International Review on Public and Nonprofit Marketing (2024) 21:107–129
https://doi.org/10.1007/s12208-023-00367-5

ORIGINAL ARTICLE

Developing a framework for communications encouraging personal budgeting – a social marketing approach

Magdalena Cismaru[1] · **Onur Akdaş**[2]

Received: 7 December 2022 / Accepted: 27 February 2023 / Published online: 9 March 2023

Abstract

This article illustrates how a framework can be developed and used to guide social marketing communications encouraging personal budgeting but also how academics can promote behavior change by summarizing information of importance for the general population. Academic literature, books, and thirty personal budgeting campaigns were identified, reviewed, and analyzed to assess WHAT needs to be communicated in terms of personal budgeting and also HOW best communicate information about personal budgeting to different kind of target groups. Keywords, themes and messages were identified and revised, and a two-page Table summary framework for personal budgeting social marketing communications was proposed. This paper links practice with theory in a very original way. No theoretical framework for personal budgeting messages has been found in the existing literature; therefore a framework was proposed by combining knowledge from academia with practice. Whereas previous research generally suggests using existing theoretical frameworks to guide and/or evaluate communications, the current research also shows how practice can guide theory. Designers of such initiatives can use this research for inspiration, to proceed when theoretical frameworks are not available, to design solid interventions based on available data, and also to contribute toward bridging the gap between theory and practice. Individuals looking to improve their financial situation can benefit from having significant accumulated knowledge easily available to them. In the personal budgeting context, individuals suffering from financial distress and living paycheck-to-paycheck can benefit the most from this research.

Keywords Personal budgeting · Communication campaigns · Stages of Change Model · SEWING framework · Content analysis

✉ Magdalena Cismaru
Magdalena.Cismaru@uregina.ca

Onur Akdaş
onur.akdas@deu.edu.tr; akdasonur@gmail.com

[1] University of Regina, Regina, Canada

[2] Dokuz Eylul University Maritime Faculty, Buca, Türkiye

1 Introduction

Theoretical frameworks and models can be a source of inspiration for practitioners and academics to design, implement, and evaluate communication campaigns and social marketing (SM) interventions. A recent call for action to improve theory application and reporting in behavior change research emphasizes the importance of standardized frameworks and methods "to support the definition, application, and reporting of theory, and to assist researchers in understanding how theory should be applied to build cumulative knowledge over time" (Willmott & Rundle-Thiele, 2021). Researchers argue that using a theory-based framework in constructing communications will likely lead to more successful campaigns (Levit & Cismaru, 2020). In addition, communications, especially in the SM context, have often been evaluated by their adherence to theories or models (French & Blair-Stevens, 2006), including the Transtheoretical Model of Change (TTM; Andreasen, 2004; Prochaska et al., 1992, 1994) and the Extended Parallel Process Model (EPPM; Diegelmann et al., 2020; Witte, 1992, 1998).

Barriers to the successful use of theory in practice include lack of knowledge, time constraints, perception of difficult applicability, excess of choice, and false target audience assumption (Diegelmann et al., 2020). Indeed, practitioners and scholars might not be sure how to employ theories into the practice in planning and conducting SM communications (Manikam & Russell-Bennett, 2016), because several theories can be regarded as appropriate in a particular context. However, what if, despite extensive searches, there is no apparent applicable theory adherent to the purpose of the specific communication? In this case, it might be appropriate to formulate and propose a new model or framework that can be applied and used to guide, develop and/or evaluate communications and further, other types of initiatives. SM can therefore identify gaps in theory and develop usable frameworks in social contexts with important implications for the wellbeing of the individual and the society as a whole.

One such context in which no apparent theory for a communication framework was identified is personal budgeting, a timely and important issue as illustrated by numerous studies conducted worldwide (Cismaru & Wuth, 2019). Indeed, about 1 in 6 Canadians say their monthly spending exceeds their income, while 1 in 4 say they borrow to buy food or pay for daily expenses (Financial Consumer Agency of Canada, FCAC, 2019). A third of U.S. adults are struggling financially (Consumer Financial Protection Bureau, CFPB, 2017), and 22% of Australians have no savings (Australia and New Zealand Banking Group Limited, ANZ, 2018). More recent numbers show the situation further worsening during the pandemic with a majority of Americans (54%) living paycheck to paycheck; this includes 53% of consumers who earn \$50,000 to \$100,000 per year (PYMNTS.COM, 2021). Financial stress is associated with adverse outcomes: declining physical and mental health, lowered self-esteem, pessimistic outlook on life, alcohol and drug-use, gambling, smoking, and marital problems among others (Davis & Mantler, 2004). Research conducted in Australia showed that having a budget that includes savings and not having to borrow for day to day expenses is one of the most critical factors influencing financial wellbeing (Kempson et al., 2017). Saving - one of the main motivations of budgeting - is also one of the key variables influencing financial behaviors (Lee & Miller, 2012). Indeed, budgeting is posited to be crucial for many individuals in managing their day-to-day finances, keeping on track with bill payments, and paying down debt (FCAC, 2019). Budgets can also play an important role in how households manage their financial lives, both for the short-term (e.g., prioritizing spending across different categories) and for longer-term financial planning (e.g., determining how much money to set aside for the future) (Zhang & Sussman, 2018). Consequently, communication campaigns promoting financial wellbeing in general and personal budgeting, in particular, exist, especially online. However, in the absence of published evaluation reports, it is difficult to assess their effectiveness. Each has a different approach, uses a variety of terms, and focuses on a multitude of factors. Hence this research aims to provide a framework for communications encouraging personal budgeting: to identify WHAT needs to be communicated and HOW to communicate to different target groups to promote personal budgeting and therefore enhance financial wellbeing.

2 Study 1: What to communicate in personal budgeting campaigns

Surprisingly, literature about personal budgeting is limited (Zhang & Sussman, 2017, 2018). Thaler, (1985) used the term mental accounting to refer to personal budgeting and explained this term by carrying out research within the framework of consumer behavior theory and transaction utility theory. In his study, budgetary processes of individuals were considered less developed due to the lack of theoretical and practical findings found for these processes. Later he defined mental accounting as "the set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities" (Thaler, 1999), therefore describing the way that people group expenses into categories, assign funds to these categories, determine budgets, and perform elements of cost-benefit analyses (Zhang & Sussman, 2017).

Kotler and Lee (2009) looked at poverty and ways to help the poor by identifying who the customers are and what do they need and argued that "adding a marketing mind-set, principles, and tools will help achieve a new level of effectiveness in planning and implementing poverty-reduction programs". They present 30 major poverty-related issues that can benefit from the application of SM principles and techniques, one of them being financial management and encouraging living within one's means, as a behavior chosen for a SM effort. In the same vain, Lee and Miller (2012), describe a study conducted on behalf of the Consultive Group to Assist the Poor (CGAP), an independent policy and research center dedicated to advancing financial access for the world's poor, looking at clear behaviors that, once adopted by target populations, will improve the quality of life for individuals as well as society. They identify relevant behaviors including increasing savings, using credit wisely, avoiding over indebtedness, and shopping around and comparing offers. The paper also describes seven best practices essential for success when applying SM principles and techniques to influence desired financial behaviors as follows: a clear purpose and focus is agreed upon, the target audience is identified and described, a specific behavior is selected, audience barriers are understood and addressed, consider all 4P tools (product, price, place, promotion), partnerships are formed, and evaluation is conducted and reported (Lee & Miller, 2012).

The first systematic attempt to propose a theory of personal budgeting is relatively recent. Galperti (2019) published an article named *"Theory of Personal Budgeting"* which analyzes the individuals' decisions on consumption and savings under uncertain situations with mathematical evidence. This theory proposal focuses on defining the relation between budgeting and self-control issues. Galperti (2019) also provides a definition of budgeting as follows: "Budgeting is the process used to segregate and track the allocation and use of funds against different accounts with implicit or explicit spending limits or "budgets"".

In the past few years, significant work has been done by Zhang and colleagues (Zhang & Sussman, 2017, 2018; Zhang et al., 2021). Building on Thaler (1999) and Galperti (2019), they define budgeting, state that little is known about how people actually budget, assess budgeting behaviors and beliefs, debt aversion, segregating funds, and self-control issues among others. In their paper, titled, "*How Consumers Budget"* (Zhang et al., 2021), survey results of a nationally-representative survey of 3,826 US adults, provide key features of personal budgeting. First, their results show the practice of budgeting being quite prevalent with more than 65% respondents reporting engaging in some kind of budgeting. In addition, budgeting remains highly prevalent across income distribution, increasing slightly with income. In terms of reasons for budgeting, respondents reported: avoid overspending, avoid predictable and unpredictable debt, lower existing debt, short-term goals, long-term goals, and provide for family. People's motivation did not seem to vary much with income and wealth, although results suggest that at lower wealth people budget to account for short term needs while at higher wealth people budget to plan for the long-term. Results also show that over 90% of individuals who budget, whether formally or informally, do so by tracking their spending within distinct budget categories such as entertainment or clothing, consistent with a growing body of evidence that shows people allocating and tracking their spending within distinct budgetary categories (Antonides et al., 2011; Hastings & Shapiro, 2013, 2018; Heath & Soll, 1996; Henderson & Peterson, 1992). Many of the budget categories that prior research has assumed to exist (e.g., food, clothing, gas, entertainment, etc.) appear in Zhang et al. (2021) list, too; however, a clear variation in the level of detail at which individuals categorize their spending was noted. Finally, individuals respond asymmetrically when faced with too little versus too much slack in their budgets. While more than 85% of respondents would either adjust their spending or update their spending limits if they overspent within a budget category, less than 30% would make such changes if they underspent their limit (Zhang et al., 2021). In other words, people appear to update their budgets conservatively.

Another recent study on personal finance by Lurtz et al. (2017) proposes a multidisciplinary approach to financial planning by integrating theories from, economics and behavioral economics, psychology, and judgement to create a financial planning theory. However, their focus is on the relationship between a financial advisor and a client, and therefore not much can be used in the context of online mass communication.

Having reviewed the academic literature on personal budgeting, it was still not clear WHAT needs to be communicated to individuals that might benefit from creating and following a budget. Consequently, the authors turned their attention to books. The books vary in terms of their approach and content. Some define what budgeting is, discuss goals in relationship to budgeting, and show ways to increase income and trim expenses. Others talk about a ”millennial problem”; yet other, focus on the impact money has on relationships. Table 1 illustrates summary contents for 10 personal books. Again, upon revising these books, it was not clear WHAT should be communicated while promoting personal budgeting.

The next step was to search online for communications promoting budgeting. Contrary to the scarcity in academic studies, numerous practical efforts were identified aiming to promote personal budgeting and create behavioral change, signaling the importance of the issue. In addition, most practitioners creating such communications, conduct a significant amount of research and have valuable experience that is reflected in their communications. Therefore, it is important to learn from them, in general, but especially when there is no apparent theoretical development in the academia. Websites generally explain what a budget is, why it is important to have a budget and how it should be done. They also provide information pertinent to a number of concepts related to personal finance, including, income, expenses, needs and wants, goals, savings, and investments.

Therefore, in Study 1, online communications regarding personal budget issues are identified and selected, and their content is qualitatively analyzed. Based on literature and the findings from this content analysis, the authors developed a two-page summary framework for communications promoting personal budgeting that is adding to the understanding of personal finance. This framework presented in Table 2 shows WHAT are the most important topics that need to be communicated about personal budgeting. How this framework was created is explained below.

2.1 Methodology

2.1.1 Search and inclusion and exclusion criteria for the online communications (websites)

Following the methodology of Cismaru and Wuth (2019), Google searches were conducted by three independent researchers to reach open-access communications on personal budgeting. Keywords such as “budgeting initiatives”, “budgeting interventions”, “help in budgeting”, “budgeting tips”, “budgeting campaigns”, “personal finance”, “personal finance initiatives” were used to identify initiatives on personal budgeting. Communications in English which included a separate section for personal budget and targeting the general population were selected. Campaigns targeting particular populations such as members of the military or students were excluded.

Table 1 Summary contents of 10 personal budgeting books

Book Title	Author(s)	Year	Contents
The Only Budgeting Book You Will Ever Need	Tere Stouffer	2012	• Introduction: your budget will help you get what you want • Getting started (what do you need to create a budget?, setting your goals, what do you have?, what are you spending?, what do you owe?, okay—you're ready to create a budget) • Sticking to your budget (saving around the household, saving on transportation, watching what you spend) • Expanding and adjusting your budget (paying down debt, saving and investing, merging your finances, baby on the way, your biggest purchase, finding money in your house, saving for vacations and holidays, saving for college, saving for retirement, how to survive unemployment, sticking to your budget—no matter what) • Conclusion: living the life you want
How to Eat and Elephant	Frank Wiginton	2013	• Understanding your finances (setting and achieving goals; where are you now?; how to save a lot of money; income and debt management) • Protecting your finances (benefits; risk and living insurance; life insurance) • Growing your finances (retirement and estate planning; investing; tax planning) • Ensuring financial success (wills, powers of attorney, and personal care directives; finding the right advisors)

Table 1 (continued)

Book Title	Author(s)	Year	Contents
Budgeting 101	Michele Cagan	2013	• Budgeting basics (what budgeting is (and isn't), using your budget to create wealth, setting your financial goals, know your priorities, three main steps for your budget, track and measure your success, keep your budget flexible) • Know where your finances stand (take an honest look at your situation, assess your assets, list your liabilities, figure out your net worth, know your cash flow, tally your income, track your spending) • How to create a livable budget (the basic budget equation, two ways to balance, saving is your number one expense, set your spending priorities, spend less than you make, sidestep financial quicksand, avoid these common mistakes) • Budget mechanics (find your budget personality, go low-tech, diy spreadsheets, software makes it simple, budget on the go with apps, automate savings and payments) • Easy ways to increase income and trim expenses (four ways to boost earnings, increase cash without working more, know your spending triggers, watch out for budget busters, downsize your biggest expenses, reduce everyday spending without feeling deprived) • Take charge of your debt (rank your debt, eliminate toxic debt as fast as you can, pick a paydown plan, wipe out credit card debt, shrink your student loans, refinance your mortgage) • Budget rebuilding events (your first job, getting married, buying a house, having kids, finally debt-free, getting divorced, nearing and entering retirement) • Don't let emergencies derail your plans (bounce back from financial disaster, create an emergency budget, keep insurance to protect your financial future, rebuild savings, repair damaged credit, return to your regular budget)

Table 1 (continued)

Book Title	Author(s)	Year	Contents
The Everything Budgeting Book	Tere Stouffer	2013	• What is budgeting — and why do I need to do it? • Prioritizing your spending • Assessing your current financial situation • Creating a livable budget • Freezing your spending for the short term • Saving money on groceries • Cutting your expenses at home • Reducing your biggest expenses • Restructuring a heavy debt burden • Refinancing your home and tapping your equity • Adding income • Surviving unemployment • Sticking to your budget in an emergency • Getting government help — there actually is a free lunch! • Marriage or moving in: budgeting for two • Changing your budget for a new baby • Changing your budget to include a new house • Saving money for college • Budgeting through a separation or divorce • Changing your budget after age fifty • Saving for retirement • Staying motivated
Budgeting, Spending and Saving	Bitsy Kemper	2015	• Spending money (wants and needs, shop smart, opportunity costs) • Setting goals (short and long term goals, expect the unexpected) • Saving (ways to save, interest, inflation) • Creating a budget (money in, money out, putting it all together)

Table 1 (continued)

Book Title	Author(s)	Year	Contents
The Millennial Money Fix: What You Need to Know About Budgeting, Debt, and Finding Financial Freedom	Douglas A. Boneparth and Heather Boneparth	2017	• The millennial problem • The fix starts with you • Choosing, affording, and owning college (and grad school) • Payback time • W-2s, w-what? • Wealth is earned, not acquired • When two become one… and then three • Financial independence is the new retirement
Financial Empowerment Personal Finance for Indigenous and Non-Indigenous People	Bettina Schneider	2018	• Learning basic skills, knowledge, and context (personal financial planning; basic ideas of finance; financial statements; evaluating choices: time, risk, and value; financial plans: budgets, taxes and tax planning) • Achieving your financial goals (financial management; consumer strategies; buying a home) • Protecting what is important to you (personal risk management: insurance; retirement and estate planning) • Planning for the future (investing; owning stocks; owning bonds and investing in mutual funds; career planning)
The Joyful Frugalista	Serina Bird	2018	• Living large (choosing an abundance mindset) • Get smart about saving (why every dollar counts) • Light up for less (saving on energy) • Eat like a queen (saving on groceries) • The frugal fashionista (saving on clothes) • Out and about (saving on transport) • Dare to discount (never pay full price) • Finding deals (coupons, vouchers, daily deals and more) • Attracting what you want (how to get stuff for free) • Can't buy me love (money and relationships)

Table 1 (continued)

Book Title	Author(s)	Year	Contents
Stretch Your Dollars	Money Mentors	2019	• Budgeting basics (what is a budget?, what are your financial goals?, how much money do you have to work with?, how do you spend your money?, create your spending plan, make your spending plan work, what to expect?) • Stretch your dollars (tips to help you save money, boost your income, tips for using loans, credit and banking effectively)
Budgeting Doesn't Have to Suck: For Young Adults Who Want More Money	Jim Miller	2020	• Starting on empty • Lay it all out • Make changes • Identify your values • Choose your weapon • Get budgetized • Increase income, save & invest • Regular tune-ups • Outro

2.1.2 Coding frame development and the coding process of the personal budgeting information

The coding frame and the coding process was inspired by Akdaş and Cismaru (2021), Cismaru and Wuth (2019), Diegelmann et al. (2020), and Levit et al. (2016). Based on a preliminary inspection of the identified websites, the coding frame includes the general description of the websites, how budgeting was defined and why budgeting is important, ways of budgeting, “Income”, “Expenses”, “Needs and Wants”, “Goals”, “Planning”, and “Savings” and “Investments”. Two independent coders conducted the content analysis by filling the coding frame template separately and assessing how the websites address the related categories, mostly by copying and pasting from the websites into a table. A third researcher combined these two tables and managed a few inconsistencies. A significant amount of information resulted and it is presented in Appendix 1. After considering the data for a particular keyword from all 30 websites, themes were identified, and the data was grouped and summarized based on themes. Additional analysis using the software named MAXQDA (Lane, 2015) corroborated the results from the analysis carried out by an author with conventional way of reading and further examined relationships among the keywords. Based on this analysis, a summary framework of the information presented by the websites is created and presented in Table 1.

2.2 Findings

2.2.1 Websites selection

Thirty websites were selected as the sample for this research from seven countries as follows: Australia (2), Canada (2), New Zealand (2), Scotland (1), South Africa (1), United Kingdom (3) and the United States of America (19) and include a wide range of bodies that are affiliated with private banks, governmental authorities, non-profit organizations, private financial advisory institutions, non-profit personal finance advisory institutions, universities, non-profit credit counseling agencies and several personal blogs. Although some may not qualify as SM communication campaigns, we decided to present them all to illustrate better the information regarding personal budgeting available online to the general public. It is interesting to note the variety of initiatives demonstrating demand for such information and, therefore a need for a review and a development of a framework. Appendix 1 lists the 30 websites with their countries, affiliations, types, and web URL addresses, and also the information they provided for each of the particular keywords.

2.2.2 Content analysis of personal budgeting information

These online initiatives provide information in respect to budgeting, including goals, as presented in the Appendix 1 and summarized in Table 2. The information is consistent with the academic literature that suggests most people, not only

Table 2 Personal budgeting SEWING framework– Based on keywords, themes, and messages emerged from 30 websites promoting personal budgeting

What is Budgeting? Budgeting is the process of creating a written money plan that helps you keep track of how much you earn (income), how much you spend (expenses), and how much you save and invest. A budget can help you plan, monitor spending, get out of debt, save money, and reach your goals. It's a visual representation of your choices. Budgeting gives you control of your money – and your life. It should be for a specific period; monthly, quarterly or annually.
Why Budget? Budgeting is crucial if you want to keep a close eye on your daily spending habits, understand the impact of seemingly small expenses, and take control of your spending. It helps you avoid spending money you don't have, reduce overspending on problem areas, find a way to get out of debt faster, keep up with your bills, void debt, keep you from feeling financially overwhelmed, and save more money. Learning how to budget your money effectively is the first step toward reaching your long-term financial goals faster and ensuring your spending reflects your goals and values. Budgeting can help your marriage; it makes talking about money with your family easier and can end fights about money for couples. Budgeting helps you sleep better at night; helps you find financial contentment; helps you feel to feel less stressed out about your finances.
Ways of Budgeting: Steps to budget –1. Determine why you want to budget; 2. Do a deep dive into current spending habits by looking at old statements and tracking spending; 3. Use a calendar to catch irregular expenses such as holidays, birthdays, vacations, car registrations, property taxes, etc.; 4. Add up all of your income; 5. Identify your personalized financial goals; 6. Decide how much to save; 7. Schedule a household meeting; 8. Decide what kind of budget you want to make; 9. Choose a tool to make your budget (spreadsheet, app, etc.); 10. Put pen to paper – or fingers to keyboard. Create spending categories and make a budget for them; 12. Determine how to hold yourself accountable (automation, the envelope system, tracking spending, etc.); 13. Set up a monthly budget review and adjust accordingly.
Tools: pen and paper, spreadsheets, and online apps and other online tools.
Methods -1. piggy banking method (also known as envelope or jar)- involves dividing your money into separate pots for different expenses, 2. zero-based budgeting - similar to the envelope one allocates all of your income to expenses, and 3. proportional method - you divide up your monthly income into buckets based on percentage (50% needs-30% wants-20% debt repayment or 30% houseing-30% necessities -30% savings -10% wants).
Income: Definition: Income is the sum of all the money you have coming in, inclusive of benefits and pension, less any deductions, taxes, etc.
Calculation: Income is all the money you bring in each month, including salary and tips, and money you receive on a regular basis from family, investments, or any other source; it doesn't include - special gifts, bonuses, overtime pay, or windfalls.
Variable Income- calculate an average or consider what you'd typically earn in a bad month.
Gross Pay versus Net Pay – to calculate your net income, subtract your deductions when creating a budget worksheet.
Disposable Income is the amount of money you and your family have available to spend and save after direct taxes and all outgoings have been deducted.
Make more income: take on a second job, check for additional benefits you may be entitled to, using a cash-back website, hobby or talent. Earning more money solves a lot of problems: It can help you make ends meet, start an emergency fund, pay off debt, save for retirement, and more.
Expenses: Definition: Expenses include everything you spend your money on, not just the bills. Expenses include mortgage, rent, council tax and utilities (gas, electricity and water), food, clothing and toiletries, transportation, plus irregular expenses (Christmas, car repairs, travel and vacations). However, savings for a rainy day or for future travel, debt payments, life insurance premiums and RRSP contributions, money you deposit to your children's RESP are also expenses.
Classification: Fixed - Non-Discretionary include mortgage or rent, groceries, transportation, insurance premiums and taxes, utility bills, levy, debt repayments, subscriptions and bank fees and potentially a savings or investing category. It's unlikely you'll be able to cut back on these. Variable includes food, clothing, and entertainment, and vary from month to month. They can change monthly. This is an area where you might find opportunities to cut back.
Discretionary are "nice to haves " including entertainment, dining out, gifts, vacations, personal care, a gym membership, and even clothes. They often make life more fulfilling, but they should be the first expenses to go if you can't afford the basics. Saving expenses - If you have a goal you are saving towards then it's best to also add the expenses that come with your savings plan.
Track your Expenses - track your expenses for at least 30 days, but better for 1-2 months or even 3-6 months. It makes sense to track expenses (and income) on a regular basis, for every month, and yearly.
Reduce your Expenses –use the envelope method to reduce spending, cut on wants, find more affordable wedding and travel options, stop using credit cards, and save on interest by refinancing or making extra payments.
Income-Expenses
The goal of budgeting is to make sure your expenses do not exceed your income. If they do, and more money is going out than is coming in, then you need to make adjustments.

Table 2 (continued)

Income less than expenses: debt, financial distress Increase Income Decrease Expenses Prioritize Needs and cut down on Wants Important Goal: pay debt	Income = Expenses: paycheck to paycheck, stress Increase Income Decrease Expenses Prioritize Needs and cut down on Wants Goals: pay debt, save for an emergency fund	Income higher than expenses: financial wellbeing Goals: save and invest for retirement
Needs and Wants: Most needs are fixed nondiscretionary expenses and wants are discretionary expenses. However, one person's "want" may be another person's "need". For example, a car may be a want rather than a need if you live near a bus route. However, if you don't have access to public transit and can't cycle to work, you may need a car. Your needs and wants may also change over time. In addition, even the essentials like shelter or transportation involve a want vs. need calculation. For instance, you may have evaluated all possible transportation methods for you to get to work and determined that you need to purchase a car; however, which car you buy is another choice you make. Proportional Budgeting for Needs and Wants - Harvard economist Elizabeth Warren's 50-30-20 Rule of Thumb is a popular example of a proportional budget. Allocate 50% for needs, 30% for wants and 20% for savings. Cutting Expenses from the Wants - For each type of "want," decide on a reasonable monthly limit to help you balance your budget.		
Goals – Definition - What is important to you will help you determine goals for your money. Goals are the 'why' behind budgeting. Goals as "the first step in sorting our finances: working out where we want to be moneywise and what our priorities are". Financial goals are monetarily quantifiable aspects of your life. They can be purchased such as goods, experiences, and education. They can be savings goals, homeownership, student loan payoff, or once-in-a-lifetime trips. You'll need to have a clear picture of the type of life you want to live. Then, set financial goals related to that vision. Decide on what you want to save for and when you'd like to retire". Financial goals are money-related objectives you want to achieve; for example, earning six figures in a year or saving $2,000 per month. Goals should be specific, realistic, written down, and designated for a specific timeline (long or short term). They also need to be reviewed annually or bi-annually. Examples of goals include: trying to keep your grocery bill from getting out of hand, getting out of credit card debt, paying off your student loan, getting out of debt, saving for a down payment on a house car or a house, purchasing a car or a house, increasing mortgage payments, paying off your mortgage, building an emergency fund, take your dream vacation, saving for education, and retirement, retiring before 55, but also earning six figures. Importance: Why set money goals? It's the first step to sorting our finances: working out where we want to be moneywise and what our priorities are. Setting financial goals helps us focus our money and our lives. Classification: Goals can be short-term or immediate (1 year or less) (covering current expenses), middle (intermediate up to five years) (taking vacations) and long-term or long-range (10-15 years, all the way up to 50 years in the future) (retirement saving) (3, 15). SMART framework to assess goals: specific, measurable, achievable, relevant, timely. Specific: write your goal so it's clear and specific; measurable: how much do you need?; attainable: break your goal down into bite-sized pieces, these are the steps you'll take to reach the goal; relevant: you always want your goals to align with your values and the vision you have for your future. Be sure that the goals you are creating support what matters most to you; time-bound: your goals must have an end date. Having deadlines keeps you from putting it off until tomorrow.		
Savings (and getting out of debt) should be considered a need! With all that said, pay priority debts before saving for emergencies. The easiest way to save money is to look for ways to spend less. Savings is the amount you put aside for the future, namely an emergency and retirement fund. An emergency fund is crucial to financial security. Create an emergency fund to cover your living expenses for 3 to 6 months to deal with unexpected situations. These amounts can sometimes seem out of reach. That is why you should start by saving a small amount on a regular basis. Automating your savings is an easy way to stay on track with your savings plan. After you have an emergency fund, your savings can meet your goals.		
Investing - Once you are financially stable and have enough savings to pay for unexpected expenses, you may consider investing part of your income. Investing is crucial for retirement and can, in the long term, improve your standard of living much more than spending the cash at present. Investing is about growing your assets.		

those in debt, budget, and can benefit from budgeting. As well, the information is presented in categories, consistent with the idea that individuals have distinct budgetary categories that organize their thought.

Based on both the literature and the 30 communication campaigns, the important themes and keywords that need to be addressed in any personal budgeting communication include, a definition of budgeting, budgeting importance and methods, income, expenses, and their difference, debt, needs and wants, goals, savings and investments. These keywords are identified through content analysis conducted by an author with conventional way of reading and organizing the information, but also confirmed through a quantitative analysis of the data conducted using MAXQDA software. Frequency distributions for specific keywords were run and the results were consistent with the qualitative analysis conducted by an author with conventional way of reading.

For example, our content analysis for budgeting definition reveals websites in our sample vary in respect to defining a personal budget. Many do not provide any specific definition for budgeting while others define budget or budgeting as a plan. Others do not mention planning, however, but refer to other components such as income and expenses or add a temporal element. Others refer to budgeting as a tool. Several initiatives provide a more extensive definition/description that included additional keywords such as goals or control. Based on the information from the 30 communication campaigns, we propose a definition for budgeting that incorporates these important keywords, as follows: *Personal budgeting is the process of creating a written money plan that helps you keep track of how much you earn (income), how much you spend (expenses), and how much you save and invest. A budget can help you plan, monitor spending, get out of debt, save money, and reach your goals. It's a visual representation of your choices. Budgeting gives you control of your money – and your life. It should be for a specific period; monthly, quarterly or annually.* Similar analysis was conducted for all significant keywords and the most important information forms our personal budgeting framework presented in Table 2.

In addition, each statement and message included in the coding framework developed by the content analysis of websites were re-coded with the help of MAXQDA software to assess the frequency of each keyword and the interrelations of the keywords and themes. According to the findings, "Expenses" (162) are the most frequent theme in overall evaluation followed by "Goals" (96), "Needs" (88), "Wants" (86), "Income" (74) and "Savings"(74) and lastly "Investments" (31). Intercorrelation shows how many times the themes are coded together in the same column. Findings of intercorrelation are illustrated in Fig. 1. The thickness of the lines refers the strength of the correlation and the strongest correlation was observed between "Needs" and "Wants" (75). The following strongest correlations were observed between "Income" and "Expenses" (59), "Expenses" and "Wants" (55) and "Expenses" and "Needs" (54). These findings indicate that communications are suggesting that expenses should be planned by recognizing the needs and wants. The other strong intercorrelation was observed between "Expenses" and "Goals" and it also reveals that expenses should be organized in accordance with the financial goals.

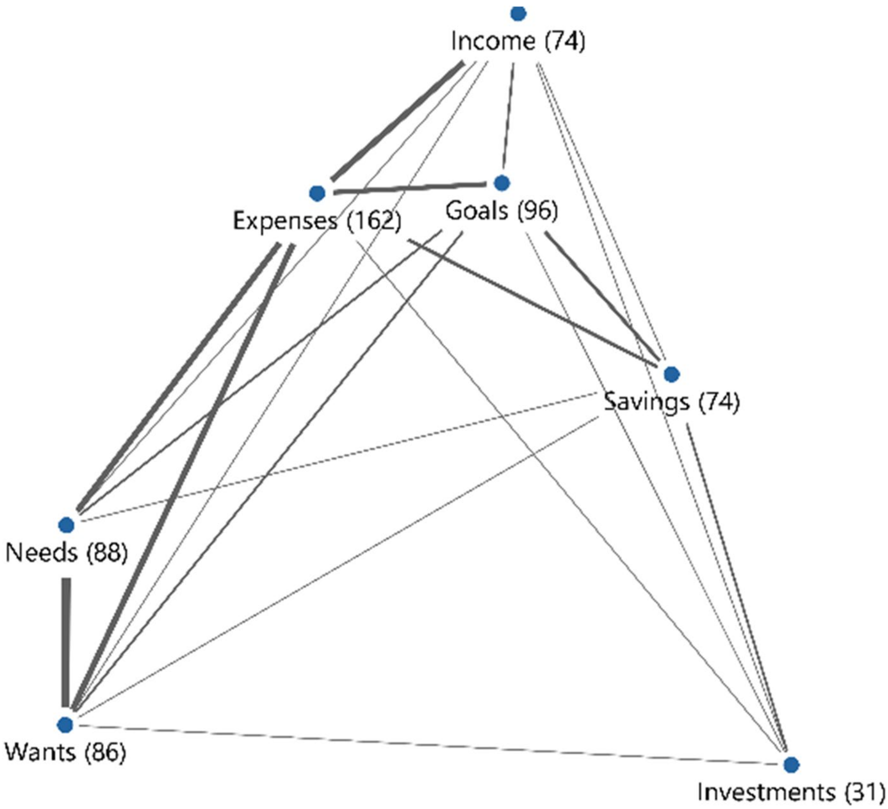

Fig. 1 Keywords intercorrelation

Consequently, based on our analysis, we propose our **SEWING** Framework presented in Table 2 that incorporates the most important variables that need to be addressed when attempting to persuade people that suffer from financial distress to create a budget that includes savings and stick to it. These keywords are: Savings (S), Expenses (E), Wants (W), Income and Investments (I), Needs (N) and Goals (G) hence a framework called **SEWING**.

2.3 Discussion

In Study 1 we identify the most important keywords and messages that need to be communicated to individuals that may benefit from creating and following a budget. The SEWING framework we created based on both literature (academic articles and books) and practice (30 websites promoting personal budgeting) constitute a more trustful source of information in comparison to individual sources since it summarizes significant knowledge accumulated in the literature and practice and presents it in an easy, understandable, short form. To encourage behavior chance, one have to make it easy. Expecting people to read entire books or conduct extensive literature reviews or website reviews is not realistic. The amount of available information regarding personal budgeting is huge; however, how can one tell which one is better than the other and which one should be used? By doing this kind of reviews for individuals and creating this kind of frameworks, academics and practitioners can jointly promote behavior change for the benefit of the individual and the society as a whole. SM therefore, can go beyond using theory in guiding communications and broader initiatives, to identifying and creating frameworks based on existent literature but also practice, to fill theoretical gaps and advance knowledge in areas of significant importance for the individual and society as a whole.

3 Study 2: How to present this information?

Having clarified the message part of the communications, we turn our attention to the audience and segmentation based on peoples' readiness to change. The Transtheoretical Model of Change (TTM: Prochaska et al., 1992; 1994), a behavioral change model, was used by Shockey and Seiling (2004) and Xiao et al. (2004, 2014) in financial education and by Grubman et al. (2011) to motivate and help the overspending client. It was also listed first by Kotler and Lee (2009) as an appropriate theoretical framework to guide SM interventions especially when many people from the target audience are either contemplating the desired behavior (engaging in personal budgeting) (or at least are open to it) or have decided they will engage in the behavior and are preparing to do so. The TTM states that different messages are appropriate to people that are found in different levels of readiness for change. People move through a series of stages when modifying behavior: it starts with denial - people who do not believe they have a problem (precontemplation stage), then moves to ambivalence – the person explores reasons for and against change (contemplation stage), to preparation stage - people who intend to take action or may have been unsuccessful in taking action, people who are working hard to change (action stage), and people who solved their problem and are maintaining their behaviors (maintenance stage) (Prochaska et al., 1992, 1994). Hence, a segmentation of the audience based on the individuals' readiness to change makes sense. Additional insights are provided by the Integrated Model for Social Marketers (Cismaru et al., 2008) which reviews and integrates three theories: TTM (Prochaska et al., 1992; Xiao et al., 2004) protection motivation theory (PMT; Rogers, 1983; Rogers & Prentice-Dunn, 1997), and the extended parallel process model (EPPM; Witte, 1992, 1998) and details the decision-making process involved when consumers consider whether or not to follow a particular recommended behavior (characteristics of people more or less likely to change, what happens when persuasion fails, and what can be done to increase persuasion). Based on these two models, newest academic literature and our newly developed SEWING framework, we present characteristics of each target group and appropriate messages below.

3.1 Targeting precontemplators

In the context of financial wellbeing, precontemplators can be overspending individuals found in the denial stage of change that don't acknowledge any need for action and can be quite defensive. They lack information about their financial problems and are not aware of the consequences of their behavior; they do not recognize the long-term self-destructive implications of high credit card debt, inadequate savings, and failure to follow a financial plan (Cismaru et al., 2008; Grubman et al., 2011). Any attempt to work with deniers requires building rapport, exploring discrepancies between the individual goals and spending behavior, and educating individuals while remaining neutral and helpful (Grubman et al., 2011). Communications campaigns may attempt to begin a discussion about budgeting and enhance problem recognition, by encouraging readers to look for information and providing statistical/factual information (Andreasen, 1995, 2004; Cismaru et al., 2008, 2011; Slater, 1999). Messages may inform about signs (symptoms) of financial stress and introduce budgeting, why it is important, who needs it and how can be done. The focus may be on income and expenses, what are they and what do they include, and classification (fixed, non-discretionary and discretionary). Financial stress may also be explained (when expenses are higher than income and people worry) and the consequences of financial stress could be detailed. Campaigns may also explain how common it is to have money issues and state that there are steps that can be pursued to make life better, one of them being creating a budget and following it, tracking expenses and reducing them. Stories or testimonials of people who acted and/or got help, started budgeting, and improved their financial situation and general well-being may be appropriate because they could enhance hope and optimism that change is possible (Akdaş & Cismaru, 2021; Cismaru et al., 2008; Levit et al., 2016). Therefore, in our SEWING framework, when targeting precontemplators the focus ideally may be on: income, expenses, and description of budgeting and of the individuals that would benefit most from budgeting, debt, the importance of budgeting and ways of budgeting.

3.2 Targeting contemplators

Contemplators vacillate between reasons to change and stay the same. They may see some benefits of curbing spending but are unconvinced of the need for change or not prepared to implement it yet. They may not be ready to let go of the apparent benefits of spending. However, individuals in this stage may feel vulnerable and gather information about the problem; they may be motivated to change and struggle between rewards and costs of change and fear of failure. Ambivalence may be the most challenging yet potentially the most rewarding stage to be addressed. Compared to deniers who talk convincingly about the status quo with minimization of its downside, the ambivalent person will speak about both the pleasures and the perils of overspending (Cismaru et al., 2008; Grubman et al., 2011; Prochaska et al., 1992, 1994). Therefore the idea is to help the person explore and resolve ambivalence rather than stay stuck in it. Campaigns encouraging a discussion of potential action steps for the individual may allow the ambivalent individual to develop optimism that change is possible, and offering support and information in a low-key manner may lead to behavior change (Grubman et al., 2011). Websites could consider presenting available options for budgeting, without a lot of detail; stating that expenses can be reduced mostly by cutting on spending on wants; defining needs and wants and explaining their difference, and showing ways of cutting expenses from wants. Campaigns can also work on increasing perceived response efficacy (the belief that the adoption of the recommended actions will lead to the desired outcome), self-awareness and self-efficacy (the perception that the person is capable of following the recommendations). Readers can also be encouraged to access specific online tools, such as an expense journal, but also financial institutions and governmental and/or non-for-profit organizations, and/or support groups as needed (Akdaş & Cismaru, 2021; Cismaru et al., 2008; and Levit et al., 2016). Therefore, the information from the SEWING framework while targeting contemplators may focus on needs and wants, the difference between needs and wants, proportional budgeting for needs and wants, and how to cut expenses from the wants.

3.3 Targeting individuals found in the preparation stage

People in the preparation stage recognize they must do something but may not know what to do. They need specific plans to implement the change and a supportive coach to provide guidance. This window of opportunity is genuine. Individuals in this stage are open, motivated, and interested in ideas and tools for new behaviors. They need concrete help developing change strategies and a roadmap toward fiscal prudence. They focus on finding the most suitable type of action to overcome the problem. They weigh and re-evaluate the assets and liabilities of problem behavior (Cismaru et al., 2008; Grubman et al., 2011; Prochaska et al., 1992, 1994). Campaigns may work on enhancing people's commitment to change and think through action steps by attempting to identify how individuals might attempt to change the overspending (Grubman et al., 2011). Websites could maximize opportunities to act; help people plan their actions; encourage them to take small steps and go public; commit by keeping salient the benefits of changing; and help people positively re-evaluate themselves (Andreasen, 1995, 2004; Cismaru et al., 2008, 2011; Slater, 1999). Therefore, in a budgeting context, websites could encourage the creation of a new life with new daily routines; a new self-image and positive self-evaluation by discussing goals, what are they, why they are important in budgeting and for financial well-being and how people can set realistic goals using the SMART framework. Communications campaigns may also explain most important goals depending on each person situation: if the expenses are higher than the income, the main goal could be paying a debt; if the expenses are about the same as income, the main goal could be saving for an emergency fund, if the expenses are higher than income, bad debt is paid, and there is a comfortable emergency fund, people may consider investing a part of their money. Therefore, the information from the SEWING framework that the focus may be on while targeting individuals found in the preparation stage ideally would address goals: definition, importance, examples, classification, and SMART framework to assess goals.

3.4 Targeting individuals found in the action stage

Individuals found in the action stage learn what to do differently and act to bring about the change; they work on spending issues despite the difficulty and are receptive to input. As self-esteem and self-control improve, the change becomes real (Cismaru et al., 2008; Grubman et al., 2011; Prochaska et al., 1992, 1994). Websites need to find a way to provide confirmation and support to individuals that they are on the right path to achieve their goals. Campaigns could encourage the individual to monitor the plan and adjust parts that may need to be revised and to increase the number of behavioral trails, duration of behavioral trails, or both (Grubman et al., 2011). Messages may also focus on encouraging people to follow their action plans and stick to their budgets; explaining what savings are and why they are so important; talking about emergency funds and retirement funds, and making people aware of the challenging situations that make action hard (Akdaş & Cismaru, 2021; Cismaru et al., 2008; Levit et al., 2016). Therefore, the information from the SEWING framework that campaigns may focus on while targeting individuals found in the action stage include, savings (definition, importance), and saving for emergency and retirement funds.

3.5 Targeting individuals found in the maintenance stage

During the maintenance stage individuals work to stay with the financial plan and maintain spending limits. They need structure to sustain the change efforts and avoid getting derailed back into relapse (Cismaru et al., 2008; Grubman et al., 2011). Websites will be very helpful in reinforcing the individual's efforts, praising success toward spending or saving milestones, and pointing out the benefits of the newfound financial independence (Grubman et al., 2011). Campaigns could try to make repeat behavior easy and maintain social pressure to reinforce the good behavior and increased incidence of sustained behavior (Andreasen, 1995, 2004; Cismaru et al., 2008, 2011; Slater, 1999). In this stage, it is important to destigmatize the recycling process and encourage people to view recurring financial problems as part of the natural course (Prochaska et al., 1992, 1994). People could be guided to invest some of their money after they have a comfortable emergency fund. It may be helpful to encourage learning from setbacks, such as understanding what happened and what can be done differently next time (Akdaş & Cismaru, 2021; Cismaru et al., 2008; Levit et al., 2016). Ideally, if people used to overspend, the problem will not return and the former temptations are no longer a threat. Therefore, the information from the SEWING framework that the focus should be on while targeting individuals found in the maintenance stage may address investments and assets growing, in addition to saving, in general, and savings accounts.

3.6 Discussion

In Study 2 we link our new developed SEWING framework with the TTM (Prochaska et al., 1992, 1994), the IMSM (Cismaru et al., 2008) and other relevant literature, to better understand different types of people and propose messages that better fit their needs. Our SEWING framework matches precontemplation with income and expenses, and budget, contemplation with needs and wants, preparation with goals, action with savings – emergency funds and retirement funds, and maintenance with investments (see Fig. 2). That does not mean that other variables cannot be discussed in any other stages; our model only posits what the focus could be for individuals found in different stages of change.

4 Conclusion and further research directions

This research succeeded in constructing a usable framework of the importance of making a personal budget and ways to create a budget based mostly on reviewing available on-line communications created by practitioners. It shows a new way of enhancing SM by learning from practitioners and their work, instead of relying mostly on theory. Indeed, the bridge between theory and practice is twofold:

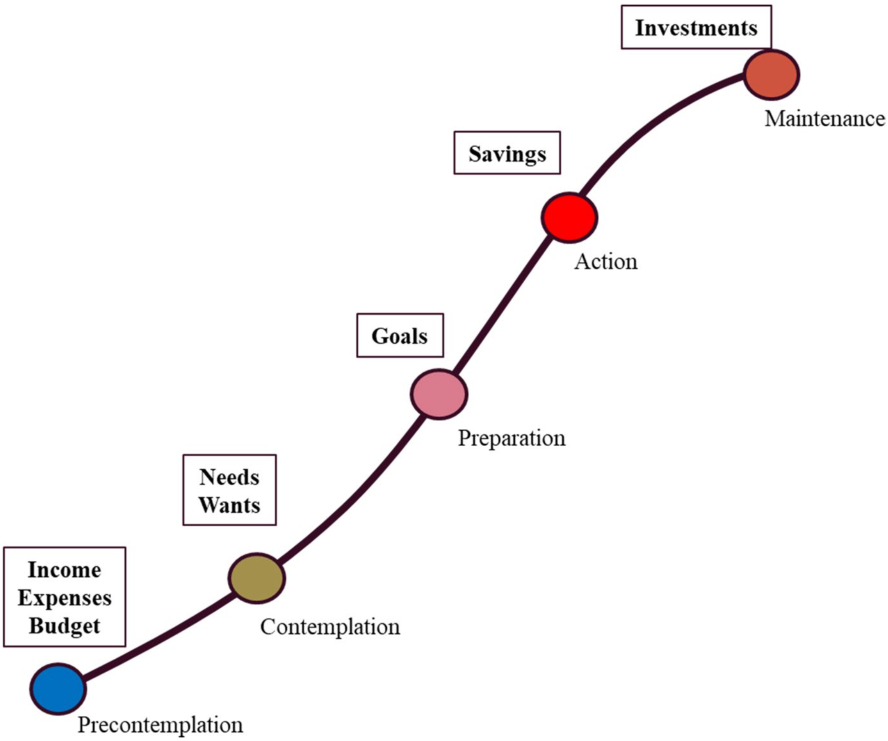

Fig. 2 Linking our SEWING Framework with the TTM

practitioners can learn from academics, as well, academics can learn from practitioners – for the good of the individual and the society as a whole.

Our research reviews the information available in academic databases and online for the general public and summarizes it to create a framework for personal budgeting. Individuals looking to improve their financial situation by creating a budget and flowing it or organizations attempting to promote personal budgeting have important information now available to them in a review form. Ideally, they won't feel overwhelmed by the multitude of sources and having no way to evaluate them. They can refer to our SEWING framework that builds on significant accumulated knowledge. Similar to the SMART framework which comes up with the initials of Specific, Measurable, Attainable, Relevant and Time Based for goals, we propose the **SEWING** framework which is created with the initials of Savings, Expenses, Wants, Income/ Investments, Needs and Goals. Ideally, by building strong and efficient personal budgeting, individuals will be able to sew the splits in their budget and prepare themselves a better future by avoiding financial leakages and creating a favorable balance.

Our research also proposes a way of presenting personal budgeting information to individuals found in different stages of readiness to change. Mostly based on academic work, this information would be useful to individuals or organizations that are working with people that would benefit from changing because it shows what the focus should be for different kind of target groups. By combining our newly created SEWING framework (derived from practitioners) with the Transtheoretical Model of Change (widely used by academics), we bridged the gap between the academics and practitioners in a very original and enriching way.

In short, we know better WHAT to communicate regarding personal budgeting and also we know better our target audience and HOW to communicate to different segments to better trigger behavior change. The next step is to further search for and incorporate insights from literature and practice regarding each of the identified keywords: for example, what do we know about needs? What is the relationship between needs, wants, and goals? What does the extensive literature regarding goals tell us in terms of the ideal number of goals, appropriate goals depending on income, and so on? By answering these questions and elaborating the analysis, the conceptual framework can be further enhanced.

Supplementary information The online version contains supplementary material available at https://doi.org/10.1007/s12208-023-00367-5.

Funding The first author received funding from Conexus Credit Union to conduct research in financial wellbeing.

References

Akdaş, O., & Cismaru, M. (2021). Promoting mental health during the COVID-19 pandemic: The transtheoretical model of change and social marketing approach. *International Review of Public and Nonprofit Marketing*. https://doi.org/10.1007/s12208-021-00307-1

Andreasen, A. R. (1995). *Marketing Social Change*. Jossey-Bass.

Andreasen, A. R. (2004). A social marketing approach to changing mental health practices directed at youth and adolescents. *Health Marketing Quarterly, 21*(4), 51–75. https://doi.org/10.1300/J026v21n04_04

Antonides, G., Manon de Groot, I., & van Fred, W. (2011). Mental budgeting and the management of household finance. *Journal of Economic Psychology, 32*, 546–555.

ANZ -Australia and New Zealand Banking Group Limited- (2018). *Financial wellbeing*. Available at: https://www.anz.com/resources/9/b/9b03e8e5-5e86-4d56-9e9a-019242b7862a/financial-wellbeing-nz18.pdf?MOD=AJPERES. Accessed 1 May 2022.

CFPB -Consumer Financial Protection Bureau- (2017). *Financial well-being in America*. Available at: https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-well-being-in-America.pdf. Accessed 1 May 2022.

Cismaru, M., Lavack, A. M., Hadjistavropoulos, H., & Dorsch, K. D. (2008). Understanding health behavior: An ıntegrated model for social marketers. *Social Marketing Quarterly, 14*(2), 2–32. https://doi.org/10.1080/15245000802034663

Cismaru, M., Cismaru, R., Ono, T., & Nelson, K. (2011). "Act on climate change": An application of protection motivation theory. *Social Marketing Quarterly, 17*(3), 62–84. https://doi.org/10.1080/15245004.2011.595539

Cismaru, M., & Wuth, A. (2019). Identifying and analyzing social marketing initiatives using a theory-based approach. *Journal of Social Marketing, 9*(4), 357–397. https://doi.org/10.1108/JSOCM-06-2018-0063

Davis, C. G., & Mantler, J. (2004). *The consequences of financial stress for individuals, families, and society*. Available at: https://www.researchgate.net/publication/229052873_The_Consequences_of_Financial_Stress_for_Individuals_Families_and_Society. Accessed 1 May 2022.

Diegelmann, S., Ninaus, K., & Terlutter, R. (2020). Distracted driving prevention: An analysis of recent UK campaigns. *Journal of Social Marketing, 10*, 243–264. https://doi.org/10.1108/JSOCM-07-2019-0105

FCAC -Financial Consumer Agency of Canada- (2019). *Canadians and their money*. Available at: https://www.canada.ca/content/dam/fcac-acfc/documents/programs/research-surveys-studies-reports/canadian-financial-capability-survey-2019.pdf. Accessed 1 May 2022.

French, J., & Blair-Stevens, C. (2006). *Social marketing: national benchmark criteria*. Available at: http://thensmc.com/sites/default/files/benchmark-criteria-090910.pdf. Accessed 1 May 2022.

Galperti, S. (2019). A theory of personal budgeting. *Theoretical Economics, 14*, 173–210. https://doi.org/10.3982/TE2881

Grubman, J., Bollerud, K., & Holland, C. R. (2011). Motivating and helping the overspending client: A stages-of-change model. *Journal of Financial Planning, 24*(3), 60–67.

Hastings, J. S., & Shapiro, J. M. (2013). Fungibility and consumer choice: Evidence from commodity price shocks. *Quarterly Journal of Economics, 128*(4), 1449–1498.

Hastings, J. S., & Shapiro, J. M. (2018). How are SNAP benefits spent? Evidence from a retail panel. *American Economic Review, 108 No 12*, 3493–3540.

Heath, C., & Soll, J. B. (1996). Mental budgeting and consumer decisions. *Journal of Consumer Research, 23*(1), 40–52.

Henderson, P. W., & Peterson, R. A. (1992). Mental accounting and categorization. *Organizational Behavior and Human Decision Processes, 51*, 92–117.

Kempson, E., Finney, A., & Poppe, C. (2017). *Financial well-being a conceptual model and preliminary analysis*. Available at: https://doi.org/10.13140/RG.2.2.18737.68961. Accessed 1 Apr 2022.

Kotler, P., & Lee, N. R. (2009). *Up and out of powerty*. Pearson Education Inc.

Lane, C. (2015). *In the life, on the scene: The spatial and discursive production of black queer women's scene space in Washington, D.C*. American University ProQuest Dissertations Publishing, 3738898. https://www.proquest.com/openview/9086326da2f23d69d7b8d0138bc341c3/1?pq-origsite=gscholar&cbl=18750. Accessed 1 May 2022.

Lee, N. R., & Miller, M. (2012). Influencing positive financial behaviors: The social marketing solution. *Journal of Social Marketing, 2*(1), 70–86. https://doi.org/10.1108/20426761211203265

Levit, T., Cismaru, M., & Zederayko, A. (2016). Application of the transtheoretical model and social marketing to antidepression campaign websites. *Social Marketing Quarterly, 22*(1), 54–77. https://doi.org/10.1177/1524500415620138

Levit, T., & Cismaru, M. (2020). Marketing social marketing theory to practitioners. *International Review on Public and Nonprofit Marketing, 17*, 237–252. https://doi.org/10.1007/s12208-020-00245-4

Lurtz, M., Kothakota, M., & MacDonald, M. (2017). *A theory of financial planning*. Available at: https://www.researchgate.net/publication/324668167_A_Theory_of_Financial_Planning. Accessed 01 May 2022.

Manikam, S., & Russell-Bennett, R. (2016). The social marketing theory-based (SMT) approach for designing interventions. *Journal of Social Marketing, 6*(1), 18–40. https://doi.org/10.1108/JSOCM-10-2014-0078

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*(9), 1102–1114.

Prochaska, J. O., Norcross, J. C., & DiClemente, C. C. (1994). *Changing for good* (1st ed.). William Morrow and Co.

PYMNTS.COM. (2021) *New Report: 53 Pct of upper-income americans live paycheck-to-paycheck*. Available at: https://www.pymnts.com/consumer-finance/2021/new-report-upper-income-americans-live-paycheck-to-paycheck/. Accessed 31 Dec 2021.

Rogers, R. (1983). Cognitive and physiological processes in fear-based attitude change: A revised theory of protection motivation. In J. Caccioppo & R. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153–176). Guilford.

Rogers, R. W., & Prentice-Dunn, S. (1997). Protection motivation theory. In D. S. Gochman (Ed.), *Handbook of health behavior research 1: Personal and social determinants* (pp. 113–132). Plenum Press.

Shockey, S., & Seiling, S. B. (2004). Moving into action: Application of the transtheoretical model of behavior change to financial education. *Journal of Financial Counseling and Planning, 15*(1). https://ssrn.com/abstract=2260467. Accessed 1 May 2022.

Slater, M. D. (1999). Integrating application of media effects, persuasion, and behavior change theories tocommunication campaigns: A stages-of-change framework. *Health Communication, 11*, 335–354. https://doi.org/10.1207/S15327027HC1104_2

Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science, 4*(3), 199–214.

Thaler, R. (1999). Mental accounting matters. *Journal of Behavioral Decision Making, 12*, 183–206.

Willmott, T., & Rundle-Thiele, S. (2021). Are we speaking the same language? Call for action to improve theory application and reporting in behaviour change research. *BMC Public Health, 21*, 1–8. https://doi.org/10.1186/s12889-021-10541-1

Witte, K. (1992). Putting the fear back into fear appeals: The extended parallel process model. *Communication Monographs, 59*, 329–349.

Witte, K. (1998). Fear as motivator, fear as inhibitor: Using the extended parallel process model to explain fear appeal successes and failures. In P. A. Andersen & L. K. Guerrero (Eds.), *Handbook of communication and emotion: Research, theory, applications, and contexts* (pp. 423–450). Academic.

Xiao, J. J., O'Neill, B., Prochaska, J., Kerbel, C., Brennan, P., & Bristow, B. (2004). A consumer education program based on the Transtheoretical Model of Change. *International Journal of Consumer Studies, 28*(1), 55–65.

Xiao, J. J., Ahn, S. Y., Serido, J., & Shim, S. (2014). Financial literacy and financial behaviour. *International Journal of Consumer Studies, 38*, 593–601. https://doi.org/10.1111/ijcs.12122

Zhang, C. Y., & Sussman, A. B. (2017). *The role of mental accounting in household spending and investing decisions. Client psychology*. Wiley, Chicago Booth Research Paper. (19 – 07).

Zhang, C. Y., & Sussman, A. B. (2018). Perspectives on mental accounting: An exploration of budgeting and investing. *Financial Planning Review, 1*(1-2), e1011.

Zhang, C. Y., Sussman, A. B., Wang-Ly, N., & Lyu, J. (2021). How consumers budget. Available at SSRN: https://ssrn.com/abstract=3739543 or https://doi.org/10.2139/ssrn.3739543. Accessed 1 May 2022.