



## Explicating crisis coping in crisis communication

Yan Jin\*, Soo Yeon Hong

School of Mass Communications, Virginia Commonwealth University, Richmond, VA, USA

### ARTICLE INFO

#### Article history:

Received 26 March 2010

Received in revised form 20 May 2010

Accepted 8 June 2010

#### Keywords:

Coping

Crisis communication

Cognitive appraisal

### ABSTRACT

This study explores coping, a core construct in the cognitive appraisal theory of crisis communication, from the public's perspective. The study proposed and tested the hierarchical framework of publics' crisis coping that examined the relationship among four types of publics' crisis coping strategies (i.e., relational thinking, emotional venting, instrumental support, and action). For this purpose, a survey was conducted among 168 individuals from a randomly sampled general public population. The proposed model of crisis coping illustrates tenable data-model fits. Key findings of this study include direct effects of rational thinking on action as well as indirect effects of emotional venting on action through instrumental support. The results shed light on the essential coping facilitator role organizations could play in terms of providing publics with instrumental support in times of crisis and facilitate more constructive public responses in the organizational crisis-handling process.

© 2010 Elsevier Inc. All rights reserved.

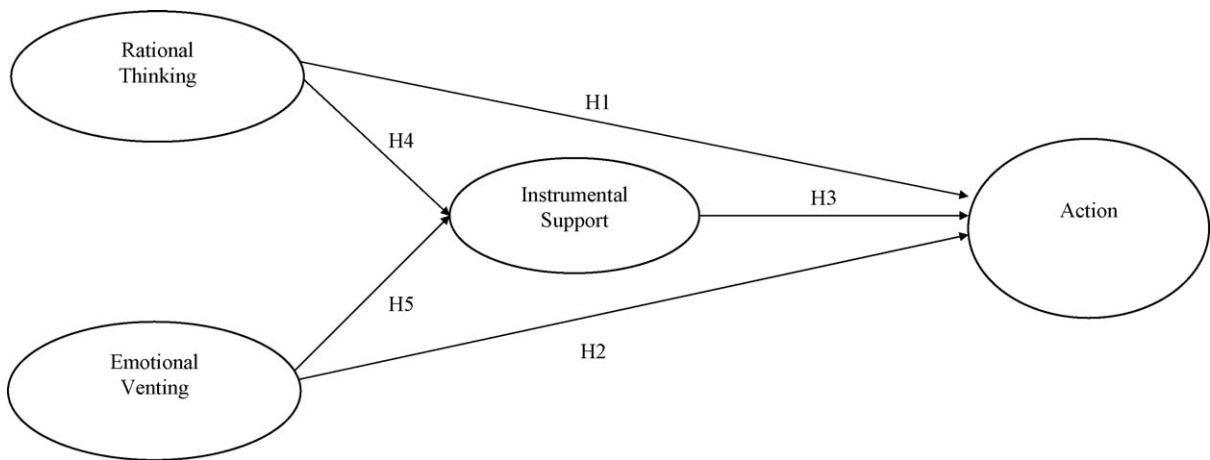
### 1. Introduction

In discussing the future directions of crisis communication research in Coombs and Holladay's (2010) "The handbook of crisis communication", Jin and Pang (2010) advocated emotions in crisis as the new frontier for researchers and practitioners. In the past 5 years, emotion-focused research stream has evolved from earlier focus on the impact of general positive and negative affective states on crisis decision processes as related to the perceptions of crisis responsibility (Coombs & Holladay, 2005) to the exploration of the importance of examining specific emotions rather than global feelings (Coombs & Holladay, 2005; Garg, Inman, & Mittal, 2005). Researchers have identified important discrete emotions particularly salient to crisis management from various theoretical frameworks. For example, Coombs and Holladay (2005) identified three emotions (sympathy, anger, and schadenfreude/taking joy from the pain of the organization) from attribution theory. Choi and Lin (2009) studied anger, surprise, contempt, and relief as associated with perceptions of crisis responsibility. Jin, Pang and Cameron's (2007, 2008) Integrated Crisis Mapping (ICM) model mapped four primary negative emotions in crisis (i.e., anger, sadness, fright, and anxiety) from the cognitive appraisal theory of emotions (e.g., Lazarus, 1991).

Among studies examining publics' affective responses to crisis situations, by far the most adopted emotional theory is the cognitive appraisal theory (Jin, 2009, 2010; Jin et al., 2007, 2008). Lazarus (1982, 1984, 1991, 1999), the main contributor to the integrated cognitive-based emotion research stream, defined emotion as "organized cognitive–motivational–relational configurations whose status changes with changes in the person–environment relationship as this is perceived and evaluated (appraisal)" (p. 38, 1991). According to Lazarus (1991), emotion is a mental state of readiness as response to the appraisal of the environment and one's own thoughts, the components of which include: (1) primary appraisal, which includes goal relevance, goal congruence and type of ego involvement and (2) secondary appraisal, which provides options for coping

\* Corresponding author at: 901W. Main Street, Suite 2216, Richmond, VA 23225, USA. Tel.: +1 804 827 3764.

E-mail address: yjin@vcu.edu (Y. Jin).



**Fig. 1.** Proposed model of crisis coping. For the sake of brevity, covariances among exogenous variables and error terms for indicators of latent variables are omitted from the figure. Ovals represent latent variables.

particularly with respect to the choice of an emotion, composed of blame or credit for an outcome, coping potential, and future expectancy. Therefore, individual emotions are results of sequential appraisal processes of the situations, which share some similar appraisal components and also differ from other appraisal processes.

Existing studies in crisis communication research have examined appraisal antecedents such as perceived crisis responsibility (Coombs & Holladay, 2005; Choi & Lin, 2009; Jin, 2009, 2010) and crisis controllability (Jin, 2009, 2010), primary appraisal components as goal relevance (Jin et al., 2007, 2008) and involvement (Choi & Lin, 2009), as well as coping potential and coping consequences (Jin, 2009, 2010; Jin et al., 2007, 2008). In the process of building a cognitive appraisal framework of crisis communication, these key constructs need to be further explicated and tested in order to fully understand their effects and associations with each other in the crisis communication process in different situations.

Among these important appraisal related constructs, coping, located in the core of the secondary appraisal, might be the most complex and yet least explored constructs in the field of public relations. According to the psychological research on stresses of harm or loss and the prevalence of emotions associated with the negative affective reactions to those stressors, there is a common need for publics in crises to cope with their stress (Lazarus, 1991). One of the central arguments of cognitive appraisal theory is that people cope with stressful situations such as crises differently (Lazarus, 1991). In addition, coping itself is “a pervasive and complex psychological process” (Duhachek, 2005, p. 41), which is embedded in a network of cognitive, attitudinal, and behavioral correlates (Carver & Scheier, 1994; Lazarus & Folkman, 1984) and the multitude of strategies people enact (Duhachek, 2005). A coping model accounting for this multitudes of coping strategies was formulated and tested in consumer consumption stressful situation setting (Duhachek, 2005), which delineated the processes individuals engaged in different patterns of coping according to different situational stresses.

Though Duhachek's (2005) coping inventory has proved to be applicable to publics' coping strategies in organizational crisis situations (Jin, 2009, 2010), two theoretical concerns need to be further addressed by crisis researchers in order to develop a crisis communication specific cognitive appraisal model, given the “highly complex and nuanced nature” (Duhachek, 2005) of the coping process itself: first, Duhachek outlined eight dimensions and 36 items of coping strategies, while recommending researchers to “use these scales or a subset, depending on the relevance to their particular research” (p. 49). As first attempts of applying this multidimensional coping inventory in crisis communication research, Jin (2009, 2010) measured all 36 items in two experimental studies, the results of measure indeed suggested that not all the items or sub scales might be highly relevant to publics' crisis coping and there is a need to identify and develop a more parsimonious and crisis-specific coping scale (and subscales). Second, in Duhachek's model, the eight types of coping strategies are listed at one level. As Duhachek (2005) suggested, “[f]urther research is needed to determine the nature of these tendencies” (p. 52). Thus, crisis researchers need to determine how different types of crisis coping strategies might associate with each other.

Therefore, to continue explicating the construct of coping in crisis communication, this study proposed and tested a hierarchical framework of crisis coping process that examined the relationship among four types of publics' crisis coping strategies (i.e., relational thinking, emotional venting, instrumental support, and action) (see Fig. 1).

## 2. Literature review

### 2.1. The role of coping in cognitive appraisal of emotions

Coping is the vital concept in appraisal theory of emotions. There are various ways individuals cope with stress and negative emotions as well as competing theories about the hierarchical structure of the coping construct. Lazarus and Folkman (1984) proposed two types of coping: (1) problem-focused coping (an attempt to manipulate the environment to

reduce stress), which involves efforts to modify the problem at hand and typically includes elements such as generating options to solve the problem, evaluating pros and cons of different options, and implementing steps to solve the problem and (2) emotion-focused (re-appraisal of the environment stimuli), which is defined as aiming to manage the emotional distress that is associated with the situation. Emotion-focused strategies range from denial, venting of emotions, positive interpretation of events, to seeking out social support (Baker & Berenbaum, 2007).

Though people frequently rely on both coping strategies within a single stress episode (e.g., Luce, 1998; Luce, Bettman, & Payne, 2001), the predominant view in coping literature is that emotion-focused coping processes are maladaptive and ineffective, as Baker and Berenbaum (2007) summarized. Baker and Berenbaum (2007) further argued that the diverse nature of emotion-focused coping makes the term “emotion-focused” “ambiguous and potentially misleading” (p. 96). Instead, they focused on a particular subset of emotion-focused strategies referred to as emotional-approach coping and thus defined “emotional-approach coping” as “actively identifying, processing, and expressing one’s emotions, thus providing information about one’s goal status” (p. 96). This facilitates decision making by providing different problem-solving perspectives and engaging a particular problem in an active, dynamic way rather than avoiding a problem in a passive static way.

Recently there has been a call for research addressing the limitations inherent in the problem-focus-emotion-focus dichotomy. As Carver, Scheier and Weintraub (1989) posited, the effectiveness of emotion-focused coping depends on the particular form of emotion-focused strategy employed. Duhachek (2005) defined coping as “the set of cognitive and behavioral process... in response to emotionally arousing, stress inducing interactions with the environment aimed at bringing forth more desirable emotional states and reduced levels of stress” (p. 42).

## 2.2. Publics’ crisis coping as essential process of crisis appraisal

Applying cognitive appraisal theoretical framework in crisis communication research, Jin et al. (2007, 2008) posited that publics appraise a crisis differently and enact different strategies to cope with the crisis-stimulated stress. They proposed two types of crisis coping strategies used by publics in crisis: cognitive coping, which is used to obtain information and makes sense of the crisis situation, and conative coping, which focuses on taking actions to deal with the crisis situation. An organization’s understanding and implementation of publics’ coping strategies relate to Sturges’s (1994) notions of instructing and adjusting information in crisis communication, which provide guidance for organization on how to customize messages for publics in crisis: instructing information “tells people affected by the crisis how they should physically react to the crisis” (p. 308), which responds to publics’ conative coping strategy; adjusting information “helps people psychologically cope with the magnitude of the crisis situation” (p. 308), which responds to publics’ cognitive coping strategy.

### 2.2.1. Multidimensional crisis coping

To extend the knowledge of coping structure, Duhachek’s (2005) developed a multidimensional scale to measure the coping construct as it emerges as a consequence of emotion, embedded in dynamic, spanning cognitive, behavioral, and emotional domains of responses. A 36-item and eight-dimension coping framework was proposed and tested as related to the coping antecedents and consequences.

Though Duhachek’s (2005) coping inventory has proved to be applicable to publics’ coping strategies in organizational crisis situations (Jin, 2009, 2010), the results of applying this framework to crisis communication suggested that not all the items or sub scales might be highly relevant to publics’ crisis coping and there is a need to identify and develop a more parsimonious and crisis-specific coping scale. Given the “highly complex and nuanced nature” (Duhachek, 2005) of the coping process itself, Duhachek recommended researchers to “use these scales or a subset, depending on the relevance to their particular research” (p. 49).

Specifically for crisis communication domain, Jin (1999) argued that publics in crisis innately enact their own set of strategies in coping with negative feelings stimulated by crises. Publics do not passively receive and/or react to crisis information provided or organization’s responses. Instead, they actively engage in a variety of coping strategies to help themselves make sense of the crisis, emotionally comfort themselves, or adjust their way of thinking to reduce the stress. Jin (2009, 2010) further proposed a three-dimensional coping strategy framework: cognitive coping (*rational thinking, positive thinking, avoidance, and denial*), conative coping (*action and instrumental support*), and emotional coping (*emotional support and emotional venting*), each enacting a diverse set of strategies as the key properties of different types of crisis coping.

Therefore, four types of publics’ coping strategies are suggested by existing crisis coping literature, representing three different approaches of coping process: (1) rational thinking, which is a type of proactive cognitive coping (Jin, 2010), serves the function of helping publics make sense of the crisis situation (Jin et al., 2007, 2008); (2) emotional venting, as the primary form of “emotional coping” and a channel for publics’ need of self-expression and stress reduction (Jin, 2010); (3) instrumental support (Jin, 2009, 2010); and (4) action, comprised of action and instrumental support and, as Jin et al. (2007, 2008) posited, is the form of “conative coping” chosen by the publics as a way to initiate self-support and activate re-orientation actions. Thus, in this study, we chose to focus on the above four coping strategies and further explore the relationship among these coping strategies at a hierarchical level.

### 2.2.2. Hierarchical crisis coping

Horizontally, existing crisis coping literature (Jin, 2009, 2010; Jin et al., 2007, 2008) suggested rational thinking, emotional venting, instrumental support and action as the primary coping strategies publics are likely to resort in handling negative

feelings stimulated by crisis situation. Theoretically and practically, researchers need to further explore the vertical configurations of key coping strategies to fully understand the coping process happening in publics' crisis coping decision making, in order for the crisis managers to provide more accurate assessment and make more effective organizational response recommendations.

By far, in Duhachek's model and also in Jin's (2009, 2010) application in crisis communication, all coping strategies were listed and tested at one level. As Duhachek (2005) suggested, "[f]urther research is needed to determine the nature of these tendencies" (p. 52). Thus, based on the four primary crisis coping strategies previously identified, we determined to further examine how these primary crisis coping dimensions are associated with each other.

In discussing emotional effects on behavior and relationship, Jin and Bolls (2005) explained, based on affect as information theory (e.g., Booth-Butterfield & Booth-Butterfield, 1990), that people's problem-solving strategies depend on the interaction of motivation and issue familiarity. Coping, as the core of the secondary appraisal of emotions, impacts on how the publics would expect the crisis to be handled on their own or by a given organization (Jin et al., 2007, 2008). In terms of the associations between cognitive, conative and emotional coping, though there is not existing research available, insights could be taken from emotional theory from information processing perspective such as cognition and emotion exert influence on behavioral outcomes in an integrated way (Jin & Bolls, 2005). Sturges's (1994) notions of instructing and adjusting information in crisis communication could also be well adopted here. Sturges (1994) provided guidance for organization on how to customize messages for publics in crisis: instructing information "tells people affected by the crisis how they should physically react to the crisis" (p. 308), which responds to publics' conative coping strategy; adjusting information "helps people psychologically cope with the magnitude of the crisis situation" (p. 308), which responds to publics' cognitive coping strategy.

Therefore, we propose to test a model hypothesizing the relationship among rational thinking (primary cognitive coping strategy), emotional venting (primary affective coping strategy), as well as instrumental support and action (primary conative coping strategies) (see Fig. 1). The following hypotheses were posited in terms of individual's coping strategies as response to crisis situations:

**Hypothesis 1.** Rational thinking is positively associated with action.

**Hypothesis 2.** Emotional venting is positively associated with action.

**Hypothesis 3.** Instrumental support is positively associated with action.

**Hypothesis 4.** Rational thinking is positively associated with instrumental support.

**Hypothesis 5.** Emotional venting is positively associated with instrumental support.

### 3. Methods

#### 3.1. Participants and procedure

Mailed surveys were sent to a random sample of general public ( $N = 1802$ ), based on the 2008 white page book of a Mid-Atlantic capital city. There were 168 completed survey questionnaires returned, with a 9% response rate. There were 85 male (50.6%) and 83 female (49.4%). Most of them were 54 years old (54.2%). There were 86.2% of Caucasian, 11.4% African American, 1.2% Asian, and 1.2% from other ethnic groups.

Each participant was given a crisis scenario to read and then asked to complete a questionnaire. On the questionnaire, each participant was asked how they were likely to cope with the negative feelings if they found themselves in the situation.

#### 3.2. Measurement instrumentation

The measurement items were adopted from the coping strategy inventory developed and tested by Duhachek (2005). All items were measured in response to "Please indicate the extent to which you would cope with your negative feelings about what happened in the news story via each of the following coping items" on a 7-point Likert-type scale where "1 = Very Unlikely and 7 = Very Likely".

*Rational thinking* ( $M = 5.15$ ,  $SD = 1.35$ ,  $\alpha = .86$ ) is comprised of "Analyze the problem before reacting", "Try to step back from the situation and be objective", "Try to control my emotions", "Try to keep my feelings from controlling my actions", and "Would use restraint to avoid acting rashly".

*Emotional venting* ( $M = 4.56$ ,  $SD = 1.39$ ,  $\alpha = .89$ ) is comprised of "Take time to express my emotions", "Let my feelings out somehow", "Delve into my feelings to understand them", "Would take time to figure out what I am feeling", "Would realize that my feelings are valid and justified", and "Would acknowledge my emotions".

*Instrumental support* ( $M = 4.38$ ,  $SD = 1.61$ ,  $\alpha = .81$ ) is comprised of "Ask friends with similar experiences what they did", "Try to get advice from someone about what to do", and "Have a friend assist me in fixing the problem".

*Action* ( $M = 4.84$ ,  $SD = 1.54$ ,  $\alpha = .94$ ) is comprised of "Concentrate on ways the problem could be solved", "Try to make a plan of action", "Generate potential solutions", "Think about the best way to handle things", "Concentrate my efforts on doing something about it", "Do what has to be done", and "Follow a plan to make things better-more satisfying".

## 4. Results

Structural equation modeling was used to test the model of crisis coping presented in Fig. 1. In the tested model, rational thinking, emotional venting, instrumental support, and action were specified as latent variables with multiple indicators. The statistical package the researcher used for model estimation was AMOS 16.0. The estimation method was “full information maximum likelihood”.

### 4.1. Model evaluation criteria

According to Byrne (2001), Hu and Bentler (1999), and Kline (1998), a confirmatory factor model (and structural equation model) can be retained as a valid model when the value of  $\chi^2/df$  (as a parsimonious fit index) is less than 3, the value of comparative fit index (CFI) is equal to or greater than .90—ideally, equal to or greater than .95, the value of root mean square error of approximation (RMSEA) is equal to or less than .08, and the value of Standardized Root Mean Square Residual (SRMR) is equal to or less than 1.

### 4.2. Results of measurement validity and construct validity

Estimation for the initial measurement model indicated unsatisfactory fit to the data,  $\chi^2 (183, N = 168) = 545.80, p < .001, \chi^2/df = 2.98, CFI = .86, SRMR = .08, RMSEA = .11$  (90% CI = .098, .120). Then we proceeded to modify the model. For the modification, we added error covariances among the observed items within the same subscale, following Byrne's (2001) recommendation.<sup>1</sup> The modified measurement model (see Fig. 2) was re-estimated and the results indicated a satisfactory fit,  $\chi^2 (177, N = 168) = 327.084, p < .001, \chi^2/df = 1.85, CFI = .94, SRMR = .08, RMSEA = .07$  (90% CI = .059, .083). The standardized factor loadings in the model indicated that all of the five constructs had a good validity (see Fig. 2). The minimum factor loading was .61 in the indicator of “Would realize that my feelings are valid and justified” in the latent variable of emotional venting.

### 4.3. Hypotheses testing

#### 4.3.1. H1: Effects of rational thinking on action

This hypothesis posited that rational thinking is positively associated with action. As the path H1 in Fig. 3 indicates, this hypothesis was supported,  $\beta = .26$  ( $B = .34, S.E. = .11$ ),  $p < .01$ . It suggests that when publics engage themselves in thinking about a crisis and making sense of the situation, they are more likely to further making action plans and implement these plans so as to reduce their stress and negativity caused by a given crisis.

#### 4.3.2. H2: Effects of emotional venting on action

This hypothesis posited that emotional venting is positively associated with action. As path H2 in Fig. 3 indicates, there was no significant association between emotional venting and action,  $\beta = .14$  ( $B = .07, S.E. = .07$ ), *ns*. It suggests emotional venting has no direct effects on whether publics take actions or carry out action plans to cope with the crisis or not.

#### 4.3.3. H3: Effects of instrumental support on action

This hypothesis posited that instrumental support is positively associated with action. As the path H3 in Fig. 3 indicates, this hypothesis was supported,  $\beta = .32$  ( $B = .30, S.E. = .13$ ),  $p < .05$ . It suggests that when publics are highly involved in seeking information support and crisis-handling instructions, they tend to take actions based on well-thought-out plans and procedures in order to deal with a given stressful crisis situation that causes negative feelings.

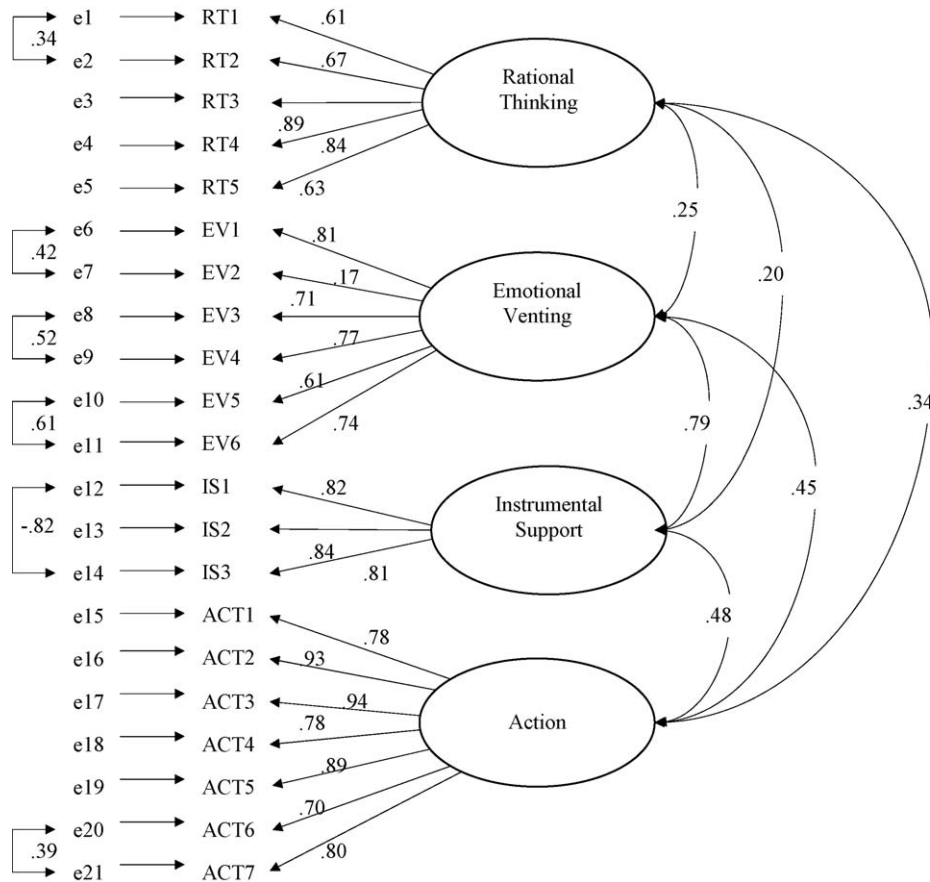
#### 4.3.4. H4: Effects of rational thinking on instrumental support

This hypothesis posited that rational thinking is positively associated with instrumental support. As path H4 in Fig. 3 indicates, there was no significant association between rational thinking and instrumental support,  $\beta = .00$  ( $B = .00, S.E. = .09$ ), *ns*. It suggests that rational thinking has no direct effects on whether publics resort to information support or crisis-handling instructions when exposed to a given crisis situation.

#### 4.3.5. H5: Effects of emotional venting on instrumental support

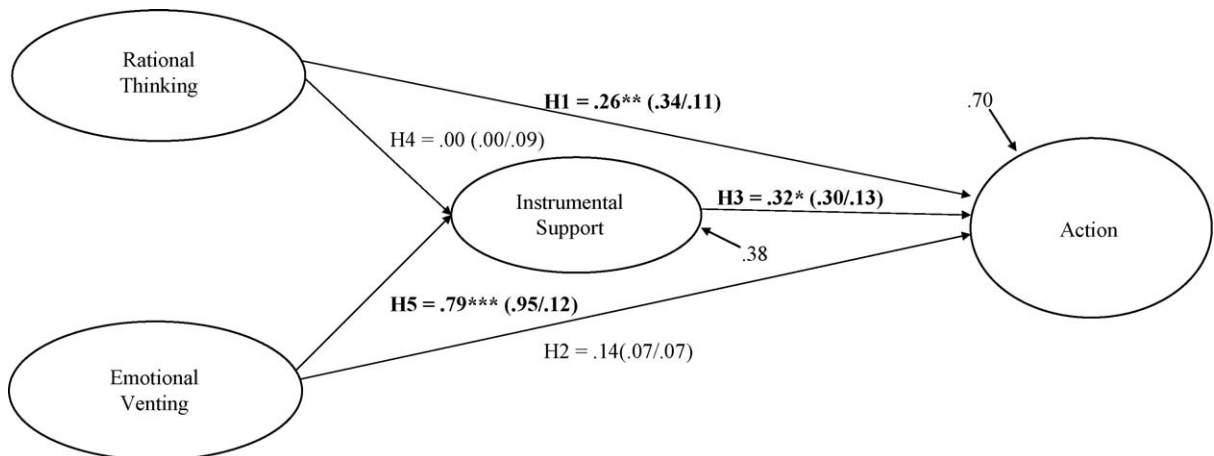
This hypothesis posited that emotional venting is positively associated with instrumental support. As path H5 in Fig. 3 indicates, this hypothesis was supported,  $\beta = .79$  ( $B = .95, S.E. = .12$ ),  $p < .001$ . It suggests that the more emotional venting publics use in a given crisis situation, the more likely they are going to seek crisis-handling instructions in terms of how to gain more information about the crisis and how to deal with the crisis-stimulated stress.

<sup>1</sup> Byrne (2001) proposes that error covariances are sometimes necessary to explain for unique commonalities between items or redundant content of two items. The researcher found six error covariances (i.e., e01–e02, e06–e07, e08–e09, e10–e11, e12–e14, e20–e21). The coefficients of these covariances ranged from  $r = -.82$  to .34.



**Fig. 2.** Confirmatory factor analysis (CFA) of measurement items. Note.  $\chi^2$  (177,  $N = 168$ ) = 327.084,  $p < .001$ ,  $\chi^2/df = 1.85$ , CFI = .94, SRMR = .08, RMSEA = .07 (90% CI = .059, .083). All standardized factor loadings are significant at  $p < .001$ .

To estimate the indirect effect of emotional venting on action through instrumental support, the product of the unstandardized path linking emotional venting to instrumental support and the unstandardized path linking instrumental support to action was calculated. Thus, the indirect effect of emotional venting on action through instrumental support is equal to .95 (i.e., the path from emotional venting to instrumental support) multiplied by .30 (i.e., the path from instrumental support to



**Fig. 3.** Results for the model of crisis coping. Note.  $\chi^2$  (177,  $N = 168$ ) = 327.084,  $p < .001$ ,  $\chi^2/df = 1.85$ , CFI = .94, SRMR = .08, RMSEA = .07 (90% CI = .059, .083). Coefficients are standardized regression weight. The numerical values within parenthesis are unstandardized regression weights and their standard errors. For the sake of brevity, covariances among exogenous variables and error terms for indicators of latent variables are omitted from the figure. Ovals represent latent variables. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .



coping) = .29. This estimate was tested for significance with the Sobel test (dividing the indirect effect by its standard error and generating a *p*-value using the standard normal distribution) using Preacher and Leonardelli (2003), and the results of the test demonstrate that this indirect effect was indeed statistically significant.

## 5. Discussion

### 5.1. Key findings

The findings of the survey results support the model we posited based on coping literature from cognitive appraisal theoretical framework as well as its application in crisis communication research. Different coping strategies are found to be associated with each other at different levels. This provides insights on the process of how individuals appraise crisis situations and how cognitive, affective and conative components exist and in what sequence.

As our findings suggest, rational thinking exerts direct positive effects on whether an individual takes actions to cope with the crisis. The more publics think rationally about the crisis (e.g., analyzing the crisis, trying to be objective, and using restraint to avoid acting rashly), the more likely publics are to take actions in dealing with the crisis (e.g., concentrating on problem solving, making a plan of action, and following the plan to improve the situation caused by the crisis). However, the findings show no direct positive effects of rational thinking on whether an individual seeks instrumental support (e.g., asking others with similar crisis experiences what they did, getting advice from someone about what to do, and having others assist the fixation of crisis situation). This lack of direct positive effects might be because when some individuals thinking rationally, the options of looking for others' advices and instructions are embedded already their initial rationalization. Future research needs to further test this link and verify our findings as related to the association between rational thinking and instrumental support.

For emotional venting strategy of coping, even though the findings show no direct association between emotional venting and action, an indirect effect through the mediation of instrumental support has been found. Results of the strong mediation effect imply that instrumental support is a strong coping strategy that connects emotional venting to action, suggesting that the more emotions vent by the publics (e.g., express their emotions, delving into their feelings to understand of them, and figuring out the meaning of these feelings), the more likely they are going to seek advices and help from others to better handle the crisis situation, which would lead them to take actions in dealing with the crisis.

From a crisis manager's perspective, it might be necessary to differentiate two types of coping potential when it comes to assess publics' behavioral intention in a given crisis. On one hand, an organization can apply different crisis response strategies to directly respond to publics' coping actions at the manifest level. On the other hand, there might be a great opportunity for an organization to intervene at the publics' instrumental support coping stage as a reliable information and social support provider in the eyes of the publics.

To a certain extent, the study confirms the extant literature. For publics who are heavily engaged in emotional venting, due to the limited capacity theory of information process as outlined by Jin and Bolls (2005), they might not have sufficient remaining capacity to engage in actions in dealing with crisis situations on their own. Importantly, they are the ones that need the most instrumental support to make sense of everything and actionable advice on crisis handling. When the instrumental support is increased and well supplied, in return these emotional venting publics are also likely to engage in action coping.

This is especially important for crisis managers to prioritize. When a crisis happens, there are always overloading and conflicting information from difference sources with different levels of credibility. How to timely establish the source credibility of the organization and supply instrumental support to publics who are emotionally charged might make a difference in the direction of actions these publics are going to take, either align with or against the organization. Ideally, a crisis manager needs to help the organization play the proactive role as publics' coping facilitator and provide the information publics need to reduce stress and uncertainty as well as support they emotionally and informatively.

Under the category of conative coping, instrumental support is more of an action toward actual information seeking and social support solicitation, while action is actual steps and measures publics take or a plan they follow in improving the crisis situation. Interestingly, the more instrumental support publics seek, the more likely they are empowered and ready to take concrete actions based on their plan and sufficient information and social support.

It is crucial for crisis managers to help the organization understand the cognitive and affective coping process publics go through at individual level. Publics' understanding of the crisis situation and their emotional tone and intensity in expressing their feelings are important indicators of what kind of actions they are going to take or expect the organization to take for proper crisis handling from publics' perspective. An organization in crisis needs to listen to publics' vocal thoughts and feelings in order to choose the effective and ethical organization responses.

## 6. Conclusion

### 6.1.1. Implications

Based on the premise that publics in crisis also have their own appraisal process, which is related but different from how practitioners appraise the crisis from the organization's perspective (Jin, 2010), our study highlights the imperative for crisis managers to assess coping strategy and action expectancy. In addition to cognitive and conative coping strategies Jin et al.

(2007) posited, our study suggests the important role of affective coping in publics' crisis coping mechanism. Theoretically and practically, it provides an alternative perspective of crisis communication decision making processes, following Jin's (2010) call for a cognitive appraisal approach from the publics' perspective to advance the theoretical framework of appraisal theories in public relations.

The findings of this study highlights one key aspect of best practice of crisis communication, which aims at maximizing mutual understanding and closing gap between publics' coping strategies and organization's responses. Organizations should identify and further understand publics' emotional needs and coping strategy preference, so as to strategically choose the most effective response and tailor crisis-handling messages. Organizations should play the role as coping facilitators in the eyes of the publics and utilize both sensible and reasonable strategies.

### 6.1.2. Limitations and future directions

Given the complex nature of public relations practice and the contingent perceived characteristics of crises, there are several limitations of this study which suggest much room for future research to revise and refine the explication of crisis coping as a core concept in crisis communication.

First, the study focused on four selected coping strategies, representing cognitive, affective and conative coping approaches. Though these four tested coping strategies were suggested by existing crisis research (Jin, 2009, 2010), future study should identify other important crisis-specific coping strategies and further test their validity and reliability in measuring publics' crisis coping as a construct.

Second, methodological triangulations are also needed for future research. Qualitative research methods such as depth interviews and focus groups may provide more insights and richer data in understanding the process of publics' crisis coping decision making as well as how they understand crisis and cope with their feelings in complex, natural settings. Surveys of larger random samples with well-designed questions will provide a more generalizable picture and further tap deeper into the coping construct. Other variables such as familiarity with and attitude toward a given organization in a given crisis need to be taken into consideration when analyzing specific publics' responses to the crisis situation.

Third, researchers should further examine how different crisis coping strategies are associated with different crisis coping antecedents and consequences, as related to different types of crises and different emotions felt in order to improve the role an organizations in crisis situations and communication management practice. Researchers should also explore the impact of the Internet, especially social media, on how publics implement their coping strategies, and the role of activist groups in facilitating publics' coping processes.

## References

- Baker, J. P., & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion*, 21(1), 95–118.
- Booth-Butterfield, M., & Booth-Butterfield, S. (1990). Conceptualizing affect as information in communication production. *Human Communication Research*, 16(4), 451–476.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Carver, C. S., & Scheier, M. F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology*, 66(1), 184–195.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267–283.
- Choi, Y., & Lin, Y.-H. (2009). Consumer responses to mattel product recalls posted on online bulletin boards: Exploring two types of emotion. *Journal of Public Relations Research*, 21(2), 198–207.
- Coombs, W. T., & Holladay, S. J. (2005). An exploratory study of stakeholder emotions: Affect and crises. *Research on Emotion in Organizations*, 1, 263–280.
- Coombs, W. T., & Holladay, S. J. (2010). *The Handbook of Crisis Communication*. Wiley-Blackwell.
- Duhachek, A. (2005). Coping: A multidimensional, hierarchical framework of responses to stressful consumption episodes. *Journal of Consumer Research*, 32(1), 41–53.
- Garg, N., Inman, J., & Mittal, V. (2005). Incidental and task-related affect: A re-inquiry and extension of the influence of affect on choice. *Journal of Consumer Research*, 32(1), 154–159.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Jin, Y. (2009). The effects of public's cognitive appraisal of emotions in crises on crisis coping and strategy assessment. *Public Relations Review*, 35(3), 310–313.
- Jin, Y. (2010). Making sense sensibly in crisis communication: How publics' crisis appraisals influence their negative emotions, coping strategy preferences and crisis response acceptance. *Communication Research*, Online First, published on June 4, 2010 as doi:10.1177/0093650210368256.
- Jin, Y., & Bolls, P. (2005). A cognition-emotion integrated model of media message processing. In *Paper presented at the annual conference of the international communication association* New York City, May.
- Jin, Y., & Pang, A. (2010). Future directions of crisis communication research: Emotions in crisis – The next frontier. In T. W. Coombs, & S. J. Holladay (Eds.), *The handbook of crisis communication*. Malden, MA: Blackwell.
- Jin, Y., Pang, A., & Cameron, G. T. (2007). Integrated crisis mapping: Towards a publics-based, emotion-driven conceptualization in crisis communication. *Sphera Publica*, 7, 81–96.
- Jin, Y., Pang, A., & Cameron, G. T. (2008). *Developing a publics-driven, emotion-based conceptualization in crisis communication: Second-stage testing of the Integrated Crisis Mapping (ICM) model*. Montreal, Canada: ICA.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: The Guilford Press.
- Lazarus, R. S. (1982). Thoughts on the relations between emotion and cognition. *American Psychologist*, 37(9), 1019–1024.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York, NY: Springer Publishing Company, Inc.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.



- Luce, M. F. (1998). Choosing to avoid: Coping with negativity emotion-laden consumer decisions. *Journal of Consumer Research*, 24(4), 409–433.
- Luce, M. F., Bettman, J. R., & Payne, J. W. (2001). Emotional decisions: Tradeoff difficulty in consumer choice. *Monographs of the Journal of Consumer Research*. Chicago: University of Chicago Press.
- Preacher, K. J., & Leonardelli, J. G. (2003). Calculation for the Sobel test: An interactive calculation tool for mediation tests. <http://people.ku.edu/~preacher/sobel/sobel.htm> Retrieved 01.03.10.
- Sturges, D. L. (1994). Communicating through crisis: A strategy for organizational survival. *Management Communication Quarterly*, 7(3), 297–316.