Patterns of Anger Expression among Middle-aged Korean Women: Q methodology

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Purpose: The purpose of this study was to identify the characteristics of anger expression in middle-aged Korean women by categorizing their patterns of expression while considering the complexity and multidimensionality of anger, and by investigating the characteristics relative to the patterns. **Methods:** The research design was a descriptive design using Q methodology, which is a method of measuring subjectivity. A convenience sample of 42 participants aged 40–60 years and living in the community in Korea was recruited. The PC-QUANL software program (a factor analysis program for the Q technique) was used to analyze the Q-sort data. **Results:** Four factors were extracted that described different expressions of anger among middle-aged Korean women; these factors explained 50.1% of the total variance. The frames of reference of the four factors were a) direct diversion, b) silent masking with remaining anger, c) self digestion, and d) controlling anger with objectification. **Conclusion:** In this study has identified patterns and characteristics of anger expression among middle-aged Korean women were identified, which will aid the development of effective anger-management programs for controlling anger in this population. In future studies, it would be helpful to investigate how the patterns of anger expression established herein are associated with specific health problems such as cardiovascular disorder and cancer.

Key words: Anger; Middle aged; Women

INTRODUCTION

Anger is a common psychological state that every human being experiences, consisting of subjective feelings that vary in intensity from mild irritation or annoyance to intense fury and rage. It is a universal emotion that is found across all cultures and nationalities (Gentry, 2007). Anger can become toxic for some individuals, making them harmful and destructive to themselves and to others. These individuals may experience internal hyperarousal and find themselves either suppressing their anger feelings, using aggression, or diverting their anger to other psychopathologies (Thomas & González-Prendes, 2009).

Anger expression has been defined as a behavioral response to anger (Nunn & Thomas, 1999). The feeling of anger varies according to the way it is express(Arslan, 2010), and people may deal with or express their anger in various adaptive or maladaptive ways (Choi, Kim, Shin, & Cho, 2001), and unhealthy anger expression is linked to numerous physical and mental illnesses. Recent research has demonstrated a connection between anger, anger-related feelings, and increased risk for hypertension, cardiovascular disease (Lavoie, Miller, Conway, & Fleet, 2001), and for many other causes of morbidity and mortality (Siegler et al., 2003). While the experience of anger seems to be universal, the expression of emotions appears to be affected by gender and culture (Cox, Velsor, & Hulgus, 2004; Hatch & Forgays, 2001). Furthermore, the expression of anger also varies with gender. While women experience anger to the same degree as men, and for many of the same reasons, they tend to inhibit both the experience and the expression of anger compared with

men. It is generally consider much more acceptable for men to express anger both publicly and privately. In addition, the fear of reprisal after showing anger is greater among women than among men (Jack, 2001; Lavoie et al.). These differences may be due to sociocultural variables such as cultural norms and gender role socialization, rather than to biological factors. Fields et al. (1998) reported that boys are encouraged to be confrontational and aggressive when they are growing up, whereas girls are raised to be pleasant and to avoid relationship disruptions.

Most women experience the continuous incitement of anger as well as the feelings of powerlessness and shame in general (Jack, 2001). The way women express or suppress their anger has been linked to health consequences such as depression (Jack, 1999), hypertension, cardiovascular disease (Lavoie et al., 2001), irritable bowel disease, and suicide (Ali et al., 2000). In addition, middle-aged Korean women use "anger-in" (i.e., internalization) more than "anger-out" (i.e., externalization) or anger control (Lee, 2003), and trait anger, which are related to depression (Shin, Kang, Kim, Kim, & Yoon, 2006). The levels of cholesterol and depression were found to be significantly higher in the presence of anger-in and high trait anger among middle-aged Korean women (Park et al., 2005).

Most of the numerous studies that have investigated the concept of anger have excluded women (Denham, 2002; Shin et al., 2006). In addition, researchers commonly rely on concepts of internalization or externalization as the most important elements of anger expression. Externalization usually refers to responses that are overtly expressed, whereas internalization represents responses that are not outwardly directed (Jack, 2001). These conceptual descriptions of anger expression have failed to fully capture the meaning and characteristics of the anger in middle-aged women.

While Korean people are sensitive to emotions, they live in a traditional cultural environment in which suppressing anger is a Korean cultural norm. Suppression of anger is considered a positive social virtue, and therefore individuals, and especially women, are educated to suppress rather than express their anger. Korean women find it more difficult than men to resolve their anger positively because of these stronger cultural pressures. They are ambivalent toward expressing their anger and act strongly to suppress it. These characteristics may lead to low self-esteem, depression, a guilty conscience, and passive aggressive behavior (Lee, 2007; Park & Koo, 2004).

The anger experiences of middle-aged Korean women have unique characteristics that are distinct from those of women at other developmental stages. In addition, middle-aged Korean women are largely responsible for taking care of family members, and their physiological and psychological health conditions may thus also affect their family, and are associated with the health status of old age (Choi, 2009; Lee & Kim, 2000; Park et al., 2005). It is therefore imperative that middle-aged Korean women are taught to effectively manage their anger.

There may be differences between Korean women and women of other cultures with regard to the meaning, frequency of occurrence, and intensity of their anger, and unique themes and patterns may be evident. It is therefore important to observe and examine the characteristics of the experiences and the expressions of anger of middle-aged Korean women.

The overall purpose of this study was to determine the characteristics of anger expression among middle-aged Korean women by categorizing their patterns of anger expression, whilst considering the complexity and multidimensionality of anger, and investigating the characteristics of each pattern. The specific aims of this study were twofold: (1) to identify the patterns of anger expression among middle-aged Korean women, and (2) to explain the characteristics of the anger patterns of middle-aged Korean women.

METHODS

1. Research design

The design was a descriptive study using Q methodology, which is based on the premise that subjectivity can be studied in an objective, orderly, and scientific manner. Q methodology enables the investigator to develop and understand the dimensions of subjective phenomena from the individual's intrinsic perspective, to determine statistical differences between those dimensions, to identify characteristics of individuals who share common points of view, and to explore alternative perspectives as well as potential differences or disagreements before consensus is obtained (Kim, 2008). Q-methodology encompasses a distinct set of psychometric and operational principles that, when conjoined with specialized statistical application of correlation and factor analysis techniques, provides researchers with a systematic and rigorously quantitative means of examining human subjectivity (Chang et al., 2008). Q-methodology is a powerful tool for exploring the perspectives and beliefs of a person.

2. Procedures and data collection

1) Interview

In-depth interviews were conducted with eight Korean women aged

40–60 years who experienced anger. These subjects agreed to participate after the study was explained to them and informed consent was obtained from the participants. All participants were married with children. Exactly 50% of the women worked full-time and the other 50% were housewives.

These interviews were conducted using open-ended questions to allow the participants to talk freely. Examples of the types of questions asked included "When do you feel angry?", "How do you express your anger?", and "Could you explain with some examples?" The interviews were conducted over two to four sessions, with each session typically lasting 1.5–2.0 hours. The interviews proceeded until no further new categories related to anger experiences were found and saturation of categories occurred. These interviews were recorded using a digital audio recorder with the participants' permission, and then the interviews were transcribed and analyzed. At the end of the study the participants received a small gift (a kitchen utensil) as a token of appreciation.

2) Q sample

The interviews yielded 95 statements about anger expression. Items were reviewed by experts in the field, which comprised three professors (mental health nursing) and three postdoctoral fellows. Overlapping items and statements that are not related to anger expression were excluded, leaving 35 statements that best represented the expression of anger among middle-aged Korean women. The content validity index (CVI) was used to improve the validity of the Q statements in representing this anger expression, and the experts were asked to rate the relevance of each item using the following 4-point rating Likert-type scale:1, not relevant; 2, somewhat relevant; 3, quite relevant; and 4, very relevant. All items received ratings of 3 or 4, yielding a CVI score of 1.00, which suggested strong content validity.

3) P sample

One of the most salient characteristics of Q methodology involves the use of a small sample, which is possible because of intrapersonal differences rather than interpersonal differences are significant (Yeun, 2005).

Table 1. Sociodemographic and Clinical Characteristics of the Participants (N=42)

Characteristics	n (%)	Mean
Age (year)		49.81
Duration of marriage (year)		22.48
Marital status		
Married	42 (100.0)	
Religion		
None	7 (16.7)	
Buddhist	19 (45.2)	
Roman Catholic	12 (28.6)	
Protestant	4 (9.5)	
Education		
Middle school	6 (14.3)	
High school	23 (54.8)	
College or university	13 (30.9)	
Financial Status		
High	2 (4.8)	
Medium	29 (69.1)	
Low	6 (14.3)	
Occupation		
Housewife	17 (40.5)	
Full-time worker	25 (59.5)	
Perceived health status		
Very poor	0 (0.0)	
Poor	0 (0.0)	
Normal	23 (54.8)	
Good	17 (40.5)	
Menstrual status		
Regular	19 (45.2)	
Irregula	7 (16.7)	
Menopause	15 (35.7)	

This study recruited a convenience sample of 42 participants who were aged 40–60 years (mean, 49.8 years) and they agreed to participate in this study. All of the participants were married (Table 1).

4) Q sorting

Each of the 42 participants sorted 35 statements on a scale from 1 to 9 (Table 2). Q sorting was conducted either at the participant's home or another private location, after which the participants reported their demographic information. The first step in preparing the Q-sort data for analysis involved each participant recording a column placement score for each of the items placed in the Q sort. Placement scores ranged from

Table 2. Distribution of Q Samples (N=35)

	Strongly disagree				Neutral				Strongly agree
Frequency	−4	−3	−2	−1	0	+1	+2	+3	+4
Number of cards	2	3	4	5	7	5	4	3	2
Score	1	2	3	4	5	6	7	8	9

–4 to +4, where +4 represents "strongly agree," –4 represents "strongly disagree," and 0 represents "neutral." The participants were instructed to first familiarize themselves with the Q-sort cards and then distribute the items into four groups comprising those that fit well, fit somewhat, were not applicable, and did not fit well. The participants were then asked to explain their selection of Q-sort cards in the extreme columns of –4 and +4. The researcher answered any questions about the Q-sort cards and the method of Q sorting.

Q sorting was conducted between January and March 2007. All participants were provided with the same explanation regarding this study and their rights as subjects. These rights were reiterated verbally immediately prior to data collection. The subjects completed a consent form for their participation, and they were ensured that all of the information that they provided would be kept confidential and would not be shared with any other person.

Respondents provided demographic information in written form regarding their age, level of education, financial status (high, medium, and low), religion, marital status, family income, perceived health status, and menopausal status. This demographic information was used to explain the characteristics of each of the factors.

3. Ethical consideration

Approval for performing the study was not necessary from a research ethics committee since the study exposed the participants to minimal risks. However, Informed consent was obtained from participants and the rights of participants were explained as well as the purpose and the procedures of the study: three would be no negative consequences if the subject chose not to participate, and the data would never be used for any other purpose other than research. These rights were reiterated verbally before data collection.

4. Data analysis

The PC-QUANL program was used to analyze the Q-sort data. The principal-components factor analysis in this program produced eigenvalues of the Q factors, and these were standardized to divide the participants into factors. Factors with an eigenvalue greater than 1.00 were chosen for optimal factor identification.

RESULTS

The PC-QUANL program was used to extract four factors that described different expressions of anger among 42 middle-aged Korean women. These factors together explained 50.1% of the total variance. Factor I explained 34.47% of the variance, yielding the best explanation of the expression of anger, while Factors II, III, and IV explained 6.87%, 5.11%, and 3.70% of the expressions of anger, respectively. The relationships among the four factors were under .60, with the exception of factors III and IV, which exhibited a slightly greater correlation ($r = .63$; Table 3).

Table 3. Correlations among the Factors affecting Anger Expression in Korean Women

Variables	Factor II	Factor III	Factor IV
Factor I	.32	.46	.56
Factor II	1.00	.31	.30
Factor III		1.00	.63
Factor IV			1.00

Nine statements were consensus items in that they did not discriminate between the factors. All of the participants agreed with item 16 ("Despite my efforts to conceal my anger, it appears in my face"), while all strongly disagreed with item 24 ("I feel like harming myself or even committing suicide because nobody understands me"). The participants had the same views about these consensus items, and they were considered in the factor interpretations only when they appeared to be discrepant with the placing of other items.

1. Factor I: Direct diversion

Four of the 42 participants were classified within this factor. Table 4 provides a list of statements that were representative of characteristics with which they strongly agreed or disagreed and showed positive and negative Z-scores indicating agreement or disagreement, respectively. For example, the item with the greatest agreement was "I try to get over it by exercising or doing something that I can concentrate on," and those with the greatest disagreement were "I get so disgusted with the other person that their presence makes me want to kill him/her" and "I blame myself because I think it is all my fault."

The characteristics of factor I subjects together suggest that they try to solve their anger problems promptly, and then they use diversion tactics such as exercising or taking a walk. If they think the problems would not

be solved, they try to avoid the situation instead of suppressing their feelings and that is for themselves rather than for others as consideration.

Moreover, because they are interested primarily in resolving their anger, they express and attempt to reduce it regardless of the responses of or relationships with others. For these reasons, factor I was named "direct diversion."

2. Factor II: Silent masking with remaining anger

Eight participants exhibited factor II characteristics. Table 4 lists a sample of the statements associated with this factor. Participants strongly agreed with "I try to forget the person (or the thing) but it still remains in my mind as a grudge" and "I'm too weak to hurt the person directly, so I just roar at him/her." The statement most strongly disagreed with was "I

Table 4. Item Z–scores in the Q sample

No.	Statement	Factor I	Factor II	Factor III	Factor IV
1	I fight with the other person by breaking and throwing things.	−1.38	−0.52	−2.07	−1.81
2	I get so disgusted with the other person that their presence makes me want to kill him/her.	−1.70	0.47	−2.26	−1.40
3	Anger drives me crazy if I don't release it, so I yell at the person.	0.71	0.15	0.10	−1.33
4	I'm too weak to hurt the person directly, so I just roar at him/her.	−0.08	1.33	−0.42	−0.54
5	I try to make the person angry also by using provoking words.	0.92	0.77	−0.29	−1.07
6	I bear my anger as much as I can I do my best to suppress my anger.	0.66	0.96	0.90	1.05
7	I express my anger toward the person immediately at the scene without thinking about the consequences.	0.37	−0.52	−1.16	−1.15
8	I stay alone so that I do not make mistakes.	0.77	0.10	0.51	0.07
9	Because I know that the problems would not be solved even if I express anger, I tend to avoid the situation.	1.00	0.91	0.27	0.90
10	I try to take my mind off my anger by watching TV alone, because I get angrier if others provoke me.	0.64	0.73	1.18	0.34
11	I try to get over it by drinking alcohol.	−0.49	−1.33	−0.50	−1.46
12	I try to verbalize indirectly without letting the other person notice my anger.	0.05	0.62	−0.15	0.97
13	I try to think positively because anger does more harm to me.	0.53	1.09	1.42	1.64
14	I try to express my anger indirectly by muttering to myself to conceal my anger toward others.	−0.47	0.13	1.44	0.21
15	I express my anger indirectly by slamming the door or the phone.	0.38	0.76	1.76	−0.56
16	Despite my efforts to conceal my anger, it appears in my face.	1.03	1.26	1.49	1.05
17	I feel like retaliating against him or her.	−0.29	1.12	−1.77	−1.34
18	I try to explain why I was angry after I have calmed down.	1.16	−0.30	0.27	1.42
19	I express my anger to people I am close to, who can understand me, but not to the person who is not close to me.	0.05	−0.81	−1.17	−0.66
20	I provoke a quarrel about other problems instead of expressing my anger to the person I'm angry with.	−1.08	−2.07	−1.31	−0.36
21	I take it out on those who are close to me under the pretense of other things.	0.03	−0.15	−0.93	0.10
22	I talk about my anger to my friends in an attempt to calm down.	0.90	1.09	0.62	1.72
23	I feel like fainting if I suppress my anger too much or for too long.	−0.85	−0.82	−0.18	0.05
24	I feel like harming myself or even committing suicide because nobody understands me.	−1.54	−1.32	−1.32	−1.74
25	I blame myself because I think it is entirely my fault.	−1.63	−1.03	0.21	0.00
26	I get depressed from frequent incidents that make me mad.	−1.63	−0.40	0.19	−0.48
27	I try to forget the person (or the thing) but it still remains in my mind as a grudge.	−1.29	1.92	−0.16	0.28
28	I cut off the relationship in order to ignore the person.	−1.11	0.58	0.39	0.52
29	I try not to obsess about the incident.	0.68	−0.54	−0.42	1.13
30	I just give myself time and then my anger melts away.	0.90	1.20	0.72	0.57
31	I try to be in peace with nature by taking a walk in a park or outside.	1.39	−0.06	0.43	1.42
32	I use shopping as a diversion.	1.31	−1.33	0.34	0.58
33	I try to get over it by exercising or doing something that I can concentrate on.	1.71	0.34	0.72	0.80
34	I calm down my anger by imagining that I express anger to the person.	−0.33	−1.98	0.36	−0.29
35	I cry in vexation.	−1.27	−1.14	0.77	−0.61

provoke a quarrel about other problems instead of expressing my anger to the person I am angry with." When one factor II participant was asked why she strongly agreed with this item, she wrote: "Despite I try to conceal my anger, it appears in my face. Also, even if I resolve the anger, it remains as a grudge in my mind." Such ways of expression can be seen in their opinion less than for all other factors, which were characterized primarily this factor. Factor II participants can be characterized that they try to conceal the anger rather than resolve the problems directly and express the feeling. But the anger still remains in their mind and the participants tend to attribute it to the person.

Factor II participants are thus classified as "silent masking with remaining anger" because they are unable to outwardly express their anger, and the anger remains unresolved.

3. Factor III: Self digestion

Eight participants exhibited factor III characteristics. The distinguishing statements for factor III are listed in Table 4. The statements with the greatest agreement within factor III were "I express my anger indirectly by slamming the door or the phone" and "I try to express my anger indirectly by muttering to myself to conceal my anger toward others." The statements with which these participants had the most disagreement were "I get so disgusted with the other person that their presence makes me want to kill him/her" and "I fight with the other person by breaking and throwing things." For example, factor III participants selected the following cards to explain why they expressed their anger: "I try to suppress my anger and to think positively that everything will be okay if I can bear my anger. I have an optimistic point of view…," and "I never think that I want to kill someone or the other person because that is excessive. I never throw or break objects." Participants who were represented by this factor typically conceal their anger and do not want to express it outwardly. They think that the cause of their anger is within themselves rather than the other person, and they want to resolve their anger alone. That is, they want to conceal their feelings without expressing their anger, and they try to endure and bear the emotion due to the value they place on their relationships with others. In this regard, this factor was labeled "self digestion"

4. Factor IV: Controlling anger with objectification

Twenty-two participants were classified within this factor. Represen-

tative items of this factor that the participants strongly agreed with were "I talk about my anger to my friends in an attempt to calm down," "I try to think positively because anger does more harm to me," and "I try to explain why I was angry after I have calmed down." Statements with which these participants strongly disagreed were "I fight with the other person by breaking and throwing things" and "I feel like harming myself or even committing suicide because nobody understands me." The factor IV participants characteristically try to resolve their anger by controlling themselves with indirect methods, and they focus on their relationships with others. They value the feelings of others as well as their own. Factor IV participants try to think the problems objectively because they do want to harm both others and themselves. They also try to calm down when they feel angry. Therefore, this factor was named "controlling anger with objectification."

DISCUSSION

The expression of anger among middle-aged Korean women could be divided in the present study into four patterns, represented by factors I–IV. The factor I ("direct diversion") participants characteristically want to resolve and express their anger promptly rather than control it in attempt to maintain their relationships with others. Direct diversion is similar to the anger-out described by Spielberger et al. (1985). Anger-out is generally described as anger ventilation expressed in the form of verbal or physical aggression (Miller & Surrey, 1997). However, the findings of the present research imply that these people tend to divert their anger toward other people and objects, and are no longer affected by their anger after they have expressed it.

Factor II ("silent masking with remaining anger") participants try to hide their anger rather than exhibit it, but do not internally resolve it. This results in them resenting other people and often projecting hatred and revenge toward them. The participants categorized into the factor III group, defined as "self digestion," conceal their anger and turn it inward rather than expressing it directly to others like in the factor II group. The participants in the factor III group believe that expressing anger is their fault and block the feeling instead of complaining about it and turning the anger toward others. Spielberger et al. (1985) would designate factors II and III as anger-in in the act of suppressing anger, and Cox et al. (2004) suggested that women who externalize their emotions exhibit angry outbursts and suffer negative effects there from. However, the present research focused on those toward whom the expression of

anger expression is targeted, whether it is another person or oneself, and even if it involves suppressing the anger. This may mean that the women's externalization of anger is more complicated than simply a direct expression of their anger. Factor 3 participants focus on concealing the anger simply by bearing and suppressing it, while factor 2 participants try to forget the anger but it remains in their mind as a grudge and results in resentment toward the targeted person.

Factor IV ("controlling anger with objectification") participants try to objectively see the situation that caused their anger rather than concentrating on it, including while considering others, rather than directly verbalizing their anger in outbursts. These people consider it important to resolve their anger while also maintaining their relationships with others.

The overall findings of this study revealed that the types of anger expression can be divided into two sets of opposing characteristics: solving or revealing anger and concealing it. The characteristics of "direct diversion" and "controlling anger with objectification" appear to be similar, since in both cases the participants actively express their anger when they feel angry. However, the combined examination of these two types of characteristics revealed that "direct diversion" participants focus more on their own feelings and "controlling anger with objectification" participants place greater value on their relationships with others. Moreover, the "direct diversion" participants divert their anger rather than focusing on the feelings of other people and their relationships with them. The "controlling anger with objectification" participants aim to resolve their anger more reasonably and rationally.

The characteristics of "silent masking with remaining anger" and "self digestion" mean that participants do not want to reveal their anger and so try to conceal it. Anger-in means keeping the feeling of anger an individual feels to him/her and not expressing the anger; while anger-out means the reflection of anger (Arslan, 2010). However, "silent masking with remaining anger" participants attribute their anger to the other person and the anger is not resolved, which generates even more anger and hatred. On the other hand, "self digestion" participants turn the cause of anger and blame toward themselves, and try to suppress and bear it.

Most of the participants in this study were categorized as either factor II or factor III, and all participants agreed with the following item: "Despite my efforts to conceal my anger, it appears in my face." All except factor I participants emphasized the value of their relationships with other people in their anger expression. Other studies found that expressions of anger by women were more likely to result from the actions of people close to them, whereas men were more likely to become angry

due to the actions of strangers (Feher, 1996; Lohr, Hamberger, & Bonge, 1988; Thomas, 1993). Many women may regard the outward expression and revealing of their anger as a negative behavior due to social and cultural norms, and they might tend to hide their anger intentionally. Cox et al. (2004) explained that the internalization of anger among women involves self-blame, such that as women hold their anger inside they think more about the situation and find that they must blame someone for it, be that themselves or others.

This study has also shown that middle-aged Korean women do not want to externalize their anger directly, so they try to control it, but that the anger cannot be controlled in a positive way. It is also thought that when women consider their relationships with others because of fear or socialization problems, they do not address the situation that caused the anger, and that women have less freedom to overtly express their anger and more often fear reprisal should they do so directly (Choi, 2009; Jack, 2001).

Previous research on depression and aggression in women has shown that the interpersonal context is the most critical factor affecting the arousal and expression of anger. It has also been suggested that women describe their anger primarily in terms of relationships, placing their anger squarely in stories about relationships and focusing on the interpersonal origins, expression, and effects of their anger (Jack, 1999).

From a study on middle-aged women, Lee (2003) suggested that suppression of anger was the most important factor of psychological health, and implied that the expression of anger could have either a positive or a negative effect on their relationships with others, as well as on their physical and psychological health. Women who externalized their anger were more likely to experience depression and obsessive-compulsive behavior, and experienced more overall symptoms than did women who endorsed segmentation or assertiveness. In addition, women who externalized and internalized anger suffered more paranoid thoughts and physical complaints (Cox et al., 2004).

CONCLUSION

In this study has identified the patterns and characteristics of the expression of anger among middle-aged Korean women have been identified. These findings of this study will help in the development of anger-management programs to provide effective and positive ways for middle-aged women to control their anger.

Future studies should investigate how the patterns of anger expression found in this study are associated with specific health problems such as

cardiovascular disorders or cancer. The results of the current study could be used to develop a scale for measuring anger expression in middle-aged women. Furthermore, differences in the expression of anger among women from different social and cultural environments need to be examined so that anger-management programs that are specific to those environments can be developed.

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