

Coping Strategies and Health-Related Quality of Life Among Korean Childhood Cancer Survivors

Kim, Min Ah*
(Myongji University)

Yi, Jaehee
(University of Utah)

The aim of this study is to explore the correlations between coping strategies and health-related quality of life among Korean adolescent and young adult cancer survivors. Two hundred eighteen Korean childhood cancer survivors completed structured questionnaires on coping strategies and health-related quality of life. The most frequently reported coping strategy was self-distraction (97.2%), followed by positive reframing (95.9%) and active coping (95.9%). An exploratory factor analysis yielded three coping factors: approach (active coping, positive reframing, religion, acceptance, and planning), social (emotional support, instrumental support, self-distraction, and venting), and avoidant (behavioral disengagement, self-blame, and humor). The results of bivariate correlation analyses showed that approach coping was associated with better physical and mental health, whereas both social and avoidant coping were associated with poorer mental health. Identifying coping strategies that childhood cancer survivors use and those strategies' potential associations with health-related quality of life is of interest to clinicians treating childhood cancer survivors adjusting to stressful experiences.

Keywords: Childhood Cancer, Cancer Survivors, Coping, Stress, Quality of Life

This research was supported by funding from the Korea Childhood Leukemia Foundation and this article is based on a part of the unpublished reports. This research was presented as a poster at the 2013 Annual Association of Pediatric Oncology Social Workers (APOSW) Conference, Minneapolis, Minnesota.

* Corresponding author: Kim, Min Ah | Myongji University (minahkim@mju.ac.kr)

■ 투고일: 2017.4.18 ■ 수정일: 2017.7.14 ■ 게재확정일: 2017.8.8

I. Introduction

Childhood cancer survivors deal with the stressors of their specific cancer diagnoses and treatments while they also manage regular daily life stressors when they return to normal life after treatment is completed (Hobbie et al., 2000; Kazak, Alderfer, Rourke, Simms, Streisand, & Grossman, 2004; Lee & Santacrose, 2007). After cancer treatments, survivors may feel uncertainty about treatment, follow-up, and symptoms (Lauver, Connolly-Nelson, & Vang, 2007). Some survivors develop posttraumatic symptoms after the traumatic experience of cancer. They might experience bad dreams and difficult memories, avoid reminders of the traumatic experiences, be startled by sudden sounds, or be overly sensitive to their surroundings (Foa, Cashman, Jaycox, & Perry, 1997). They also might be stressed with daily events that are affected by their cancer experience. Consider the young adult cancer survivor who may struggle with how to communicate with her new romantic partner about her cancer history and potential associated fertility issues (Zebrack, 2011). A large body of empirical studies has found a significant proportion of childhood cancer survivors report severe symptoms of distress (e.g., Wiener et al., 2006; Michel, Rebholz, von der Weid, Bergstraesser, & Kuehni, 2010; Gianinazzi et al., 2013).

Cancer patients and survivors respond to these stressors with diverse coping strategies. Coping is defined as cognitive and behavioral efforts to manage external and/or internal demands that are perceived as threats (Lazarus & Folkman, 1984). Coping with life stress is important for survivors of pediatric cancer because it is positively associated with their risky health behaviors (Tercyak, Donze, Prahlad, Mosher, & Shad, 2006). How survivors respond to and deal with stress, therefore, serves as useful information for understanding these young adults' health behaviors and quality of life.

The numerous studies in this field have not reached consensus on the types of coping strategies used, constructs of the different strategies, relationships between

coping strategies, and the quality of life of childhood cancer survivors. Attempts to understand these topics in a cultural context have been inadequate. Situational knowledge, which is specific to a particular situation (Haraway, 1988), is important to understand illness experiences; thus examining these topics among cancer survivors from different cultural backgrounds will help determine distinct meanings of illness, as well as different responses to diagnosis and treatment (Li et al., 2011).

The present study explores Korean childhood cancer survivors' coping strategies with life stressors and the associations of the types of coping strategies with health-related quality of life. An examination of the characteristics of the coping strategies in this group will help psychosocial oncology service providers develop programs for cancer survivors that enable them to better adjust to stressful experiences and will contribute to the knowledge of coping in cancer survivorship.

II. Literature Review

1. Cancer Survivors' Coping Strategies

Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p.141). Many studies have shown that pediatric cancer patients and survivors use diverse coping strategies to reduce their stress (e.g., Li, Chung, Ho, Chiu, & Lopez, 2011; Smorti, 2012; Hildenbrand, Baraka, Alderfer, & Marsac, 2015). Smorti's (2012) study demonstrated that adolescents surviving bone cancer tended to use more avoidance coping strategies than their healthy peers, although no significant differences were found. Li et al. (2011) found that Chinese children in Hong Kong hospitalized with cancer used more emotion-focused than problem-focused strategies. Particularly, the

children most commonly used self-control, including efforts to regulate their own feelings or emotions as a coping strategy (Li et al., 2011). Trask, Paterson, Trask, Bares, Birt, and Maan (2003) found that adolescents with cancer used more adaptive (i.e., problem-solving, cognitive-restructuring, social support, and express emotions) than maladaptive coping strategies (i.e., problem avoidance, wishful thinking, social withdrawal, and self-criticism). However, their distress was associated with a reduced use of adaptive coping. In a qualitative study of 15 children undergoing cancer treatment, Hildenbrand, Clawson, Alderfer, and Marsac (2011) classified their coping with cancer-related stressors as approach coping (cognitive restructuring, relaxation, practical strategies, seeking social support, and emotional expression) and avoidance coping (distraction).

2. Stress and Quality of Life among Childhood Cancer Survivors

Life stress is positively associated with risky health behaviors among young adult survivors of pediatric cancer (Tercyak et al., 2006). According to Parelkar, Thompson, Kaw, Miner, and Stein (2013), cancer survivors who tried to control stress tended to make changes in their physical, psychosocial, and preventive health behaviors in comparison with cancer survivors who used passive stress-coping approaches. Particular coping styles might moderate the association of stress with psychological symptoms (e.g., anxiety, depressive symptoms) (Wang et al., 2012) and even explain cancer survivors' posttraumatic growth (Ha & Yang, 2015). In particular, Shapiro, Mccue, Heyman, Dey, and Haller (2010) found that self-blame and behavioral disengagement were associated with cancer survivors' poor adjustment, whereas acceptance and humor were consistently associated with good adjustment. How survivors respond to and deal with stress, therefore, serves as useful information for understanding these young adults' health behaviors and quality of life.

In a study that demonstrated the importance of coping, Wenninger et al. (2013)

found that it was the most important determinant of psychological adjustment in long-term childhood cancer survivors. In a sample of survivors of childhood cancer, avoidant cognitive coping, the tendency to suppress negative thoughts, contributed most to psychological distress (Wenninger et al., 2013), and cognitive coping was associated with health-related quality of life (Stam, Grootenhuis, Caron, & Last, 2006). Particularly, secondary control coping, which is an effort to adapt to the source of stress, was a significant factor in explaining the symptoms of anxiety/depression among children and adolescents with cancer (Compas et al., 2014). Being more optimistic about the further course of the disease (demonstrating predictive control) and searching less for information about the disease (demonstrating interpretative control) have been found to be associated with lower levels of anxiety among children and adolescents surviving cancer (Maurice-Stam, Oort, Last, & Grootenhuis, 2009). Castellano, Pérez-Campdepadrós, Capdevila, de Toledo, Gallego, and Blasco (2013) examined a Spanish sample of adolescent cancer survivors and reported that productive coping (e.g., problem-solving, partaking in physical recreation, seeking relaxing diversions, working hard to achieve, and focusing on the positive) was related to higher health-related quality of life, whereas nonproductive coping (e.g., wishful thinking, worrying, keeping to self, self-blaming, and ignoring the problem) was related to lower health-related quality of life. Surprisingly, Aldridge and Roesch (2007), in a meta-analysis, found that approach, avoidance, and emotion-focused coping was not related to overall adjustment of children with cancer, and problem-focused coping was even negatively related to overall adjustment -- findings that are inconsistent with adult cancer patients (see Roesch et al., 2005). Maurice-Stam et al. (2009) found a mediating effect of coping strategies between adolescent cancer survivors' medical and demographic characteristics and health-related quality of life, suggesting the buffering role of coping in health-related outcomes in this population.

III. Methods

1. Subjects and Procedure

This study is a part of a larger research project that was conducted in 2010 on Korean childhood cancer survivors; other issues addressed in the project have been reported in several publications (e.g., Kim & Yi, 2013; Yi & Kim, 2014). Korean cancer survivors diagnosed with cancer before the age of 19, and aged 15-39 years at the time of the present study, were recruited as participants. Specifically, we targeted only those who completed cancer treatment. As noted in the previous publications, the authors advertised the study through childhood cancer advocacy foundations and support groups in Korea between June 2010 and November 2010. Because it can be hard to reach cancer survivors once they are discharged from regular hospital care, we asked initial volunteers who contacted us through the study advertisements to refer other potentially eligible survivors. After verbal consent was obtained from the participants, a 15-minute structured questionnaire was distributed to them with an information sheet, as suggested by the ethics guidelines of the Institutional Review Board of the university that principal investigator was affiliated at the time of the study.

Of the 227 questionnaires returned, 218 respondents were included for the main analyses, and nine respondents were removed (two did not meet the study inclusion criteria and seven did not complete the coping-related questions).

2. Measures

Using self-reported questionnaires, we examined the participants' coping strategy and health-related quality of life as well as their demographic (age, gender, and marital status) and medical characteristics (cancer at diagnosis, age at diagnosis, and time since diagnosis).

The survivors' reactions when coping with their life stressors were measured by 12 items based on a modification of the Brief Cope (Carver, 1997), which asks if survivors resort to any of the following coping strategies: active coping, positive reframing, turning to religion, acceptance, planning, emotional support, self-distraction, venting, instrumental support, behavioral disengagement, self-blame, and humor. Each item was scored on a four-point Likert-type scale with 1 = I haven't been doing this at all, 2 = I've been doing this a little bit, 3 = I've been doing this a medium amount, and 4 = I've been doing this a lot. Exploratory factor analysis was conducted and the three factors that emerged were used in the analysis.

The Medical Outcomes Study Short Form-8 (SF-8; Ware, Kosinski, Dewey, & Gandek, 2001) was used to assess the survivors' health-related quality of life. SF-8 measures eight health domains: physical functioning, role limitations due to physical health problems, bodily pain, general health, energy/fatigue (vitality), social functioning, role limitations due to emotional problems, and mental health. Each item has a five- or six-point response range, and higher scores indicate better quality of health. By weighing each SF-8 item, the Physical Component Summary (PCS) and Mental Component Summary (MCS) were calculated with a mean score of 50 and a standard deviation of 10 to represent overall physical and mental health, respectively (Ware et al., 2001).

3. Statistical Analysis

An exploratory factor analysis (EFA), using a principal component extraction method with oblique rotation, was conducted on the 12 items assessing coping strategies to generate the factor components of the coping strategies. EFA was appropriate as it can be used to "consolidate variables and generate hypotheses about underlying processes" in the early stages of research (Tabachnick & Fidell, 2007, p. 609). The number of factors was determined based on the scree test and the substantial meanings. At least .30 of factor loading on the primary factor was

considered to be strong, and an item that loaded at .30 or higher on two or more factors was considered to be cross-loaded (Tabachnick & Fidell, 2007). The theoretical meanings of the factors were considered to determine the factor to which the cross-loading item belonged. Bivariate correlation analyses were used to examine the association between factor scores, computed using a regression method (Tabachnick & Fidell, 2007), and health-related quality of life. All statistical tests were two-sided and were performed using a 5% significance level. SPSS 23.0 was used to perform the statistical analyses.

IV. Results

1. Sample Characteristics

Table 1 shows our sample characteristics. Approximately 60% of the participants were male ($n=129$). They were 21.96 years old ($SD=4.73$) on average, with 97.2% ($n=211$) never having been married. Of the participants, 72% ($n=154$) were diagnosed with hematological cancers, such as leukemia, whereas others were diagnosed with solid or soft tissue tumors ($n=30$, 14%) and central nervous system or brain tumors ($n=30$, 14%). On average, participants were diagnosed with cancer at 9.86 years of age ($SD=4.41$), and 12.07 years ($SD=5.95$) had passed since diagnosis.

Table 1. Participant characteristics (N=218)

Characteristic	n (%)
Age in years (M + SD)	21.96 + 4.73
Gender	
Male	129 (59.4)
Female	88 (40.6)
Marital status	
Never married	211 (97.2)
Married	6 (2.8)
Diagnosed cancer type	
Hematological cancers	154 (72.0)
Solid or soft tissue tumors	30 (14.0)
Central nervous system or brain tumors	30 (14.0)
Age at diagnosis in years (M + SD)	9.86 + 4.41
Time since diagnosis in years (M + SD)	12.07 + 5.95

Note. N sizes fluctuate slightly because of missing values.

2. Coping Strategies Utilized by Cancer Survivors

Table 2 presents the frequency of coping strategies reported by the Korean adolescent and young adult cancer survivors. The majority of the participants reported utilizing various coping strategies. The most frequently used coping strategy was self-distraction (97.2%), followed by positive reframing (95.9%) and active coping (95.9%).

Table 2. Descriptive statistics for coping strategies (N=218)

Items	No	Yes*
	n (%)	n (%)
Active coping: I try to change the situation.	9 (4.1)	209 (95.9)
Behavioral disengagement: I don't try to cope with stress.	122 (56.0)	96 (44.0)
Positive reframing: I try to see the issue from a different angle to find positive aspects.	9 (4.1)	209 (95.9)
Emotional support: I seek comfort and understanding from other people.	23 (10.6)	195 (89.4)
Self-distraction: I do other things to think less of stress.	6 (2.8)	212 (97.2)
Venting: I express negative feelings in words or behaviors.	48 (22.0)	170 (78.0)
Turning to religion: I pray or meditate.	120 (55.0)	98 (45.0)
Instrumental support: I seek advice and help from other people on how to cope with stress.	73 (33.5)	145 (66.5)
Acceptance: I learn to live with stress.	32 (14.7)	186 (85.3)
Planning: I think hard to find ways to resolve the issues.	17 (7.8)	201 (92.2)
Self-blame: I think that the issue happened because of me.	33 (15.1)	185 (84.9)
Humor: I joke about the situation.	47 (21.6)	171 (78.4)

* Includes those who reported coping with each strategy occasionally, often, or almost always.

3. Exploratory Factor Analysis of the Coping Strategies

The results of the EFA supported that the three factors of the coping strategy accounted for 49.1% of the total variance. As shown in Table 3, all items had adequate (above .30) to strong (above .50) loading on at least one factor and did not load highly on another factor. Only one item, assessing the use of humor as a coping strategy, was cross-loaded on two factors at a loading of .30 or higher. Factor 1 included five items (active coping, positive reframing, religion, acceptance, and planning) representing problem-solving activities directed at the source of the stress; it was thus named approach coping. Factor 2 included four items (emotional support, instrumental support, self-distraction, and venting) representing behaviors directed toward relationships with others; it was thus named social coping. Factor

3 included three items (behavioral disengagement, self-blame, and humor) representing behaviors that direct the focus away from the problem; it was thus named avoidant coping. The correlations among the factors tended to be small, ranging from -0.57 to $.133$.

Table 3. Rotated factor loadings for the three-factor solution (N=218)

	Factors		
	Approach Coping	Social Coping	Avoidant Coping
Active coping	.767*	.000	-.057
Positive reframing	.795*	.053	.039
Turning to religion	.415*	.154	-.292
Acceptance	.719*	-.105	.053
Planning	.761*	.093	.186
Emotional support	.126	.749*	-.126
Self-distraction	.021	.518*	.287
Venting	-.326	.566*	.127
Instrumental support	.274	.665*	-.308
Behavioral disengagement	-.235	-.030	.510*
Self-blame	.147	.153	.703*
Humor	.333	-.052	.455*

* $p < .05$; ** $p < .01$

4. Correlations with Health-Related Quality of Life

Table 4 reports the associations between coping strategies and health-related quality of life. In general, a greater use of approach coping was correlated with a better PCS and MCS ($r = .228$, $p < .01$ and $r = .182$, $p < .01$, respectively), whereas a greater use of social coping and avoidant coping was correlated with a poorer MCS ($r = -.172$, $p < .05$ and $r = -.209$, $p < .01$, respectively). More specifically, approach coping was correlated with lower role limitations due to physical health problems ($r = .193$, $p < .01$), better general health ($r = .309$, $p < .01$), more vitality ($r = .302$, $p < .01$), better

social functioning ($r=.161$, $p<.05$), and better mental health ($r=.149$, $p<.05$). Social coping was correlated with greater role limitations due to emotional problems ($r=-.180$, $p<.01$) and poorer mental health ($r=-.206$, $p<.01$). Avoidant coping was correlated with greater bodily pain ($r=-.165$, $p<.05$), poorer general health ($r=-.252$, $p<.01$), lower vitality ($r=-.223$, $p<.01$), poorer social functioning ($r=-.235$, $p<.01$), and greater role limitations due to emotional problems ($r=-.178$, $p<.01$).

Table 4. Correlations between three coping factors and health-related quality of life (N=218)

	Factors		
	Approach Coping	Social Coping	Avoidant Coping
Physical component summary (PCS)	.228**	-.031	-.117
Mental component summary (MCS)	.182**	-.172*	-.209**
Physical functioning	.107	-.063	.067
Role-physical	.193**	-.084	-.041
Bodily pain	.120	-.123	-.165*
General health	.309**	-.005	-.252**
Energy/fatigue	.302**	.056	-.223**
Social functioning	.161*	-.105	-.235**
Role-emotional	.099	-.180**	-.178**
Mental health	.149**	-.206**	-.108

* $p<.05$; ** $p<.01$

V. Discussion

Our exploratory study found that Korean childhood cancer survivors used diverse coping strategies, which were conceptually categorized as approach coping, social coping, and avoidant coping. In our sample, the findings that approach coping (i.e., problem-solving activities directed at the source of the stress) was related to better

physical and mental health, whereas social coping (i.e., behaviors directed toward relationships with others) and avoidant coping (i.e., behaviors that orient the focus away from the problem) were related to poorer mental health in this population, have several clinical and research implications.

Our findings are consistent with previous research that found cancer patients and survivors who used approach coping were more likely to experience positive psychological well-being, and those who used avoidant coping were more likely to experience negative psychological adjustment and physical health (see Roesch et al., 2005 for review). Cancer survivors who used fewer avoidant coping strategies, such as denial, behavioral disengagement, and substance abuse, were more likely to face their challenges directly, feel less burdened and distressed, and in turn, experience greater psychological well-being (Turner-Sack, Menna, & Setchell, 2012). Furthermore, avoidant coping contributed to pediatric cancer patients' depression (Frank, Blount, & Brown, 1997) as well as cancer survivors' negative health behavior change concerning diet, exercise, and sleep (Park, Edmondson, Fenster, & Blank, 2008).

Avoidant coping strategies may reduce stress and prevent anxiety from becoming crippling, whereas approach coping strategies allow for appropriate action and the possibility for taking advantage of opportunities to make situations more controllable (Roth & Cohen, 1986). Avoidant strategies might be valuable during the initial period of diagnosis and treatment when emotional resources are limited, as they can reduce stress and anxiety and allow for a gradual recognition of threat as well as the time needed to collect resources to change the environment (Lazarus, 1983). However, if the avoidant strategies prevent an assimilation and resolution of the trauma, they may ultimately be counterproductive (Roth & Cohen, 1986). In the long run, the effectiveness of avoidant strategies depends on how well they facilitate approach coping (Roth & Cohen, 1986). Therefore, partial, tentative, or minimal use of avoidant coping strategies can often lead to a more positive emotional outlook, particularly over a long period of time. For example, humor can be a positive way

of dealing with life's challenges, by lightening up a situation, and was therefore operationalized as emotion-focused coping (Coolidge, Segal, Hook, & Stewart, 2000). In our study, however, humor seemed to be used as a way of avoiding a stressful situation by only joking about it but not approaching its core issues. This kind of humor, which avoids the important issues, is different from the positive reframing approach of creating pleasant and/or humorous meaning out of one's situation. Kimemia, Asner-Self, and Daire (2011) found that humor was inversely related to positive reframing. Future research might look into the ways humor either positively or negatively relates to stress in multicultural settings.

The relationships between social coping and poorer mental health that we found are counterintuitive, because the behavior of seeking social support in stressful situations seems both active and positive. Yet, contrary to this common belief, seeking social support does not necessarily contribute to better health-related quality of life for cancer survivors (Castellano et al., 2013). Several studies have also indicated that emotional support and venting are related to psychological distress and depression (Blank & Bellizzi, 2006; Turner-Sack et al., 2012). The relationship between social support and psychosocial outcomes of cancer survivors may also depend on individual factors. It has been found that for cancer survivors with high alexithymia, higher depression and negative affect are related to a high level of emotional sharing and high perceived negative support (Boinon et al., 2012). More social support has also been found to be related to higher anxiety among cancer survivors with low optimism (Applebaum et al., 2014). It is clear that the relationship between social coping and quality of life is complex.

We propose three possible explanations for the negative associations of social coping with mental health in our sample. First, although this cross-sectional study finding does not infer causal directions, perhaps the survivors with poorer mental health use more social coping, and not the other way around - more social coping leads to poorer mental health.

Second, social coping may be stressful in the collectivist Korean culture, where

individuals are expected to avoid placing a burden on others (Yeh, Arora, & Wu, 2006). Those who seek external help when facing stress might encounter inadequate social support, which could aggravate their stress. Although social support is generally considered to be an important positive factor in coping with stress (Lazarus & Folkman, 1984), negative social interactions, such as those that cause the individual to experience an unfavorable psychological reaction and have reservations about the relationship, may have a detrimental impact (Lincoln, 2000). Research on social support and illness reveals two specific types of such “supportive” interactions: (a) when the patient perceives the wrong person provided a specific type of support, and (b) when the patient feels that although the correct person has offered the support, he or she has not done so in a helpful manner (Neuling & Winefield, 1988; Rose, 1990). Both sources of supportive interactions may play a critical role in the positive and negative effects on psychological well-being. In Korea, cancer survivors often experience social stigma (Cho et al., 2013a; Kim, Yi, & Kim, 2014). In this cultural setting, where talking about cancer and sharing stories about cancer experiences are not socially accepted (Cho et al., 2013b), cancer survivors who use social coping and want to be comforted through social relationships might face enormous challenges.

Our third explanation for the negative association of social coping and mental health is that social coping might be used as a way of trying to distract the survivors from their stress. In our sample, self-distraction was a major component of social coping that seemed to be used as a way of directing coping energy outward in social relationships. According to David and Suls (1999), those with a lower perception of control over stressful events tend to choose distraction strategies. Individuals may use distracting stimuli, entertainment, or activity to avoid thinking about the stressors (Ayers, Sandler, West, & Roosa, 1996), thereby controlling psychological stress (Lazarus, 1993). Self-distraction can be a healthy way of coping with stress in certain circumstances. It is particularly helpful when one has to deal with strong and disturbing emotions (Baumeister, Heatherton, & Tice, 1994). For example, adult and

pediatric patients undergoing chemotherapy experienced reduced levels of distress and unpleasant treatment side effects by playing video games (Vasterling, Jenkins, Tope, & Burish, 1993) or with a developmentally appropriate electronic toy (Dahlquist, Pendley, Landthrip, Jones, & Steuber, 2002). However, if this strategy is used without properly addressing the underlying problems, it can aggravate the stress and worsen the situation (Zillmann, Hezel, & Medoff, 1980).

A few limitations should be considered in interpreting the study findings. First, the survivors in this study voluntarily participated, which is likely to affect the types of coping strategies that they use. The participants' coping strategies might be different depending on whether their stress is general or cancer-specific. Future studies could examine different types of stressors and their impact on quality of life. Second, our participants had gone through cancer diagnosis and treatment in the past. Particularly, the participants had been diagnosed with cancer at 9.86 years of age on average, and it is possible that their memories of their cancer experience might have faded. Thus, the impact of their stressor and how they cope with stress might be different from other survivors or patients who are currently undergoing cancer treatment. In addition, particular stressors and coping strategies might function at different phases of survivorship. Thus, the time since treatment should be considered in explaining the association between coping strategies and quality of life. Third, coping strategies should be considered together with other factors to understand the survivors' quality of life. For example, situational factors (e.g., nature, degree, and chronicity of the stressor) and personal factors (e.g., personality and beliefs about coping resources and their effectiveness) should be assessed to decide whether particular coping strategies are adaptive. Thus, future studies are needed to determine how specific coping strategies are used in adaptive or maladaptive ways by persons facing stressful situations and to examine the mechanisms by which coping approaches affect their well-being. Also, their social support, such as family, should be considered because it may buffer or worsen their coping with stress. Finally, our exploratory study did not examine causal relationships between coping

and health-related quality of life. Future studies should examine the unique variance of coping strategies accounting for health-related quality of life, controlling for other important sociodemographic variables.

VI. Conclusion

This study explored the correlations between coping strategies and health-related quality of life among adolescent and young adult Korean cancer survivors. Three coping factors—approach (active coping, positive reframing, religion, acceptance, and planning), social (emotional support, instrumental support, self-distraction, and venting), and avoidant (behavioral disengagement, self-blame, and humor)—were found. Approach coping was associated with better physical and mental health, whereas both social and avoidant coping were associated with poorer mental health. Our study provides insight into the childhood cancer survivors' coping with stress and possible associations with health-related quality of life. Psychosocial oncology service providers should assess survivors' coping strategies, develop ways to understand their impact on quality of life, and use the information in developing relevant programs. Specifically, our study may help psychosocial oncology service providers develop educational programs to assist childhood cancer survivors build approach coping strategies at different phases of their cancer experience. Further research is warranted to understand the mechanisms behind social and avoidant coping behaviors among Korean childhood cancer survivors, and psychosocial support should be available for survivors if such strategies are used in maladaptive ways. Also, providing education to psychosocial service providers is important to help them recognize coping strategies that may improve the cancer survivors' quality of life.

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김민아는 연세대학교에서 사회복지 학·석사학위를, 미국 University of Southern California에서 사회사업학 박사학위를 받았으며, 현재 명지대학교 사회복지학과에서 조교수로 재직 중이다. 주요 관심분야는 장애인복지 및 의료사회복지이며, 현재 암 서바이버십, 장애인 및 만성질환자의 사회통합 등을 연구하고 있다.

(E-mail: minahkim@mju.ac.kr)

이재희는 이화여자대학교에서 영문학 학사학위를, 미국 University of Michigan에서 사회복지학 석사학위를, 미국 University of Southern California에서 사회복지학 박사학위를 받았다. 현재 미국 University of Utah 사회복지학과에서 조교수로 재직 중이다. 주요 관심분야는 의료사회복지이며, 현재 트라우마의 긍정 및 부정적 영향, 암 서바이버십, 개입 프로그램 개발 및 평가 등을 연구하고 있다.

(E-mail: jaehee.yi@utah.edu)

한국 소아암 생존자의 대처 전략과 건강관련 삶의 질

김민아
(명지대학교)

이재희
(유타대학교)

본 연구의 목적은 한국의 청소년기 및 성인초기 소아암 생존자들의 대처 전략과 건강 관련 삶의 질의 상관관계를 탐색하는 것으로, 218명의 소아암 생존자가 대처 전략 및 건강관련 삶의 질에 대한 구조화된 설문조사에 참여하였다. 연구 참여자들이 가장 빈번하게 이용하는 대처 전략은 자기분산(97.2%)이었고, 긍정적 재구성(95.9%), 적극적 대처(95.9%)의 순으로 나타났다. 탐색적 요인분석 결과, 능동적 대처(적극적 대처, 긍정적 재구성, 종교, 수용, 계획), 사회적 대처(정서적지지, 도구적지지, 자기분산, 분출), 회피적 대처(행동적 일탈, 자기비난, 유머)의 3가지 요인이 도출되었다. 상관관계 분석결과, 능동적 대처는 높은 수준의 신체 및 정신건강과 관련이 있었던 반면, 사회적 대처 및 회피적 대처는 낮은 수준의 정신건강과 관련이 있었다. 본 연구는 소아암 생존자가 이용하는 대처 전략을 파악하고 대처 전략과 건강관련 삶의 질의 상관관계를 조사함으로써 다양한 스트레스 상황에 마주하게 되는 소아암 생존자들에게 서비스를 제공하는 임상현장의 전문가들에게 함의를 제공한다.

주요 용어: 소아암, 암 생존자, 대처, 스트레스, 삶의 질