A Systematic Literature Review to Identify Successful Elements for Financial Education and Counseling in Groups

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

The global economic crisis has led to an increase of individuals in problematic consumer debt situations. More and more people seek help in over- coming 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 (Kasser et al. 2014; West 2003; Zaleskiewicz, Gasiorowska, and Kesebir 2013). Finan- cial problems are not only stressful on an individual level, but are also a societal concern.

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 (Elliehausen, Lundquist, and Staten 2007; Fernandes, Lynch, and Netemeyer 2014; Hartarska and Gonzalez-Vega 2005; Schuchardt et al. 2009). On financial education pro- grams, a body of research does exist on the relationship between finan- cial education and the attitudes, and behaviors of consumers. knowledge, Although the results of these studies are mixed (Fox, Bartholomae, and Trombitas 2012; Garcia 2011; Gutter and Renner 2007; Parker 2010; Schuchardt et al. 2009; Winter, Lührmann, and Serra Garcia 2013), the general conclusion is that financial education results in more financial knowledge (Lyons and Neelakantan 2008), but appears to be insufficient for making the transfer from knowledge to behavior (Hawkins and Kim 2012; Kennedy 2013). Individuals need to be motivated to translate their knowledge into healthy financial behaviors (Burk 2011; Xiao, Cheng, and Chen 2014).

Because there is no evidence that financial education

leads to a long-term behavioral change, a combination of financial education and a form of psychological counseling is generally recommended (Anand and Lea 2011). 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 Approaches include financial behaviors. counselina, financial coaching, and financial therapy—all of which differ slightly in their meaning but encompass a form of intervention that combines the enhancement of financial skills through education with a form of psycho-logical support. Financial coaching 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). Financial counselina includes broad range of services for a individuals experiencing financial difficulties, tailored to their specific needs. It can be administered face-to-face, but credit counseling through telephone has also become a widespread practice (Elliehausen, Lundquist, and Staten 2007). Financial therapy is a form of help in which financial planning and fam-ily 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, Goetz, and Britt (2012), it embeds financial planning and counseling in a setting that pays attention to family dynamics and their role in the forming and continuation of financial difficulties.

To provide 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 e.g., Fernandes, Lynch, 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 about 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. The following research questions are explored:

- 1. What are the goals of financial education and counseling?
- 2. How can change in financial behavior be achieved with programs combining financial education and counseling?
- 3. What is known about the effectiveness of existing programs for combined financial education and counseling aimed at at-risk populations?

THEORETICAL BACKGROUND

Many practice-based initiatives exist to help at-risk populations cope with their financial difficulties. However, theoretical perspectives on behavioral change 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, three perspectives have applied and adapted the theory in order to specifically explain financial behavior (Ozmete and Hira 2011): the Transtheoretical Model (TTM) of Change (Prochaska, DiClemente, and Norcross 1992), the Theory of Planned Behavior (TPB; Ajzen 1991), and the Self-Determination Theory (SDT; Deci and Ryan 1985).

Transtheoretical Model of Change

The TTM of change stands out because of its numerous applications to financial behavior (Burk 2011; Grubman, Bollerud, and Holland 2011; Palmer, Goetz, and Moorman 2008; Schuchardt et al. 2007; Shockey and Seiling 2004; Spader et al. 2009; Sprow 2010; Xiao et al. 2004b,c; Xiao and Wu 2006b,c). Despard and Gina Chowa (2010) conclude that the TTM may act as a conceptual bridge between the worlds of clinical social work, psychotherapy, and personal finance. The TTM 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 e.g., Burk 2011; Gutter, Hayhoe, and Wang 2007; Lyons 2004; Lyons, Howard, and Scherpf 2010; Shockey and Seiling 2004; Xiao et al. 2004c).

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 6 months. People who are going to change their behavior in the next month are assigned to the preparation stage. The action stage is populated by those who made modifications behavior in the last 6 months. Maintenance is seen as the in which people who have already changed their behavior need to make sure they keep up the modifications and do not relapse. *Termination* was later added as a sixth stage (Burk 2011; Prochaska and Velicer 1997), and concerns individuals who do not experience temptation to fall back into their old behaviors. 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 TTM also explains *how* these changes happen by means of 10 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 et al. 2004c). Designing financial education interventions to meet the needs of the stages can help individuals to progress in the process of behavioral change (Collins, Baker, and Gorey 2007; Lyons, Howard, and Scherpf 2010; Shockey and Seiling 2004; Spader et al. 2009; Xiao et al. 2004c).

Theory of Planned Behavior

A second theoretical approach that explains how to achieve financial behavioral change is the TPB. This theory is designed to predict and explain human behavior in

specific contexts (Ajzen 1991) and is an exten- sion of the Theory of Reasoned Action (TRA, Chudry, Foxall, and Pallister 2011). Both TRA and TPB consider the intention to perform a certain behavior as a central factor in changing behavior: a stronger intention will more likely lead to behavioral changes. 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 TPB adds a third factor, perceived behavioral control (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).

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 behavior itself. Both versions of the TPB were confirmed by Sahni (1994), although study of spending habits and activities of students provided evidence for this direct link only in the case of an expensive purchase. Xiao and Wu (2008) and Shim, Serido, and Tang (2012) confirmed that perceived behavioral control influences both intention and behavior.

More recently, the TPB has been used in several studies to explain and predict financial behavior (Chudry, Foxall, and Pallister 2011; Collins, Baker, and Gorey 2007; Cornelis and Storms 2013; Croy, Gerrans, and Speelman 2010; Rutherford and DeVaney 2009; Sahni 1994; Sari and Rofaida 2011; Shim et al. 2009; Shim et al. 2010; Shim, Serido, and Tang 2012; Sotiropoulos and d'Astous 2013; Xiao 2008; Xiao et al. 2011; Xiao and Wu 2006a; Xiao and Wu 2008). Because Ajzen (1991) stated the TPB to be open for development, many authors added other variables: involve ment 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 behavior) (Shim, Serido, and Tang actual 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 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) found that social norms—and not attitude—have an impact on the propensity of young consumers to overspend on credit cards.

Other studies revealed the existence of other variables that exert an impact on financial behaviors; 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, Gerrans, and Speelman (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, Serido, and Tang (2012) advocate for the addition of a financial planning horizon factor to the saving and future-oriented financial TPB, because behaviors demand a distant horizon.

Self-Determination Theory

Another theory that has been applied to financial behavior is the 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 gen- eral psychological well-being: competence, autonomy, and relatedness (Ryan and Deci 2000). Concerning financial behavior, SDT has mainly been

applied to concepts such as materialism and conspicuous consump- tion (Kasser et al. 2014; Stone 2012; Stone, Bryant, and Wier 2010).

Burroughs et al. (2013) theorize 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. Hawkins and Kim (2012) argue 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 also 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.

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: trust and support. Trust refers to the belief that the people one is close to can be trusted to help when financial issues arise, while support

refers to the belief that financial resources can be used to support communities and studies demonstrate the validity of this model (Garð and Dittmar interpersonal relationships (Stone, Bryant, and Wier 2010, 110).

METHOD

In order to collect all available literature, a systematic search was conducted using Web of Science, Ebsco, Science Direct, Springer Link, Psychinfo, and Google Scholar. Relevant search terms were identified and applied. Based on examination of the literature found using the search terms, a selection of relevant sources was made. 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 theoretical perspectives that explain financial behavior change. No additional exclusion criteria were applied during the general search.

The literature search rendered 4,211 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 this study, we focus on interventions that combine financial education with counseling, are aimed at at-risk populations, and include a form of face-to-face contact. 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.

Table 1

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

Financial Financial					inancia inancia		Finan cial	Cre dit	Bud get	De bt	De bt	Financ ial
	Skil Cou			-			cy Beł Advice		Efficacy ching	Cour	selin	g
Transtheoretical Model of Change	22	105	28	73	94	4	106	56	3	4	0	12
Theory of Planned	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	2	0	4	6	0	0	2	0	0	0	1	0
Group Therapy	47	49	34	54	19	24	182	53	1	12	6	6
Group Counseling	24	48	15	97	9	2	151	79	i	19	0	2
Behavioral Change	12 1	299	119	341	230	23	241	107	8	17	1	21

WHAT ARE THE GOALS OF FINANCIAL EDUCATION AND COUNSELING?

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 managing finance, risk and rewards, understanding of the financial landscape, includina economic concepts and consumer rights responsibilities." Remund (2010) stresses the importance of a clear and universal concep tualization of what financial literacy entails. 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 Gina 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 knowledge be measured using tests, capability demands measurements that also test skills and the degree to which a person is successful in his personal financial management. Many studies demonstrate that financial literacy alone is not enough to achieve behavioral change (Chudry, Foxall, and Pallister 2011; Despard and Gina Chowa 2010; Edouard 2011; Elliott and Kim 2013; Kennedy 2013; Parker 2010; Way and Wong 2010; Xiao, Serido, and Shim 2012).

However, there seems to be no consensus in the literature on which personal finance principles are needed by every adult (Lyons, White, and Howard 2008; Sprow

2010). Cultural factors and differences in financial systems between countries make it difficult to reach consensus. Many programs have been developed, mainly in the United States, but the con-tent and the approach of these programs differ substantially (Carswell 2009; Collins and O'Rourke 2011). Lyons, Palmer, Jayaratne, and Scherpf (2006b) conducted a survey with financial education providers. Three topics were treated in almost all of the programs: budgeting and cash flow management (93.4%), credit/debt management (91.6%), and savings investment (88.6%). Other topics covered in financial education pro- grams 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, e.g., Calderone et al. 2013; FDIC 2007; Gutter and Renner 2007; Lyons, Chang, and Scherpf 2006a; Lyons, Howard, and Scherpf 2010; Lyons, White, and Howard 2008; Shockey and Seiling 2004).

Very little research is available on what people feel they need in order to manage their own budget (Schuchardt et al. 2009). One study made explicit inquiries about the topics and skills *clients* felt were important in financial education. Bailey, Sorhaindo, and Thomas Garman (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.

Studies often conclude that focusing on knowledge alone is not enough (Hawkins and Kim 2012; Shim et al. 2010; Shockey and Seiling 2004; Subactagin-Matto and Goncalves-Rorke 2010). 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, a course should encompass the following topics (Xiao et al. 2011; Xiao,

Cheng, and Chen 2014; Xiao, Serido, and Shim 2012): transfer of 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. 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.).

One final point is that 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. programs Therefore, need to distinguish behaviors that can be changed quickly and behaviors that require a more profound and structural change of a person's financial situation before they can be changed (Lyons 2005; Lyons, Chang, and Scherpf 2006a; Lyons and Neelakantan 2008). Financial standards and the financial situation of the to be considered when financial goals participants have are established (Danes and Rettig 1993). When applied to the effectiveness of financial education programs, Lyons, Chang, and Scherpf (2006a) 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.

HOW CAN WE ACHIEVE CHANGE IN FINANCIAL BEHAVIOR?

In looking at the question on how behavioral change can be achieved, there are several important themes worthy of consideration: program content and characteristics, motivating clients, group work, and use of modern media.

Program Content and Characteristics

As noted in the goals section, adapting a program to the needs of participants appears to be important. Therefore, the topics treated in financial coaching sessions will vary with the audience and can range from basic life skills as keeping track of income and spending to asset accumulation or avoiding foreclosure (Collins, Baker, and Gorey 2007). 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 to programs lasting several years.

Lyons, Palmer, Jayaratne, and Scherpf (2006b) found in a survey with financial education providers that 41.2% of them most often used work- shops or seminars as a teaching method, followed by 21.2% who used mainly multi-session courses and 20.0% who mostly utilize one-The on-one financial counseling. literature educational programs often combine that multiple teaching methods. Besides traditional approaches such as lectures, group discussions, and supporting materials as lesson plans, instructor's guides and train-thetrainer sessions, work- books, handouts, and overhead slides (FDIC 2007; Gutter and Renner 2007; Lyons, Chang, and Scherpf 2006a; Lyons, White, and Howard 2008), more active and modern approaches are used as well: activities, budaetina activities, calculators, checklists, assessment tools, storytelling, audio track, video, and comics (see Calderone et al. 2013; Lyons, Chang, and Scherpf 2006a; Lyons, Howard, and Scherpf 2010).

A noteworthy teaching method is the use of because it promotes problem solving by real-life with- out real-life simulating scenario consequences (Shockey and Seiling 2004; University of Wisconsin-Extension, Cooperative Extension 2008). Fox, Bartholomae, and Lee (2005) and Fox, Bartholomae, and Trombitas (2012) discovered that students had higher financial knowledge scores on topics in which they already had experience (such as car insurance). In research by Palmer et al. (2010), students had to track their expenses using an online tool. Stu-dents found keeping track helpful in changing their spending patterns and it helped them to be more aware of their spending habits. These findings are consistent with recommendations that not only knowledge should be taught in financial education programs, but that attention has to be given to practicing skills. Knowledge and skills seem to strengthen each other.

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, Eisner, and O'Rourke (2013), Collins and O'Rourke (2012), Collins, Baker, and Gorey (2007), and Loibl et al. (2010) stress the importance of 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 (Collins, Baker, and Gorey 2007; Loibl et al. 2010; Sherraden et al. 2011).

Motivating Clients

An essential part of behavioral change is motivation. It is important to stimulate clients to manage their budget in a conscious manner, and to ensure that participants continue in their efforts. How to best address 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 that they 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.

Rowley, Lown, and Piercy (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. Similarly, Lyons, Howard, and Scherpf (2010) found that debtors whose financial situation could be attributed to events such as illness or unemployment were more likely to improve financial knowledge and behavioral intentions than debtors whose situation was caused by poor financial management. These results are in line with the SDT, but also the TPB: 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 & Aizen in Danes and Rettig 1993). Dolan et al. (2012) arque that financial information and education can change behaviors by changing minds, but that this works best for those who are open to learning. 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 behavioral change need to focus on changing minds (as most interventions already do) and on changing contexts, focusing on different elements of MINDSPACE. example, 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 themselves (messenger effect).

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 about the actual behavior of the clients and on how this behavior will affect their future. This self-discovery has proven to be very effective in raising awareness (Larimer & Cronce in Palmer et al. 2010). A study by Hawkins and Kim (2012) discusses a narra- tive approach, where one retells one's 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 them- selves in the first stages of the TTM of change, it may be a technique to raise awareness.

Preventing dropout 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, Baker, and Gorey (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. However, providing external motivation through incentives may limit intrinsic motivation.

Group-Based Interventions

Group dynamic aspects such as peer support appear of added value in comparison to individual programs. 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 from a policy-based perspective by reducing costs and staff deployment.

Being surrounded by peers may also be an advantage 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; de Greef, Segers, and Verté 2010; Guada, Conrad, and Mares 2012). Research by Curley (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 (in Parker 2010) found in their interviews with participants of financial education that learning from peers in an informal environment is valued. 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 by drawing on learner experiences, group discussions, and educators sharing their own stories (Tisdell, Taylor, and Sprow 2011).

However, Burlingame, MacKenzie, and Strauss (2004) warn against oversimplifying the group versus individual

comparison. Both 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, MacKenzie, and Strauss (2004) describe the stages in this process as "forming, storming, norming, performing and adjourning." In the first session(s), the group is formed ("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 ("storming"). After this exploration, consensus on the group norms will be reached ("norming"), after which the core intervention process can take place ("performing"). When the intervention finished, the group process is terminated and members go their separate ways ("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 reached, 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 focus 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 diminished performance. A large body of literature exists regarding group leadership, an in-depth discussion of which is beyond the scope of this study; however, group leaders should have knowl- edge and experience on both the content of the group-based program and the principles of group dynamics and leadership, and should understand the specific living circumstances of the group (Shockey and Seiling 2004). Lyons, Chang, and Scherpf (2006a) recommend a train-the-trainer program to enhance the knowledge, skills, and self-confidence of the group leader. With regard to financial coaching, Collins, Eisner, and O'Rourke (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. This is consistent with interview findings of Sherraden et al. (2005), whose participants said they felt more at ease to ask questions and to open up about their own experiences once they noticed the (socioeconomic) similarities with their peers. This attitude enhanced the learning experience for all participants. The group members also valued the fact that they were themselves 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 made the members more committed to the group and the goals they set.

The disadvantages listed by Collins, Eisner, and O'Rourke (2013) appear to be mainly points of attention for group formation and management. Group size may have an effect on group dynamics, since large groups may make members less willing to share personal information. Collins, Eisner, and O'Rourke (2013) did not find an ideal group size in their literature review, but noticed that most groups were smaller than twelve members. 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.

On the other hand, Collins, Eisner, and O'Rourke (2013) suggest that transferring large amounts of information may best take place in individual sessions. Groups appear to be more suitable for experiential learning. Confidentiality is an important theme in general, as discussing personal financial matters may be a highly sensitive subject. Participants in a study by Turnham (2010, 80) 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."

Traditionally, financial education programs are delivered in person, but the literature search revealed examples of programs delivered online or by telephone. Online courses are gaining ground because they are expensive (Lyons et al. 2006c) and are 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 (Davis et al. 2012; Romero and Usart 2013; Way and Wong 2010) given their casual and low-key nature. For example the telenovela "Nuestro Barrio" (Spader et al. 2009) is successfully used to provide financial education to Latino immigrants who may not otherwise seek out information on this subject. 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 in financial education can be found in the literature (Maynard et al. 2012; Romero and Usart 2013; Way and Wong 2010). In these games, participants receive information and can practice their skills in financial management in a safe gaming environment, which also provides 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, which 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 complement more traditional forms of financial education and coaching, and allow trainers and possible peer group members to track progress and celebrate achievements.

WHAT IS KNOWN ABOUT THE EFFECTIVENESS OF EXISTING PROGRAMS?

Frentzel et al. (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 Behavioral change is most likelv occur when to 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).

Collins, Eisner, and O'Rourke (2013), Collins, Baker, and Gorey (2007), and Collins and O'Rourke (2010) 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 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).

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 choose 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 in 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 (Collins and O'Rourke 2010; Haynes-Bordas, Kiss, and Yilmazer 2008; Hira 2009; Huston 2010; Xiao et al. 2004a). 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 listed in Appendix S1 used a follow-up survey, ranging from a few months after the intervention to 48 months later (Calderone et al. 2013; Collins 2010; FDIC 2007; Haynes-Bordas, Kiss, and Yilmazer 2008; Mills et al. 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) found very weak and limited effects. Moreover, the positive outcomes found in the experimental group were also found in the control group.

This raises another concern: the use of control groups. Some of the discussed studies used a control group (Calderone et al. 2013; Collins 2010; Mills et al. 2008; Sherraden et al. 2011), enabling them to more likely attribute effects found 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 et al. (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. 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 TTM of change. Providing knowledge and skills helps them to achieve these changes.

The literature emphasizes that it is important to adjust financial education and counseling programs to the specific financial situation of the participants. Furthermore, one has to be ready to participate in a financial education course. This readiness is referred to as the "teachable moment" (Beck and Neiser 2009; Lyons, Howard, and Scherpf 2010; Lyons, White, and Howard 2008) or "just-intime education" (Carswell 2009; Fernandes, Lynch, and Netemeyer 2014). As Hastings, Madrian, and Skimmyhorn (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 (Beck and Neiser 2009; Carswell 2009; Fernandes, Lynch, and Netemeyer 2014). Moreover, 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.

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. It also appears that the use of modern media fits well within programs that use multiple intervention strategies simultaneously.

Existing studies provide some insight into the

effectiveness of financial education and counseling programs. However, 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. Future research should focus on the link between specific elements of programs and their effectiveness.

The theoretical models of behavior change could also be applied more directly to help in understanding these mechanisms. Although the TPB and the SDT 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 counseling and programs. hypothesize that the TTM 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 program that wishes to achieve lasting financial behavioral change should incorporate principles from the SDT and the TPB. Developing autonomy, competence, and self-efficacy requires knowledge, practice, and experiencing successes.

REFERENCES

- 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*. Madison: Center for Financial Security University of Wisconsin Madison.
- Beck, Ted and Brent Neiser. 2009. Learning and Growing: Lessons Gearned in Financial Education.
 - Community Investments 21 (2): 11–14.
- Burk, Diana. 2011. Evaluation of the USU Retirement and Savings Seminar, Family, Consumer, and Human Development. Logan: Utah State University.
- Burlingame, Gary M., K.R. MacKenzie, and B. Strauss. 2004. Small Group Treatment: Evidence for Effectiveness and Mechanisms of Change. *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*. Working Paper, German Institute for Economic Research, Berlin and World Bank, Washington, D.C.
- Carswell, Andrew. 2009. Does Housing Counseling Change Consumer Financial Behaviors? Evidence from Philadelphia. *Journal of Family and Economic Issues*, 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, Michael J. 2010. Effects of Mandatory Financial

- Education on Low-income Clients. *FOCUS, Newsletter by the Institute for Research on Poverty*, 13–18.
- Collins, J. Michael, Christi Baker, and Rochelle Gorey. 2007. *Financial Coaching: A New Approach for Asset Building?* Madison, WI: PolicyLab Consulting Group, LLC.
- Collins, J. Michael, Ryan Eisner, and Collin O'Rourke. 2013. Bringing Financial Coaching to Scale-the Potential of Group Coaching Models. Madison: Center for Financial Security - University of Wisconsin Madison.
- Collins, J. Michael and Collin M. O'Rourke. 2010. Financial Education and Counseling—Still Holding Promise. *Journal of Consumer Affairs*, 44 (3): 483–498.
- Collins, Michael J. and Collin O'Rourke. 2011. Homeownership Education and Counseling: Do We Know What Works? Washington, DC: Research Institute for Housing America.
- 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.
- 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 (6): 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*. Madison, WI: Filene Research Institute.
- 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*. New York: Plenum.

- Despard, Mathieu R. and A.N. Gina Chowa. 2010. Social Workers' Interest in Building Individuals' Financial Capabilities. *Journal of Financial Therapy*, 1 (1): 35.
- 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*. Manchester, NH: School of Community Economic Development Southern New Hampshire University.
- 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 Intermediateterm Impact of the *Money Smart* Financial Education Curriculum upon Consumers' Behavior and Confidence. Available at https://www.fdic.gov/consumers/consumer/moneysmart/pubs/ms070424.pdf
- Fernandes, Daniel, John G. Lynch, Jr., and Richard G. Netemeyer. 2014. Financial Literacy, Financial Education, and Downstream Financial Behaviors. *Management Science*, 60 (8): 1861–1883.
- Fox, Jonathan, Suzanne Bartholomae, and Jinkook Lee. 2005. Building the Case for Financial Education. *Journal of Consumer Affairs*, 39 (1): 195–214.
- 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. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation.
- 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.
 - arsdóttir, Ragna B. and Helga Dittmar. 2012. The Relationship of Materialism to Debt and Finan-cial Well-Being: The Case of Iceland's Perceived Prosperity. *Journal of Economic Psychology*, 33 (3): 471–481.
 - Grubman, James, Kathleen Bollerud, and Cheryl R. Holland. 2011. Motivating and Helping the Overspending Client: A Stages-of-Change Model. *Journal of Financial Planning*, 24 (3): 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. Cambridge, MA: National Bureau of Economic Research.
- Hawkins, Robert L. and Eri J. Kim. 2012. The Socio-Economic Empowerment Assessment: Address- ing Poverty and Economic Distress in Clients. *Clinical Social Work Journal*, 40 (2): 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. *Journal of Family and Economic Issues*, 29 (3): 362–390.
- Hira, Tahira K. 2009. *Personal Finance: Past, Present and Future*. Terre Haute: Networks Financial Institute Indiana State University.
- Huston, Sandra J. 2010. Measuring Financial Literacy. *Journal of Consumer Affairs*, 44 (2): 296–316. 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. 2014. Changes in Materialism, Changes in Psychological Well-Being: Evidence from Three Longitudinal Studies and an Intervention Experiment. *Motivation and Emotion*, 38 (1): 1–22.
- Kennedy, Brian P. 2013. The Theory of Planned Behavior and Financial Literacy: A Predictive Model for Credit Card Debt?, Huntington, WV: Marshall University.
- 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.
- 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. 2006a. 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? Urbana: University of Illinois at Urbana-Champaign.
- 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. 2006b. 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. 2006c. 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. Urbana: University of Illinois at Urbana-Champaign.
- 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. 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 (5-6): 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. Ann Arbor, MI: 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: Applica- tion 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. *College 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. Waltham, MA: Brandeis University.
- 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.

- Remund, David L. 2010. Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*, 44 (2): 276–295.
- 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): 68–78. 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 Elliott III. 2011. Financial Capability in Children: Effects of Participation in a School-Based Financial Education and Savings Program. *Journal of Family and Economic Issues*, 32 (3): 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 and Adolescence*, 39 (12): 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 (6): 708–723.
- Shockey, Susan S. and Sharon B. Seiling. 2004. Moving into Action: Application of the Transtheo- retical 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 Determi- nants of Young Consumers' Propensity to Overspend on Credit Cards. *Journal of Consumer Policy*, 36 (2): 179–196.
- Spader, Jonathan, Janneke Ratcliffe, Jorge Montoya, and Peter Skillern. 2009. The Bold and the Bank- able: How the Nuestro Barrio Telenovela Reaches Latino Immigrants with Financial Education. *Journal of Consumer Affairs*, 43 (1): 56–79.
- 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*. New York, Dordrecht, Heidelberg, London: 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 Popula- tions: 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. Law & Economics Working Papers Archive: 2003–2009, University of Michigan Law School.
- 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 Jahresta- gung 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, Chen Cheng, and Fuzhong Chen. 2014. Consumer Financial Capability and Financial Satisfaction. *Social Indicators Research*, 118 (1): 415–432.
- Xiao, Jing Jian, Barbara M. Newman, Janice M. Prochaska,

- Berta Leon, and Robert L. Bassett. 2004a. 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. 2004b. 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. 2004c. 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. 2006c. Encouraging Behavior Change in Credit Counseling: An Application of the Transtheoretical Model of Change (TTM). TCAI Working Paper: Take Charge America Institute for Consumer Financial Education and Research.
- 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.