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Managing Good and Bad Times: Extension Risk-Management Pilot Evaluation

Abstract

Research on farmers and ranchers has highlighted the detrimental effects of contextual stressors on family systems, as well as assessed risk management strategies on effectively reducing these stressors. In order to investigate the usefulness of these risk management strategies, we assessed 41 participants' changes who participated in a pilot interdisciplinary Extension program, Managing Good and Bad Times: How Can Your Family Be More Resilient? Using the double ABCX family stress model and descriptive analyses, results showed increased awareness of the risks and stressors in their lives and improved attitudes and behaviors to manage economic and human risks.

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Introduction

Farm and ranch families, especially those in the Midwestern states, have not been as idyllic as the stereotype may presume (Park et al., 2001); rather they have been struggling with many economic challenges that began with a drastic economic shift in the mid-1980s, known as the "Farm Crisis of the 1980s" (Carson, Araquistain, Ide, Quoss, & Weigel, 1994; Rosenblatt & Keller, 1983; Rosmann, 2008). Besides ranching and farming being among the most stressful occupations in the 20th century, studies have shown that this population remains vulnerable to extreme health issues (Fraser et al., 2005; Gandure, Walker, & Botha, 2013). Constantly working in such highly stressful environments can contribute to health-compromising outcomes (Fraser et al., 2005; Simkin, Hawton, Fagg, & Malmberg, 1998; Sprince et al., 2003).

The general tendency for farmers and ranchers to engage in self-blaming behavior for the difficulties experienced on the farm and ranch can be an added stressor (Fraser et al., 2005; McCorkle, Waller,

Amossen, Bevers, & Smith, 2009; Walker, 1989; Walker & Walker, 1987). For example, ranchers and farmers tend to assume blame for things outside their control like tax increases, weather changes, and bank lending policies. This assumption of personal responsibility can lead to additional stress (Jurich & Russell, 1987).

Furthermore, farm and ranch work is a family affair, which means that all members of the family pitch in to help around the farm and ranch. Apart from the immediate family, ranchers and farmers have agrifamilies, consisting of producers, other farm and ranch workers, and their immediate families (Bennett, 1982; Davis-Brown & Salamon, 1987). It also means that stress from work gets transferred into the home and increases family stress (Armstrong & Schulman, 1990). Thus, family mental well-being is often both compromised and exacerbated (Armstrong & Schulman, 1990; DeArmond, Stallones, Chen, & Sintek, 2006).

In response to these tough times, Extension specialists, agents, and the Cooperative Extension Service (Extension), design and develop educational risk management programs to help increase self-sufficiency within farms and ranches, and to decrease stress within their families (Thompson & McCubbin, 1987; Walker, 1989). These programs provide agricultural producers with risk management strategies and decision-making skills to cope better in risky environments (Anderson & Mapp, 1996; Carson et al., 1994).

Extension workshops and programs also often incorporate concepts and techniques that can be linked to family stress theoretical models such as the family stress model of economic hardship (Conger, Rueter, & Elder, 1999), and the double ABCX family stress model (McCubbin et al., 1980; McCubbin & Patterson, 1983). However, the majority of these programs often fail to state explicitly the theories in which their programs are grounded. It is important to state the theory or theories with which the program was formed, because it is necessary to understand how the empirical findings are in accord with or have implications for their corresponding theoretical perspectives. In addition, there has been limited evaluative research on such workshops and programs. Although economic stress influencing the crises within such families is still pervasive, there has been limited literature focused on this research within recent times.

The purpose of this article is to use descriptive analyses to begin evaluating the effectiveness of a pilot Extension interdisciplinary risk management program called "Managing Good and Bad Times: How Can Your Family Be More Resilient?" (MGBT). We assess how this program aided in economic and human risk management.

The Double ABCX Model and Farming Families

As family (including agrifamily) plays an integral role in the productivity and function within ranching and farming communities, it is to best to assess stress through the use of a comprehensive family based model. McCubbin's double ABCX family stress model was built on Hill's (1958) ABCX family stress model and Burr's (1973) synthesis of family stress research. The ABCX model is that the stressor (A), family's resources (B), and definition the family attributes to the stressor (C), lead to the family adapting positively or negatively (X). The double ABCX family stress model focuses less on factors preceding the stressors and more on coping with the stressors.

To that end, the double ABCX model contains four post-crisis factors. It accounts for the severity of the pileup of life demands and stressors (aA), the sociopsychological resources the family uses to manage the stressors (bB), the perceptions and meanings the family attributes to the stressors (cC), and the subsequent response and coping strategies the family employs to help resolve or adjust to the crisis (xX) (McCubbin & Patterson, 1983). The capitalized letters "ABCX" represent factors preceding the crisis or stressor, and the lower case letters "abcx" represent changes over time. Proponents of this theory have argued that resolution of any pileup of stressors is imbued in the family's development of an understanding of the stressors as well as their ability to find or search for meaning from the experience (Burgess & Holmstrom, 1979; Janoff-Bulman & Frantz, 1997). They propose that as long as they are able to find meaning with their stressors it becomes more palatable to seek out resources and resolve or adjust to the crisis.

The farming population provides unique familial challenges that could be mitigated by a risk-management program. While extant Extension programs and research have included many theories to address these challenges, there is limited work that explicitly states how theory informs their research and its subsequent findings. The study reported here evaluated the usefulness of one such risk-management program that is informed by the double ABCX model, MGBT, via the use of two post-surveys. This article is describes how the participants used the economic and human components of the pilot program.

Method

Participants

A total of 41 ranchers and farmers took part in the MGBT program. This was a convenience, purposeful sampling as the participants were recruited from one mountain state. County Extension agents recruited program participants via promotional flyers in farm equipment stores, cattle sale barns, Web sites, and personal contacts. Promotional flyers were also mailed to prospective participants.

All participants were ranch or farm owners. Seventy-five percent were male. The ages ranged between 19 and 70, with approximately 67% of the sample falling between the ranges of 51 and 70. The participants were predominantly white (92%). Approximately 56% were college graduates, 36% had some college or technical school, and 8% had a high school diploma or Graduate Equivalency Diploma (GED).

Managing Good and Bad Times (MGBT)

MGBT was a single-session, 2 ½-hour evening Extension program designed in a mountain state and was offered by the MGBT team to farm and ranch families in five different locations across the state. This research-based educational workshop provided a host of practical ideas for agricultural producers to manage their financial and human family risk, especially when faced with economic hardship. The primary objective was to increase family resilience by providing innovative strategies that could enhance participants' ability to rebound from these hardships and improve the overall operation on their farm/ranch.

The MGBT program incorporated the double ABCX model in its design in order to help participants recognize their stressors and resources, alleviate these stressors, and increase risk management skills. Part of the program invited participants to shift their thinking from negative to positive meanings of agricultural crises they experienced. Another helped them identify coping strategies that could help their families reduce or adapt to the stressors. In particular, MGBT encouraged participants to use effective strategies to cope better with drought; to deal with anger, stress, depression, and suicidal thoughts; and to manage life's transitions.

In order to make it easy for Extension agents to use the MGBT materials in the program and in order for the information to be well received by ranch and farm families, the second and third authors created a variety of research-based educational materials, including PowerPoint presentations (Dalsted, 2010a, 2010b, 2010c; Fetsch & Hughes, 2011a, 2011b), news releases (Fetsch, 2011a), radio interviews (Fetsch, 2010c), workshop promotional flyers (Fetsch, 2011b, 2011c), resource materials (Goddard & Marshall, n.d.; Williams & Fetsch, 2008), and worksheets (Fetsch, 1992).

Materials and Measures

The first and second post-surveys were 34 and 28 self-reported items, respectively. The items addressed the usefulness of the MGBT program in increasing participants' knowledge, attitudes, and behaviors associated with managing economic and human risk (Fetsch, 2010a, 2010b). The first post-survey contained 11 items that addressed human risk management and 19 items that addressed economic risk management. The items inquired whether participants increased their knowledge about risk-management strategies and whether they intended to use these strategies. An example of an economic risk-management item was "My knowledge increased about tools we can use to increase our resilience, like use enterprise budgeting," which was either checked as "yes" or unchecked as "no."

The second post-survey contained 10 items pertaining to human risk management and 18 items pertaining to economic risk management. The items inquired on whether participants used any of the risk management strategies, changed their attitudes about the strategies, or did anything to reduce their stressors. A sample item for human risk-management strategies was "I have used the following risk management strategies, like noticed pileup of additional stressors in our lives," which was either checked as "yes" or unchecked as "no."

McGill Quality of Life (MQOL) is a single comprehensive item that assessed the overall perception of quality of life (Cohen et al., 1997). This scale is both valid and has high internal consistency, .80.

Data Collection

The first post-survey was administered immediately following the program. The second post-survey was mailed to participants approximately 4 months after the workshops with reminders to non-respondents 3 weeks later. Follow-up data was received on average 6.3 months after the workshops. It should be noted here that the use of two post-tests was intentional as our ranchers and farmers found the typical pre-test, then workshop, then post-test 6 months later approach unacceptable. Some research has shown retrospective designs to correct the pretest-posttest limitation (Rockwell & Kohn, 1989). Therefore, we opted to use two post-test surveys, acknowledging the limitations in capturing

preceding behaviors but also honoring the advantage of being able to document descriptive changes over time.

Results

There was a 98% response rate immediately following the workshop, and an 83% response rate on average 6 months later in knowledge, perception of overall financial situation, and quality of life, as shown in Table 1.

Table 1.

Changes in Frequencies from Responses Immediately Following Program to 6-Month Follow-Up

Item	Immediately Following		6-Month Follow-Up	
	n	%	*n*	%
1. Increased knowledge about stress, anger, depression, and suicidal thinking	27	67.5	-	-
2. Knowledge of overall financial situation	31	77.5	22	64.7
3. Quality of life	33	80.5	30	88.2
4. Improved attitude or outlook on life	-	-	19	55.9

Note: *N* = 40 (Immediately) and *N* =34 (6-month follow-up).

Additional descriptive statistical analyses of this pilot program were conducted to identify improvements that were made by program participants in their economic and human risk-management strategies. In each of the two, we report first, those changes reported by most participants immediately following the workshop and second, those changes reported by most participants 6 months later.

In economic risk management most participants immediately following the workshop identified two out of 9 economic strategies they could and would use to rebound from economic hard times (Table 2). At the 6-month follow-up, over 50% of participants reported an improved attitude about finding alternative sources of farm income. In addition, participants reported an improved behavior change in identifying strengths and weaknesses of their family business as a means of taking first steps in

mitigating economic risks (Table 3).

Table 2.

Report of Economic Risk Management Immediately Following Program

Item	Could Use		Will Use	
	n	%	*n*	%
Manage cash flow, debt, and assets	19	46.3	14	34.1
Use cash flow statements to better manage production risks	18	43.9	17	41.5
Note: *N* = 41.				

Table 3.

Report of Economic Risk Management at 6-Month Follow-up

Item	*N*	%
Improved attitude about finding alternative sources of off- and on-farm income	18	52.9
Improved behavior change in identified strengths and weaknesses of their family business	18	52.9
Note: *N* = 34.		

In human or family risk management over 50% of participants identified four of 11 risk management strategies immediately following the program and three of 10 at the 6-month follow-up. Table 4 shows which human risk management tools participants identified that their household could use and planned to use immediately following the workshop. In addition, 56-77% of participants reported improved human attitudes and behaviors in Table 5 at the 6-month follow-up.

Table 4.

Report of Human Risk Management Immediately Following Program

Item	Could Use		Will use	
	n	%	*n*	%

Monitor overall perception and meaning of tough times	27	65.9	22	53.7
Identify internal and external resources we can use	25	61.0	24	58.5
Notice signs of high stress, anger, depression, and suicidal thinking	24	58.5	24	58.5
Notice pileup of additional stressors our family faces	24	58.5	24	58.5
Note: *N* = 41.				

Table 5.

Report of Human Risk Management at 6-Month Follow-up

Item	***N***	**%**
1. Improved attitude over uncontrollable events	26	76.5
2. Noticed pileup of additional stressors in our lives	21	61.8
3. Identified internal and external resources	19	55.9
Note: *N* = 34.		

Finally, tax dollar support levels were high. Participants were asked both immediately following the workshop and 6 months later: "Your tax dollars support this Extension Program either totally or in part. Do you *want your tax dollars to continue supporting* this type of effort?" Immediately following the workshop 97.2% (*n* = 35/36) of respondents said "Yes." Six months later 100% of respondents (*n* = 31/31) said "Yes." In summary, human risk-management strategies were the ones most frequently reported by participants that they could change, planned to change, and used to change their attitudes and behaviors.

Discussion and Limitations

This article highlights the usefulness of an interdisciplinary risk management program, MGBT. Preliminary results show several ways in which participants reported benefiting from the program, especially increased knowledge about economic and human risk management and quality of life.

Immediately following the workshop a majority of participants reported increased financial knowledge on how to improve their ranch/farm. Of the 19 strategies offered to improve economic risk

management, 44-46% of participants identified two they could use. However, 34-42% said they would use these strategies. This mismatch is a possible indication that there may be other stressors that may disrupt their ability to actually use these strategies to improve their risk management (Fraser et al., 2005).

Regarding human risk management, 59% of participants identified both that they could and would use strategies that involved noticing high levels of stress and pileup. As McCubbin and Patterson (1983) stated, possessing the ability to notice pileup of stressors within the family (aA) is an important first step in resolving family crises and bringing the family back to equilibrium. Therefore, the ranchers' and farmers' willingness not only to recognize these strategies as something they could use, but stating that they will use these strategies is an important finding.

Participants also stated that they were willing to use strategies that will help them locate internal and external resources to reduce stressors. Their willingness to use this strategy, along with identifying internal and external resources during the 6-month follow-up is another important step in resolving family crisis. As "family" for ranchers and farmers also consist of their agrifamily (Bennett, 1982), it is important to locate both internal and external resources to mitigate familial stressors. In the double ABCX model, identifying resources to use when managing a crisis (bB) is the next step in not only addressing, but also mitigating family crises.

Furthermore, at the 6-month follow-up 77% of ranchers and farmers reported improved attitudes over uncontrollable events. This improved attitude is powerful for this population because ranchers and farmers have been shown to assume blame for things they cannot control such as weather pattern changes (McCorkle et al., 2009). By assuming blame there is an increased risk for health-compromising consequences, e.g. stress and depression (Fraser et al., 2005). By recognizing and understanding that they cannot control some things, they can reduce stress. Further, they exercise the (cC) of the double ABCX model (changing perception of their crises; McCubbin & Patterson, 1983). Presumably by exercising these three phases of the model, they will move towards equilibrium (xX) and resolve the crisis.

The pilot study reported here is an introduction of ways in which Extension may offer interdisciplinary strategies for farmers and ranchers to use to manage risk on their ranches and farms. However, it has limitations. The major limitation is with the surveys. While both surveys were acceptable for the pilot study to gain descriptive knowledge of attitudes and behaviors, there was no quantitative assessment of depression or stress levels. As bad economic times increase, depression and stress levels tend to increase among farmers and ranchers (Fraser et al., 2005; Swisher, Elder, Lorenz, & Conger, 1998). It is recommended that future researchers assess stress and depression levels prior to and following the educational program. We have since revised these measures for future research as pretest-posttest measures of participant change (Fetsch, 2012a, 2012b).

Results show that participants practiced a number of risk-management strategies. Participants used mostly human risk-management strategies plus some economic risk-management strategies, which led them to improve their overall attitudes and behaviors in managing good and bad economic times (Bennett & Bevers, 2003; Jurich & Russell, 1987; Thompson & McCubbin, 1987). Specifically, it highlights the need for Extension programs using this theory that provides strategies so that at-risk

families can learn best ways to economically and efficiently utilize readily available resources (Jurich & Russell, 1987).

While some family life educators might find these results discouraging, it should be remembered that this was a single-session workshop that addressed issues among a population that takes pride in self-sufficiency. Given the brevity of the single-session workshop, the reported attitudinal and behavioral changes are much better than expected. A comprehensive, interdisciplinary approach to providing risk-management education is preferable and more valuable to participants than a non-interdisciplinary workshop.

Conclusion

The study reported here begins to fill the gap in education and research in terms of an interdisciplinary Extension program that provides farm and ranch families with research-based tools they can use to deal with stress during economically hard times (Anderson & Mapp, 1996). The MGBT program provides a much needed theory-based interdisciplinary program for ranch and farm families who are experiencing high levels of stress during economic hard times. Using the McCubbin double ABCX family stress model encouraged participants to identify resources they have available to deal with their various stressors (McCubbin et al., 1980; McCubbin & Patterson, 1983).

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