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Responses to Economic Pressure by Low-Income Families: Financial Distress and Hopefulness

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Abstract Based on Boss' family stress model, the study examined whether financial adaptations and locus of control mediated levels of financial distress and hopefulness for low-income consumers experiencing economic pressure. Data were collected online from 221 low-income, Midwestern consumers. Structural equation modeling explored relationships. Those reporting more economic pressure reported higher financial distress, less hopefulness. When locus of control was more internal, however, participants reported less financial distress and more hopefulness. Those making more financial adjustments had more financial distress, but also more hopefulness, indicating that while the current situation was grim, adaptive responses fostered hopefulness that things would improve. Educators can emphasize financial behaviors that improve financial outcomes, facilitating greater perceived control over finances, more hopefulness, and reduced financial distress.

Keywords Economic pressure · Financial adjustments · Financial distress · Hopefulness · Locus of control

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Introduction

In mid 2008, economists attempted to predict the effect of the impending economic recession using data from the last three recessions in the United States, 2001, 1990–1991, and 1980–1982 (Schmitt and Baker 2008). Unfortunately, their grim predictions vastly underestimated the recession's impact [U.S. Bureau of Labor Statistics (USBLS) 2010; United States (U.S.) Census Bureau 2010], and October 2008 marked the beginning of a devastating worldwide economic crisis which economists have termed the worst recession since the Great Depression (Federal Reserve Bank of Chicago 2009); recovery over 2 years later is still slow.

Particularly hard hit were low-income families, a population already vulnerable to economic hardship due to reduced employment status and lack of liquid and non-liquid assets (Baek and DeVaney 2010; Edin and Kissane 2010; Rothwell and Han 2010). Low wages and part-time employment characterize the work variables of limited-resource families (Sheely 2010), so even small fluctuations in employment status can produce enormous economic pressure for such families (Barr and Blank 2009). Following the 2008 economic turndown, many such families found themselves facing devastating economic hardship and financial cutbacks, as they had no emergency funds or other financial assets to help cushion decreases in income (Barr and Blank 2009).

For limited resource families to survive hard economic times, resourcefulness and resiliency are key assets (Orthner et al. 2004). Framed by Boss' (2002) family stress theory, this study examined the role of resources and positive characteristics of families in mediating levels of financial distress during times of economic hardship. Specifically, the purpose was to determine whether financial adaptations and locus of control affected the levels of financial distress and hopefulness for low-income consumers experiencing economic pressure.

Theoretical Framework

Boss' (2002) ABC-X model of family stress was chosen as the theoretical framework for the study. According to Boss, stress refers to a disturbance in the equilibrium of the family system, so even strong families can undergo stress. A stressor is an event that may result in stress, the level of which is mediated by the resources available to the family and the way the family perceives the situation as they try to manage the change. In the ABC-X model, the stressor is represented by Factor A, and the resulting level of stress by Factor X. The mediating constructs, resources and perceptions, are represented by Factors B and C, respectively (Boss).

Boss (2002) contends that a family experiences stress within two different contexts. Within the first, the internal context, the family can exercise control to mediate stress; within the second, the external context, family members have no real control over what is happening. A stressor may be imposed upon the family from either context (Boss). In the current study, the economic environment within which the family operates was viewed as the external ecosystem from which the stressor, economic hardship, originated. The stressful situation was epitomized by the economic pressures and challenges imposed upon families as a result of the downturn in the economy, and represented Factor A in the model. The utilization of coping resources and the way in which the family perceived the economic stressor were hypothesized to help mediate the family's levels of financial distress and hopefulness. This stimulus–response process constitutes the basis of family stress theory (Boss).

Resources are the store of assets the family has to deal with a stressor, and may be characterized as economic, psychological, or physical (Boss 2002). Family resources can include strengths and capacities useful in obtaining things needed by the family (Hobfoll and Spielberger 2003) as they deal with the stressor. Coping mechanisms used by the family constitute such strengths, and help indicate whether the family is resilient (Boss 2002). For this study of families experiencing economic instability, financial adaptations used to cope represented Factor B (resources) in the family stress model.

Boss' (2002) family stress model emphasizes Factor C, or the family's appraisal of the stressor. According to Boss, the family's perceptions of the stressor (the meanings they attribute to it) constitute the variables most important in predicting their response to the stressor. Since families interpret situations differently based on a number of factors, an event deemed catastrophic by some may be only mildly challenging for others (Boss). For the current study, locus of control with respect to personal finances was chosen to represent Factor C, perceptions of the economic stressor.

For Factor X in the model, two variables were chosen to represent the stress outcomes in response to economic pressure: the level of financial distress the family experienced, and the family's level of hopefulness in the face of economic hardship. Framed by the constructs of family stress theory (Boss 2002), then, this study of low-income families was designed to determine whether financial distress and hopefulness were influenced by the level of economic pressure on the family, and whether they were mediated by the resources and perceptions of the family.

Review of Literature

Economists underestimated the economic and social costs of the 2008 economic recession on Americans (Schmitt and Baker 2008). The unemployment rate, for example, predicted to be 7.5% in 2010 if a severe recession occurred (Schmitt and Baker 2008), actually ranged from 9.4 to 9.8%, hitting its 2010 peak of 9.8% in April and November (USBLS 2011). And, unlike in other severe recessions in the 1970s and 1980s, after 16 months into the current recession, the unemployment rate continued to rise (USBLS 2010).

The anticipated recession-induced change in real median family income from the 2007 figure of $59,894 was a reduction of $3,742/year (Schmitt and Baker 2008). In reality, by 2009, real median family income had declined to $49,777, reflecting an average/year decline of $5,058 (U.S. Census Bureau 2010). The poverty rate was only slightly higher (14.3%) for 2009 (U.S. Census Bureau 2010) compared with the predicted rate (14.1%) (Schmitt and Baker 2008); nevertheless, this moved nearly 6.3 million more Americans into poverty from 2007 to 2009 (U.S. Census Bureau 2010). The current recession has been severe and persistent, and Americans have endured debilitating social and economic costs (USBLS 2010; U.S. Census Bureau 2010).

The Stressor: Economic Pressure in Response to Economic Hardship

Conger et al. (1992) first conceptualized the term, economic hardship, as a negative family financial situation based on low income, unstable employment, high debt-to-asset ratio, and loss of income. One result of economic hardship is economic pressure, measured by one's perceptions about the ability to meet the material needs and financial obligations of the family (Conger et al. 1992).

Many limited-resource families endure economic hardship and the economic pressure that accompanies it. Gudmunson et al. (2010), for example, found that those with lower incomes reported lower perceived income adequacy. Lower incomes were predictive of economic loss, or a downturn in the family's financial situation, as well as a greater inability to pay for material things needed by the family (Gudmunson et al. 2010). Schieman and Young (2011) found that economic hardship also was an important contributor to family-to-work conflict.

Conger et al. (2010), in a review of the theoretical advances made over the past decade with respect to socioeconomic status and family processes, indicated that the well-being of families and individuals suffers when economic resources are inadequate to support the family. Edin and Kissane (2010), in an effort to synthesize the research on causes and effects of poverty in families, developed a decade review of studies on this topic. They emphasized that families in poverty continue to struggle to meet the basic needs of the family.

Resources: Financial Adjustments

The need to cope with limited financial resources has produced a number of responses in families. According to Conger et al. (1992), some families make economic adjustments, or financial cutbacks, in response to economic pressure brought on by economic hardship. Living with another working adult, for example, has been a useful protective strategy for some (Gardner and Millar 2006). A number of families have reported using savings or credit to help them cope financially (Baek and DeVaney 2010), while others have relied on family and government supports, or have taken on additional jobs (Mistry et al. 2008). Rothwell and Han (2010) emphasized the importance of the accumulation of family assets, such as emergency funds, to help families cope during times of economic hardship. Regardless of the mechanism chosen to deal with financial difficulties, many struggling families are known to be resourceful in applying strategies to help them survive (Treas 2010).

Perceptions of the Financial Stressor: Locus of Control

A concept related to family strengths and resiliency is the idea of positive framing of a stressful situation. Boss (2002), in describing the psychological context of the family stress model, defined it as the meanings the family attaches to the situation producing the stress. According to Boss, the perceptions of the family about a stressor can serve as useful predictors of not only their management of the stressor, but also the level of distress experienced. A construct that may be helpful in understanding a family's perceptions of a stressor such as economic pressure is locus of control.

Researchers have studied the locus of control construct for over 40 years (Lefcourt 1976; Rotter 1966, 1990). In general, researchers view locus of control on a continuum from internal to external, based on people's perceptions of the amount that their actions influence outcomes in their lives. Those with an internal locus of control believe that what they do matters with respect to subsequent life experiences. Those with an external locus of control perceive that what happens to them in life is the result of fate, luck, or the actions of powerful others (Lefcourt 1976, Rotter 1966, 1990). Lefcourt (1976) pointed out that those with a more internal locus of control are more likely to think about directing activity toward goal achievement, while those whose locus of control is more external tend to focus on their inability to direct life experiences.

Over the past two decades, researchers have examined the influence of locus of control on family financial variables. Sumarwan and Hira (1993), for example, examined the influence of locus of control on satisfaction with one's financial situation. They found that those who had a more internal locus of control were more satisfied with their financial condition. Similarly, Danes (1991) found that women with a more internal locus of control reported a smaller perceived gap between their standard of living (the desired state) and their level of living (their actual state). Danes and Rettig (1993) investigated the influence of locus of control on perceived income adequacy, or the sufficiency of a stream of income in meeting the needs of the family. They found that those with higher perceived income adequacy also reported a more internal locus of control.

More recently, researchers examined the idea of perceived control over personal financial behaviors as it relates to intended financial behaviors and satisfaction with financial status. Shim et al. (2009), for example, in a study of antecedents and consequences of the financial well-being of young adults, examined perceived behavioral control over specific financial behaviors. Perceived control was related to both behavioral intentions and financial satisfaction. Those with higher levels of perceived behavioral control were more likely to intend to engage in positive financial behaviors and to be more satisfied with their financial status (Shim et al. 2009).

In the current study, locus of control will represent the variable contributing to families' perceptions of the economic pressure they are facing. The contribution of locus of control to the mediation of financial distress and hopefulness in low-income consumers will be examined. Additionally, since past research has indicated that those with an external locus of control tend to be less hopeful (Armstrong and Schulman 1990; Brackney and Westman

1992), the relationship between locus of control and hopefulness also will be examined.

Stress Outcomes: Financial Distress and Hopefulness

Financial Distress

Prawitz et al. (2006a) describe the construct of personal financial wellness as a subjective measure (i.e., feelings, appraisals, and reactions) rather than an objective one (e.g., income; assets). As such, financial wellness can be conceptualized as a continuum extending from overwhelming financial distress/lowest financial well-being to no financial distress/highest financial well-being. So, while the construct might be measured as financial distress, lack of such distress then indicates the presence of high financial well-being (Prawitz et al. 2006a).

Family and consumer science scholars have studied the relationships between financial distress and a number of other variables. Researchers have found, for example, that those with more distress stemming from economic hardship or personal financial problems reported more negative financial behaviors (O'Neill et al. 2005, 2006), poorer health (Bagwell and Kim 2003; O'Neill et al. 2005, 2006), and more absenteeism from the workplace (Bagwell and Kim 2003; Kim and Garman 2003). Since financial distress is related to negative behaviors and outcomes, this study was designed to determine whether financial distress was directly related to economic pressure, and whether perceptions and resources of the family could mediate levels of financial distress.

Hopefulness

The concept of hopefulness is similar to the theoretical perspective of Bandura (1982) with respect to self-efficacy expectancies, and that of Scheier and Carver (1987) in relationship to outcome expectancies. Snyder et al. (1991) presented evidence that both constructs meaningfully impact behavior related to the construct of hopefulness. It is this conceptualization of hopefulness as a combination of both goal-directed expectancies (agency) and planning ways to achieve goals (pathways) that distinguishes the construct of hopefulness from that of either self-efficacy or outcome expectancies alone (Snyder et al. 1991).

Researchers have studied hopefulness as it relates to a number of variables such as optimism (Seligman 2006), locus of control (Armstrong and Schulman 1990; Brackney and Westman 1992), and psychological distress (Horton and Wallander 2001). No studies were found, however, that examined relationships among locus of control, financial adaptations, and hopefulness for those undergoing economic hardship. The current study will investigate these relationships.

The Conceptual Model

Based on Boss' (2002) ABC-X family stress model and past literature, a conceptual path model was developed to guide this study of low-income consumers experiencing differing levels of economic pressure. (See Fig. 1.) In the model, "cannot make ends meet" and material needs represented the economic stressor (Boss 2002), and were the exogenous variables originating from outside the model. The economic pressure variables were hypothesized to predict the resulting levels of financial distress and hopefulness felt by the family.

Two variables were expected to mediate the levels of financial distress and hopefulness resulting from economic pressure. Financial adjustments represented coping resources utilized by the family, and locus of control represented the family's perceptions about the stressor (Boss 2002). These two variables were endogenous variables originating from within the model, as were financial distress and hopefulness (Fig. 1).

Consistent with family stress theory (Boss 2002) and the past literature, and keeping in mind that lower financial distress scores indicated more financial distress, we developed hypotheses which are summarized here and in Fig. 1. We proposed that a higher level of economic pressure ("cannot make ends meet" and material needs) would predict greater financial distress, less hopefulness, more financial adjustments, and a more external locus of control. Since a more internal locus of control indicates a perception that one's actions influence subsequent

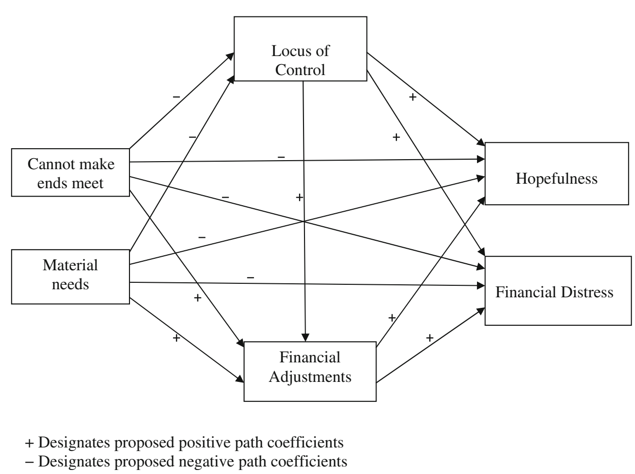

Fig. 1 Conceptual model of financial distress and hopefulness

outcomes, a more internal locus of control was expected to be related to more financial adjustments. Additionally, we predicted that more financial adjustments and a more internal locus of control would result in lower levels of financial distress and more hopefulness.

Methodology

Sampling and Data Collection

A regional sample of 221 adults in the following eight states were selected for the sample: Indiana, Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin. These states were chosen because they represented Midwestern states for which the state minimum wage was the same ($7.25/hr.) at the time of sample selection. The sample of low-income consumers was provided by an online survey service with a consumer panel of over 2.5 million people who have been profiled on over 500 demographic, occupational, and geographic attributes. For the structural equation modeling planned, a power analysis had indicated that a power of 0.80 for the test of close fit could be achieved (given $d = 53$) with a sample size of 221 (MacCallum et al. 1996), so this was the sample size requested for the study. Data were collected online over a one-week period in March 2010; there was a 100% response rate.

Instrumentation

Felt Constraint: Cannot Make Ends Meet

To measure this facet of economic pressure in response to economic hardship, a two-item measure developed by Conger et al. (1992) was selected. The first item used 5-point response choices to indicate level of difficulty in paying bills, with 1 = *a great deal of difficulty* and 5 = *no difficulty at all*. The second item offered 4-point response choices from 1 = *more than enough money left over* to 4 = *not enough to make ends meet* in response to a query about amount of money left at the end of each month. Because data collection took place 18 months following the October 2008 start of the economic crisis, we provided the time frame context of 18 months instead of the 12-month time frame in the original Conger et al. (1992) measure.

To compute scores for the measure, the responses to item 1 were reverse-coded. Data for both items were standardized as Z scores and then summed, with higher scores representing more negative responses. The summed, standardized scores measured the variable, "cannot make ends meet," as a felt constraint in the current study.

Felt Constraint: Material Needs

Six items made up the measure for the construct, lack of material needs as a felt constraint, and inquired about whether respondents had enough money to afford the kinds of goods and services they needed or felt they should have (Conger et al. 1992). Response choices ranged from 1 = *strongly agree* to 5 = *strongly disagree*. Item responses were summed to compute scores ranging from 6 to 30, with higher scores representing greater felt constraints emanating from lack of ability to satisfy material needs (Conger et al. 1992).

Financial Adjustments

This variable represented the number of different kinds of financial changes or cutbacks participants had made over a specific period of time in response to financial hardship (Conger et al. 1992). As in the first felt constraints measure, the time frame context was changed from 12 to 18 months to reflect the number of months that had elapsed since the start of the economic crisis in October 2008. The 30-item list included such situations as *changed food shopping or eating habits to save money*. Response choices were 1 = *yes*, and 0 = *no*. (See Table 1 for a list of financial adjustments.) Responses were summed, and scores could range from 0 to 30, with higher scores indicating greater incidence of financial cutbacks (Conger et al. 1992).

Hopefulness

Hopefulness was operationalized using the Trait Hope Scale, also called the Adult Hope Scale. Developed by Snyder et al. (1991), the instrument taps into two distinct yet related components of hope: agency (goal-directed expectancies), and pathways (planning how to meet goals). Through multiple studies, Snyder et al. (1991) have established reliability and validity for the Trait Hope Scale.

The scale is made up of 12 items; four assess agency, four assess pathways, and four represent fillers that do not serve as part of the measure (Snyder et al. 1991). Response choices are presented on a 4-point scale that allows respondents to indicate the extent to which the item refers to them, with 1 = definitely false, and 4 = definitely true. Overall scores for the Trait Hope Scale are summative, and can range from 8 to 64, with higher scores indicating higher levels of hopefulness (Snyder et al. 1991). For this study, scores on the overall Trait Hope Scale were used to measure the variable, hopefulness.

Table 1 Characteristics of the Sample ($N = 221$)

Characteristic	Frequency	Percent (%)
Gender		
Male	107	48
Female	114	52
Marital Status		
Single, never married	79	36
Single living with partner	14	6
Married	62	28
Widowed	14	6
Divorced	47	21
Separated	5	2
Race		
Black/African American	6	3
Hispanic/Latino	4	2
White	201	91
Other	10	5
Age in years		
19–30	41	19
31–40	32	15
41–50	55	25
51–60	58	26
61–70	26	12
71–77	8	4
Missing	1	–
Years of education		
Fewer than 12	20	10
12	60	29
13	19	9
14	41	20
15	17	8
16	29	14
17 or more	18	9
Missing	17	8
Income		
$10,000 or less	41	19
$10,001–15,000	37	17
$15,001–20,000	47	21
$20,001–25,000	63	64
Over $25,000	33	15
Number of children in household under 18 years of age		
0	171	78
1	26	12
2	18	8
3 or more	5	2
Missing	1	–
Number of children in household over 18 years of age		
0	181	82
1	27	12
2	9	4
3 or more	4	2
Financial adjustments reported over last 18 months		
Took on extra job or jobs to help meet expenses	64	29
Took on additional responsibilities at home so that another family or household member could work	41	19
Used savings to meet daily living expenses	111	50
Received government assistance	71	32
Sold possessions because of financial need	63	29
Cashed in life insurance because of financial need	13	6
Sold property to raise money	15	7
Bartered (traded) with others for goods or services	50	23
Purchased more items on credit than I used to	68	31
Borrowed money to help pay bills	66	30
Postponed major household purchase(s)	133	60
Dropped plans for going to college	22	10
Cut back on social activities and entertainment expenses	161	73
Postponed medical/dental care	120	54
Postponed a planned vacation	95	43
Purchased second-hand goods rather than new	144	65
Changed food shopping or eating habits to save money	158	72
Changed residence to save money	31	14
Reduced contributions to church	69	31
Reduced other charitable contributions	109	49
Reduced driving a car to save money	123	56
Reduced household utility use	142	64
Reduced or let life insurance lapse	38	17
Reduced or eliminated medical insurance	48	22
Reduced or eliminated auto or household insurance	34	15
Postponed or delayed paying property tax	21	10
Stopped paying your bills	22	10
Forfeited a contract for land or other property	6	3
Considered taking bankruptcy	42	19
Took bankruptcy	18	8

Note: Totals may not equal 100% due to rounding

Locus of Control

For the current study, the locus of control variable was measured with a locus of control index developed by Danes

(1991). Originally based on the work of Edwards and Booth (1976) and Bugaighis and Schumm (1983), the items were chosen to measure the level of control respondents felt they had over their lives (Danes).

The instrument was adapted for this study specifically to measure locus of control with respect to financial matters. That is, the words, "financial" or "financially" were inserted into the items as grammatically appropriate; the final version of the adapted instrument comprised seven items. Three items were reverse-coded so that higher summed scores (which could range from 7 to 35) indicated a more internal locus of control (Danes 1991).

Financial Distress

Financial distress was measured using the eight-item Personal Financial Wellness (PFW) scale™ developed by Prawitz et al. (2006a, 2006b) to measure financial well-being on a continuum from 1 = *overwhelming financial distress/lowest financial well-being* to 10 = *no financial distress/highest financial well-being*. Originally called the incharge financial distress/financial well-being (IFDFW) scale, the instrument has undergone extensive testing for validity and reliability (Prawitz et al. 2006a, 2006b). Mean scores were computed by summing the responses to each of the eight items, then dividing by eight. For the current study, computed scores were used to measure the construct, financial distress, with lower scores indicating higher levels of financial distress.

Results

Descriptive Statistics

The sample for this study consisted of 221 low-income adults, 85% of whom reported gross annual incomes under $25,000. The mean income was $15,001–17,500. The gender split for the sample was nearly equal, with 48% (n = 107) males and 52% (n = 114) females. Most (72%, n = 159) were single (never married, single living with partner, widowed, divorced, or separated) and white 91% (n = 201). The mean age for the participants was 46 years, and the mean number of years of education was 13. The majority (78%, n = 171) had no children living in the household. See Table 1.

The subjects reported a range of scores on the variables representing economic pressure in response to economic hardship. Scores for material needs, the variable representing lack of ability to provide for goods and services needed or wanted by the family, ranged from 6 to 30, with a mean of 18, indicating that participants were experiencing relatively high levels of economic pressure in this regard. Since the variable, "cannot make ends meet," used standardized Z scores, a summary of those data are not presented here. In general, though, higher scores indicated more difficulty in being able to pay bills.

The variables representing resources of the family and perceptions of the family about the economic stressor were represented by financial adjustments and locus of control, respectively. Financial adjustments, representing the number of different changes participants made in response to economic hardship, ranged from 0 to 30, with a mean of 9. Locus of control scores ranged from 10 to 30, with a mean score of 21, indicating that locus of control for the sample overall was located at the midway point between internal and external on the continuum.

The stress outcome variables were measured by financial distress scores and hopefulness scores. Financial distress scores could range from 1 to 10, which was the range reported by this sample of low-income consumers. The mean score for the sample was 4.0, indicating high financial distress/poor financial well-being overall (Prawitz et al. 2006a). Participants reported scores on the hopefulness measure ranging from 8 to 64, with a mean score of 40, indicating higher levels of hopefulness overall.

Testing of the Path Model

Data were analyzed using structural equation modeling to test the hypotheses developed based on the ABC-X model of family stress (Boss 2002). A Pearson product moment correlation matrix was produced for all variables contained in the structural equation model to help determine whether multicollinearity would pose a problem in the path analysis (Table 2). The correlations among the independent and dependent variables were not strong ($r \leq 0.80$), so the fit of the model was not anticipated to be affected by multicollinearity.

Testing of the hypothesized model indicated that, overall, the model fit the data well based on model fit indices ($\chi^2 = 0.09$, $df = 1$, $p = 0.77$; RMSEA = 0.00; CFI = 1.0; IFI = 1.0). Results of the model are presented in Fig. 2 and summarized in Table 3. There was partial support for the conceptualized model, with direct effects between each of the economic pressure variables, "cannot make ends meet" and material needs, and the stress outcome variable, financial distress. That is, those who experienced more economic pressure in response to economic hardship exhibited more financial distress as a result. A direct effect also was found between material needs and hopefulness. Those less able to afford the goods and services the family needed were less hopeful about the future.

Relationships among the mediating variables (locus of control and financial adjustments) and the stress outcome variables were examined. Locus of control had a direct

Table 2 Bivariate correlations, means, and standard deviations for observed variables ($N = 221$)

Variable	1	2	3	4	5	Mean	SD
1. Cannot make ends meet	–	–	–	–	–	0.00	1.84
2. Material needs	0.65*	–	–	–	–	17.58	6.21
3. Financial adjustments	0.63*	0.50*	–	–	–	9.49	5.78
4. Hopefulness	−0.33*	−0.40*	−0.12	–	–	40.64	10.53
5. Locus of control	−0.41*	−0.38*	−0.33*	0.56*	–	21.33	3.94
6. Financial distress	−0.76*	−0.64*	−0.66*	0.32*	0.48*	4.04	2.13

Note. * $p \leq .001$

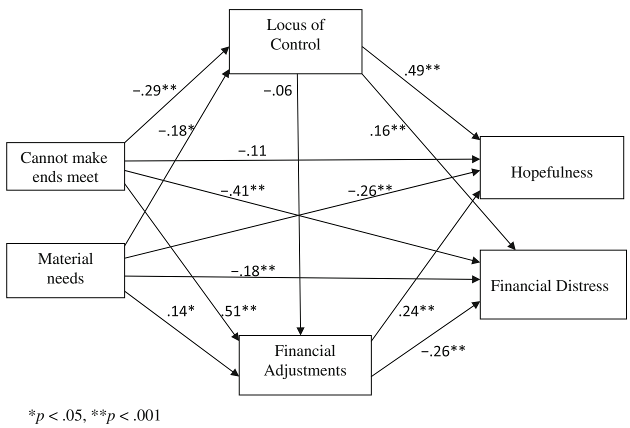

Fig. 2 Structural model of financial distress and hopefulness

effect on both hopefulness and financial distress. Those with a more internal locus of control reported more hopefulness and less financial distress. Direct effects also were observed between financial adjustments and both hopefulness and financial distress. Those who reported more financial adjustments also reported more hopefulness and more financial distress. Locus of control was not related to financial adjustments.

We hypothesized that the financial constraint, "cannot make ends meet," would be inversely correlated with locus of control, and that hypothesis was supported. Those more likely to indicate an inadequate amount of money left at the end of each month reported a more external locus of control. We also hypothesized an inverse relationship between "cannot make ends meet" and hopefulness. While there was no direct impact of "cannot make ends meet" on hopefulness, the relationship between the two was mediated by locus of control. That is, for those who reported less ability to make ends meet, hopefulness was higher when locus of control was more internal.

Material needs were directly related to locus of control; those who could not afford the kinds of goods and services they needed reported a more external locus of control. Locus of control also served as a mediating variable between material needs and both hopefulness and financial distress. For those who were less able to purchase things needed by the family, there was more hopefulness and less financial distress when locus of control was more internal.

There were direct effects of the economic pressure variables, "cannot make ends meet" and material needs, on financial adjustments. That is, those who experienced more economic pressure were more likely to make more financial adjustments. Financial adjustments also served as a mediating variable between each of the economic pressure variables and both hopefulness and financial distress. Those experiencing greater economic pressure who coped by making more financial adjustments reported more financial distress but also more hopefulness.

Discussion and Implications

This study, based on Boss' (2002) family stress model, was designed to determine whether low-income consumers' coping resources and perceptions of economic pressure mediated levels of financial distress and hopefulness. There were both direct and indirect effects of economic pressure and mediating variables on financial distress and hopefulness, and these findings are discussed below.

As expected, those reporting more economic pressure in response to economic hardship were likely to experience more financial distress and less hopefulness. This finding was supported by the theoretical premise that a stressor, such as economic pressure, would provoke a stress response in the family (Boss 2002), so it was expected that those reporting less ability to provide for their families would exhibit more financial distress and have a more bleak future outlook. Participants in this study with a more internal locus of control, however, despite high levels of economic hardship, were likely to report less financial distress and more hopefulness. This finding also supports Boss' (2002) theory, that the way families view adverse events contributes to the subsequent level of stress experienced by the family. For consumers experiencing economic pressure, then, the perceptions that they were still in control of their financial lives, and that what they chose to

Table 3 Path tests in the structural model

Path	Unstandardized path coefficients (standard error, t value)	P	Completely standardized path coefficients
Cannot make ends meet → Locus of control	−0.63 (0.17, −3.66)	$p < 0.001$	−0.29
Material needs → Locus of control	−0.12 (0.05, −2.28)	$p < 0.05$	−0.18
Cannot make ends meet → Financial adjustments	1.60 (0.22, 7.21)	$p < 0.001$	0.51
Material needs → Financial adjustments	0.13 (0.06, 2.03)	$p < 0.05$	0.14
Locus of control → Financial Adjustments	−0.09 (0.08, −1.08)	$p = 0.28$	−0.06
Cannot make ends meet → Hopefulness	−0.61 (.46, −1.34)	$p = 0.18$	−0.11
Cannot make ends meet → Financial distress	−0.48 (0.07, −7.09)	$p < 0.001$	−0.41
Material needs → Hopefulness	−0.45 (0.12, −3.70)	$p < 0.001$	−0.26
Material needs → Financial distress	−0.06 (0.02, −3.44)	$p < 0.001$	−0.18
Locus of control → Hopefulness	1.31 (0.16, 8.37)	$p < 0.001$	0.49
Locus of control → Financial distress	0.09 (0.02, 3.76)	$p < 0.001$	0.16
Financial adjustments → Financial distress	−0.09 (0.02, −5.10)	$p < 0.001$	−0.26
Financial adjustments → Hopefulness	0.43 (0.13, 3.45)	$p < 0.001$	0.24

do made a difference, helped ease financial distress and facilitate hope that things would get better.

The direct effect of locus of control over one's finances on hopefulness is an important one, and supports the findings of other researchers, that those with an external locus of control tend to be less hopeful (Armstrong and Schulman 1990; Brackney and Westman 1992). The opposite is true as well, as evidenced by the findings of this study, that an internal locus of control is supportive of a more hopeful outlook for the future. According to Lefcourt (1976), those with a more internal locus of control are more likely to direct their efforts toward goal achievement. Goal-oriented behavior also indicates a hopefulness that actions taken now will lead to positive future financial outcomes.

Boss (2002) refers to coping strategies, including behavioral responses to stressful situations, as part of the family's store of resources. For the current study, families' use of financial adjustments was examined in relationship to the amount of economic pressure they experienced. As expected, those who had trouble making ends meet and those who could not afford things needed by the family reported making more financial adjustments. This behavioral response to economic pressure supports Boss' (2002) theoretical premise that resilient families will respond to a stressor in ways that promote recovery and growth.

We also hypothesized that economically pressured individuals who made more financial adaptations would experience more hopefulness and less financial distress, but the results were unexpected. While those who had to make more adjustments did report more hopefulness, they also reported more financial distress. One explanation for this finding is that financial distress, as it was conceptualized for this study, represented feelings about the current financial situation. Hopefulness, on the other hand, has a future-oriented perspective. So, while things at the present time may have seemed grim, participants who made financial adjustments to improve their current financial situation did so in anticipation of better times ahead. Taking on another job to help meet expenses, using savings to meet daily living expenses, and cutting back on entertainment expenses represented the kinds of changes made by families in this study. Such actions are considered financial management strategies, or coping behaviors useful in moving past situations of financial hardship. It is not surprising, then, that those experiencing economic pressure who reported increased incidence of financial adjustments also reported more hopefulness for the future. Their action-oriented, purposeful responses to stressful economic conditions likely played a part in increasing feelings of hopefulness that things would get better.

The findings of this study have important implications for consumer educators and other financial practitioners. Courchane and Zorn (2005) have found that consumers who are more optimistic, who worry less about financial matters, and are more able to cope, make better decisions about their personal finances. Increased financial literacy, they contend, leads to improved financial outcomes (Courchane and Zorn 2005). Those with improved financial outcomes, such as changes in credit worthiness following participation in financial education initiatives, likely will become more optimistic and be less troubled by financial concerns.

Financial education efforts that focus on short-run changes, such as developing realistic budgets that prevent running out of money, produce more immediate results for participants, and may lead to positive changes in the long run (Lyons et al. 2006). This is particularly important for low-income audiences, since focusing on long-term financial goals may be discouraging rather than inspirational for them (Lyons et al. 2006). Limited-resource financial education participants who experience positive outcomes in the short run, such as being able to pay their bills on time, likely will begin to feel more in control of their financial lives and, as a result, more hopeful and optimistic about their financial futures.

Hathaway and Khatiwada (2008), in a review of financial literacy programming, provided evidence that financial education programs are more likely to be effective if they are targeted to specific audiences (e.g., low-income families). For limited-resource audiences, for example, basic financial education about how to make better decisions is most effective when program goals are targeted specifically to their situation (Hathaway and Khatiwada 2008). Anderson et al. (2004) have recommended that, when working with low-income audiences, consumer educators gear their instruction to appropriate use of resources typically available to such constituents, such as wages and government benefits. Strategies for accessing all such resources available also would be an important component of programs for limited-resource families. Increases in access to resources and improved skills in utilizing them can lead to greater perceived control over the family's financial condition. This, in turn, can decrease feelings of financial distress and foster hopefulness for a better financial future.

Education to encourage accumulation of an emergency fund would be another important consideration for limited resources families. Bernheim and Garrett (2003) found that financial education stimulated savings in participants, particularly in low-income consumers. They emphasized that a national campaign to promote saving through financial education could lead to positive behavior changes, especially for those least likely to save otherwise (Bernheim and Garrett 2003). An accumulation of liquid assets likely would lead to a reduction in financial distress and promote hopefulness for consumers accustomed to living paycheck-to-paycheck.

Future studies evaluating financial education efforts can be designed to measure not only changes in financial behaviors such as ability to pay bills on time and accumulation of an emergency savings fund, but also changes in subjective measures of financial well-being. While long-term financial behavior changes may be hard to track in financial education program participants, changes in subjective constructs such as their perceptions of control as they take charge of their personal financial lives, their outlook for the future, and their levels of financial distress can be measured at the end of the program as part of the evaluation process. Financial education programs that help low-income consumers experience immediate positive results can provide optimism and hope for a better financial future, and may motivate continuation of improved financial behaviors.

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