUM VOOR BUDGETADVIES EN -ONDERZOEK @THOMAS MORE

THOMAS MORE

## INTRODUCTION

The global economic crisis has led to an increase of individuals in problematic consumer debt situations. More and more people seek help in overcoming financial difficulties (Loibl et al. 2010). Helping these individuals in an effective and efficient way is of the utmost importance, since it is known that a problematic financial situation has a considerable impact on the quality of life of the individual (and family) involved (Zaleskiewicz, Gasiorowska, and Kesebir 2013; Kasser et al. 2013; West 2003). Financial problems are not only stressful on an individual level, but are also a societal concern. Low-financial literacy can be related to employment difficulties (Hogarth 2007; Loibl et al. 2010), relational problems (Zimmerman and Roberts 2012), emotional problems (Xiao et al. 2011; Zaleskiewicz, Gasiorowska, and Kesebir 2013), and reduced well-being (Xiao et al. 2011; Lyons, White, and Howard 2008). Low-income families often face a combination of these problems, and therefore form a vulnerable group, which makes poverty reduction in society a complex challenge (Hawkins and Kim 2012). This stresses the importance of suitable help for this group.

Despite the widespread practice of different forms of debt or credit counseling, research on the specific workings and particularly the effectiveness of counseling interventions remains limited (Schuchardt et al. 2009; Hartarska and Gonzalez-Vega 2005; Fernandes, Lynch Jr., and Netemeyer 2014; Elliehausen, Lundquist, and Staten 2007). On financial education programs, a body of research does exist on the relationship between financial education and the knowledge, attitudes and behaviors of consumers. Although the results of these studies are mixed, the general conclusion is that financial education results in more financial knowledge (Lyons and Neelakantan 2008). Financial education appears to be insufficient, however, for making the transfer from knowledge to behavior (Kennedy 2013; Hawkins and Kim 2012). Individuals need to be motivated to translate their knowledge into healthy financial behaviors (Burk 2011; Xiao, Chen, and Chen 2013). Though theoretically often compared to health related behavior, financial behavior requires a distinct set of skills to achieve behavior change. Therefore, financial coaching involves a unique combination of acquiring financial skills on the one hand and psychological counseling or coaching in order to change financial behavior on the other hand, and it seems important that both these aspects receive the appropriate amount of attention. Given the increase in people requiring help with their finances, and given the added value of dynamic aspects such as peer support, group-based interventions may be the most efficient approach in terms of costs and time to achieve durable change in financial competences.

In this literature review, it is our aim to bring together and analyze the available literature to identify key factors for effective and efficient programs combining financial education and counseling/coaching. After providing a theoretical framework and describing our search methodology, the available literature on this subject will be discussed. Particular attention will be paid to the possibilities, advantages and disadvantages of group-based interventions.

## THEORETICAL BACKGROUND

Many practice-based initiatives exist to help at-risk populations cope with their financial difficulties. Often these are based on practical experiences, and do not have a thorough theoretical foundation. However, theoretical perspectives on behavioral change are important to understand how and why changes occur. They also provide clues on how to stimulate and facilitate behavioral change, and how people can be motivated to change their behavior in a structural way. While multiple theories exist which explain (motivation to) change behavior in general, only three perspectives have applied and adapted the theory in order to specifically explain financial behavior (Ozmete and Hira 2011). Therefore, the following three theories were chosen as theoretical framework in this literature study: the Transtheoretical Model of Change (Prochaska, DiClemente, and Norcross 1992), the Theory of Planned Behavior (Ajzen 1991), and the Self-Determination Theory (Deci and Ryan 1985).

## Transtheoretical Model of Change

Although there are many approaches that focus on behavioral change, the Transtheoretical Model of change (TTM) stands out because of its numerous application to financial behavior (Burk 2011; Shockey and Seiling 2004; Xiao, O'Neill, et al. 2004; Schuchardt et al. 2007; Spader et al. 2009; Grubman, Bollerud, and Holland 2011; Palmer, Goetz, and Moorman 2008; Xiao and Wu 2006a; Xiao and Wu 2006b; Xiao, Newman, Prochaska, Leon, Bassett, et al. 2004; Sprow 2010). Despard and Chowa (2010) conclude that the TTM *may act as a conceptual bridge between the worlds of clinical social work, psychotherapy, and personal finance.* The transtheoretical model focuses on behavioral change and claims that individuals move through six stages from precontemplation to termination, herewith arguing that changing a behavior is not a linear process (Prochaska, DiClemente, and Norcross 1992; Prochaska and Velicer 1997). The TTM can be used to determine participants' readiness to change, so that individuals can be classified according to their stage of behavioral change (see for example Gutter, Hayhoe, and Wang 2007; Shockey and Seiling 2004; Xiao, O'Neill, et al. 2004; Burk 2011; Lyons 2004; Lyons, Howard, and Scherpf 2010).

*Precontemplation* is the stage in which individuals do not experience the need to change their behavior. People in the *contemplation* stage are aware that they exhibit a problematic or unhealthy behavior and intend to change their behavior within the next six months. People who are going to change their behavior in the next month are assigned to the *preparation* stage. The following stage is named the *action* stage, and is populated by those who made modifications to their behavior in the last six months. Because of the visibility of action, this stage has often been equated with behavioral change, although this is just one of the six stages in the transtheoretical model. The fifth stage is named *maintenance* and is seen as the stage in which people who have already changed their behavior need to make sure they keep up the modifications and do not relapse. *Termination* is later added as a sixth stage (Burk 2011; Prochaska and Velicer 1997), and is applicable to individuals who do not experience temptation to fall back into their old behaviors. This stage is rarely addressed in research, perhaps because the achievement of this phase is not a practical reality for a majority of people. Relapse is not seen as a separate stage but is regarded as a return from action or maintenance to an earlier stage (Prochaska and Velicer 1997).

Besides the identification of the stages delineating *when* changes occur, the transtheoretical model also explains *how* these changes happen by means of ten processes of change. These processes have to be applied by an individual to move from one stage to another. Whereas individuals apply cognitive, affective and evaluative processes to move through the early stages, in later stages behavioral processes of counterconditioning, contingency management, environmental controls, and support for making progress are used (Xiao, O'Neill, et al. 2004). When financial education interventions are designed to meet the needs of the stages in which the participants fall, they can help individuals to progress in the process of behavioral change (Spader et al. 2009; Shockey and Seiling 2004; Lyons, Howard, and Scherpf 2010; Xiao, O'Neill, et al. 2004; Collins, Baker, and Gorey 2007).

## Theory of Planned Behavior

The second theoretical approach that explains how to achieve financial behavioral change is the Theory of Planned Behavior (TPB). This theory is designed to predict and explain human behavior in specific contexts (Ajzen 1991). The TPB is an extension of the Theory of Reasoned Action (TRA), which posits a causal link between attitude, subjective norms, and behavioral intention and which is concerned with behavior that is under the volitional control of the individual (Chudry, Foxall, and Pallister 2011).

Both TRA and TPB are concerned with explaining behavior and see the intention to perform a certain behavior as a central factor. Intention itself is explained by two factors in the TRA: attitudes (feelings about or evaluations of a behavior) and subjective norms (an individual's perception of the opinions of family and peers on behavioral performance) (Chudry, Foxall, and Pallister 2011; Collins, Baker, and Gorey 2007). The TRA states as a general rule that, the stronger the intention to perform a behavior, the more likely the actual performance of the behavior. However, Ajzen (Ajzen 1991) adds that an intention can only lead to a behavior if the individual can decide to perform or not perform the behavior. Most behavior depends on non-motivational factors such as the availability of opportunities and resources. These factors account for the actual control that a person has over behavior. Ajzen (1991, 183) concludes in the TPB that *intentions would be expected to influence performance to the extent that the person has behavioral control, and performance should increase with behavioral control to the extent that the person is motivated to try*.

The perception of behavioral control and its impact on intentions and actions is what distinguishes the TPB from the TRA (Ajzen 1991). The concept of control itself is not new in behavioral theories, and corresponds with Bandura's concept of perceived self-efficacy. Self-efficacy is defined by Bandura as a person's confidence in their ability to succeed at specific tasks or to perform a behavior, and is thus related to feelings of control (Lown 2011; Ajzen 1991). Perceived behavioral control is defined as *"the person's belief as to how difficult or easy performance of the behavior is likely to be - and beliefs about resources and opportunities may be viewed as underlying perceived behavioral control"* (Ajzen and Madden in Sahni 1994). By including perceived behavioral control into the TPB, the concept is placed within a general framework of the relationships among beliefs, attitudes, intentions and behavior (Ajzen 1991).

Ajzen (1991) proposed two versions of the TPB. One where perceived behavioral control is seen as an independent predictor of intention, and a second one in which perceived behavioral control exerts an influence on both the intention to perform a behavior and the actual behavior itself. There are two explanations for this direct relationship: (a) an individual who has less doubts about his ability to perform the behavior, is more persistent in performing it than one who experiences doubts, and (b) if one feels it will be very difficult to achieve the intended goal, it is highly probable he will not achieve it, despite great efforts. Both versions of the TPB were confirmed by Sahni (1994), although the study on spending habits and activities of students provided evidence for this direct link only in case of an expensive purchase. More recently, Xiao and Wu (2008) and Shim et al. (2012) confirmed that perceived behavioral control influences both intention and actual behavior.

More recently, the TPB has been used in several studies to explain and predict financial behavior (Cornelis and Storms 2013; Chudry, Foxall, and Pallister 2011; Xiao 2008; Croy, Gerrans, and Speelman 2010; Sahni 1994; Sari and Rofaida 2011; Shim et al. 2010; Shim, Serido, and Tang 2012; Xiao et al. 2011; Sotiropoulos and d'Astous 2013; Collins, Baker, and Gorey 2007; Shim et al. 2009; Xiao and Wu 2008; Rutherford and DeVaney 2009; Xiao and Wu 2006c; Ajzen 1991). Because Ajzen (1991) stated the TPB to be open for development, many authors added other variables: involvement with money (no impact on intended behavior), decision-making style (no impact on intended behavior) and past behavior (impact on intended behavior) (Chudry, Foxall, and Pallister 2011), planning horizon (impact on actual behavior) (Shim, Serido, and Tang 2012), satisfaction with the service of a credit counseling agency (impact on intended behavior), debt-reducing behavior (impact on intended behavior), and other financial behaviors (negative impact on intended behavior) (Xiao and Wu 2006c).

Many studies provided evidence for the applicability of the TPB in empirical research. Attitude appears to be the most dominant predictor of intended behavior, followed by parental norms (Shim, Serido, and Tang 2012) or perceived behavioral control (Sotiropoulos and d'Astous 2013; Xiao and Wu 2008). Mixed results however are found concerning the impact of social norms on intended behavior (Sahni 1994; Sotiropoulos and d'Astous 2013). Whereas subjective norms did not have a significant impact on intention in research of Xiao and Wu (2008), Sotiropoulos and d'Astous (2013, 190) revealed that social norms - and not attitude - have an impact on the propensity of young consumers to overspend on credit cards; *it seems that social norms that are specific to a particular behavior have the potential to offset the impact of attitudes towards this behavior so long as it is under the volitional control of the individual.*

Other studies revealed the existence of other variables that exert an impact on the actual behavior; financial knowledge (Shim et al. 2010) and planning horizon (measured as the time period that is most important to the respondent, from the 'next few months' to 'longer than 10 years') (Shim, Serido, and

Tang 2012). The conclusions of Croy et al. (2010) are in line with these results and state that respondents experience more behavioral control when their perception of planning importance and planning prepardness was greater, and that experiencing more behavioral control generates greater intention to actually perform the behavior. Based on these findings, Shim et al. (2012) advocate for the addition of a financial planning horizon factor to the TPB, because saving and future-oriented financial behaviors demands a distant horizon.

## Self-Determination Theory

Another theory that has been applied to financial behavior is the Self-Determination Theory (SDT), widely used to explain behavior in numerous settings. The theory was developed by Deci and Ryan (1985) and states that three important needs can be identified to explain intrinsic motivation, self-regulation and general psychological well-being: the need for competence, autonomy and relatedness (Ryan and Deci 2000). The theory has been applied to numerous fields of research in health behavior (see for example (see for example Ryan et al. 2008). Concerning financial behavior, SDT has mainly been applied to concepts such as materialism and conspicuous consumption (Stone, Bryant, and Wier 2010; Stone 2012; Kasser et al. 2013).

Burroughs et al. (2013) theorizes that materialism can be explained as a lack of fulfillment in the need for autonomy, competence and connectedness. Unmet psychological needs are postulated to lead to a feeling of insecurity, which in turn makes the individual placate these needs with material objects, leading to materialism on the longer term. Hawkins and Kim (2012) state that poverty invokes feelings of powerlessness and lack of autonomy because changing saving and spending habits is difficult on a very tight budget. To ameliorate these feelings, individuals may engage in conspicuous consumption and mood repair behavior, a cycle leading them further into debt. As long as the higher order psychological needs are not met, programs aimed at reducing materialism and conspicuous consumption will not be successful.

Well-being is negatively related to financial difficulties according to Irving (2012). They state that financial difficulties are psychologically distressing because the needs for competence and autonomy are not met, which, in line with SDT, leads to diminished coping mechanisms. It is therefore important to focus on goal setting and attainment in any form of financial planning, since this will achieve a sense of competence and autonomy, which will enhance well-being.

Given the importance of relatedness in SDT, Hawkins and Kim (2012) stress that spending and earning money is also about exchange and relatedness, both financially and psychologically. For people in poverty, money is experienced as a communal property, used as a tool to help those within a social network. It is important for those working with people in financial difficulties to acknowledge this and incorporate it into interventions.

Stone, Bryant, and Wier (2010) translate the concepts from the SDT to fit financial behavior specifically. The need for competence is translated to *financial competence or self-efficacy*, which is defined as the perceived competence to successfully manage one’s finances in daily life. *Financial autonomy* constitutes the belief that financial decisions are made based on one’s own interest and beliefs (Stone, Bryant, and Wier 2010, 109). The concept of relatedness is split into two separate concepts: financial relatedness – trust and financial relatedness – support. Trust refers to the belief that the people one is close to can be trusted upon to help when financial issues arise, while support refers to the belief that financial resources can be used to support communities and interpersonal relationships (Stone, Bryant, and Wier 2010, 110). Several studies demonstrate the validity of this model (Kasser et al. 2013; Garðarsdóttir and Dittmar 2012; Newton 2009), and it appears applicable across cultures, although some caution is warranted in direct comparison of countries (Guo et al. 2013).

The use of (the financial translation of) SDT in explaining materialism, well-being and consumer behavior is demonstrated in several studies. The differences in response to incentives among individuals are explained from (financial) SDT by Stone and colleagues (2010). They find that financial need beliefs determine financial values, and those in turn influence subjective well-being. These differences in financial need beliefs and values are also reflected in the importance given to an incentive. Longitudinal studies conducted by Kasser and colleagues (2013) demonstrate that when people developed towards a more materialistic attitude, their well-being decreased, while it increases when they develop away from materialism. Kasser et al. (2013) were able to manipulate the orientation away from materialism in adolescents using a financial education program consisting of three sessions. In the non-intervention group, materialism led to a decrease in self-esteem, while in the intervention group self-esteem increased.

## Current Study

To provide qualitative financial care for people at risk of experiencing financial difficulties, it is important to take account of the available scientific information on this subject. For financial education in general, various literature reviews are available (see for example Fernandes, Lynch Jr., and Netemeyer 2014). This is not the case for combined financial education and counseling for at-risk populations. Therefore, the central aim of this literature review is to summarize what is known on contents, form and effectiveness of programs for combined financial education and counseling aimed at at-risk populations. Because of the added effects of group dynamics and for reasons of efficiency, special attention will be paid to group-based interventions. This aim can be translated into the following research questions:

1. What are the goals of financial education and counseling?

   We review what different financial education and counseling programs aim to achieve, what the differences are between financial literacy and capability, and what clients feel they should learn in financial education and counseling programs.
2. How can change in financial behavior be achieved with programs combining financial education and counseling?

   This research question focuses on the content and (practical) characteristics of financial education and counseling in groups. Additionally, this review focuses on how people can be motivated to change their financial behavior.
3. What is known about the effectiveness of existing programs for combined financial education and counseling aimed at at-risk populations?

   Research on the effectiveness of available programs is reviewed using the PISO criteria: Population, Intervention, Study Design, and Outcomes (Hermans 2014).

## METHOD

In order to collect all available literature, a systematic search was conducted. In the first stage, relevant search terms were identified and applied. In the second stage, the literature found using the search terms was studied, and a selection of relevant sources was made.

The following sources were used: Web of Science, Ebsco, Science Direct, Springer Link, Psychinfo, and Google Scholar. Table 1 provides an overview of the different search terms used, and how they were combined. To focus our search on the three research questions mentioned above, we chose to combine search terms on financial help with the theoretical perspectives that explain financial behavior change. No additional exclusion criteria were applied during the general search. For the third question, we only selected interventions that combined financial education with counseling and that were designed for at-risk populations.

The literature search rendered 4211 results in total (this includes doubles). A first selection on relevance to our research questions was made based on title and abstract of the sources. After reading the complete works of the selected articles, additional sources were excluded because they were not relevant to the research questions. In total 104 sources contributed information on one or more of the aspects discussed in the results section. Through cross-references, additional sources were added to this list.

The number of references found is reported in Table 1. Many references were not selected because financial education and counseling were not main subjects of the study, for example when financial counseling was only mentioned as an advice for the future.

TABLE 1

*An Overview of the Different Combinations of Search Terms Used in the Systematic Review, and the Number of Hits*

| | Financial Skills | Financial Education | Financial Capability | Financial Literacy | Financial Behavior | Financial Efficacy | Financial Counseling | Credit Counseling | Budget Counseling | Debt Counseling | Debt Advice | Financial Coaching |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Transtheoretical Model of Change | 22 | 105 | 28 | 73 | 94 | 4 | 106 | 56 | 3 | 4 | 0 | 12 |
| Theory of Planned Behavior | 54 | 200 | 107 | 216 | 162 | 13 | 170 | 67 | 3 | 2 | 1 | 9 |
| Self-Determination Theory | 22 | 41 | 17 | 47 | 24 | 2 | 28 | 8 | 1 | 1 | 3 | 2 |
| Group-based intervention | 2 | 0 | 4 | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| Group Therapy | 47 | 49 | 34 | 54 | 19 | 24 | 182 | 53 | 11 | 12 | 6 | 6 |
| Group Counseling | 24 | 48 | 15 | 97 | 9 | 2 | 151 | 79 | 18 | 19 | 0 | 2 |
| Behavioral Change | 121 | 299 | 119 | 341 | 230 | 23 | 241 | 107 | 8 | 17 | 1 | 21 |

## RESULTS

Prior to discussing how financial behavior can be changed, we will focus on the goals of financial education and counseling. Next we discuss the way in which the desired changes are achieved and last we discuss what is known about the effectiveness of existing programs.

1. What are the goals of financial education and counseling?

Before focusing on how to achieve financial behavior changes, it is important to clarify what is seen as optimal or ideal financial behavior, particularly for persons on a very limited budget. There seems to be no consensus in literature on which personal finance principles are needed by every adult (Sprow 2010; Lyons, White, and Howard 2008). Cultural factors and differences in financial systems between countries make it very difficult to reach consensus. Very little research is available on basic skills, and on what people feel they need in order to manage their own budget (Schuchardt et al. 2009). According to the OECD (2014) an increasing number of countries recognize the necessity of improving financial literacy. Despite this, only a few countries have already set standards for financial literacy. These standards differ among countries but according to the OECD (2014, 29) the common topics are: *"money and transactions, planning and managing finance, risk and rewards, and an understanding of the financial landscape, including economic concepts and consumer rights and responsibilities."*

An important distinction to make is that between financial literacy and capability. Financial literacy is often defined as *a person's ability to understand financial concepts in order to make good financial decisions as a consumer* (Fox, Bartholomae, and Lee; and Vitt et al. in Despard and Chowa 2010, 24). Although skills to apply the knowledge one gains from financial education are mentioned in the definition, the focus in many studies is on gaining sufficient knowledge to manage one's own finances. Financial capability, on the other hand implies successful application of these skills. This distinction has consequences for the aims and contents of financial education and counseling, but also for the way in which successful outcomes are measured. While financial literacy can be measured using knowledge tests, financial capability demands measurements, which also test skills and the degree to which a person is successful in his personal financial management. As stated before, many studies demonstrate that financial literacy alone is not enough to achieve behavioral change (Way and Wong 2010; Elliott and Kim 2013; Kennedy 2013; Chudry, Foxall, and Pallister 2011; Parker 2010; Xiao, Serido, and Shim 2012; Edouard 2011; Despard and Chowa 2010).

Based on the degree of experienced shame and on the level of agency, Adkins and Ozanne (2005) distinguish four profiles of people who have little or no financial literacy. They feel that the content and methodology of financial education programs should be designed to suit these different groups. The first group is called "alienated consumers". Individuals belonging to this group experience shame about their low degree of financial literacy and judge themselves as incompetent consumers. This makes them highly vulnerable for financial problems. Their coping mechanisms include seeking help from their social network or, when this is limited, excluding themselves from complicated financial transactions. This group is best helped by reducing feelings of shame and incompetence and by bolstering their self-esteem and assertiveness. A second group is called "conflicted identity managers" by Adkins and Ozanne (2005). This group is also characterized by feelings of shame, but their social skills enable them to present themselves as literate. Individuals in this group will benefit from counseling that helps them to transfer their social skills to other areas in order to enhance their self-esteem. A third group is called "identity changers/enhancers". They see themselves as seeking financial literacy, and, because of this experience, they feel more confident to try (financial) areas they previously avoided. This development can be further enhanced in financial counseling. The last group is called the "savvy consumers". They experience little to no shame about their low levels of financial literacy, and use their social skills to discuss their problems. In contrast to the other three groups, they require less help in boosting their self-esteem; counseling can be primarily aimed at further enhancing their financial literacy.

Another challenge in developing a financial education and counseling program is the distinction between subjective and objective financial knowledge. Xiao and colleagues (2013; Xiao, Serido, and Shim 2012) state that studies prove that objective knowledge makes it less probable for an individual to perform risky financial behaviors, but at this moment it is unclear whether objective knowledge is transferred through financial education or is gained from other sources, for example parents. Therefore, the authors argue that financial education programs should focus on both objective and subjective financial knowledge (Xiao, Chen, and Chen 2013). Subjective financial knowledge is positively associated with financial satisfaction and a reduced likelihood of engaging in risky paying or credit behavior (Xiao, Serido, and Shim 2012; Xiao, Chen, and Chen 2013). However, it also increases the likelihood of performing risky borrowing behavior by giving a fake sense of security (Xiao, Serido, and Shim 2012).

Several studies conclude that focusing on knowledge alone is not enough (Shockey and Seiling 2004; Shim et al. 2010; Subactagin-Matto and Goncalves-Rorke 2010; Hawkins and Kim 2012). In order to achieve a long-term behavioral change and the development of positive financial behaviors, several conditions must be met: a set of healthy and positive attitudes, a supportive social network of people with good financial behaviors, and the confidence that one can use its knowledge to make wise choices (Shim et al. 2010). For this reason, the authors plead for a course that encompasses following topics (Xiao et al. 2011; Xiao, Serido, and Shim 2012; Xiao, Chen, and Chen 2013):

- transfer knowledge in order to avoid risky behavior and to engage in positive behaviors;
- improve financial capability by increasing financial self-confidence;
- teach participants how to handle available information so that they can achieve financial well-being;
- include the practicing of skills.

### What Do Clients Want To Learn?

Two studies made explicit inquiries about the topics and skills clients felt were important in financial education. Bailey and colleagues (2003) found that almost half of their respondents desired education on budgeting and money management and saving for future needs (both 48%). Other topics mentioned by a substantial group of the respondents mainly concerned understanding several financial concepts, rights and products and avoiding adverse financial situations/risks.

Gutter and Renner (2007) asked their participants which activities they found most useful. Activities that scored highest were applications of financial skills (doing your own taxes) and several activities that provided insight into one’s financial situation and behavior (keeping a spending diary, balance sheet, etc.).

Although it is difficult to draw firm conclusions from only two studies, it appears that clients appreciate practical exercises, which are tailored and applicable to their own financial situation.

2. How can we achieve change in financial behavior?

When looking at the question on how behavioral change can be achieved, there are several important themes. Characteristics of counseling, group work, program content and use of modern media will be discussed.

Since it appears from literature that providing financial education is often not enough to achieve behavioral change, a next important step is to review the available approaches that are aimed at behavioral change and the more general effective elements learned from other programs. In general, a combination of financial education and a form of psychological counseling is recommended (Anand and Lea 2011). When studying the available literature on these forms of financial help, it becomes apparent that many different terms are used. Terms such as financial education, counseling, coaching, therapy and planning differ slightly in their meaning, but all encompass a form of intervention that combines the enhancement of financial skills through education with a form of psychological support.

Financial education: Financial education entails the transfer of financial knowledge. Grable, Law, and Kaus (2012) give an overview of financial education programs aimed at college students. The programs are described as "somewhat" eclectic, and often the background of the trainers/developers, being either more "technical" or more oriented towards family dynamics, drives the content. The authors feel that a combination of these elements is likely to be most successful. The effects of the programs are often not structurally evaluated.

Financial coaching differs from the other approaches because it is anchored in behavioral change and not in transferring financial knowledge; it is client-directed; and it aims to empower clients by making them the decision-maker (Mangan 2010). Collins and colleagues (2013; 2007) provide a financial coaching program conducted according to the GROUP model, which consists of the following components: Goal, Reality, Options, Understanding others, Perform. The program consisted of eight weekly sessions led by two coaches. Each session provided a combination of financial education and coaching, with activities that allowed the participants to practice the financial skills they acquired (see Baker and O'Rourke 2013, for some examples of these activities). Participants created group rules together and celebrated their achievements at the end of the program. Preliminary results show that the financial coaching program leads to a positive change in attitude and financial behavior (Baker and O'Rourke 2013). Earlier studies on individual coaching demonstrated that *coaching clients are more likely to have financial goals, and are more confident in achieving those goals* (Collins and O'Rourke 2012, 50).

Financial counseling: Financial or credit counseling includes a broad range of services for individuals experiencing financial difficulties, tailored to their specific needs. It can be administered one-on-one, but credit counseling through telephone has also become a widespread practice (Elliehausen, Lundquist, and Staten 2007). Frentzel and colleagues (2010) conclude from a literature review combined with interviews that highly targeted, proactive and individually tailored forms of counseling appear to be most effective. The information provided should be tailored to the specific target group as much as possible. According to them, effective dissemination of information is more difficult than designing the content of a program. Behavioral change is most likely to occur when participants "*saw the benefit of performing a particular behavior, when they believed that they could perform the behavior, when barriers to performing an activity were reduced, and when the social support necessary to carry out the behavior was available*" (Frentzel et al. 2010, 5).

Financial therapy: A fairly recent development is the formation of the Financial Therapy Association (Gale, Goetz, and Britt 2012). Financial therapy is a form of help in which financial planning and family therapy are combined (Archuleta and Grable 2011). Although the exact definition of and theory behind financial therapy is an ongoing process, as stated by Gale et al. (2012), the association feels it is important to embed financial planning and counseling in a setting that pays attention to family dynamics and their role in the forming and continuation of financial difficulties. A financial therapy intervention was developed and tested by Klontz and colleagues (2008), the evaluation is discussed at a later point in this manuscript.

Financial planning: Irving (2012, 49-50) defines financial planning as: "*a strategic process aimed at helping individuals to manage their financial resources in order to achieve a range of financial and lifestyle goals (Overton, 2008 in Irving 2012). Financial planning goes beyond the giving of insurance and investment advice to deliver a financial strategy encompassing all aspects of lifestyle, goals and requirements to help individuals reach their financial goals effectively and efficiently.*"

## Program Content and Characteristics

The literature review revealed that there is no consensus on the topics that need to be addressed in financial education programs. Many programs have been developed, mainly in the U.S., but the content and the approach of these programs differ substantially (Collins and O'Rourke 2011; Carswell

2009). In 2006, Lyons et al. (2006a) conducted a survey with financial education providers. The results showed that three topics were treated in almost all of the programs: budgeting and cash flow management (93.4%), credit/debt management (91.6%), and savings and investment (88.6%). Below we discuss the different elements of the studies found, although it is important to know that the literature provided no evidence on the effectiveness of the specific elements, only on global programs.

Adapting a program to the needs of participants appears to be important, therefore topics being treated in financial coaching sessions can range from basic life skills as keeping track of income and spending to asset accumulation or avoiding foreclosure (Collins, Baker, and Gorey 2007). Other topics that are treated in financial education programs are income versus expenses, budgeting, goal setting, credit and debt management, consumer skills, checking or savings account, insurance, bankruptcy, legal matters, investing, home administration, and homeownership (see for example Lyons, Chang, and Scherpf 2006; Lyons, White, and Howard 2008; Lyons, Howard, and Scherpf 2010; Calderone et al. 2013; FDIC 2007; Gutter and Renner 2007; Shockey and Seiling 2004).

In addition to the varied topics being discussed in financial education programs, the literature search also revealed differences in approach and duration of the educational programs. Ranging from a 60 to 90 minute online or telephone course (Lyons, Howard, and Scherpf 2010; Lyons, White, and Howard 2008), over a one-or two-day program in a classroom setting (Calderone et al. 2013; Bell, Gorin, and Hogarth 2010; University of Wisconsin-Extension 2008), three short trainings in one week (Winter, Lührmann, and Serra Garcia 2013) or an intensive weekly program (Klontz et al. 2008), to multiple in person sessions over several weeks (Shockey and Seiling 2004; Lyons, Chang, and Scherpf 2006; Palmer et al. 2010; FDIC 2007; Gutter and Renner 2007; Burk 2011; Collins 2010; Mills et al. 2008; Haynes-Bordas, Kiss, and Yilmazer 2008) or even over several years (Sherraden et al. 2011).

Lyons and colleagues (2006a) found in a survey with financial education providers that 41.2% of them most often used workshops or seminars as a teaching method, followed by 21.2% who used mainly multi-session courses and 20.0% who mostly utilize one-on-one financial counseling. The literature search revealed that educational programs often combine multiple teaching methods although it failed to clarify which teaching methods are effective. The study by Mills et al. (2008) was the only study in the search where no positive results were shown, but the study did not describe which teaching methods were used. Besides traditional approaches such as lectures, group discussions, and supporting materials as lesson plans, instructor's guides and train-the-trainer sessions, workbooks, handouts, and overhead slides (Lyons, Chang, and Scherpf 2006; Lyons, White, and Howard 2008; FDIC 2007; Gutter and Renner 2007), more active and modern approaches are used as well: hands-on activities, budgeting activities, financial calculators, check lists, assessment tools, storytelling, audio track, video, and comics (see Lyons, Howard, and Scherpf 2010; Lyons, Chang, and Scherpf 2006; Calderone et al. 2013).

A remarkable teaching method is the use of simulation, because it promotes problem solving by simulating a real-life scenario without real-life consequences (Shockey and Seiling 2004; University of Wisconsin-Extension 2008). In a recent study, Fox, Bartholomae, and Trombitas (2012) discovered that students had higher financial knowledge scores on topics in which they already had experience in (such as a car insurance). This finding is consistent with recommendations that not only knowledge should be taught in financial education programs, but that attention has to be given to practicing skills (Shim et al. 2010; Shockey and Seiling 2004; Hawkins and Kim 2012). Knowledge and skills seem to strengthen each other. In research by Palmer et al. (2010), students had to track their expenses using an online tool. Students found keeping track helpful in changing their spending patterns and it helped them to be more aware of their spending habits.

In order to change behaviors, the goals and targets of an educational program need to be realistic. Some goals are unattainable as long as the financial situation of the participant does not change. Therefore, programs need to distinguish between behaviors that can be changed on short notice and behaviors that require a more profound and structural change of a person's financial situation before they can be changed (Lyons, Chang, and Scherpf 2006; Lyons 2005; Lyons and Neelakantan 2008). Financial standards and the financial situation of the participants have to be considered when financial goals are established (Danes and Rettig 1993). When applied to the effectiveness of financial education programs, Lyons, Chang, and Scherpf (2006) stress that the best measure of program "success" may be related to whether the participants receive the financial skills needed to make decisions that are applicable to their specific financial circumstances.

A final remark made previously by multiple authors, and that we endorse, has to do with the framing of the financial education program. Although the courses studied by FDIC (2007), and Gutter and Renner (2007) can be taught as a whole or on a stand-alone basis, authors as Parker (2010), Collins et al. (2013; 2012; 2007), and Loibl and colleagues (2010) stress the importance of a long-term guidance. The financial knowledge taught in a course, should be practiced and applied, thus making a stand-alone approach of financial education insufficient (Parker 2010). By adding other services (such as matched savings accounts, long-term financial training, workshops) to an educational program, the impact can be strengthened (Loibl et al. 2010; Collins, Baker, and Gorey 2007). A study by Sherraden et al. (2011) of young children and their parents, showed increased knowledge, skills, and confidence in the children because of the combination of learning about financial matters and practicing important skills (such as going to the bank).

### Motivating Clients

An essential part of behavioral change is motivation. Although the concept is contained in the TTM and the TPB, we find it necessary to return to this topic. Financial education courses mainly reach those who are already motivated: "financial education does not necessarily motivate individuals; motivation brings individuals to financial education" (Rowley, Lown, and Piercy 2012). However, it is also important to stimulate clients in budget and debt relief to manage their budget in a conscious manner, and to ensure that whoever participates in financial education course continues its effort. These issues can be linked back to the stages of change from the TTM (see Burk 2011; Shockey and Seiling 2004; Xiao, O'Neill, et al. 2004).

For individuals in the first stages, it is important to become aware of their behavior and the changes they can make. Courses aimed at transferring financial knowledge and skills may not be suitable for them: these should be targeted to individuals who are already convinced of the changes they could make and need tools to achieve these changes (Shockey and Seiling 2004). Keeping someone motivated is just as important to avoid relapse. Therefore, the courses need to be arranged in such a manner that it is in the interest of the participant to continue the participation. Because scientific literature did not provide answers on how to motivate individuals to adopt behavioral changes, Rowley and colleagues (2012) undertook a study with women who self-reported to have improved their financial behavior in the last two years. They found that two types of motivators lie at the basis of a financial behavioral change and helped to move through the stages of change: (1) circumstantial motivators such as emotions, life transitions or financial status, and (2) underlying motivators that are directed toward a goal or caused by a financial crisis. They concluded that individuals who are intrinsically motivated are more successful at achieving behavioral change. With this conclusion the authors not only confirm the self-determination theory, but also the theory of planned behavior: perceived control is stronger when the decision to change is made by oneself rather than others, which in turn strengthens the intention to behave consistent with the decision (Schifter & Ajzen in Danes and Rettig 1993).

In conclusion, one has to be ready to participate in a financial education course. This readiness is referred to as the 'teachable moment' (Lyons, Howard, and Scherpf 2010; Lyons, White, and Howard 2008; Beck and Neiser 2009) or 'just-in-time education' (Carswell 2009; Fernandes, Lynch Jr., and Netemeyer 2014). As Hastings and colleagues (2012) state: it is of little use to teach high school students about mortgage rates, when it will likely be many years before they start to actively use this knowledge. Financial education is best tied to taking important financial decisions, like buying a home, getting a loan, and leaving budget or debt relief, because this would increase relevance and motivation to succeed, and avoid forgetting (Carswell 2009; Beck and Neiser 2009; Fernandes, Lynch Jr., and Netemeyer 2014).

Some useful suggestions in motivating individuals are the use of communicative and motivational tools such as motivational interviewing (Palmer et al. 2010) and narrative approach (Hawkins and Kim 2012). These tools are focused on raising awareness and stimulating behavioral change, by posing some questions on the actual behavior of the clients and on how this behavior will affect their future. This self-discovery is proved to be very effective in raising awareness (Larimer & Cronce in Palmer et al. 2010). A study by Hawkins and Kim (2012) discusses a narrative approach, where one retells his/her story in order to find an explanation for the exhibited behavior. They found this approach promising, because it helped to connect earlier experiences with current behavior, and to reveal problems and solutions. For clients in budget and debt relief who find themselves in the first stages of the transtheoretical model of change, it may be a technique to raise awareness.

Dolan and colleagues (2012) argue that financial information and education can change behaviors by changing minds, but that this works best for those who are open to learning. Recently, behavioral theories show that changing contexts can lead to behavioral changes. Human decisions are receptive to changes in the environment, and by changing the context decisions can be influenced. The authors state that nine contextual factors may affect our behavior (MINDSPACE): messenger, incentives, norms, defaults, salience, priming, affect, commitments, and ego. They conclude that the most effective interventions on behavioral change need to focus on changing minds (such as most interventions already do) and on changing contexts, hereby focusing on different elements of MINDSPACE. Two examples may illustrate this: when individuals are told about the benefits of a financial education course by a familiar person who previously attended the course, they are more likely to participate itself (messenger effect); and because individuals tend to do what those around them already do, it may be interesting to set participation as the standard (norms).

Preventing dropout or encouraging the continuation of participation is another important motivation issue. Practical strategies to achieve this are using scheduled appointments, incentives, deadlines, and a signed contract. The use of incentives is, however, subject to fierce debate in the work field. Collins et al. (2007) and Dixon (2006) stress the importance of rewards such as a matched savings account (IDA), access to bank accounts, or providing a savings account. But, providing external motivation through incentives may limit intrinsic motivation.

## Group Based Interventions

As stated in the introduction, special attention will be paid to group-based interventions because of possible advantages. Group dynamic aspects such as peer support appear of added value compared to individual programs. In the literature, the effectiveness of group and individual interventions are often compared from a policy-based perspective: if the same result can be achieved in a group, the intervention will be more cost-effective and efficient. Morrison (2001) concludes from a review in several (health-related) areas that group and individual interventions are comparable in their effectiveness. The efficiency of group work makes it preferable over individual therapy in terms of costs and staff deployment.

Burlingame and colleagues (2004) warn against oversimplifying the group versus individual comparison. Both forms of intervention have specific characteristics, which may be an advantage or disadvantage to the process of behavioral change. It is not self-evident that individual theories of change can be translated from individual to group formats; often an adaptation is necessary. Group dynamics play an important role in the formation and workings of any group. Burlingame et al. (2004) describe the stages in this process as “forming, storming, norming, performing and adjourning”. In the first session(s), the group is formed (stage “forming”) as group members get to know each other, followed by a discovering of the norms and values in the group and possible conflicts between these and the norms and values of the individual members (stage “storming”). After this exploration, consensus on the group norms will be reached (stage “norming”) after which the core intervention process can take place (stage “performing”). When the intervention is finished, the group process is terminated and members go their separate ways (stage “adjourning”). It is important to incorporate these stages in any group-based intervention, particularly the first three stages. If group consensus on the norms is not reach, the performance of the group will be hindered.

Other general factors to take into account are the characteristics of the group leader and the match between the personality traits of the group members and trainers (Burlingame, MacKenzie, and Strauss 2004). Introverted individuals tend to be focused mainly on task performance, while extraversion often goes together with a focus on group dynamics. Large differences within a group or between the group leader and the group may lead to tension and lessened performance. With regards to group leadership, a large body of literature exists, an in-depth discussion of which is beyond the scope of this study. In short, group leaders should have knowledge and experience on both the content of the group-based program and the principles of group dynamics and leadership. With regards to low-income participants, Shockey and Seiling (2004) recommend that the group leader needs to understand the specific living circumstances of this group to adapt the program accordingly. Lyons, Chang, and Scherpf (2006) recommend a train-the-trainer program to enhance the knowledge, skills, and self-confidence of the group leader.

Group-based interventions for financial education and coaching have specific advantages and disadvantages. Several authors note the advantage of peers in the behavioral change process. Peers become a source of emotional support and information to each other, which decreases isolation and increases self-efficacy (Baker and O'Rourke 2013; Collins, Eisner, and O’Rourke 2013; Guada, Conrad, and Mares 2012; de Greef, Segers, and Verté 2010). Research by Curley (2004 in Parker 2010) confirms the beneficial effects of a peer mentoring group as a source of encouragement and support in the process of making financial changes. Sherraden and colleagues (2005 in Parker 2010) found in their interviews with participants of a financial education program that they learned most from experiential learning and learning from peers in an informal environment. When the participants noticed the (socioeconomic) similarities with their peers, they felt more at ease to ask questions and to open up about their own experiences. This attitude enhanced the learning experience for all participants. In a study funded by The National Endowment of Financial Education®, financial educators indicated that teaching methods that require input from the participants are most effective: drawing on learner experiences, group discussions, and educators sharing their stories (Tisdell, Taylor, and Sprow 2011). Participants in a study by Turnham (2010, 80), however, appear to favor individual counseling for discussing financial matters, because of “*greater privacy, greater focus on one’s individual situation, less time spent on information or issues not directly relevant, and more time to ask questions*”. Many of them also recognize the value of group-based financial education as a source of ideas, support and recognition that others are facing the same problems.

With regards to financial coaching, Collins and colleagues (2013) list several specific advantages and disadvantages of working in groups. The advantages include those mentioned before, that the peers are a source of support and recognition. Being a member of a peer group also made the members feel less alone, which is especially important in high-risk populations. In addition to this, the group members appreciated the fact that they were also a source of advice to others. This may lead to elevated levels of self-esteem and autonomy. The feedback peers gave each other helped them to set realistic goals and expectations, and gave them helpful advice on communication strategies. Lastly, peer pressure in the group was experienced as a way to make the members more committed to the group and the goals they set.

The disadvantages listed by Collins and colleagues (2013) appear to be mainly points of attention for group formation and management. They state that group size may have an effect on group dynamics, since large groups may make members less willing to share personal information. Collins et al. (2013) did not find an ideal group size in their literature review, but notice that most groups were smaller than twelve members. Confidentiality is an important theme in general, as discussing personal financial matters may be a highly sensitive subject. Another possible disadvantage is too much heterogeneity in the background of the group members. When large differences exist, the feelings of recognition may diminish and learning styles may differ to a degree that makes it difficult for the group leader to reach all members of the group in the same way. Collins et al. (2013) suggest that transferring large amounts of information may best take place in individual sessions. Groups appear to be more suitable for experiential learning.

In general, groups appear to offer important advantages for financial education and coaching, particularly through peer support and recognition. When designing group programs for financial education and coaching, confidentiality and group characteristics should receive special attention.

### Use of Modern Media

Traditionally, financial education programs are delivered in person, but the literature search revealed some examples of programs delivered online or by telephone. Online courses are gaining ground because they are less expensive (Lyons et al. 2006b), and always available for clients, enabling participants to choose a suitable moment and thus accommodating their needs (Lyons, Howard, and Scherpf 2010).

Several articles explicitly recommend the use of modern media, digital resources and game-based learning as an addition to more traditional approaches (Romero and Usart 2013; Way and Wong 2010; Davis et al. 2012) given their casual and low-key nature. We will discuss some examples of this, and how they could be used as part of financial education and counseling programs for at-risk populations.

A first example is the telenovela "Nuestro Barrio" (Spader et al. 2009) which is used to provide financial education to Latino immigrants who may not otherwise seek out information on this subject. The study shows that watching the telenovela raises awareness on the importance of financial management and also changes the attitude towards banks and homeownership. In the light of the TTM, programs such as this one could be used to move people through the stages of change to a point where they are open and motivated to receive more formal financial education and coaching.

Several examples of game-based learning with regards to financial education can be found in literature (Romero and Usart 2013; Maynard et al. 2012; Way and Wong 2010). In these games, participants receive information and can practice their skills in financial management in a safe gaming environment. This also gives them feedback on how they perform. Comparable to the telenovela, these games may be used to reach clients who are not yet open to other forms of financial education and coaching (Maynard et al. 2012). They can also be used as a tool to practice new skills between sessions in a financial coaching program. An example of this is the "Piggymojo" application that makes it possible to register savings made when resisting the temptation of impulse buys. A saving goal can be set and progress can be tracked and shared with others (Davis et al. 2012). Programs such as this one can be used to compliment more traditional forms of financial education and coaching, and also allows trainers and possible peer group members to track progress and celebrate achievements.

It can be concluded that the use of modern media can be useful prior to and during programs for financial education and coaching and fits well within programs that use multiple intervention strategies simultaneously. Further study into their exact effects, however, is needed. This should also include recent developments in social media such as regularly scheduled Twitter chats on financial subjects.

3. What is known about the effectiveness of existing programs for combined financial education and counseling aimed at at-risk populations?

In the introduction, we stated that the results of financial education programs are rather mixed (Parker 2010; Fox, Bartholomae, and Trombitas 2012; Garcia 2011; Winter, Lührmann, and Serra Garcia 2013; Gutter and Renner 2007; Schuchardt et al. 2009). While there is no evidence that financial education leads to a long-term behavioral change, many studies provide some evidence that financial education may have an impact on increased financial knowledge or healthy financial behavior (Lyons, Chang, and Scherpf 2006; Collins 2010; Turnham 2010; Hawkins and Kim 2012; Elliehausen, Lundquist, and Staten 2007). In this study, we focused on interventions that combine financial education with counseling, are aimed at at-risk populations, and includes a form of face-to-face contact. Table 2 contains a description of these studies, structured according to the PISO criteria: Population, Intervention, Study Design, and Outcomes.

TABLE 2

*Studies Included in the Analysis of Effectiveness of Programs Combining Financial Education and Counseling, Aimed at At-Risk Populations*

| | Author(s) | Population | Intervention | Study Design | Outcomes |
|---|---|---|---|---|---|
| 1 | (Shockey and Seiling 2004) | - low-wealth adults who were enrolled in IDA Financial Literacy programs<br>- a purposive sample of IDA participants who were beginning the financial education classes in four states: Hawaii, Indiana, Missouri, and Ohio between November 1999 and May 2001<br>- final sample: 253 respondents | - four sessions over four weeks: identifying and prioritizing goals, tracking spending, reviewing it, developing a spending plan | - Pre-test (at the first class) and Post-test (at the last class) | - participants moved from the preparation stage to the action stage for setting financial goals, tracking spending and using a spending plan<br>- study provides evidence that low- wealth adults enrolled in IDA financial education classes were able to gain knowledge and skills to change their money management behavior in a positive way<br>- noticeable growth occurred for the six desired areas of setting and using a financial goal, using a spending plan, tracking spending, reducing debt, setting aside money for unplanned expenses, and saving money |
| 2 | (Lyons, Chang, and Scherpf 2006) | - two audiences:<br>(a) staff of social service organizations and government agencies that work with low-income audiences, who were trained to deliver the program to their clients<br>(b) low-income clientele who may have had limited financial literacy<br>- data collected in Illinois between 1998-2002 | - All My Money: financial education program developed by University of Illinois Extension<br>- focus on financial management and consumer skills<br>- curriculum: eight instructor-led lessons<br>- each lesson: hands-on activities and handouts, lesson plans and instruction guides, occupies 60 minutes<br>- educators trained staff in 16-20 hours<br>- staff teaches clientele<br>- number and types of lessons varied by instructor and location.<br>- program: from a few days to a few weeks depending on how many lessons | - retrospective pretest (RPT), controlling for prior financial behaviors and investigating impact of the program on participants and staff; participants retrospectively reported their financial behaviors prior to the program and how they would change as a result of the program<br>- 4 years of repeated cross-sectional evaluation data from a nationally recognized financial education program<br>- no control group: number of lessons completed is used as treatment effect<br>- n = 589: 428 agency personnel (72.7%) and 161 clientele (27.3%) | - amount of financial education may result in overall improvement in financial behavior<br>- prior level of financial experience may matter more<br>- greater impacts on behavior observed for participants with lower levels of financial behaviors prior to the program<br>- neither number of lessons nor the level of pre-program behavior had a significant impact paying bills on time |
| 3 | (FDIC 2007) | Exact description of population is not available, but "most survey sites described participants from their sites as a diverse group of low- to moderate income community residents" | - Money Smart: educational program to help adults outside the financial mainstream enhance their money management skills, understand basic financial services offered by the financial mainstream, and build financial confidence to use banking | - paper survey: first and last day of training<br>- telephone survey: between six months and one year after completion<br>- final sample included 631 respondents | - after the training, respondents reported positive changes in their level of savings, amount of debt, and likelihood to comparison shop after the training<br>- more than one-fifth of respondents said they had already reduced the number of credit cards in their name at the end of the training (84 percent indicated they would reduce the number) |

| | | | | | |
|---|---|---|---|---|---|
| | | | services<br>- consists of ten modules, each module takes approximately 60-120 minutes to teach<br>-may be offered in either a classroom, a small group setting or a personalized setting | | - by the time of the follow-up survey: 43 percent opened a checking account, 37 percent opened a savings account, 95 percent still used a spending plan or budget, 61 percent of those who did not use a spending plan by the end of the course began to do so,<br>- consumer confidence in financial matters increased , and sustained until the follow-up survey<br>- participants who completed a Money Smart course improved their behaviors and confidence immediately after the course, and these changes persisted when measured again six to twelve months later |
| 4 | (Haynes-Bordas, Kiss, and Yilmazer 2008) | Indiana participants of the Get CheckingTM program in 2003, 2004, 2005: a ‘‘second chance’’ program aims to provide financial education to consumers who were reported for account abuse or mismanagement | - six-hour program emphasizes financial education, restitution if money is owed to a previous financial institution, and the opportunity to open a checking or savings account upon completion of the program<br>- introduction to Get Checking ProgramTM; discussion of importance of choosing account<br>- teaching participants how to manage a checking account.<br>- basics of financial planning, account ownership and credit rating<br>- consumers register and pay<br>- a certificate after passing test<br>- after repaying financial institutions they owe money to, they are able to open an account | - 1483 participants filled in a survey after their last session, from 2003-2005<br>- in 2006: follow-up survey<br>- n = 160 | - program is effective in improving financial management actions of participants, especially behaviors that led to previous problems<br>- high percentage indicates to record transactions and communicate with financial institutions since the program<br>- positive effect on building assets and obtaining loan<br>- more than 90% opened checking account, and kept it open<br>- almost 55% opened a savings account, and kept it open |
| 5 | (Klontz et al. 2008) | - all participants attending five consecutive 6-day treatment programs at the treatment facility within a 12-month period were invited to participate in the study<br>- each participant attended only one 6-day program.<br>- 36 people agreed to take part in the study and provided pretreatment | - treatment approach integrated psychological and financial concepts into a 6-day program utilizing education regarding financial planning and experiential therapy<br>- emphasis on shame reduction<br>- primary treatment component involved | - goal was to examine the effectiveness of a therapeutic approach that integrated experiential therapy and financial planning for the purpose of altering problematic money beliefs and behaviors<br>- all participants were offered a $20.00 stipend upon completion of | - significant reductions in psychological distress from pretreatment to posttreatment, reporting fewer psychological symptoms and reductions in the intensity of their distress<br>- significant improvements in the area of money attitudes from posttreatment to 3-month follow-up<br>- significant improvement in financial health from pretreatment to posttreatment, and |

| | | | | | |
|---|---|---|---|---|---|
| | | and posttreatment data. Only 33 participants provided follow-up data, on average, 3 months following treatment | 17.5 hr of intensive group experiential therapy, utilizing psychodrama<br>- 7 hr and 40 min of psychoeducation, which included 3.5 hr of specific financial planning information (basic information on cash flow management, risk management, investment knowledge, estate planning, retirement planning, and tax strategies)<br>- mindfulness meditation approximately 45 min per day | the 3-month follow-up test battery.<br>- participants completed a battery of questionnaires, including the BSI, MAS, and FHS the day before treatment and on the last day of treatment.<br>- three months following treatment, participants were mailed a follow-up test battery of the same measures | significant improvements from posttreatment to 3-month follow-up; this suggests that participants experienced both immediate positive changes in financial health, as well as a possible delayed treatment effect as they were given time to institute positive behavior changes posttreatment |
| 6 | (Mills et al. 2008) | - new participants of an IDA program in Tulsa, Oklahoma between 1998 and 2003 as part of the American Dream Demonstration<br>- participants had to be employed and have prior-year family adjusted gross income below 150% of the federal poverty guideline | - treatment group members: 4 hours of general financial education before opening an account<br>- prior to a matched withdrawal: 12 hours of general financial education + additional training specific to the type of intended asset purchase<br>- staff provided regular reminders and encouragement to save | - controlled field experiment of the effects of IDAs on household behavior<br>- interested individuals submitted an application and were interviewed<br>- treatment group: entered an IDA-program<br>- control group: was not allowed to enter an IDA-program during the four-year study period<br>- baseline survey, followed by assignment to groups<br>- telephone interview (or in-person) followed on month 18 and month 48 | - weak sample-wide effects of the Tulsa IDA program on household behavior<br>- no sample-wide impacts on holdings of subsidized assets<br>- treatment group members experienced improvement in financial and housing situation, but these improvements were not significantly different from the control group |
| 7 | (Collins 2010) | - All housing voucher clients in federal Family Self-Sufficiency program are required to complete a financial education course, although clients have up to five years to complete the course | - Financial Fitness is delivered over five class sessions and covers a range of topics including credit, savings, and budgeting<br>- program was designed to help clients access basic banking services, learn budgeting skills, boost savings, and repair credit problems | - 144 very low-income housing voucher clients were randomly assigned to either a treatment group (which was required to take the course within one year of randomization) or a control group (which was prohibited from taking the course for one year)<br>- the majority of clients in the treatment group completed the five class sessions in one month or less.<br>- n: 60 clients in treatment group and 67 clients in control group<br>- 1 year follow-up | - 27 % increase in knowledge index at follow-up estimated using difference-in-differences estimation<br>- increases in clients' knowledge of money management, what is on their credit reports, and current interest rates<br>- 38 % increase at follow-up on the self-reported behavior index<br>- clients' self-reported ability to control their spending, pay their bills on time, and budget were also significantly higher at follow-up<br>- clients increased their savings with $362<br>- financial literacy education is related to improved financial behavior among very low- |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | income clients |
| 8 | (Loibl et al. 2010) | - a large IDA network agency in the U.S. Midwest<br>- three groups of low-income individuals: graduates of IDA, dropouts of IDA, comparison group | - IDA programs include financial education, case management, and saving incentives for low-income families<br>- in IDA program, participants are required to save regularly during a period of one to two years | - mail survey<br>- group 1: individuals who completed an IDA program, n = 113<br>- group 2: individuals who did not completed, n = 37<br>- group 3: comparison group of individuals in the same locale who are not IDA participants but with incomes similar to those in 1 and 2, n = 150 | - IDA program participants who successfully complete the program report higher levels of savings as compared to participants who drop out of the program and the general low-income population sample<br>- support for the view that IDA programs may affect the financial dispositions and behaviors necessary to reach long-term savings goals<br>- supportive program structure and intensive financial training over several years are key factors |
| 9 | (Lyons, Howard, and Scherpf 2010)[a] | - debtors who completed MMI's online bankruptcy counseling course<br>- data were collected between February and August 2009<br>- final sample consisted of 32,554 debtors | - online course from Money Management International, Inc.<br>- 10 modules covering a wide range of basic personal finance concepts<br>- interactive components<br>- Web site for the course is available 24/7, and clients can log in and complete the course in one or several sessions<br>- course takes about 60 to 90 minutes<br>- clients are required to speak with a certified counselor.<br>- clients are issued a certificate of course completion. | - quantitative and qualitative data were collected using pre-and post-tests<br>- responses were entered by the client | - debtors' financial knowledge, attitudes, and behavioral intentions improved<br>- post-counseling debtors appeared to be at a "teachable moment": they were more aware of their current financial practices and were motivated to take action and improve their financial situation<br>- clients who started off with higher knowledge were able to increase their knowledge level by more than those who started with lower knowledge<br>- those with higher incomes and education were more likely to experience improvements in knowledge and behavioral intentions<br>- debtors whose financial situation was not due to financial mismanagement, were more likely to become financially knowledgeable |
| 10 | (Calderone et al. 2013) | - cooperation with FINO Paytech Foundation, a financial services company, based in India, that helps introduce the bank to the poor, who usually are not familiar with traditional banking institutions<br>- program was implemented between May and August 2011 across two adjacent districts of the state of Uttar Pradesh (India) | - two-day financial education training program, delivered through a video (2-3 hours per day) in a classroom setting, followed by interactive discussions on the presentation<br>- three topics: the role of formal banking in people's lives; responsible borrowing, spending, and saving; and cash management | - random sample of individuals in villages where FINO operates.<br>- in total, 3,000 households were selected for the baseline survey (April 2011)<br>- endline was collected in April 2012<br>- in November 2011, the sample was further divided to receive the post-harvest intervention (house visit and reminder phone calls)<br>- as a result, four groups were formed: pure control, pure treatment, only post-harvest intervention, and treatment plus post-harvest | - positive and substantial treatment effect both in the intention to treat (ITT) specifications and in the treatment effect on the treated (ToT) specifications<br>- for participants in ITT: financial education program increased total savings on average by 29% (as compared to the endline savings of the control group)<br>- for participants in ToT: program increased savings by 35% (as compared to the control group)<br>- post-harvest intervention did not have a significant impact on savings, only in increasing FINO savings |

| | | |
|---|---|---|
| | intervention<br>- 20% of clients in treatment group did not attend the financial literacy training | - indicators of financial attitudes increased by 3% for those in the treatment group, compared to the endline mean in the control group<br>- individuals who attented the program increased their average score for financial attitudes by 5%<br>- more educated people seem to have changed their attitudes less than other clients in the treatment group<br>- those with better baseline financial literacy: (1) positively and significantly improved their interest in financial matters by 0.2 standard deviations, (2) increased their basic understanding of basic economic concepts by 0.11 standard deviations, and (3) significantly decreased their informal savings by Rs. 80<br>- more impatient individuals (those with higher discount rates) improved their financial attitudes significantly less compared to an average client in the treatment group and even scored worse in budgeting skills<br>- possible indication that the intervention was more effective in influencing the behavior of the clients who already had a savings bank accounts, rather than those who were linked with the banking system for the first time |

[a] Although strictly speaking this study does not include a face-to-face component, we felt that the required session with the certified counselor is very similar to a face-to-face approach. Therefore, we decided to include this study.

Financial education programs tend to have positive impacts on knowledge, confidence and/or (intended) behavior (Lyons, Chang, and Scherpf 2006; Lyons, White, and Howard 2008; Lyons, Howard, and Scherpf 2010; Collins 2010; FDIC 2007; Shockey and Seiling 2004).

Prior knowledge seems to play an important role: it even matters more than the number of lessons completed by the participant (Lyons, Chang, and Scherpf 2006). The findings, however, are ambiguous. Lyons, Chang, and Scherpf (2006) suggest that the program 'All My Money' was "*effective in reaching participants who were most in need of financial education*", because participants with lower levels of financial behaviors prior to the program experienced greater behavioral impacts. In contrast, in a more recent study, Lyons, Howard, and Scherpf (2010) concluded that participants with higher knowledge before the course increased their knowledge level more than participants who had lower knowledge prior to the course. Knowledge, in turn, is influenced by the reason for financial problems: debtors whose financial situation could be attributed to events such as illness or unemployment, or was caused by other than poor financial management, were more likely to improve financial knowledge and behavioral intentions. Financial education can thus serve as a reinforcement or reminder for those who already have solid financial knowledge, and for others as a trigger to gain knowledge and make progress (Lyons, Howard, and Scherpf 2010).

However, some limitations deserve our attention. The first is a very important one, and concerns the motivation to participate in a financial education and counseling program. Individuals who chose to take part in such a program are more likely to be already motivated to learn and to change their financial behaviors (Haynes-Bordas, Kiss, and Yilmazer 2008). Therefore, the positive results of studies on effectiveness may be explained by the strong motivation of the participants. This may be particularly valid for the participants of the follow-up studies (Haynes-Bordas, Kiss, and Yilmazer 2008). These individuals may be more motivated than others, or demonstrate more satisfaction with the program than other participants who did not respond to the follow-up survey, and this might influence the results. In obligatory courses participants may be less motivated, although programs such as IDA also offer incentives, which may have a motivational effect.

Furthermore, measuring the effectiveness of educational programs itself is a difficult task (Xiao, Newman, Prochaska, Leon, and Bassett 2004; Hira 2009; Haynes-Bordas, Kiss, and Yilmazer 2008). An important limitation is the period that is taken into account. It is highly possible that the effect of an educational program will be different when measured directly after the last session, than when asked some time later (Haynes-Bordas, Kiss, and Yilmazer 2008). Only five of the studies discussed in Table 2 used a follow-up survey, ranging from a few months after the intervention to 48 months later (Collins 2010; Calderone et al. 2013; FDIC 2007; Mills et al. 2008; Haynes-Bordas, Kiss, and Yilmazer 2008). Although four of the follow-ups show positive outcomes, the aforementioned time frame is too limited to truly speak of long-term and substantial behavioral changes. This is confirmed by the fact that the study with the longest follow-up (Mills et al. 2008), founds very weak and limited effects. The positive outcomes found in the experimental group were also found in the control group.

This raises another concern we would like to address, the use of control groups. Some of the discussed studies formed in one way or another a control group (Collins 2010; Calderone et al. 2013; Mills et al. 2008; Sherraden et al. 2011). By doing this, the authors are more capable of attributing effects to the intervention. On the other hand, classifying possible participants to the treatment group or control group is an ethical discussion in this matter. For example, the study of Mills and colleagues (2008) made it impossible for participants in the control group to enroll in an IDA-program during the four-year study period. Given the vulnerable position in which many participants find themselves and the help they may miss out on because of the allocation to the control group, this study design should only be made after careful ethical considerations.

## DISCUSSION

The central aim of this literature review is to identify what is known about the content, form, and effectiveness of programs for combined financial education and counseling for at-risk populations. In general, we can conclude that evidence is available on the positive effects of several programs. However, very little is known about the mechanisms that are responsible for these positive effects. Future research needs to address this. Some general themes, however, are repeatedly found in the literature.

First of all, financial education aimed solely at increasing knowledge is insufficient to achieve behavior change. Practicing skills in real-life situations or in realistic simulations is required. In line with this, financial education should not be a stand-alone program. For a behavioral change to occur, a financial education program needs to be embedded in a long-term (counseling) process in which the participant is supported in setting and achieving goals, and in maintaining the new learned behaviors. It should therefore be provided in a setting that can respond to the needs of an at-risk population.

A second consideration concerns the match between participants and the goals of the programs. Given the vulnerability of the populations with financial difficulties, it is important to adjust financial education and counseling programs to the specific financial situation of the participants. Some goals remain unattainable as long as their financial situation does not improve. Two main goals of financial education and counseling programs can be deduced: raising awareness about their current financial behavior and improving knowledge and skills. Both goals should be included in any financial education and counseling program for at-risk populations. Raising awareness could motivate clients to change their behaviors, helping them to move through the stages of change of the transtheoretical model of change. Providing knowledge and skills helps them to achieve these changes.

Each program translates financial knowledge and skills into its own topics. Common themes include the following: budgeting and cash flow management, credit/debt management, savings and investment, goal setting, consumer rights, and household administration. These themes are also mentioned by clients as being important. Multiple teaching methods are available to approach these themes in program sessions. Often approaches are chosen in which the subject is first generally explained, followed by practical exercises. Repeated practicing of skills appears important for retention.

Working in groups is a useful setting for practical exercises, as it enables participants to learn from each other. Peer support and learning is one of the advantages of working in a group setting. Other advantages include experiencing that others have similar (financial) difficulties, which helps participants to strengthen their social network. When participants are able to help other participants through peer support, their self-efficacy and self-esteem increases. The group has the potential to strengthen the participants. However, when there is too much diversity, this effect may be lost because the program cannot be adapted to the needs of all participants. Therefore, group composition is an important point of attention. Confidentiality in the group is another concern. People should feel safe to discuss the sensitive subject of financial matters in the group.

The studies mentioned in table two, provide some insight into the effectiveness of financial education and counseling programs. In general, the effects appear positive although some limitations exist. The exact mechanisms that make the programs work remain unclear. Most programs consist of multiple modules, and they all include a combination of education and counseling. It is not yet known which of these elements are responsible for positive changes. Therefore, future research should focus on the link between specific elements of the program and their effectiveness. The theoretical insights could also be of help in understanding these mechanisms.

Another important limitation of the current studies of the effectiveness of financial education is a lack of long-term research. Financial behavior change requires time, and therefore effectiveness cannot be measured in terms of weeks or months. An ideal research design should include long-term evaluation of knowledge, skills, and financial behavior and situation.

This literature itself review has three important limitations. First of all, the multitude of terms used in this field (financial education, counseling, coaching, therapy), makes it difficult to ascertain that we found all available literature. These terms represent different viewpoints, which makes it challenging to deduce the common factors. Secondly, as mentioned before, there is a lack of empirical research on the effectiveness of specific elements of programs, which limits the conclusions that can be drawn on this subject. Although this literature review reveals some important elements in financial education and counseling programs, further research is required to truly clarify the role of these elements in financial behavioral change. Finally, although the theory of planned behavior and the self-determination theory are used to explain financial behavior, their role in empirical studies on interventions is limited. We recommend including more of the insights of these theories when designing and studying financial education and counseling programs. We hypothesize that the transtheoretical model of change may help to explain why financial education is more effective for some participants than others. Motivation seems to be an essential condition to benefit from financial education and to achieve financial behavioral change. In addition to this, we hypothesize that any financial education and counseling programs that wishes to achieve lasting financial behavioral change should incorporate principles from the self-determination theory and the theory of planned behavior. Developing autonomy, competence and self-efficacy requires knowledge, practice and experiencing successes. We expect that working in groups achieves relatedness and recognition which may boost the effectiveness of financial education and counseling programs. The design of these programs should incorporate all aforementioned concepts and research about the effectiveness should explicitly study these outcomes.

Based on this literature review, we believe it is useful to provide financial education and counseling programs for at-risk populations. They could be further improved by embedding them in long-term counseling, and using group processes to enhance their effectiveness. The effects of programs should be thoroughly evaluated in long-term empirical research to come to evidence-based programs combining financial education and counseling.

## REFERENCES


Adkins, Natalie Ross, and Julie L. Ozanne. 2005. Critical Consumer Education: Empowering the Low-literate Consumer. *Journal of Macromarketing* 25 (2):153-162.

Ajzen, Icek. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50 (2):179-211.

Anand, Paul, and Stephen Lea. 2011. The Psychology and Behavioural Economics of Poverty. *Journal of Economic Psychology* 32 (2):284-293.

Archuleta, Kristy L., and John E. Grable. 2011. The Future of Financial Planning and Counseling: An Introduction to Financial Therapy. In *Financial Planning and Counseling Scales*, edited by J. E. Grable, K. L. Archuleta and R. R. Nazarinia. New York: Springer.

Bailey, William C., Benoit Sorhaindo, and E. Thomas Garman. 2003. Educational Desires of Credit Counseling Clients. *Financial Counseling and Planning* 14 (1):51-56.

Baker, Christi, and Collin O'Rourke. 2013. Group Financial Coaching: Summary of Interview and Survey Findings. Center for Financial Security - University of Wisconsin Madison.

Beck, Ted, and Brent Neiser. 2009. Learning and Growing: Lessons Gearned in Financial Education. *Community Investments* (Sum):11-14.

Bell, Catherine, Daniel Gorin, and Jeanne M. Hogarth. 2010. What Makes a Good Money Manager Good? Insights from an Evaluation of a Financial Education Initiative. *Consumer Interests Annual* 56:61-71.

Burk, Diana. 2011. Evaluation of the USU Retirement and Savings Seminar, Family, Consumer, and Human Development, Utah State University, Logan, Utah.

Burlingame, Gary M., K. R. MacKenzie, and B. Strauss. 2004. Small Group Treatment: Evidence for Effectiveness and Mechanisms ofChange. *Bergin & Garfield's Handbook of psychotherapy and behavior change* 5:647-696.

Burroughs, James E., Lan Nguyen Chaplin, Mario Pandelaere, Michael I. Norton, Nailya Ordabayeva, Alex Gunz, and Leslie Dinauer. 2013. Using Motivation Theory to Develop a Transformative Consumer Research Agenda for Reducing Materialism in Society. *Journal of Public Policy & Marketing* 32 (1):18-31.

Calderone, Margherita, Florentina Mulaj, Santadarshan Sadhu, and Leopold Sarr. 2013. Does Financial Education Affect Savings Behavior? Evidence From a Randomized Experiment Among Low-income Clients of Branchless Banking in India. The Russia Financial Literacy and Education Trust Fund.

Carswell, Andrew. 2009. Does Housing Counseling Change Consumer Financial Behaviors? Evidence from Philadelphia. *J Fam Econ Iss* 30 (4):339-356.

Chudry, Farooq, Gordon Foxall, and John Pallister. 2011. Exploring Attitudes and Predicting Intentions: Profiling Student Debtors Using an Extended Theory of Planned Behavior. *Journal of Applied Social Psychology* 41 (1):119-149.

Collins, J. Michael, Christi Baker, and Rochelle Gorey. 2007. Financial Coaching: A New Approach for Asset Building? : Policy Lab.

Collins, J. Michael, Ryan Eisner, and Collin O'Rourke. 2013. Bringing Financial Coaching to Scale- The Potential of Group Coaching Models.

Collins, J. Michael, and Collin M. O'Rourke. 2012. The Application of Coaching Techniques to Financial Issues *Journal of Financial Therapy* 3 (2):39-56.

Collins, Michael J. 2010. Effects of Mandatory Financial Education on Low- income Clients. *FOCUS, Newsletter by the Institute for Research on Poverty*, 13-18.

Collins, Michael J., and Collin O'Rourke. 2011. Homeownership Education and Counseling: Do We Know What Works? : Research Institute for Housing America.

Cornelis, Ilse, and Bérénice Storms. 2013. Jong Zijn Kost Geld: een Literatuurstudie naar Financieel Risicogedrag bij Jongeren Geel: Cebud/Thomas More.

Croy, Gerry, Paul Gerrans, and Craig Speelman. 2010. The Role and Relevance of Domain Knowledge, Perceptions of Planning Importance, and Risk Tolerance in Predicting Savings Intentions. *Journal of Economic Psychology* 31:860–871.

Danes, Sharon M., and Kathryn D. Rettig. 1993. The Role of Perception in the Intention to Change the Family Financial Situation. *Journal of Family and Economic Issues* 14 (4):365-389.

Davis, Abigail, Donald Hirsch, Noel Smith, Jacqueline Beckhelling, and Matt Padley. 2012. A Minimum Income Standard for the UK. Keeping up in Hard Times. York: Joseph Rowntree Foundation.
de Greef, Maurice, Mien Segers, and Dominique Verté. 2010. Development of the SIT, an Instrument to Evaluate the Transfer Effects of Adult Education Programs for Social Inclusion. *Studies in Educational Evaluation* 36 (1–2):42-61.
Deci, Edward L., and Richard M. Ryan. 1985. Intrinsic Motivation and Self-Determination in Human Behavior. Plenum, New York.
Despard, Mathieu, R., and Gina Chowa, A. N. 2010. Social Workers' Interest in Building Individuals' Financial Capabilities. *Journal of Financial Therapy* 1 (1).
Dixon, Mike. 2006. Rethinking Financial Capability. Lessons From Economic Psychology and Behavioural Finance.
Dolan, Paul, Antony Elliott, Robert Metcalfe, and Ivo Vlaev. 2012. Influencing Financial Behavior: From Changing Minds to Changing Contexts. *Journal of Behavioral Finance* 13 (2):126-142.
Edouard, Emendya. 2011. Bridge to Opportunity.
Elliehausen, Gregory, Christopher E. Lundquist, and Michael E. Staten. 2007. The Impact of Credit Counseling on Subsequent Borrower Behavior. *Journal of Consumer Affairs* 41 (1):1-28.
Elliott, William, and Johnny S. Kim. 2013. The Role of Identity-based Motivation and Solution-Focus Brief Therapy in Unifying Accounts and Financial Education in School-related CDA Programs. *Children and Youth Services Review* 35 (3):402-410.
FDIC. 2007. A Longitudinal Evaluation of the Intermediate-term Impact of the *Money Smart* Financial Education Curriculum upon Consumers' Behavior and Confidence
Fernandes, Daniel, John G. Lynch Jr., and Richard G. Netemeyer. 2014. Financial Literacy, Financial Education, and Downstream Financial Behaviors. *Management Science*.
Fox, Jonathan J., Suzanne Bartholomae, and Kate S. Trombitas. 2012. Evaluating Financial Education Programs. In *Student Financial Literacy. Campus-Based Program Development*, edited by D. B. Durband and S. L. Britt. New York: Springer.
Frentzel, Elizabeth, Deepa Ganachari, Megan Bookhout, Marilyn Moon, Julia Galdo, and Sandra Robinson. 2010. Consumer Education Initiatives in Financial and Health Literacy.
Gale, Jerry, Joseph Goetz, and S. Britt. 2012. Ten Considerations for the Development of the Financial Therapy Profession. *Journal of Financial Therapy* 3 (2):1-18.
Garcia, M.J.R. 2011. Financial Education and Behavioral Finance: New Insights Into the Role of Information in Financial Decisions. *Journal of Economic Surveys* 27:297-315.
Garðarsdóttir, Ragna B., and Helga Dittmar. 2012. The Relationship of Materialism to Debt and Financial Well-being: The Case of Iceland's Perceived Prosperity. *Journal of Economic Psychology* 33 (3):471-481.
Grable, John E., Ryan Law, and Jodi Kaus. 2012. An Overview of University Financial Education Programs. In *Student Financial Literacy*: Springer.
Grubman, James, Kathleen Bollerud, and Cheryl R. Holland. 2011. Motivating and Helping the Overspending Client: A Stages-of-Change Model. *Journal of Financial Planning*:60-67.
Guada, Joseph M., Tim L. Conrad, and Alvin S. Mares. 2012. The Aftercare Support Program: An Emerging Group Intervention for Transition-Aged Youth. *Social Work With Groups* 35 (2):164-178.
Guo, Lan, Dan Stone, Stephanie Bryant, Benson Wier, Alex Nikitkov, Chunyan Ren, Edson Luiz Riccio, Milton Shen, Samir Trabelsi, and LiFang Zhang. 2013. Are Consumers' Financial Needs and Values Common Across Cultures? Evidence From six Countries. *International Journal of Consumer Studies* 37 (6):675-688.
Gutter, Michael, Celia Ray Hayhoe, and Lingling Wang. 2007. Examining Participation Behavior in Defined Contribution Plans Using the Transtheoretical Model of Behavior Change *Financial Counseling and Planning* 18 (1):46-60.
Gutter, Michael S., and Christine Renner. 2007. Measuring the Impact of a Financial Education Curriculum on Student Attitudes and Behavior. Final Evaluation Report. The University of Wisconsin.

Hartarska, Valentina, and Claudio Gonzalez-Vega. 2005. Credit Counseling and Mortgage Termination by Low-income Households. *The Journal of Real Estate Finance and Economics* 30 (3):227-243.
Hastings, Justine S., Brigitte C. Madrian, and William L. Skimmyhorn. 2012. Financial literacy, financial education and economic outcomes. *No w18412. National Bureau of Economic Research*
Hawkins, Robert L., and Eri J. Kim. 2012. The Socio-Economic Empowerment Assessment: Addressing Poverty and Economic Distress in Clients. *Clinical Social Work Journal* 40:194–202.
Haynes-Bordas, Rebecca, D. Kiss, and Tansel Yilmazer. 2008. Effectiveness of Financial Education on Financial Management Behavior and Account Usage: Evidence from a ' Second Chance' Program. *J Fam Econ Iss* 29 (3):362-390.
Hermans, Koen. 2014. Methodiekontwikkeling, Evaluatieonderzoek en de Body of Knowledge van het Sociaal Werk. *Journal of Social Intervention: Theory and Practice* 23 (1):33-52.
Hira, Tahira K. 2009. Personal Finance: Past, Present and Future.
Hogarth, Jeanne M. 2007. The Federal Reserve System's Role in Economic and Financial Literacy – Rationale, Activities, and Impact. Paper read at 35th Economics Conference 2007 Human Capital and Economic Growth.
Irving, Kym. 2012. The Financial Life Well-Lived: Psychological Benefits of Financial Planning. *Australasian Accounting Business and Finance Journal* 6 (4):47-59.
Kasser, Tim, Katherine L. Rosenblum, Arnold J. Sameroff, Edward L. Deci, Christopher P. Niemiec, Richard M. Ryan, Osp Árnadóttir, Rod Bond, Helga Dittmar, and Nathan Dungan. 2013. Changes in Materialism, Changes in Psychological Well-being: Evidence from Three Longitudinal Studies and an Intervention Experiment. *Motivation and Emotion*:1-22.
Kennedy, Brian P. 2013. The Theory of Planned Behavior and Financial Literacy: A Predictive Model for Credit Card Debt?, Psychology, Marshall  University.
Klontz, Bradley T., Alex Bivens, Paul T. Klontz, Joni Wada, and Richard Kahler. 2008. The Treatment of Disordered Money Behaviors: Results of an Open Clinical Trial. *Psychological Services* 5 (3):295.
Loibl, C., M. Grinstein-Weiss, M. Zhan, and B. R. Bird. 2010. More Than a Penny Saved: Long- Term Changes in Behavior Among Savings Program Participants. *Journal of Consumer Affairs* 44 (1):98-126.
Lown, Jean M. 2011. 2011 Outstanding AFCPE® Conference Paper: Development and Validation of a Financial Self-Efficacy Scale. *Journal of Financial Counseling and Planning* 22 (2):54-63.
Lyons, Angela C. 2004. A Profile of Financially At-Risk College Students. *The Journal of Consumer Affairs,* 38 (1):56-80.
Lyons, Angela C. 2005. Financial Education and Program Evaluation: Challenges and Potentials for Financial Professionals. *Journal of Personal Finance* 4 (4):56-68.
Lyons, Angela C., Yunhee Chang, and Erik Scherpf. 2006. Translating Financial Education into Behavior Change for Low-Income Populations. *Journal of Financial Counseling and Planning* 17 (2):27-45.
Lyons, Angela C., Shawn Howard, and Erik Scherpf. 2010. In Search of a Fresh Start: Can Credit Counseling Help Debtors Recover from Bankruptcy? : Money Management International, Inc.
Lyons, Angela C., and Urvi Neelakantan. 2008. Potential and Pitfalls of Applying Theory to the Practice of Financial Education. *The Journal of Consumers Affairs* 42 (1):106-112.
Lyons, Angela C., Lance Palmer, Koralalage S.U. Jayaratne, and Erik Scherpf. 2006a. Are We Making the Grade? A National Overview of Financial Education and Program Evaluation. *The Journal of Consumer Affairs* 40 (2):208-235.
Lyons, Angela C., Mitchell Rachlis, Michael Staten, and Jing Jian Xiao. 2006b. Translating Financial Education into Knowledge and Behavior Change. *Consumer Interests Annual* 52:397-403.
Lyons, Angela C., Tommye White, and Shawn Howard. 2008. The Effect of Bankruptcy Counseling and Education on Debtors' Financial Well-Being: Evidence from the Front Lines. Money Management International, Inc.
Mangan, Ben. 2010. Advancing Financial Coaching for Low-Income Populations: Midstream Lessons from EARN In *EARN White Paper*.

Maynard, Nicholas W., Preeti Mehta, Jonas Parker, and Jeffrey Steinberg. 2012. Can Games Build Financial Capability? Financial Entertainment: A Research Overview. In *Working Paper: WR-963-SA*: Financial Literacy Center.

Mills, Gregory, William G. Gale, Rhiannon Patterson, Gary V. Engelhardt, Michael D. Eriksen, and Emil Apostolov. 2008. Effects of Individual Development Accounts on Asset Purchases and Saving Behavior: Evidence From a Controlled Experiment. *Journal of Public Economics* 92:1509–1530.

Morrison, Norma. 2001. Group Cognitive Therapy: Treatment of Choice or Sub-optimal Option? *Behavioural and Cognitive Psychotherapy* 29 (03):311-332.

Newton, Rosemarie Fallon. 2009. *The Financial Self: An Exploration of Economic Distress Through the Lens of Self-determination Theory*: ProQuest.

OECD. 2014. PISA 2012 Results: Students and Money. Financial Literacy Skills for the 21st Century (Volume VI). In *PISA*.

Ozmete, Emine, and Tahira Hira. 2011. Conceptual Analysis of Behavioral Theories/Models: Application to Financial Behavior. *European Journal of Social Sciences* 18 (3):386-404.

Palmer, Lance, Donna L. Bliss, Joseph W. Goetz, and Diann Moorman. 2010. Improving Financial Awareness Among College Students: Assessment of a Financial Management Project. *Colle Student Journal* 44 (3):659-676.

Palmer, Lance, Joseph Goetz, and Diann C. Moorman. 2008. Development of a Multi-Item Spending Behavior Assessment: An Application of the Transtheoretical Model of Change. *The Journal of Consumer Education* 25:17-31.

Parker, Jonas. 2010. Financial Literacy and Education as an Asset Development Strategy: The Potential of IDA Saving Clubs at Community Action Agencies Faculty of the Heller School for Social Policy and Management, Brandeis University, Waltham, Massachusetts.

Prochaska, James O., Carlo C. DiClemente, and John C. Norcross. 1992. In Search of How People Change. Applications to Addictive Behaviors. *American Psychologist* 47 (9):1102-1114.

Prochaska, James O., and Wayne F. Velicer. 1997. Behavior Change. The Transtheoretical Model of Health Behavior Change. *American Journal of Health Promotion* 12 (1):38-48.

Romero, Margarida, and Mireia Usart. 2013. Game—Based Learning. *New Pedagogical Approaches in Game Enhanced Learning: Curriculum Integration*:248.

Rowley, Megan E., Jean M. Lown, and Kathleen W. Piercy. 2012. Motivating Women to Adopt Positive Financial Behaviors. *Journal of Financial Counseling and Planning* 23 (1):47-62.

Rutherford, Leann G., and Sharon A. DeVaney. 2009. Utilizing the Theory of Planned Behavior to Understand Convenience Use of Credit Cards. *Journal of Financial Counseling and Planning* 20 (2):48-63.

Ryan, Richard M., and Edward L. Deci. 2000. Self-determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being. *American psychologist* 55 (1):68.

Ryan, Richard M., Heather Patrick, Edward L. Deci, and Geoffrey C. Williams. 2008. Facilitating Health Behaviour Change and its Maintenance: Interventions Based on Self-determination Theory. *The European Health Psychologist* 10 (1):2-5.

Sahni, Arti. 1994. Incorporating Perceptions of Financial Control in Purchase Prediction: An Empirical Examination of the Theory of Planned Behavior. *Advances in Consumer Research* 21:442-448.

Sari, Maya, and Rofi Rofaida. 2011. Factors Affecting the Behavior of University Community to Use Credit Card. *International Research Journal of Business Studies* 4 (3):217-228.

Schuchardt, Jane, Dorothy C. Bagwell, William C. Bailey, Sharon A. DeVaney, John E. Grable, Irene E. Leech, Jean M. Lown, Deanna L. Sharpe, and Jing J. Xiao. 2007. Personal Finance: An Interdisciplinary Profession. *Financial Counseling and Planning* 18 (1):61-69.

Schuchardt, Jane, Sherman D. Hanna, Tahira K. Hira, Angela C. Lyons, Lance Palmer, and Jing Jian Xiao. 2009. Financial Literacy and Education Research Priorities. *Journal of Financial Counseling and Planning* 20 (1):84-95.

Sherraden, Margaret Sherrard, Lissa Johnson, Baorong Guo, and William III Elliott. 2011. Financial Capability in Children: Effects of Participation in a School-Based Financial Education and Savings Program. *Journal of Family and Economic Issues* 32:385–399.

Shim, Soyeon, Bonnie L. Barber, Noel A. Card, Jing Jian Xiao, and Joyce Serido. 2010. Financial Socialization of First-year College Students: The Roles of Parents, Work, and Education. *Journal of Youth Adolescence* 39:1457–1470.

Shim, Soyeon, Joyce Serido, and Chuanyi Tang. 2012. The Ant and the Grasshopper Revisited: The Present Psychological Benefits of Saving and Future Oriented Financial Behaviors. *Journal of Economic Psychology* 32:155–165.

Shim, Soyeon, Jing J. Xiao, Bonnie L. Barber, and Angela C. Lyons. 2009. Pathways to Life Success: A Conceptual Model of Financial Well-being for Young Adults. *Journal of Applied Developmental Psychology* 30:708–723.

Shockey, Susan S., and Sharon B. Seiling. 2004. Moving Into Action: Application Of The Transtheoretical Model Of Behavior Change To Financial Education. *Financial Planning and Counseling* 15 (1):1-12.

Sotiropoulos, Veneta, and Alain d'Astous. 2013. Attitudinal, Self-Efficacy, and Social Norms Determinants of Young Consumers' Propensity to Overspend on Credit Cards. *Journal of Consumer Policy* 36:179–196.

Spader, Jonathan, Janneke Ratcliffe, Jorge Montoya, and Peter Skillern. 2009. The Bold and the Bankable: How the Nuestro Barrio Telenovela Reaches Latino Immigrants With Financial Education. *Journal of Consumer Affairs* 43 (1):56.

Sprow, Karen Millard. 2010. Adult Financial Literacy Education and Latina Learners: A Qualitative Case Study, The Department of Behavioral Sciences and Education.

Stone, Dan. 2012. Cultivating Financial Mindfulness: A Dual-Process Theory. In *Consumer Knowledge and Financial Decisions*: Springer.

Stone, Dan N., Stephanie M. Bryant, and Benson Wier. 2010. Why Are Financial Incentive Effects Unreliable? An Extension of Self-determination Theory. *Behavioral Research in Accounting* 22 (2):105-132.

Subactagin-Matto, Annie, and Maria Goncalves-Rorke. 2010. Improving the Fiscal Fitness of Young Adults: Translating Knowledge Into Action. *Journal of the Australia and New Zealand Student Services Association* 35:45-54.

Tisdell, Elizabeth J., Edward W. Taylor, and Karin Sprow. 2011. Culturally Responsive Community Based Financial Literacy Education: Practical Implications from a Mixed Methods Study of Financial Educators. Paper read at Adult Education Research Conference (AERC) at Toronto, Canada.

Turnham, Jennifer. 2010. Attitudes to Savings and Financial Education Among Low-Income Populations: Findings from the Financial Literacy Focus Groups. In *Working Paper WP10-7*. University of Wisconsin-Madison: Center for Financial Security.

University of Wisconsin-Extension, Cooperative Extension. 2008. Program Evaluation Report: Youth Financial Education. Madison, WI: UW-Extension, Program Development and Evaluation.

Way, Wendy L., and Nancy Wong. 2010. Harnessing the Power of Technology to Enhance Financial Literacy Education and Personal Financial Well-Being: A Review of the Literature, Proposed Model, and Action Agenda. *Center for Financial Security WP* 10:6.

West, Mark. 2003. Dying to Get Out of Debt: Consumer Insolvency Law and Suicide in Japan.

Winter, Joachim, Melanie Lührmann, and Marta Serra Garcia. 2013. The Effects of Financial Literacy Training: Evidence From a Field Experiment in German High Schools. In *Jahrestagung des Vereins für Socialpolitik 2013: Wettbewerbspolitik und Regulierung in einer globalen Wirtschaftsordnung - Session: Household Behavior*.

Xiao, Jing Jian. 2008. Applying Behavior Theories to Financial Behavior. In *Handbook of Consumer Finance Research*, edited by J. J. Xiao. New York: Springer.

Xiao, Jing Jian, Cheng Chen, and Fuzhong Chen. 2013. Consumer Financial Capability and Financial Satisfaction. *Social Indicators Research*:1-18.

Xiao, Jing Jian, Barbara M. Newman, Janice M. Prochaska, Berta Leon, and Robert L. Bassett. 2004. Voices of Debt Troubled Consumers: A Theory-based Qualitative Inquiry. *Journal of Personal Finance* 3 (2):56-74.

Xiao, Jing Jian, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson. 2004. Applying the Transtheoretical Model of Change to Consumer Debt Behavior. *Financial Counseling and Planning* 15 (2):89-100.

Xiao, Jing Jian, Barbara O’Neill, Janice M. Prochaska, Claudia M. Kerbel, Patricia Brennan, and Barbara J. Bristow. 2004. A Consumer Education Programme Based on the Transtheoretical Model of Change. *International Journal of Consumer Studies* 28 (1):55-56.

Xiao, Jing Jian, Joyce Serido, and Soyeon Shim. 2012. Financial Education, Financial Knowledge, and Risky Credit Behavior of College Students. In *Consumer Knowledge and Financial Decisions. Lifespan Perspectives*, edited by D. J. Lamdin New York: Springer.

Xiao, Jing Jian, Chuanyi Tang, Joyce Serido, and Soyeon Shim. 2011. Antecedents and Consequences of Risky Credit Behavior Among College Students: Application and Extension of the Theory of Planned Behavior. *Journal of Public Policy & Marketing* 30 (2):239–245.

Xiao, Jing Jian, and Jiajun Wu. 2006b. Encouraging Behavior Change in Credit Counseling: An Application of the Transtheoretical Model of Change (TTM). In *TCAI Working Paper*: Take Charge America Institute for Consumer Financial Education and Research.

Xiao, Jing Jian, and Jiajun Wu. 2006c. Applying the Theory of Planned Behavior to Retain Credit Counseling Clients. In *TCAI Working Paper*: Take Charge America Institute for Consumer Financial Education and Research.

Xiao, Jing Jian, and Jiayun Wu. 2006a. Applying the Transtheoretical Model of Change to Credit Counseling: Addressing Practical Issues. *Consumer Interest Annual* 52:426-431.

Xiao, Jing Jian, and Jiayun Wu. 2008. Completing Debt Management Plans in Credit Counseling: An Application of the Theory of Planned Behavior. *Journal of Financial Counseling and Planning* 19 (2):29-45.

Zaleskiewicz, Tomasz, Agata Gasiorowska, and Pelin Kesebir. 2013. Saving Can Save from Death Anxiety: Mortality Salience and Financial Decision-Making. *PloS one* 8 (11):e79407.

Zimmerman, Kevin J., and Carl W. Roberts. 2012. The Influence of a Financial Management Course on Couples' Relationship Quality. *Journal of Financial Counseling & Planning* 23 (2).