A SUBSEQUENT STUDY OF THE RELATIONSHIPS BETWEEN SELF-WORTH AND FINANCIAL BELIEFS, BEHAVIOR, AND SATISFACTION

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ABSTRACT
This paper presents results from a study conducted to examine findings published in the Journal of Family and Consumer Sciences about the relationships between self-worth (i.e., self-esteem) and financial beliefs, behavior, and satisfaction [J. F. Hira and O. M. Mugenda, (1999). Journal of Family and Consumer Sciences, 91 (4), 76–82]. Results from this study, based on a sample of faculty and staff from two Midwestern universities (N = 406), confirmed Hira and Mugenda's core findings that an individual's self-esteem and self-perception, in relation to others and in relation to societal expectations, are related to financial beliefs and satisfaction. In this study, self-esteem was influenced most significantly by financial satisfaction, financial confidence, and education. The paper concludes with recommendations for educators, counselors, planners, and researchers.

Hira and Mugenda (1999), in a recent issue of the *Journal of Family and Consumer Sciences*, concluded that an individual's self-worth and self-perception in relation to others and in relation to societal expectations are related to financial beliefs and satisfaction. The authors went on to suggest in their study of the relationships between self-worth, financial beliefs, and satisfaction that one's perceptions, rather than tangible resources, play the most important role in predicting a person's self-worth.

Findings presented by Hira and Mugenda (1999) were noteworthy because they brought to light the concept that financial beliefs and satisfaction may not only be a driving force in people's perception of themselves, but possibly the *most* important factors influencing self-worth. In other words, they determined that financial beliefs and satisfaction appear to be factors that shape an individual's self-worth. Although this may seem intuitive to some, this finding runs counter to much of the theory and research describing the attributes of self-worth. This finding also contradicts certain beliefs held by many in the financial services profession (e.g., Shelbecker and Roszkowski, 1993).

Two related questions emerge from the findings presented by Hira and Mugenda (1999). First, because of the long-term ramifications of their research, both in terms of research and in practitioner application, can their conclusions be verified by using a similar methodology and different sample, and second, are the core findings presented consistent and reliable? The purpose of this paper is to examine these questions by presenting findings from a subsequent study to determine whether or not financial satisfaction, beliefs, and behaviors affect a person's self-esteem.

BACKGROUND

Over the past decade, family and consumer sciences researchers have attempted to model the determinants of financial beliefs and financial satisfaction with varying degree of success (Porter and Garman, 1993; Wilhelm and Varcoe, 1991; Williams, 1993); however, few multidisciplinary research efforts have been undertaken to understand the determinants of related psychosocial constructs, such as self-esteem. Even fewer attempts have been directed at either adapting existing theoretical frameworks or developing a new framework for use in understanding the potentially complex relationships among beliefs, attitudes, behaviors, and self-esteem (Hira and Mugenda, 1999). Some (e.g., Joo and Grable, 1999) have proposed that a useful framework will only emerge after more exploratory research is conducted, such as that originally undertaken by Hira and Mugenda.

The beginning point in understanding potential relationships between and among self-worth (i.e., self-esteem), financial beliefs, financial behaviors, and financial satisfaction involves defining what is meant by self-esteem. According to Hira and Mugenda (1999) and others (Snodgrass and Thompson, 1997), the psychological constructs of self-worth, self-esteem, and self-concept are highly related. In their study, Hira and Mugenda focused on the construct of self-worth, defined as "an evaluation one makes of the self-concept descriptions and the degree to which one is satisfied" (p. 76). In many respects, self-worth is a reflection of a person's self-confidence.

Hira and Mugenda (1999) used this definition to develop a measurable construct of self-worth. They then used data from a random sample of 2,000 Iowans to test the relationships between self-worth and financial beliefs, behaviors, and financial satisfaction and to determine statistically significant predictors of self-worth. Hira and Mugenda used a variety of statistical methods, including χ^2 tests, correlation analyses, and regression analysis, to examine these relationships and to determine statistically significant predictors. They developed measures for (a) self-worth, (b) financial worries, (c) financial satisfaction, (d) spending behavior, and (e) perceived comparative financial situation. Other variables used in the multiple analyses included a respondent's age, household income, marital status, gender, education, employment status, and parental attitudes.

Several interesting and striking relationships associated with self-worth and financial beliefs and behaviors were found in their study. First, there were no statistically significant differences between high and low self-worth individuals in terms of age, income, marital status, or gender. They did find differences between self-worth groups in terms of education and employment status. Those with more education and those who were currently employed tended to exhibit higher levels of self-worth. Individuals with a high self-worth also tended to be those who were more satisfied with their current financial situation and were optimistic about their future financial situation; however, they did not find a significant relationship between financial behaviors and self-worth, suggesting that some people spend because they have a high self-worth, whereas others spend excessively because they have a low self-worth.

If it is found in subsequent studies that the findings reported by Hira and Mugenda (1999) are both reliable and generalizable, it is possible that these findings can be used to support developing and adapting a theory for explaining relationships among financial beliefs, financial satisfaction, financial behaviors, and psychosocial constructs, such as self-esteem. The remainder of this paper describes the methodological approach taken to test Hira and Mugenda's conclusions, which is followed by a report of findings, discussion, and conclusions.

Table 1. **Demographic Profile of the Two Samples**

VARIABLE	SAMPLE MEANS	HIRA & MUGENDA SAMPLE MEANS
Age	43.20 years	48 years
Income	$52,500	$53,192
Marital Status		
Married	63%	73%
Not Married	37%	27%
Gender		
Males	45%	76%
Females	55%	24%
Education		
<Bachelor's degree	38%	Not Reported
>Bachelor's degree	62%	
Ethnic Background		
Caucasian/White	87%	Not Reported
Non-Caucasian	13%	

METHODOLOGICAL BACKGROUND

Study data were obtained from a convenience sample of faculty and staff from two large Midwestern universities. During the last quarter of 1999, 1,000 questionnaires were distributed to potential respondents. Those included in the sample were chosen, at random, from university directories. Of the original surveys distributed, 478 were returned. Eighteen surveys were returned as nondeliverable and 54 were incomplete, leaving 406 useable-returned surveys. The useable response rate was 41.3%, which was comparable to that obtained by Hira and Mugenda (1999). Table 1 summarizes the mean sample characteristics for the respondents in this analysis. For comparison purposes, mean demographic data from the Hira and Mugenda sample are also provided. The sample used in this study was comparable to that used by Hira and Mugenda in that both samples were drawn from Midwestern states; however, respondents in this sample were slightly younger, less likely to be married, and more evenly split between males and females. The age demographic of the Hira and Mugenda sample more closely resembled the overall U.S. population (U.S. Bureau of the Census, 1999); however, the sample used in this study, in terms of marital status and gender, matched more closely with the U.S. population.

The first step in this test of Hira and Mugenda's (1999) research involved recreating the variables used in their study. The following discussion highlights how the variables used by Hira and Mugenda corresponded to the variables used in this study.

SELF-WORTH

Hira and Mugenda (1999) used four 4-point Likert-type items to create a summated rating scale of self-worth. The four items were similar to those commonly used to measure self-esteem (Robinson et al., 1991). These items included the following: (a) I take a positive attitude toward myself; (b) I am a person of worth; (c) I am able to do things as well as other people; and (d) As a whole, I am satisfied with myself. The reported reliability coefficient for this index was 0.87. In this study, 10 items measuring self-esteem developed by Rosenberg (1965) were used. These items included the following: (a) At times I think I am no good at all; (b) I take a positive attitude toward myself; (c) I feel that I'm a person of worth, at least on an equal basis with others; (d) I feel that I have a number of good qualities; (e) All in all, I am inclined to feel that I am a failure; (f) I certainly feel useless at times; (g) I am able to do things as well as most other people; (h) I feel I do not have much to be proud of; (i) I wish I could have more respect for myself; and (j) On the whole, I am satisfied with myself. Each item was measured using a 4-point Likert-type question (1 = strongly disagreed and 4 = strongly agreed). Items (a), (e), (f), (h), and (i) were reverse coded. The average score on this self-esteem measure was 33.90, with a standard deviation of 4.71 and a median of 34.00. The reliability coefficient for the index was 0.89.

FINANCIAL WORRIES (STRESSORS)

Hira and Mugenda (1999) measured the level of financial worries of respondents in their study by summing responses to the following three statements (using a 5-point Likert scale: 1 = never and 5 = very often): (a) How often do you worry about your finances?, (b) Do your financial problems interfere with your daily activities?, and (c) Do your financial problems interfere with your personal relationships? Instead of measuring worry attitudes directly in this study, a series of stressor event items, which have been shown to lead to increased financial worries (Garman et al., 1999; Joo, 1998) were used. Although not an exact proxy for financial worries, Poduska (1993) and others have argued, "stress is associated with anxiety, fear, discomfort, distress, and worry" (Mehrabian, 1991, p. 28). As such, stressor event items were used in this study rather than worry attitude items.

The stressor items used in this study required respondents to check all of the events that occurred to them over the past year. Examples of stressor events included: (a) My income decreased, (b) I had an investment and/or business loss, (c) I had a vehicle accident that cost a lot of money, and (d) I filed for personal bankruptcy. Items checked were summed to create an index of financial stress, with a higher score representing a higher level of financial stress and a lower score suggesting fewer financial stresses. From a total of 24-item questions, the mean score was 1.78, with a median of 2.00.

FINANCIAL SATISFACTION

Hira and Mugenda (1999) used a series of six statements, summarized into a financial satisfaction index, to measure respondents' satisfaction with their financial situation. In this study, one item with 10 levels, presented as an "anchored stair step assessment," was used to assess financial satisfaction. The use of a self-anchoring scale has its origins in research originally conducted by Cantril (1965). In an earlier study, Porter and Garman (1993) used a variation of the scale to measure the financial situation of respondents and concluded that while distributions of respondent's well-being using the scale varied, distributions were "very similar to earlier satisfaction research results" (p. 139). On the basis of this findings, Joo (1998) used a revised 10-level stair-step assessment, which was similar to the one used in this study, to measure financial satisfaction among a cross section of employed persons. The mean score for sample respondents in this study on the stair step assessment was 5.37, with a standard deviation of 2.25 and a median of 5.00.

FINANCIAL (SPENDING) BEHAVIORS

Hira and Mugenda (1999) used nine items designed to measure excessive spending behavior. These were combined into an index with a reliability coefficient of 0.87. For the present study, eight similar items, originally used by Porter and Garman (1993), were utilized. A 4-point Likert-type scale was utilized (1 = never and 4 = always) to measure respondent behaviors. These items included the following: (a) I have a weekly or monthly budget that I followed, (b) I paid credit card bills in full and avoided finance charges, (c) I reached the maximum limit on a credit card, (d) I spent more money than I earned, (e) I used a credit card to get a cash advance, (f) I set money aside for savings, (g) I set money aside for retirement, and (h) I had a plan to reach my financial goal. Items (c), (d), and (e) were reverse coded. Responses were summed and used as a measure for financial behaviors, with higher scores representing better respondent behaviors. The mean index score for respondents was 24.20, with a standard deviation of 4.20. The reliability coefficient for the index was 0.79.

PERCEIVED COMPARATIVE FINANCIAL SITUATION (FINANCIAL CONFIDENCE)

Hira and Mugenda (1999) measured respondents' perceptions about their financial situation compared to others in the past and in the future. In the present study, a financial confidence index was created by using items that were adapted from a search of the literature regarding perceived financial attributes (e.g., Joo, 1998; Porter and Garman, 1993). The three items used in this study included the following: (a) Overall, I am more confident in my abilities to manage my personal finances; (b) Overall, I am confident that I am investing wisely; and (c) Overall, I am confident about my financial future. These items were measured using 4-point Likert-type questions (1 = strongly disagreed and 4 = strongly agreed). The mean index score for the respondents was 8.90, with a standard deviation of 1.90. The reliability coefficient of the index was 0.80.

OTHER VARIABLES

Other variables used by Hira and Mugenda (1999) included age, income, marital status, gender, education, and employment status. In this study, age, income, marital status, gender, education, and ethnicity were used to measure the primary demographic and socioeconomic characteristics of sample respondents. Note that because the sample used in this analysis was delimited to respondents who were currently employed, an employment status variable was not used.

ANALYSIS AND RESULTS

Recall that Hira and Mugenda (1999) had two overall objectives for their study, as follows: (a) to explore the relationships between self-worth, financial beliefs, behavior, and satisfaction; and (b) to determine predictors of self-worth. The purpose of this study was to examine the robustness of their conclusions by using variations of the original variables and a different sample. The specific research question of interest in this paper was whether or not financial satisfaction, beliefs, and behaviors affect a person's self-esteem. This study determined that, in terms of face and content validity and reliability, the variables used by Hira and Mugenda (1999) corresponded closely with the variables used in this study. A more complete

Table 2. **Correlation Coefficients Between Self-Esteem and the Independent Variables Used in this Study**

	SELF-ESTEEM
Financial Behavior	.328**
Financial Confidence	.422**
Financial Satisfaction	.371**
Financial Worries (Stressors)	−.187**
Age	.128*
Income	.272**
Gender	.080
Marital Status	.106*
Ethnic Background	−.027
Education	.223**

**Correlation is significant at the 0.01 level (two-tailed).
*Correlation is significant at the 0.05 level (two-tailed).

analysis of the research question, therefore, was warranted.

Correlation coefficients were examined to explore the relationships between self-esteem, financial beliefs, and satisfaction. As shown in Table 2, self-esteem was related with financial behaviors, confidence, satisfaction, stressors, and certain demographic variables. Those who exhibited better financial behaviors, more financial confidence, those who were more satisfied with their financial situation, and those who exhibited fewer stressor events tended to score higher in terms of self-esteem. Self-esteem also had a positive relationship with age, income, education, and marital status.

An obvious weakness associated with using correlation coefficients as the sole means of assessing relationships between and among variables is that these coefficients only show bivariate relationships between two variables (Everitt, 1998). Thus, a regression analysis was conducted to explore the factors that affect self-esteem. Hira and Mugenda (1999) also used this method of analysis.

Table 3. **Regression Results of Factors Affecting Self-Esteem**

VARIABLE	*B*	BETA	*T*
Constant	23.84		15.48**
Financial Behavior	4.66E-02	0.05	0.71
Financial Confidence	0.71	30	4.90**
Financial Satisfaction	0.31	0.15	2.28*
Age	6.48E-02	0.02	0.31
Income	0.11	0.07	1.09
Gender	−0.27	−0.03	−0.61
Marital Status	0.49	0.05	0.97
Ethnic Background	−0.93	−0.06	−1.31
Education	1.28	0.14	2.55*

$R^2 = 0.27$.
$F = 12.91$**
*($p < 0.05$.)
**($p < 0.01$.)

Two steps were taken to ensure that collinearity problems did not exist in the data. The first step involved examining the independent variables using a correlation matrix. This initial correlation diagnosis revealed that the financial stressor variable, which was used in place of Hira and Mugenda's (1999) financial worries variable, was highly correlated with other key variables, including financial satisfaction and financial confidence. The second step in this analysis involved conducting an ordinary least-squares regression, using SPSS, while still including the financial stressor variable. Separate condition indices and eigenvalues were created by using procedures in SPSS. These procedures, as outlined by Hair et al. (1995), confirmed that the financial stressor variable was a cause of multicollinearity in the model. The financial stressor variable was removed from the equation, and the model was run again. No additional collinearity problems were found in the data. Table 3 summarizes the regression results.

Self-esteem is most likely shaped by a person's satisfaction, beliefs, and confidence rather than through predisposing factors, such as age, gender, and ethnic background.

As indicated in Table 3, financial confidence, financial satisfaction, and education were significant factors that influenced self-esteem. Those who were more confident about their personal finances tended to have higher levels of self-esteem. Also, those who were more satisfied with their personal financial situation tended to exhibit higher levels of self-esteem.

These results support Hira and Mugenda's (1999) general findings. At the same time, these results introduce a new set of variables for use in the study of personal financial management attitudes, beliefs, and behaviors. This study also determined that, based on these new psychographic measures, self-esteem is most likely shaped by a person's satisfaction, beliefs, and confidence rather than through predisposing factors, such as age, gender, and ethnic background. In addition, the study determined that other factors, such as education, may play a role in shaping a person's self-esteem. In this study, those who had a bachelor's degree or higher level of education exhibited higher levels of self-esteem. This conclusion supports a similar assertion presented by Hira and Mugenda.

DISCUSSION OF RESULTS

In general, the findings from this study support the conclusions presented by Hira and Mugenda (1999). Several similarities, and a few differences, between the Hira and Mugenda study and this study are noteworthy. First, there were no differences in findings related to age, marital status, or gender, which suggest that predisposing characteristics may not significantly affect a person's self-worth or self-esteem. Further, similar results between this study and that of Hira and Mugenda were obtained in relation to financial satisfaction, financial confidence, and financial behaviors. These findings support the assertion that a positive relationship exists between financial beliefs, satisfaction, confidence, and self-esteem. Also, similar results were found in relation to socioeconomic variables, such as income and education. A comparison of findings (with "yes" indicating a significant finding) from this study and Hira and Mugenda's original article are presented in Table 4.

Although predisposing factors appear to be less important in the prediction of self-worth, concepts such as financial satisfaction and confidence appear to be significantly important forces in the formation of

Table 4. **Comparison of Results Between the Two Studies**

VARIABLE	REPLICATION FINDINGS	HIRA & MUGENDA FINDINGS
Financial Worries	Not in Final Analysis	Yes
Financial Satisfaction	Yes	Yes
Financial (Spending) Behaviors	No	No
Financial Confidence	Yes	Yes
Financial Expectations	Not Measured	Yes
Parental Attitude	Not Measured	Yes
Age	No	No
Income	No	No
Marital Status	No	No
Gender	No	No
Education	Yes	Yes
Ethnic Background	No	Not Measured
Employment Status	n.a.[a]	Yes

[a]n.a. = not applicable due to sample characteristics.

self-esteem. As such, financial services educators, counselors, and planners are encouraged to incorporate concepts related to self-worth assessment and interpretation into outreach efforts when working with client constituencies. As Hira and Mugenda (1999) suggested, "advisors should guard against overlooking clients' self-image and financial beliefs in order to design the best financial plan for their clients" (p. 82).

In addition to the incorporation of self-worth assessment into daily practice, findings from this study, combined with those presented by Hira and Mugenda (1999), suggest that more research designed to test the relationships between financial attitudes and behaviors and psychosocial constructs is warranted. Specifically, there is a need for more research devoted to the testing and understanding of the complex interactions between and among psychological constructs, financial attitudes, financial spending, and saving behaviors. Only through this type of research will significant strides be made in the understanding of actions contemplated and taken by individuals and families. This is particularly true in terms of implementing financial plans and strategies. In short, while it is important to keep in mind that money, investments, and other assets play a role in meeting a combination of financial, attitudinal, and behavioral needs of individuals, as this research suggests, a person's self-worth, or one's self image, should not be overlooked by practitioners when implementing financial recommendations.

Although the research presented in this paper helps to confirm the link between self-worth and financial attitudes and behaviors, more research is recommended. Although these findings support the overall conclusion that a person's perceptions, rather than tangible resources, play an important role in predicting self-esteem, it is equally important to recognize that the regression model used in this analysis explained approximately 27% of the variance in respondents' self-esteem scores. A question as to what other variables and factors play a role in explaining a person's self-esteem remains to be answered. As Hira and Mugenda (1999) suggest, future research should focus on examining the relationships between and among self-worth, financial wellness, and physical wellness. Further, additional research does need to be undertaken to strengthen the scales and measures used in the assessment of self-worth, financial satisfaction, financial behaviors, financial expectations, and financial confidence. From such research may emerge tools and techniques for helping individuals develop and build a better self-image.

Financial services educators, counselors, and planners are encouraged to incorporate concepts related to self-worth assessment and interpretation into outreach efforts when working with client constituencies.

SUMMARY

Two questions related to the research findings reported by Hira and Mugenda (1999) were presented at the outset of this paper. The first question asked whether Hira and Mugenda's conclusions could be verified using a similar methodology and different sample, while the second question asked whether their core findings would maintain consistency and reliability in a subsequent study? The purpose of this paper was to examine these questions and to determine whether or not financial satisfaction, beliefs, and behaviors affect a person's self-esteem.

The study concluded, in terms of the first question, that indeed Hira and Mugenda's (1999) conclusions were, for the most part, verified by using a similar methodology and different sample. The second question was also affirmed in this research. Specifically, it was determined that the core findings relating to financial beliefs, financial satisfaction, and self-esteem, as reported by Hira and Mugenda, maintained consistency and reliability with the sample used in this study. In summary, a positive and significant link was found between self-worth (i.e., self-esteem) and financial beliefs, financial satisfaction, and education.

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