**RELATIONSHIPS AMONG PARENTAL ALCOHOLISM,
SENSE OF BELONGING, RESILIENCE AND DEPRESSIVE SYMPTOMS
IN KOREAN PEOPLE**

by

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To my mom, dad, sister and brother

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ABSTRACT

Although adult children of alcoholics (ACOA) are at risk for abusing alcohol or other drugs and developing serious emotional problems, including depressive symptoms, "resilient" ACOAs grow up striving to adapt, survive and succeed under stressful and chaotic conditions. Recent studies have reported that one of the key factors increasing resilience is sense of belonging, which also protects individuals from depressive symptoms. However, the relationships among depressive symptoms, sense of belonging, and resilience have rarely been studied in ACOAs. Therefore, this descriptive and comparative study between ACOAs and non-ACOAs aims to explore the relationships among parental alcoholism, sense of belonging, resilience, and depressive symptoms, especially among Korean people living in Midwestern cities of the United States. Based on a literature review, a conceptual framework was proposed: Sense of belonging was suggested as a key factor enhancing ACOAs' resilience, and resilience was defined as an acquired capacity to translate life adversities associated with parental alcoholism into desirable outcomes, i.e., having few or no depressive symptoms. Using a web-based survey, including the Beck Depression Inventory-II, the Sense of Belonging Instrument-Psychological, the Connor-Davidson Resilience Scale and family-related questionnaires, data from 206 Koreans and Korean Americans were collected. The mean age of the sample was 28.4 years (*S.D.* = 6.9), 40.2% were males, and 77.8% were undergraduate or graduate students. The mean BDI-II score was 8.9 (*S.D.* = 8.1), and nearly 15% were identified as ACOAs. Results from primary analyses revealed significant relationships

among parental alcoholism, depressive symptoms, sense of belonging, resilience, social

support, family functioning, parental mental health problems, and domestic violence.

Interestingly, sense of belonging was the only mediator between parental alcoholism and

depressive symptoms. Structural equation modeling confirmed sense of belonging as the

most powerful and proximal factor resisting depressive symptoms, although resilience

and social support also mediated some effects of parental alcoholism on depressive

symptoms. Parental alcoholism had no direct effect on depressive symptoms. These

findings provide important evidence for understanding both the psychological positive

and risk factors of depressive symptoms in Korean ACOAs. In addition, the findings will

contribute to establishing fundamental knowledge, strengthened by cultural sensitivity,

for health care providers to develop effective intervention programs for Korean ACOAs.

CHAPTER I

BACKGROUND, PROBLEM AND PURPOSE

This study aimed to explore relationships among parental alcoholism, sense of belonging, resilience, and depressive symptoms among Korean people, using a web-based survey method. In particular, this study focused on (a) comparing depressive symptoms, sense of belonging, resilience, social support and family-related variables (family functioning, parental mental health problems and domestic violence) between adult children of alcoholics (ACOA) and non-ACOA groups composed of Korean respondents and (b) exploring the relationships among these study variables.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) reported that about 23% of current drinkers have alcoholic parents, and about 35% have alcoholic family members (NIAAA, 2006). More than 6 million, or one out of every four, U.S. children under age 18 are exposed to family alcohol abuse or alcohol dependence (Grant, 2000; Office of Applied Studies, 2002). In Korea, alcoholism is also prevalent, and the lifetime rate of alcoholism has reached over 20% in adults (Kim, 2002; Korean Alcohol Research Foundation [KARF], 2005; Min, 1995). According to the 2004 WHO report, Korea is the country with the second highest alcohol consumption per adult in the world and is ranked first on alcohol consumption for those aged 15 years or older among OECD (Organization for Economic Co-operation and Development) countries (Statistics Korea, 2008).

Early research on ACOAs focused on risk factors, and generally concluded that having alcoholic parents increases ACOAs' risk for developing negative consequences, including both externalizing and internalizing problems (e.g., Bartek, Lindeman, & Hawks, 1999; Hill, Ross, Mudd, & Blow, 1997; Sher, Walitzer, Wood, & Brent, 1991). Externalizing problems may include alcohol or substance abuse, conduct disorders, or antisocial disorders, and internalizing problems include low self-esteem and ultimately depression.

Nonetheless, these two different types of problems, externalizing and internalizing problems, are closely related to each other. For example, ACOAs may use substances to cope with emotional problems related to having grown up in alcoholic families (Hussong & Chassin, 2004). In fact, some ACOAs are consistently exposed to risk factors for emotional problems (Kumpfer & Bluth, 2004; Troisi & D'Argenio, 2004) and their dysfunctional family dynamics may cause severe emotional problems, such as a high level of depression (Lease, 2002). Also, ACOAs' decreased self-esteem is frequently associated with depressive symptoms (Harter, 2000; Lease, 2002; Werner & Johnson, 2004). Thus, ACOAs' risk for depression may be traced to a stressful childhood and could be aggravated by their lower levels of self-esteem (Lease, 2002). It is for this reason that the current study holds depressive symptoms as an expected, major negative consequence related to having alcoholic parents, which in turn may increase the probability or susceptibility of other mental health problems as well.

Despite a large number of studies that explore causes and processes of depression, very few studies have been conducted to determine how to protect ACOAs from depression. As Carle and Chassin (2004) indicated, ACOAs' resilience—defined as

competent performance under adverse conditions—is relatively understudied compared to resilience studies of other at-risk groups. Most studies with ACOAs have been conducted in comparison with non-ACOAs to reveal the characteristics of ACOAs and to establish associations between the number of or the severity of negative life events related to parental alcoholism and negative consequences for the ACOAs. This perspective may have important clinical implications as practitioners will need to closely monitor those individuals with the ACOA-like characteristics or risk factors. Yet, such an approach would not be enough to recognize differences within individuals in terms of those critical strengths that may allow the mitigation of negative consequences. The resilience perspective resolves this by noting that "Risk perspective itself may put ACOAs at a disadvantage, [by presuming that] 'they will fail'" (Chassin, Carle, Nissim-Sabat, Kumpfer, Maton, et al., 2004. p.139). In other words, stereotyping ACOAs from the risk perspective may limit their potentials; the resilience perspective would eradicate such a biased view on ACOAs. Resilience literature emphasizes that some ACOAs develop without adverse outcomes and demonstrate positive adjustment.

A growing body of recent studies revealed that resilient ACOAs grow up striving to adapt to, survive and succeed in life. These ACOAs are more likely to overcome adverse life consequences, even after having been exposed to cumulative stressful situations in their families (Emshoff & Price, 1999; Harter, 2000; Palmer, 1997). Resilient ACOAs can achieve successful adjustment or normal development (Chassin et al., 2004; Haase, 2004b; Walker & Lee, 1998). Resilience has been discussed mostly in conjunction with some important protective factors (Chassin et al., 2004; Fergus & Zimmerman, 2005; Haase, 2004a; Masten, 2001; Rew & Horner, 2003; Rutter, 1987),

including positive self-concept (e.g., self-esteem, locus of control, self-efficacy), supportive interpersonal networks (e.g., family coherence and utilization, positive interpersonal relationships with peers or colleagues, having supportive mentor(s)), and environmental resources (e.g., higher socioeconomic status, higher education level, safer neighborhood, fewer risk factors with more resources). In particular, ACOAs' sense of belonging has been reported as one of the key protective factors (Chassin et al., 2004), especially for those who have depressive symptoms (Choenarom, Williams, & Hagerty, 2005). There are very few studies to clearly illustrate the relationships among ACOAs' depressive symptoms, resilience and sense of belonging. Also, most existing studies with ACOAs have been conducted with groups of American or European participants (e.g., Sher et al., 1991, Hill et al., 1997, Jacob & Windle, 2000), but Asian ACOAs are observed to experience similar difficulties adjusting to their lives under stressful life situations (Kumpfer, 1999). In particular, Korean ACOAs have a significant incidence of serious emotional problems, but have not been widely studied (KARF, 2005).

Purpose and Specific Aims

This study compared ACOAs and non-ACOAs and explored relationships among parental alcoholism, sense of belonging, resilience, social support, family-related variables, and depressive symptoms in a group of Korean people. Family-related variables included family functioning, parental mental health problems and domestic violence experiences. In addition, a structural equation model was developed to test the hypothesized causal relationships among these variables. The study had the following specific aims:

Aim 1. To examine the prevalence of having alcoholic parents in Korean people living in Midwestern cities.

Aim 2. To compare depressive symptoms, sense of belonging, resilience, social support, and family-related variables (family functioning, parental mental health problems and domestic violence) between Korean adult children of alcoholics (ACOAs) and in Korean people who are not ACOAs (non-ACOAs).

- Research Questions:

  1) Are depressive symptoms, sense of belonging, resilience, social support, and family-related variables different between Korean ACOAs and Korean non-ACOAs?

  2) To what extent do sense of belonging, resilience, social support, and family-related variables relate to depressive symptoms in Korean ACOAs and in Korean non-ACOAs?

Aim 3. To explore relationships among parental alcoholism, depressive symptoms, sense of belonging, resilience, social support, and family-related variables in Korean participants.

- Research Questions:

  1) What demographic and background variables (including parental mental health problems and domestic violence experience) are associated with depressive symptoms, sense of belonging, resilience, social support, and family functioning in Korean participants?

  2) What are significant predictors of depressive symptoms in Korean participants, among parental alcoholism, sense of belonging, resilience,

social support, family functioning, and demographic and background variables (including parental mental health problems and domestic violence experiences)?

3) Does sense of belonging moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?

4) Does resilience moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?

5) Do social support and family-related variables, moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?

Aim 4. To develop a path model that takes sense of belonging, resilience, social support, and family-related variable into account in order to explain the effects of parental alcoholism on depressive symptoms in Korean participants.

This study did not limit the age of respondents to be included; instead, it covered this population in general, for the following reasons. First, no studies were found that investigated all the variables of depressive symptoms, sense of belonging and resilience in ACOAs. Thus, having a wider age range of respondents was expected to foster more meaningful insights. Second, the significance of sense of belonging and resilience may be universal across developmental phases. Third, being an ACOA is likely a life-long experience which can influence the individual across every critical transition point in human development. Thus, a more general perspective on resilience, one not limited by age or developmental phase, may have greater scientific and applied value.

Significance of Studying ACOAs' Resilience

Health care providers, including nurses, often face challenges when caring for ACOAs with depressive symptoms. Depressed individuals may share several characteristics, for example, using cognitive strategies such as negatively reframing experiences and dwelling on the past (Lease, 2002). In addition, many depressed people consciously or unconsciously hide their problems and do not share them with others, including health care professionals (Schumm, Briggs-Phillips, & Hobfoll, 2006; Southwick, Vythilingam, & Charney, 2005). Depressed ACOAs may also have these characteristics of unwillingness to seek help or even to discuss their problems. Thus, it is difficult for health care providers to determine who is at risk for depression and to evaluate risk factors accurately. Under these circumstances, providers may be likely to commit diagnostic errors for depression.

Therefore, an emphasis on individual resilience, what Agaibi and Wilson (2005) defined as a capacity to cope successfully with significant change, adversity, or risk, can be critical for preventing health-risk outcomes, because the resilience perspective may encourage ACOAs to seek professional help for present or potential problems. In particular, identifying the sense of belonging in ACOAs as a critical component to prevent their depression may contribute to developing intervention programs for ACOAs. As the existing resilience literature has fully demonstrated, the concept of resilience can be applied to interventions in both community and clinic settings for those who have alcoholic parents (e.g., Chassin et al., 2004). Sense of belonging may be one of the critical areas to be targeted in such interventions for enhancing individual resilience among ACOAs. An understanding that there are many pathways to resilience can assist

nurses and other practitioners in looking beyond the individual to the environment and to

the potential interaction between the two in identifying ways to help ACOAs transcend

the trials of their early years. Also, care providers will be able to help vulnerable people

maintain balance and to function when confronted with critical stressors, such as parental

alcoholism.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, the concept of resilience will be introduced and examined, with a focus on the literature identifying and discussing the characteristics of resilient ACOAs who are less likely to manifest depressive symptoms. An operational definition of ACOAs' resilience will be presented. The literature on protective and risk factors for ACOAs' depressive symptoms at the individual and familial levels will also be reviewed. These protective and risk factors include sense of belonging, social support, family dysfunction, domestic violence, and parental mental health problems. Finally, on the basis of the review of literature in this chapter, a conceptual framework will be proposed to explain the relationships among parental alcoholism, sense of belonging, resilience, and depressive symptoms.

Development of the Concept of Resilience

In its origin, the term "resilience" is a borrowing from the physical sciences (Vitaro, Assaad, & Carbonneau, 2005). The Oxford English Dictionary (1989, 2nd Ed., p.1932) defines resilience as "act of rebounding or springing back; rebound, recoil." A second meaning, "elasticity," comes more specifically from the physical science and denotes "the power of resuming the original shape or position after compression, bending, etc." A report by the Health Canada in 2005 states that resilience in physical sciences refers to the ability of a substance to regain its initial state after being subjected to stress (Vitaro et al., 2005). In other words, resilience is the property allowing a material to

return to its original form after being bent, stretched, or compressed and that resilience is measured by how quickly or well the material bounces back once it has been adversely affected. Transposed into the field of human development, "resilience" refers to a process of adaptation whereby individuals learn to overcome the destabilizing effects resulting from traumatic experiences of greater or lesser severity (Vitaro et al., 2005). In other words, resilience is an individual's ability to readily recover from illness, or depression, or adversity.

In the social and health sciences, the resilience concept became popular in the 1970s (Greene & Conrad, 2002), especially in studies on people who have functioned well despite exposure to adversity. Indeed, the concept of resilience has been increasingly used in studies to describe the reason why some people who have been exposed to adversity overcome its effects and function normally. Resilience is important for several at-risk groups, including ACOAs (Mylant, Ide, Cuevas, & Meehan, 2002).

The broad concept of resilience has been refined in numerous ways with regard to risks and populations. Many scholars define resilience as either a process including the individual and the environment or an individual capacity. Resilience as a process has been defined as positive adjustment in the face of adversity (Haase, 2004b; Luthar, Cicchetti, & Becker, 2000; Masten et al., 1999) and as a dynamic adaptive process influenced by several risk and protective factors (Folman, 1995; Luthar et al., 2000; Rew & Horner, 2003). Resilience as a personal characteristic has been defined as the capacity to cope successfully with significant change, adversity, or risk (Agaibi & Wilson, 2005; Rubin-Salzberger, 2006) by developing social and psychological competence (Luthar et al., 2000; Masten, 2004; Wagnild & Young, 1993) or by using positive emotions to cope

(Southwick et al., 2005; Tugade, Fredrickson, & Barrett, 2004). This capacity is also

hypothesized to change over time, and it may be enhanced by protective factors particular

to the person and the environment (Haase, 2004a; Harter, 2000; Luthar et al., 2000;

Masten, 2004; Rew & Horner, 2003).

　　　For resilience as a personal characteristic, how can we identify the characteristics

of a resilient person? Definitions of the concept of resilience often include returning to

the level of functioning that the person displayed before the adversity, but this is not its

only attribute. Bonanno (2004) distinguishes resilience from "recovery." Bonanno

(2004) argues that recovery connotes a trajectory whereby normal functioning

temporarily gives way to threshold or sub-threshold psychopathology, usually for a

period of at least several months, and then gradually returns to pre-event levels. By

contrast, resilience applies to the ability to maintain equilibrium or balance (i.e.,

relatively stable and healthy levels of psychological and physical functioning) even after

transient perturbations in normal functioning (e.g., several weeks of sporadic

preoccupation or restless sleep) (Bonanno, 2004). Resilient people in general share a

number of common characteristics and this is true of resilient ACOAs as well. Despite

being raised in alcoholic families of high risk, they mature into healthy and competent

adults (Denny, Clark, Fleming, & Wall, 2004) and adapt to life in adversity (Vitaro et al.,

2005). Also, they have good social skills and positive feelings of self-regard (Masten,

2004). Resilient ACOAs sense a feeling of personal power for influencing events around

them (internal locus of control) (Robinson & Rhoden, 1998). This contrasts with the

feelings of helplessness of non-resilient or vulnerable people (Masten, 2004).

Additionally, resilient people may feel detached from the stressful surroundings, have a

greater sense of independence, and display an objective understanding of what is going

on around them (Robinson & Rhoden, 1998). They grow up to be competent, survive

their adversities, suffer little or no psychological damage, and become high achievers in

their careers (Robinson & Rhoden, 1998). They have a greater sense of well-being, self-

esteem, and psychological health (Luthar et al., 2000), which can buffer the effects of risk

on negative consequences, including depression.

Even as applied to individual persons, resilience is not static, monolithic nor does

it have a fixed shape (Dyer & McGuinness, 1996; Garmezy, 1991; Luthar et al., 2000;

Masten, 2004). Researchers have shown that it differs in response to various ecological

factors (individual, familial, and social). Examples of individual factors are personality,

perceptions, values, or intelligence level; situational factors are characteristics of the

problem identified as the cause or available resources; and interpersonal factors can be

available social support. This review focuses on treatments of resilience as an individual

capacity, but one that interacts with the situational and interpersonal factors identified

above. Translating life adversities (traumatic stress or highly aversive events) into

desirable outcomes (at whatever point on the continuum from the worst consequence to

the best) is the key characteristic of resilient people. Resilience enables its possessor to

envision a positive aftermath of a traumatic event (Wilson & Agaibi, 2006).

The individual-level definition of resilience can be understood better in

comparison with the concept of hardiness. Unlike hardiness, which has been defined as a

personality trait (Kobasa, Maddi, & Kahn, 1982), resilience is a generalized ability to

maintain equilibrium (Bonanno, 2004). Hardy persons have commitment, control, and

challenge; they appraise stressful situations as less threatening and are more confident

dealing with them (Kobasa et al., 1982). Bonanno (2004) identified hardiness as one of multiple traits that may allow or encourage resilience. From a clinical point of view, individual resilience can be developed or promoted by available protective factors, such as higher levels of intelligence or extended supportive networks, while hardiness is a fixed personality trait that an individual may not easily learn or acquire. In addition, hardy individuals have higher thresholds for perceiving adversity.

Conceptual Definition of the Concept of ACOAs' Resilience. Based on the review above, a conceptual definition of ACOAs' resilience is their acquired capacity to translate life adversities associated with parental alcoholism into desirable outcomes. For ACOAs, desirable outcomes essentially translate to experiencing no or few depressive symptoms.

Cultural Perspectives on Resilience. Studies of youths at risk for problems emphasize dynamic person-context interactions and multi-directional change (Maggs, Schulenberg, & Galanter, 2006). Not surprisingly, different research groups have viewed resilience within different risk settings, examined the impact of different protective processes, and defined resilient outcomes according to different criteria (Emshoff & Price, 1999, Harter, 2000). Despite evidence that studies have reported differences in resilience resulting from different cultures or social environments, only a few studies have examined resilience primarily or exclusively from the cultural perspective, such as resilience in Asian cultures (Emshoff & Price, 1999; Masten et al., 1999). Further investigations in diverse cultural settings will clarify the impact of cultural background on resilience.

Relevance to Nursing: Resilience Studies in Nursing. In nursing, the concept of resilience was first used in the context of supporting and strengthening families who take

care of chronic patients (Dyer & McGuinness, 1996; Rew, Taylor-Seehafer, Thomas, &

Yockey, 2001). Resilience is closely related to the basic philosophy of nursing, which is

in part to help patients to manage chronic diseases. The concept of resilience is useful in

nursing practice where interventions to strengthen resilience can be developed based on

protective factors around patients and caregivers. The resilience concept was identified

by the Committee on Future Direction for Behavioral and Social Sciences as a research

priority for the National Institutes of Health (Singer & Ryff, 2001). The committee

highlighted the significance of behavioral and psychosocial processes in disease etiology,

well-being, and health promotion (Haase, 2004b). Recognizing the importance of

positive health concepts, nurses have increasingly understood that resilience is potentially

useful to (a) guide development of interventions to enhance positive outcomes; (b)

improve outcomes for at-risk populations; (c) prevent poor outcomes; and (d) influence

public policy related to individuals, families, and communities (Haase, 2004b). In

addition, Mylant et al. (2002) emphasized encouragement of developing patients'

resilience as an important component in providing nursing care to several at-risk groups,

including people with alcoholic parents (ACOA).

Although historically nursing has focused more extensively than other disciplines

on individual and family strengths, systematic study of resilience by nurses did not really

begin until in the mid to late 1980s (Haase, 2004). Only a few nursing studies have been

conducted to explore the concept of resilience (Dyer & McGuinness, 1996; Felten & Hall,

2001; Haase, Heiney, Ruccione, & Stutzer, 1999; Polk, 1997). However, the efforts to

understand resilience from the nursing perspective have contributed to a developing

understanding of this concept in the context of health, an otherwise neglected area in the

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resilience literature (Haase, 2004b). Based on the results from concept synthesis, Polk

(1997) defined resilience as the ability to transform disaster into a growth experience and

move forward. Tusaie and Dyer (2004) reviewed resilience studies and indentified

important perspectives of resilience to help health care providers deliver more effective

and individualized health care. The perspectives are (a) dynamic and interactive

perspective; (b) holistic perspective; and (c) diverse experiences and educational

perspectives.

Haase (1999, 2004a) developed an adolescent resilience model to propose a

comprehensive, integrative representation of the process and outcomes of resilience and

quality of life in adolescents with cancer. Rew and colleagues (2001, 2003) investigated

major correlates of resilience in homeless adolescents and also developed a youth

resilience framework (Rew & Horner, 2003; Rew et al., 2001). Hunter (2001) added a

cultural perspective to explore adolescent resilience, and other authors discuss resilience

in elderly people (Felten & Hall, 2001; Wagnild & Young, 1993). Wagnild and Young

(1993) developed and evaluated a 25-item Resilience Scale, which has two major sub-

concepts, personal competence and acceptance of self and life. Unfortunately, no studies

from the nursing literature have yet investigated resilience of ACOAs. In addition, all

these nursing studies of the resilience concept have underlined the need for further

investigations to verify the critical characteristics of resilience.

Depressive Symptoms in ACOAs

Several studies have focused on negative health outcomes of ACOAs influenced

by having alcoholic parents (e.g., Lee & Cranford, 2008). Depressive symptoms are

among the expected major negative consequences related to having alcoholic parents,

which in turn may increase the likelihood or severity of other mental health problems. Depressed individuals may feel sad, uneasy, or unmotivated and do not enjoy usual activities. The negative impact of having depression is tremendous in that it involves the body, mood, thoughts and affects the way a person eats and sleeps, feels about the self, and thinks about things (Lambert, 2006). In addition, depressed individuals tend to have a negative self-view with a repetitive pattern of negative thinking (Feldman, 2007). Although substance or alcohol abuse also has been discussed as one of ACOAs' primary-level problems (e.g., Hussong, Curran, & Chassin, 1998), ACOAs may often use substances as a secondary tool to cope with another primary-level problem— psychosocial or emotional suffering—related to having grown up in alcoholic families (Hussong & Chassin, 2004). The current study focused on depressive symptoms rather than clinical diagnosis of depression in order to avoid too limited an approach to the universal phenomenon of ACOAs' manifestation of emotional problems. In the following sections, ACOAs' depressive symptoms are revisited from developmental and cultural perspectives.

Developmental Perspective. Parental alcoholism has been reported to have a significant impact on both young children and adolescents in the family. If alcoholic parents have other emotional problems, the children may be more likely to have difficulties in achieving normal "role regulation" (Nardi, 1981). The opportunities for role development for children of alcoholics (COA) can be severely limited, so COAs may have problems accomplishing the necessary stages for healthy development (Lee, 2003). For instance, if the father is an alcoholic, the son may have no have any positive male role model in the family, and the daughter might have long-term problems making and

maintaining intimate relationships as a result of negative experiences with the alcoholic father (Hussong & Chassin, 2004; Scharff, Broida, Conway, & Yue, 2004).

The impact on adolescent COAs is particularly important, since adolescence is a transitional period in life, involving significant unpredictability, stress, and often adversity (Gemelli, 1996; Jessor, 1998). Even though most adolescents normally experience fear, anger, confusion, guilt, embarrassment, and shame during adolescence, COAs may experience these emotions more severely in terms of depth, intensity, and frequency (Robinson & Rhoden, 1998). Robinson and Rhoden (1998) claimed that the severity of COAs' lives can be compared with those of psychologically wounded war veterans. Other scholars in trauma research also support this claim (e.g., Agaibi & Wilson, 2005). Because of the high likelihood of a dysfunctional family environment for alcoholic families, the adolescent COAs are at risk of having more depressive symptoms (Lease, 2002).

COAs experience barriers to achievement of adolescent developmental tasks, such as establishing positive self-identity (Gemelli, 1996; Hollinger-Smith, 2004; Lerner & Steinberg, 2004; Nurmi, 2004). Adolescents need to have clear and flexible boundaries in their daily lives, what Lerner and Steintberg (2004) calls a sense of psychological separation or autonomy. This autonomy involves complex issues of personal freedom, responsibility, and moral decision; it further involves the capacity for independence and self-determination (Galambos & Ehrenberg, 1999). Autonomy may impact how adolescents deal with psychological distress or cope with certain stressful situations and assert control over their lives. The emphasis on autonomy, however, does not mean that their relationships with other people assume less importance. Autonomy appears to be

developed best when adolescents feel comfortable in emotionally intimate relationships

with other people, especially within the family (Offer, 1989).

Nonetheless, adolescents who have been exposed to cumulatively traumatic

family environments that operate as chronic familial risk factors, as COAs typically have,

may not acquire autonomy (Offer, 1989). In particular, their defense mechanisms are not

well developed for handling situations emotionally. For example, feelings of mistrust

about the adult world can be expressed in the younger generation. These adolescents

may also choose to rebel, often at school, as a way of avoiding confusion about what their

role will be in society. Experiencing significant conflict within the family can drive

adolescents to take risks with their health, for example, by starting to use alcohol, tobacco,

and other drugs (Mylant et al., 2002). In addition, a lack of autonomy may lead COAs to

suffer from depression or depressive symptoms, especially in relation to repeated failure

in coping with familial stressors (Harter, 2000; Lease, 2002).

Cross-Cultural Perspective. According to family systems theory, individuals who

belong to subsystems within a family learn and perform specific skills, and all these

members become interrelated as a whole (Jacobs, 1992). However, the family itself is

affected by external factors, including cultural norms or values (Hendershot, MacPherson,

Myers, Carr, & Wall, 2005). For instance, in Korea, alcoholic families usually have a

dysfunctional, closed patriarchal family system, mostly controlled by the alcoholic father

(Lee, 2003). Another factor to be considered is the role of social norms for drinking

behaviors in Korea, which may directly or indirectly increase the magnitude of Korean

people's concealment of the problems of alcoholics in the families. For example, it has

been observed that Korean people may more easily tolerate males' drinking behaviors

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and outcomes in the society, and in Korea, the alcoholic parent is typically the father (KARF, 2005); thus, both the alcoholic family members and people outside the family may neglect or ignore tremendous impacts of the problem on the family, especially the children.

In Korea, the actual social norms include a pattern of heavy alcohol consumption, frequent opportunities to drink socially, social pressure toward competitive consumption at social drinking occasions, an inclusion of alcohol at most social events, and public acceptance of open drunkenness (Lee, 1992). Also, it may be possible that COAs or ACOAs want to avoid violation of the unconditional moral norm of "respect for older people," which might produce obedience to the alcoholic parents, but this factor must be examined further in comparison with western cultures. Nonetheless, all these factors may discourage COAs and ACOAs to initiate any positive interaction with external support networks or resources (Lee, 2003).

Nevertheless, even with relatively high levels of social acceptance of heavy drinking in Korea, the stigmatization of persons known to have an alcoholic parent cannot be excluded from factors that may exacerbate ACOAs' emotional problems. Due to this stigma, ACOAs rarely seek help from outside the family, even from close friends (Bartek et al., 1999; Lee, 2003). A more problematic condition for the COAs or ACOAs is that their parents are still in a hierarchically superior position to make decisions about whether or not to accept change and how to change if they choose to do so. In addition to the physical and mental problems alcoholism causes, it may impair the alcoholic parents' ability to function in their familial roles, which then impacts all the other individuals and subsystems within the family (Sher et al., 1991).

Although very few have studied depression specifically among ACOAs in Korea (see Lee & Cranford, 2008), a high prevalence of depression is found in general. A national study with about 5000 Korean people showed that the lifetime prevalence of 'definite' depression (i.e., diagnosed or diagnosable depression) was 12.1% in women and 8.1% in men (Kim, Jo, Hwang, Shin et al., 2005). A more recent study with 1050 Korean respondents, using the Center for Epidemiologic Studies Depression Scale (CES-D), reported that the prevalence of depression in females and males was 11.4% and 9.5%, and the prevalence of depressive symptoms was 18.4% and 15.0%, respectively (Kim, Hong, Lee, Kwak et al., 2007). It is reasonable to speculate that ACOAs may be more susceptible to depressive symptoms than non-ACOAs because of repetitive exposures to dysfunctional intergenerational family processes and the lack of secure attachment within the alcoholic family.

ACOAs' Resilience as a Factor Reducing or Preventing Depressive Symptoms

ACOAs have been identified as one of the groups at highest risk for abusing alcohol or other drugs, as well as for developing serious emotional problems, because of genetic and family environmental factors (Kumpfer & Bluth, 2004). Yet ACOAs are extremely heterogeneous in terms of the severity of parental alcoholism and problems, personal attributes, and degree of exposure to the types of positive experiences (Vitaro et al., 2005). More recently, however, a group of researchers has started to explore ACOAs' resilience in order to determine how resilience protects these individuals from negative consequences, such as depressive symptoms (e.g., Carle & Chassin, 2004). While researchers examining the issues from a risk perspective may overlook the strengths of ACOAs, those having resilience perspectives would add to a more balanced

view on ACOAs. Longitudinal studies (Rende & Plomin, 1993; Werner, 1993) have

found that a substantial number of ACOAs manage to do well in their school, work,

social lives, and they also have realistic goals and expectations for the future (Emshoff &

Price, 1999; Harter, 2000; Mylant et al., 2002; Palmer, 1997). These positive

adjustments come from several developmental pathways created by interactions between

innate individual characteristics of these children and external supports, such as family

support or positive relationships with others (Robinson & Rhoden, 1998).

The concept of resilience can operate at many levels of an individual's depressive

symptoms (Edward, 2005). In the case of individuals who are exposed to distress but

have not yet developed depressive symptoms, a therapeutic approach focusing on the

development of individual resilience may contribute to prevention of depressive

symptoms. For those exposed to distress who did develop the symptoms, the resilience

perspective might help them better recover from depression. Wherever a patient may be

on the continuum of depression, the most important means for a healthcare professional

to discern the patient's resilience is to evaluate the person's motivation or inclination

toward positive directions. While depressive individuals have trouble focusing or

concentrating in a given situation, resilient people (either with or without depressive

symptoms) show a capacity to perform at a higher level of functioning. For example,

resilient individuals do well in maintaining their physical health and self-care and in

making critical choices that facilitate changes in their dysfunctional behavioral pattern

(Connor, Davidson, & Lee, 2003; Rhodewalt & Zone, 1989). Resilience has usually been

discussed primarily in conjunction with specific protective and risk factors. The

following sections will describe important risk and protective factors influencing

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individual resilience, the possession of which can reduce or ultimately prevent ACOAs'
depressive symptoms.

Individual Protective and Risk Factors for Depressive Symptoms in ACOAs

Although each person possesses the potential for resilience, the level of resilience
an individual will develop depends on the interplay between the person and broader
situational factors, particularly protective and risk factors (Tusaie & Dyer, 2004).
Accordingly, resilience can be better explained in relation to these protective and risk
factors (Folman, 1995; Rew & Horner, 2003). Thus, the interactions among risk and
protective factors of depressive symptoms at an intrapersonal and an environmental level
are important to define ACOAs' resilience. In a review of nursing resilience studies,
Hasse (2004b) explained these two factors: protective factors are the individual, family,
social or other contextual factors that enhance processes of resilience and its outcomes;
and risk factors are those that impede development of resilience processes and outcomes.
Identifying both risk and protective factors for ACOAs' depressive symptoms will help
recognize areas for intervention and guide strategies to improve mental health outcomes
(Denny et al., 2004). In particular, Denny et al. (2004) emphasized individual and the
familial factors, because they are more amenable to change than social or community
factors.

An Individual Risk Factor: A Lack of Attachment. The risk and protective factors
associated with ACOAs' depressive symptoms can be interchangeable depending on their
valence (i.e., positive or negative). Secure attachment at the individual level can be a
protective factor, but a lack of attachment has been mostly discussed as a risk factor
strongly associated with depressive symptoms (Andreas, O'Farrell, & Fals-Stewart, 2006;

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Cuijpers, 2005; Mylant et al., 2002). Bowlby (1982) defined attachment as an emotional

bonding to a partner (or parents for children) who is a source both of security and comfort.

Bowlby explained that an individual who experienced a lack of attachment in childhood

may later manifest "anger towards intimates" as a way to manage the stress associated

with the lack of attachment (Bowlby, 1982, p. 668-669). Although attachment behavior

is most prominent during childhood, these behaviors persist and can be observed

especially in times of perceived emergencies. Thus, depressive symptoms may likely

result from insecure family attachments.

  An Individual Protective Factor: Sense of Belonging. The concept of a sense of

belonging has been recognized by several disciplines as a more proximal indicator of an

individual's perception of both interpersonal relationships and the broader concept of

social support. Sense of belonging is an extension of Maslow's concept of *belongingness*

and it is what connects individuals with surrounding people and their environment

(McLaren, Gomez, Bailey, & Van Der Horst, 2007). In nursing, the sense of belonging

construct was developed by Hagerty and colleagues (1992). They argued for the

significant role of sense of belonging in mental health (Hagerty et al., 1992; Hagerty &

Williams, 1999; Hagerty, Williams, Coyne, & Early, 1996). They defined a sense of

belonging as "the experience of personal involvement in a system or environment so that

persons feel themselves to be an integral part of that system or environment" (Hagerty et

al., 1992, p. 173). Hagerty thus determined the two attributes of sense of belonging as

"valued involvement," the experience of feeling valued, needed, and accepted; and "fit,"

the person's perception that his or her characteristics complement the system or

environment (Hagerty et al., 1992, p.174). These two dimensions can also explain how

an individual can build a strong and flexible personal boundary to protect the self, which ACOAs may generally lack. A diminished or absent sense of belonging has been reported to hinder psychological well-being (Hagerty et al., 1996; McLaren et al., 2007); conversely , a stronger sense of belonging can be considered an important antecedent to a positive psychological status, such as being resilient.

These two attributes overlap with what might be missing in ACOAs who have a negative view of the self and the world. In particular, depressed ACOAs may not perceive any connectedness outside of the self. If individuals can realize that their lives have meaning and value their contribution to the society, they will acquire the sense of having something for which to live (Wagnild & Young, 1993). In other words, ACOAs can develop a positive view of the self and the world by perceiving equality between the self and other persons, and can begin to establish intimate relationships with others. Having a stronger sense of belonging is very significant in enabling ACOAs to initiate and facilitate their positive thinking, which will motivate them to seek help and advice from others and to see themselves as valued.

Comparison between Sense of Belonging and Social Support. Social support was widely discussed in a great number of studies in terms of its relationship with emotional problems, including depressive symptoms (e.g., Paykel, 1994). Social support as a coping resource has been explained as a multidimensional concept which can mean (a) informative, emotional, or instrumental support, (b) the sources of the support (e.g., friends, family, and so on), or (c) both aspects at once (Bruwer, Emsley, Kidd, Lochner, & Seedat, 2008; Dumont & Provost, 1999). Two major models have been developed in the field to explain the protective roles of social support on psychological stress (Cohen

& Wills, 1985). First, the main-effect model explains that social support gives an individual a general positive context without regard for the actual experiences of stressful events; and second, the stress-buffering effect model posits that adequate social support can offset or moderate the impact of stress on health outcomes (Cohen & Wills, 1985). Past studies with either of the two models have reported that social support plays a role in health maintenance and in recovery from disease, as well as in creating a positive emotional experience (Bruwer et al., 2008).

However, recent studies have not shown consistent results that explain the relationships between social support and psychological outcomes. For instance, a study with 300 adolescents reported that social support did not significantly influence the respondents' psychological outcomes (Dumont & Provost, 1999). The authors suggested that social support should be considered with other factors. Another study with 82 women diagnosed with breast cancer also reported that social support was not significantly related to the women's mood disturbance (Palesh, Shaffer, Larson, Edsall, Chen, et al., 2006). In addition, different researchers define the concept of social support in different ways, and many studies found that how an individual perceive support might correlate with depression or other mental illness. In other words, instead of actual social support, individual perceptions of support can be a more proximal factor to be correlated with mental illness. Indeed, increased perceptions of social support appear to have protective effects against mental illness. Especially strong role models and mentors serve an important educational and developmental function for resilient individuals (Southwick et al., 2005; Walsh, 2003; Werner & Johnson, 2004). Having a non-parental natural

mentor or identifying a non-related adult can buffer the development of depression in ACOAs (Denny et al., 2004; Southwick et al., 2005).

In fact, having at least one strong mentor and acquiring higher levels of self-esteem have been reported as among the most important protective factors for ACOAs' depressive symptoms (Hunter, 2001; Walsh, 2003; Werner & Johnson, 2004). A previous study conducted by the investigator of the current study found that Korean ACOAs significantly value "being continuously connected with anyone who can understand and support thems." This perception of models or mentors is closely related with a sense of belonging, which Hagerty and colleagues defined as "feelings of fit and being valued (Hagerty et al., 1992)". Stronger sense of belonging might reduce the likelihood of depression or depressive symptoms.

Some researchers studying social support conflate social support with sense of belonging and do not distinguish the two concepts clearly (e.g., Constantino, Kim, & Crane, 2005; Hale, Hannum, & Espelage, 2005). In the current study, social support and sense of belonging are treated as related but distinct constructs in order to clarify whether the sense of belonging would be more significantly related to ACOAs' depressive symptoms than social support.

Familial Protective and Risk Factors for Depressive Symptoms in ACOAs

Familial protective and risk factors are also critical particularly for ACOAs, because they may be constantly exposed to stressors related to growing up in alcoholic families. ACOAs' cumulatively traumatic experiences have been reported to have tremendous effects on their internalization of symptoms (e.g., chronic anger, negative affectivity, low self-esteem, depression, anxiety, or poor self-regulation), which plays an

enormous role in establishing poor health in general (Smith, 2006). ACOAs' depressive symptoms are more likely to result from their traumatic experiences within the families; for example, ACOAs may live with mentally ill parents, who are more likely to have co-occurring problems of alcohol dependence and mood or anxiety disorders. Also, ACOAs may suffer from dysfunctional family interactions and domestic violence or witnessing violence (Agaibi & Wilson, 2005; Cuijpers, 2005; Statham, 2004; Verduyn & Calam, 1999). ACOAs' childhood traumatic experiences can differ in magnitude and quality depending on several factors including family atmosphere, the severity of the alcoholic parent's problem severity, parenting style, presence of siblings (even having only same-sex siblings or not, or birth order), the individual's personality traits, and adherence to a certain religion (Harter, 2000; Robinson & Rhoden, 1998).

However, alcoholic families may not only manifest several risk characteristics but also ultimately serve important protective roles. Some alcoholic families can recognize their own strengths and weaknesses by communicating with each other and interacting with resourceful people outside of the family. These familial factors, both risk and protective factors, can be more powerful than any other types of factors (Chassin et al., 2004). Certain types of family atmosphere can either hinder or facilitate individual resilience. For instance, alcoholic Korean families tend to hide the alcoholic persons and relevant problems, which further impedes any positive interaction with external support or resources (Lee, 2003). However, some familial factors can also significantly moderate the relationship between genetic or psycho-physiological vulnerability and individual adaptation (Vitaro et al., 2005). Critical risk and protective factors of ACOAs' depressive symptoms at the familial level are described in the following sections.

A Familial Risk Factor: Family Dysfunction. As a widely discussed risk factor at the family level, dysfunctional family dynamics (e.g., a dysfunctional and closed family system) can be closely correlated with severe emotional problems, such as a high level of depression (Kumpfer & Bluth, 2004; Lease, 2002; Troisi & D'Argenio, 2004). Thus, if the alcoholic parents cannot provide or demonstrate positive behaviors, their children have difficulties in observing or learning effective coping strategies and positive social interaction in addition to concentrating on academic performance (Sher, 1997). ACOAs learn how their alcoholic parents cope with problems, which mostly includes avoidance, internalization, antisocial behavior, or dependence on drugs or alcohol (Emshoff & Price, 1999).

Determining the effect of particular types of family dysfunction on resilience requires further elaboration. Previous studies on alcoholic families have described four characteristics or rules of dysfunctional families: sturdiness, silence, denial, and isolation (Lee, 2003; Werner & Johnson, 2004). All these rules typically influence children's developmental roles in alcoholic families. In reference to alcoholic families, the term "sturdiness" means the inability to adapt to change easily. Children need safe spaces to test several strategies for developing healthy social relationships, but ACOAs generally are very serious, have excessive responsibility, and cannot adapt quickly enough to enjoy leisure activities (Lee, 2003; Scharff et al., 2004). Second, the "silence" rule prohibits articulation of behaviors and the emotions they engender within the family. Some ACOAs know that their own family system cannot deal with fear, anger, or sorrow, so they are silent and do not expose these feelings (Bartek et al., 1999; Lee, 2003). Third, the "denial" rule states that an alcoholic family tends to deny the problems related to

alcoholism. Some ACOAs ignore problems they have experienced, rather than confront and cope with them (Lee, 2003). Finally, the "isolation" rule states that an alcoholic family becomes a system, closed from the environment. ACOAs think that nobody can understand them and they cannot believe anything outside of the family. Therefore, some ACOAs experience difficulties establishing intimate relationships (Bartek et al., 1994; Lee, 2003; Scharff et al., 2004). Johnson et al. (1998) found that ACOAs' later alcohol use may be more explained by disturbed family relations than by parental alcoholism, per se. Also, ACOAs' insecure attachment resulting from a dysfunctional family environment can be associated with higher levels of depressive symptoms (Lease, 2002).

　　　A Familial Risk Factor: Domestic Violence. Another critical risk factor at the family level is domestic violence (Fals-Stewart, Fincham, & Kelley, 2004; Kumpfer & Bluth, 2004; Sher, 1997; Troisi & D'Argenio, 2004). ACOAs who experienced traumatic events in childhood, such as domestic violence, can suffer more severe depressive symptoms in later life (Agaibi & Wilson, 2005; Farrell, 2005). One clinical study to compare depression of ACOAs and non-ACOAs reported that the amount or magnitude of domestic violence is one of the major indicators of ACOAs' depression (Lease, 2002). Among various types of violence, emotional abuse is one of the most common types in alcoholic families and is associated with aggression, emotional instability, dependency, social difficulties, or negative self-evaluation (Verduyn & Calam, 1999). Traumatic childhood experiences are also more likely to correspond to reduced opportunities to build attachment within the family (i.e., having insecure attachments) or reduced feelings of trust within interpersonal relationships (Agaibi & Wilson, 2005; Verduyn & Calam,

1999). All these factors can lead to ACOAs' high levels of depression in ACOAs in their

teenage years or later life (Lease, 2002).

   A Familial Risk Factor: Parental Mental Health Problems. Other mental

disorders in alcoholic parents create another risk factor for ACOAs' depressive

symptoms. Parents with mental illness can exert a strong negative influence on their

children's psychological well-being (El-Sheikh & Flanagan, 2001; Focht-Birkerts &

Beardslee, 2000). In addition, if parents have chronic and comorbid psychopathology of

alcoholism and other emotional disorders, the children may never learn normal rules in

the family that they can apply to their own families later (Nardi, 1981). Studies have

reported that comorbid mood disorders among alcoholic parents may have a stronger

association with children's internalizing symptoms (Fals-Stewart et al., 2003; Preuss,

Schuckit, Smith, Barnow, & Danko, 2002). ACOAs also face difficulty discussing their

parent's illness or their problems at home, which may stop them from getting help.

Children are often ashamed of their parent's illness and worry about becoming ill

themselves (Robinson & Rhoden, 1998).

   A Familial Protective Factor: Support from the Family, including the Alcoholic

Parent. Resilience manifests in supportive relationships within the close family. One of

the major familial protective factors has been identified as positive family functioning

characterized by positive and supportive relationships between parents and children, in

other words, healthier familial interaction or family cohesion (Jennison & Johnson, 1997;

Haase, 2004a; Lease, 2002; Patterson, 2002). If ACOAs can perceive adequate support

or feel connectedness with significant others, they can learn to trust and handle their

feelings in healthy ways and build positive, nurturing relationships to help protect them

from problems with alcohol (Dumont & Provost, 1999; Substance Abuse and Mental Health Services Administration [SAMHSA], 2004). Werner and Johnson (2004) found that individuals who coped effectively with the trauma of growing up in an alcoholic family and who became competent, confident and caring adults relied on a significantly larger number of sources of support from the family in their childhood and youth.

The supportiveness of the nonalcoholic parent, mostly reported as the mother, is a particularly crucial variable in terms of the degree of impact of alcoholism. The more supportive the nonalcoholic parent, the more likely it is that the nurturance, protection, and guidance that children need for optimal development will be available (Werner & Johnson, 2004). Among the ACOAs who make a successful adaptation, a supportive nonalcoholic parent frequently was found to have been backed up by siblings who were able and willing to look out for one another. In addition, resilient ACOAs often report that a maternal grandmother or a favorite aunt or uncle helped buffer the trauma of their family life (Werner & Johnson, 2004). An intervention program for ACOAs shows that such a positive connection with parents or relatives can have a buffering effect against negative outcomes (Campbell-Heider, Tuttle, Bidwell-Cerone, Richeson, & Collins, 2003).

A Familial Protective Factor: Positive Parenting. Another familial protective factor is positive parenting style, which especially influences children or adolescents' perception of positive relationships with their parents (Haase, 2004a; Werner, 1993). ACOAs who perceive their relationship with their parents to be poor are more pessimistic, have lower self-esteem, and have more depressive symptoms than those who perceive their relationships with their parents to be good (Rew & Horner, 2003). Ironically,

alcoholic parents are the major risk factor (parental alcoholism) for ACOAs, but at the same time, they can provide the most effective protective factor by providing positive parenting, considered an important protective resource for resilience (Fergus & Zimmerman, 2005). Current studies on alcoholic families show that parental monitoring and discipline play an important role in raising or increasing the number of constructive coping strategies their children develop and inhibiting early initiation of alcohol use (Lease, 2002; Maggs et al., 2006; O'Connor, Kogan, & Findlay, 2002; Werner & Johnson, 2004). Supportive parenting moderated or attenuated the negative impact of parental problem drinking on the child's internalizing and externalizing problems, while more inconsistent discipline resulted in higher levels of depressive symptoms (Roosa, Tein, Groppenhacher, Michaels, & Dumka, 1993). However, some ethnic or cultural variations in the impact of certain parenting types have been reported. For Korean adolescents, strict parental control signifies parental warmth and low neglect, whereas middle-class adolescents in North America typically regard the same behavior from their parents as repressive (Collins & Laursen, 2004).

Eiden and colleagues (2004) explained that parental behavior affects subsequent outcomes of the child, but parents' behavior itself might be influenced by previous behavior of the child. This perspective is consistent with transactional models of development, which emphasizes that both child and environment play a role in determining the course of development. The major ideas of this perspective posit an active family environment and an active child who adapts to and influences the environment, and assert that the parent and children influence each other over time

(Eiden, Leonard, Hoyle, & Chavez, 2004). This model reinforces the significance of familial factors, especially interactions between parents and children.

Sense of Belonging, Resilience and Depression in ACOAs

Hagerty and Williams (1999) noted that a lack of sense of belonging corresponds to loneliness or depression. A high level of conflict in relationships was associated with a low sense of belonging, and a low sense of belonging was strongly associated with higher levels of depression; in turn, a low or nonexistent sense of belonging can lead to hopelessness, which then becomes a risk factor for depression and suicide (Hagerty & Williams, 1999). Since changing the negative self-view can be a key intervention target for depressive symptoms, people who receive positive feedback in a safe or trusted environment may decrease the risk of depression or depressive symptoms.

Conversely, lonely individuals perceive higher levels of stress, more serious difficulties, and less potent "uplifts" than non-lonely individuals (Rhodewalt & Zone, 1989). Rhodewalt and Zone (1989) also highlighted a significant relationship between loneliness and resilience, showing that people can differ dramatically in both the number of events they appraise as negative and the average amount of adjustment required for each event, depending on their resilience. Lonely people who lack social support may be non-resilient and may have poor health practices (Rhodewalt & Zone, 1989).

Therefore, when ACOAs can perceive enough support and feel connectedness with people outside of the family, they can learn to trust and handle their feelings in healthy ways and build positive, nurturing relationships that help protect them from problems (Dumont & Provost, 1999; Luthar et al., 2000; Rew & Horner, 2003). Resilient individuals with alcoholic parents have likely found emotional support outside their own

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family (Werner, 1993). They tend to have at least one supportive and close person and usually rely on an informal network of kin, neighbors, peers and elders for counsel and support in times of crisis.

Kumpfer and Bluth (2004) reviewed key protective components of clinical intervention that are discussed in the resilience research literature in their study about predictors of children's resilience. Out of 19 factors, the first and the second ones closely corresponded to a sense of belonging: "providing at least one caring adult" and "facilitating prosocial attachment and identification (i.e., bonding)" (Kumpfer & Bluth, 2004, p.683). Studies of resilient individuals all remarked on the crucial influence of significant relationships with kin, intimate partners, and mentors (Walsh, 2003). With support from such relationships, the resilient individuals acquire a faith that their lives have meaning and they have control over their lives (Werner, 1993). Thus, although many ACOAs still show problems with severe levels of emotional problems, once they acquire a stronger sense of belonging, they are more likely to develop resilience and, consequently, the likelihood of their being involved in any negative outcomes related to alcoholic families (i.e., depression) can be dramatically reduced (Agaibi & Wilson, 2005; Hagerty et al., 1992; Verduyn & Calam, 1999).

A Proposed Conceptual Framework

This study was conducted on the basis of a conceptual framework developed from an extensive review of literature on ACOAs' depression, resilience and important influencing factors (i.e., risk and protective factors), such as a sense of belonging and family functioning (Figure 1). ACOAs' resilience is defined as their acquired capacity to translate the life adversities associated with parental alcoholism into desirable outcomes.

The desirable outcomes of ACOAs in this study refer to experiencing no or few depressive symptoms. ACOAs' resilience may moderate or mediate depressive symptoms, despite adversity due to parental alcoholism. Examination of the risk and protective factors, adapted to the case of ACOAs' adjustment, can provide useful insights into the protective role of a sense of belonging in the relation between ACOAs' resilience and depressive symptoms. In particular, each factor can either reduce or enhance resilience in two different levels: familial- or individual-level. Familial risk factors refer to family dysfunction and parental mental health problems; familial protective factors include positive family functioning and positive parenting. Regarding individual factors, the lack of attachment is a risk factor, and a sense of belonging is the major protective factor.

Figure 1

A Proposed Conceptual Framework of Sense of Belonging, Resilience and Depressive Symptoms in ACOAs
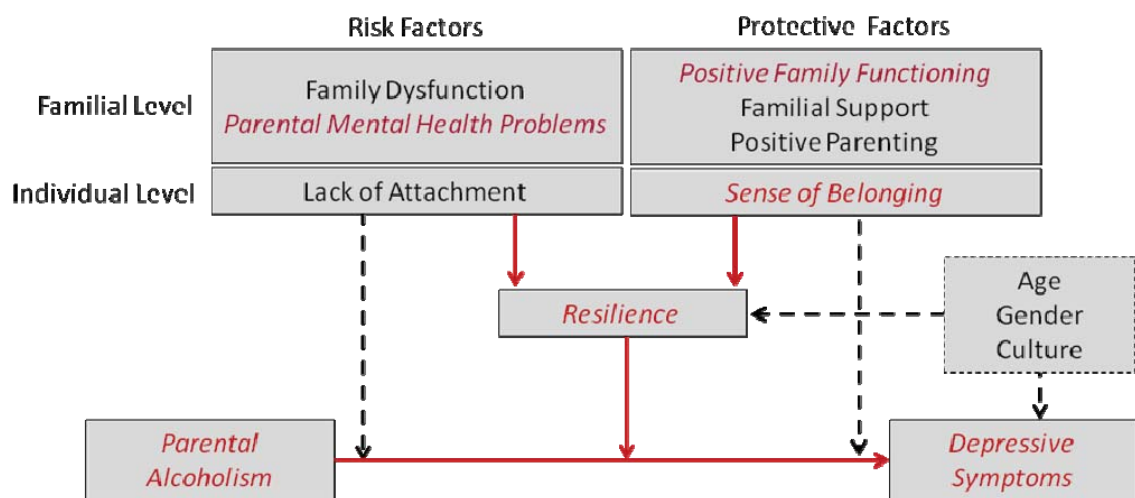
A stronger sense of belonging in ACOAs may increase the likelihood of being resilient, and consequently, ACOAs may have fewer depressive symptoms. Even though a stronger sense of belonging does not guarantee higher resilience, if individuals cannot feel such a sense, they are more likely to have higher levels of susceptibility to depressive symptoms or to experience more risk factors. In addition, a sense of belonging can trigger a positive-perception process. In other words, individuals who have developed a sense of belonging actually perceive certain ecological factors as protective and can thus further develop resilience against depressive symptoms. Based on this conceptual framework, this study explored the relationships among parental alcoholism, sense of belonging, resilience and depressive symptoms.

Summary

Different research groups have viewed resilience within different risk settings, examined the impact of different protective processes, and defined resilient outcomes according to different criteria (Emshoff & Price, 1999; Harter, 2000). Therefore, it is difficult to determine the characteristics or attributes of resilience in a particular group, such as ACOAs. However, identifying the resilience concept and relevant factors may help health care providers prevent more severe emotional, behavioral, and social problems of ACOAs (Harter, 2000; Palmer, 1997).

As a factor in the ability to withstand and rebound from disruptive life challenges, resilience has become an important concept in mental health theory and research over the past two decades and across many health scientific disciplines (Walsh, 2003). The current study examined the effects of having alcoholic parents on depressive symptoms, resilience, and a sense of belonging, especially among Korean people. Also, this study

tested whether resilience and a sense of belonging would moderate or mediate the effect

of having an alcoholic parent on depressive symptoms.

CHAPTER III

METHODS

The purpose of the study was to explore relationships among parental alcoholism, sense of belonging, resilience, and depressive symptoms in a group of Korean participants. In this chapter, study methodology is presented including the study design, sampling methods, recruiting sites, measures, study procedure, and human respondents' considerations.

Design

This was an exploratory study using a descriptive cross-sectional design. Quantitative questionnaires and web-based survey methods were used to survey the key variables and gather demographic information about respondents, including age, sex, and education. Parental mental health problems and previous exposure to domestic violence were also measured.

The web-based survey method allows more efficient surveys by eliminating paper, postage, mail-out, and data entry costs; saving time for survey implementation; creating more dynamic interaction between respondent and questionnaire; and allowing a more refined appearance (Dillman, 2007, p.354). The more specific benefits for ACOAs are guaranteeing the highest possible level of confidentiality for respondents who may worry about exposing their experiences related to having alcoholic parents, and providing potential respondents easier access to the survey. Also, web-based surveys can facilitate more in-depth or comprehensive responses because they can answer the survey in a safe

and quiet environment. As recent studies provided evidence that sensitive questions are more likely to be responded to using web-based survey (e.g., McCabe, 2008), in this study using web-based survey with ACOAs brought reliable and valid results.

Sample

The sample consisted of two groups of Korean people: (1) who live or have lived with an alcoholic parent (adult children of alcoholics, ACOAs) and (2) who do not have alcoholic parents (non-ACOAs). To achieve the main purpose of this study, a convenience sampling method was used with the following inclusion criterion: self-identified Korean or Korean American male and female individuals aged 18 or older who read and understand either English or Korean. This sample included Korean or Korean American undergraduate or graduate students and Korean immigrants in the community of Midwestern cities. Those with alcoholic parents (ACOAs) were identified by a cut-point of three using a short version of the Children of Alcoholic Screening Test (CAST-6, Hodgins, Maticka-Tyndale, el-Guebaly, & West, 1993) which was one of the Web-based survey questionnaires in this study. There were not any specific exclusion criteria.

The voluntary respondents were recruited via advertising the study on bus stops, boards in the community including a university as well as web boards. In addition, three Korean student associations (see Appendix A) were contacted for on-line web advertisement in order to approach homogeneous groups of Korean participants. A total of 219 responded to the web survey either in English or in Korean. The data from 206 respondents (94.1%) were selected because 13 respondents (5.9%) did not complete the major questionnaires in the survey. As shown in Table 1, out of 206 respondents, more than half were female with a mean age of 28.4 years (*S.D.* = 6.9, ranged from 18 to 76

Table 1

Demographic Characteristics of the Korean Respondents (N = 206)

Variable	Category	Frequency (%)			$\chi^2 (df)$
		ACOA ($n=30$)	Non-ACOA ($n=171$)	Total	
Sex	Male	9 (31.0)	71 (41.8)	80 (40.2)	0.78 (1)
	Female	20 (69.0)	99 (58.2)	119 (59.8)	
Marital status	Never married	19 (65.5)	101 (60.5)	120 (61.2)	0.10 (1)
	Married	10 (34.5)	66 (39.5)	76 (38.8)	
Student: Education	Baccalaureate	8 (26.7)	39 (23.2)	47 (23.7)	5.72 (4)
degree	Master's	4 (13.3)	36 (21.4)	40 (20.2)	
currently seeking	Doctoral (including MD, JD)	8 (26.7)	59 (35.1)	67 (33.8)	
	Other (visiting scholar, etc.)	0 (0.0)	5 (3.0)	5 (2.5)	
	Not a student	10 (33.3)	29 (17.3)	39 (19.7)	
Employment status	Student, not employed	9 (30.0)	69 (40.6)	78 (39.2)	15.56* (6)
	Student, employed as part time	8 (26.7)	31 (18.2)	39 (19.5)	
	Student, employed as full time	1 (3.3)	30 (17.6)	31 (15.5)	
	Not a student, not employed	4 (13.3)	21 (12.4)	25 (12.5)	
	Not a student, employed as part time	0 (0.0)	6 (3.5)	6 (3.0)	
	Not a student, employed as full time	7 (23.3)	10 (5.9)	17 (8.5)	
	Other	1 (3.3)	3 (1.8)	4 (2.0)	
Monthly household	None (living alone, not employed)	8 (27.6)	32 (22.4)	40 (23.3)	3.25 (5)
income	Up to $3,000	10 (34.5)	64 (44.8)	74 (43.0)	
	$3,001-$5,000	6 (20.7)	16 (11.2)	22 (12.8)	
	$5,001-$8,000	2 (6.9)	13 (9.1)	15 (8.7)	
	$8,001-$12,000	1 (3.4)	10 (7.0)	11 (6.4)	
	More than $12,000	2 (6.9)	8 (5.6)	10 (5.8	

Note. *$p < 0.05$.

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years), three fourths were either undergraduate or graduate students, half were employed in either full-time or part-time positions, and half had any amount of monthly household income up to $5,000. Differences between the groups will be explained in Chapter 4.

At least 200 Korean respondents in total were planned for recruiting. This exceeded the minimum sample size of 98, which would be necessary to provide 80% power to detect medium-sized squared multiple correlations ($R^2 = 0.15$) with an alpha of 0.05, when using six predictors (Cohen, 1992; Erdfelder, Faul, & Buchner, 1996). The predictors to explain respondents' depressive symptoms are: parental alcoholism, parental mental health problems, family dysfunction, lack of social support, low sense of belonging, and low resilience. In regard to structural equation modeling (SEM), Schreiber et al. (2006) suggested that although sample size needed is affected by the normality of the data and estimation method that researchers use, the generally agreed-on value is 8 to 10 participants for every free parameter estimated (Garson, 2009). Although there is little consensus on the recommended sample size for SEM, Tomarken and Waller (2005) recommended critical sample size of 200, based on their review of the SEM literature. In other words, any number above 200 is understood to provide sufficient statistical power for data analysis. One of the reasons is that most measures in the SEM overestimate goodness of fit for small samples (<200), though the root mean square error of approximation (RMSEA) and the comparative fit index (CFI) are less sensitive to sample size than others (Garson, 2009).

After IRB approval was obtained from the University of Michigan Behavioral Sciences Institutional Review Board Committee, the investigator posted advertisements

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at community bus stops, boards, and web board of the three student associations. A web

link to the survey was included in the flyer. Data were collected over a 5-week period.

<div style="text-align:center">

Measures

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All respondents were asked to complete the Web-based survey questionnaires,

which included the Beck Depression Inventory (Beck, Steer, & Brown, 1996), the

Connor-Davidson Resilience Scale (Connor & Davidson, 2003), and the Sense of

Belonging Instrument (Hagerty & Patusky, 1995). In order to identify those who live or

have lived with an alcoholic parent, respondents were asked to complete additional

questionnaires including the short version of the Children of Alcoholics Screening Test

(CAST-6, Hodgins, et al., 1993). As discussed in Chapter 2, other important variables

related to alcoholic families were also included: social support, family function, and

history of mental disorders. In addition, they were asked about individual experiences of

domestic violence along with demographic information questions. The English versions

of the major measures used in this study are presented in Appendix E.

Translation of Measures into Korean

For respondents who felt more comfortable answering in Korean, the Sense of

Belonging Instrument (SOBI) was translated from English into Korean using the back

translation technique and a pilot test was used to validate the translated version of

measurements for the study. All the other measures were available both in Korean and

English. The process of back translation technique included (a) translation into Korean

of the original English version of the SOBI by the investigator and three other Koreans

whose native language is Korean, (b) back translation into English of the Korean version

of the SOBI by independent translators who have skill in both languages, and (c)

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comparison of the back-translated version of the SOBI and the original version by the investigator to identify discrepancies between the two instruments (Hulin, Drasgow, & Parsons, 1983). The three additional Koreans who translated the SOBI into Korean acquired advanced degrees in the U.S. and their majors varied including Linguistics, Clinical Psychology and Nursing. The investigator of this study compared all translated versions and incorporated them into one Korean version. After that, two other independent individuals—one Korean American and one Korean— were asked to back-translate the Korean version into English. The Korean American completed up to college education and was working in the U.S. The Korean back-translator earned a Doctoral Degree in Nursing with a specialty in family nursing care for chronically ill patients and qualitative methodology.

Measures Employed in This Study

  Beck Depression Inventory-II (BDI-II). Depressive symptoms were assessed using the BDI-II (Beck et al., 1996). The BDI-II is one of the most widely used instruments for measuring the severity of depression, focusing on several major symptoms. It has been commonly used to detect depression among normal and psychiatrically hospitalized adults and adolescents (Segal, Coolidge, Cahill, & O'Riley, 2008; Wilcox, Field, Prodromidis, & Scafidi, 1998). This measure is designed for use among individuals 13 years old and older (Segal et al., 2008). The BDI was revised in 1996 to the BDI-II, with changes in the items of body image, hypochondria, difficulty working, sleep loss and appetite. The BDI-II asks respondents about their feelings for the past two weeks, as opposed to the original BDI's investigation of only the past week (Beck et al., 1996). The BDI-II is a 21-item self-report inventory designed to assess the

severity of depression. The items assess cognitive, behavioral, affective, and somatic

symptoms. Each item is scored from 0 to 3 ('symptom is not present' to 'symptom is

severe'), with higher scores indicating more depressive symptoms. The total BDI score is

the sum of all items, and ranges from 0 to 63. Scores from 0-13 indicate minimal

depression, scores from 14-19 indicate mild depression, scores from 20-28 indicate

moderate depression, and scores from 29-63 indicate severe depression (Beck et al.,

1996).

There are different measures of depression or depressive symptoms, such as the

Patient Health Questionnaire (PHQ-9) and the Center for Epidemiologic Studies

Depression Scale (CES-D). Although, presently there is a lack of evidence to choose the

best method for measuring severity of depressive symptoms (Cameron, Crawford,

Lawton, Sharma, DuToit, et al., 2008), the BDI-II has been more often employed because

it can provide data about the intensity of depressive symptoms, based on its overall score.

Also, some researchers raised issues concerning the use of the BDI-II for the self-report

of depressive symptomatology, but the BDI-II can detect any significant changes in the

score over time by using repeated assessments, oftentimes related to the treatment (Beck

et al., 1996).

Beck, Steer, and Garbin (1988) reported a mean coefficient alpha of 0.86 across

nine studies using a variety of clinical and non-clinical samples. With 229 young adults

and 147 older adults, internal reliabilities were 0.92 and 0.86, respectively (Segal et al.,

2008). The validity of the BDI-II including construct and internal validities has been

demonstrated in numerous studies (e.g., Buckley, Parker, & Heggie, 2001; Segal et al.,

2008). Cronbach's α for the BDI-II in this study was 0.90.

A short version of the Children of Alcoholics Screening Test (CAST-6). For the

purpose of identification of ACOAs, the CAST-6 (Hodgins, et al., 1993) was employed

in addition to the respondents' self-reports about having an alcoholic parent. The CAST-

6 is a short version of the 30-item CAST, which was originally developed by Jones

(1983), and the items ask about adult children's feelings, attitudes, perceptions, and

experiences as they relate to their parents' drinking behavior. Both instruments have

widely been used in previous studies with ACOAs or COAs. Vail, Protinsky and Prouty

(2000) reviewed nearly 100 empirical studies on ACOAs, and found that 50% of the

studies employed the CAST. This short version has six items with a true or false

response-scale and it is self-reported. According to Hodgins et al. (1993), possible scores

range from 0 to 6 and a cut-point of 3 is used to identify COAs. In this study, two more

items were selected from the original CAST questionnaire to identify which parent the

respondent ever thought was an alcoholic. Based on the responses to these two questions,

further analyses were conducted to find any differences in the respondents' depressive

symptoms and other major variables by the sex of the alcoholic parent.

Some studies of alcoholism used different measures, such as the Michigan

Alcohol Screening Test (MAST) (Seltzer, Vanosdall, & Chapman, 1971). Although the

MAST is one of the publicly available, effective screening tests identifying alcohol

abusers with up to 98% accuracy, this measure is filled out by parents, as opposed to the

CAST, which is filled out by children. Thus, the MAST was deemed not applicable in

this study.

The CAST-6 was tested for its validity and reliability by a group of clinicians

with outpatient substance abusers, outpatient psychiatric patients, and medical students,

and coefficient alphas were 0.86, 0.91, and 0.92, respectively (Hodgins et al., 1993).

This group also provided evidence of good validity (Hodgins et al., 1993). Havey and

Dodd (1995) compared sensitivity and specificity of the original, 30-item CAST and the

CAST-6, and concluded that the CAST-6 has an almost identical diagnostic function as

the 30-item CAST. The Korean version of the CAST was developed by Kim and

colleagues (1995), and they reported evidence of sound psychometric properties of the

Korean version. Cronbach's α in this study was 0.89.

Sense of Belonging Instrument-Psychological (SOBI-P). The SOBI-P is an 18-

item self-report measure assessing an individual's experience of feeling valued, needed,

and accepted and the perception of fit or connectedness within a system or environment

(e.g., "In general, I don't feel a part of the mainstream of society," "I feel like a piece of a

jigsaw puzzle that doesn't fit into the puzzle") (Hagerty & Patusky, 1995). Respondents

were asked to reflect on the past month, and to give ratings on a 4-point Likert-type scale

(1 = strongly disagree; 4 = strongly agree), with higher scores indicating a greater sense

of belonging.

Previous research has shown the instrument to be a valid and reliable measure.

The test-retest reliability coefficients for the instrument have been measured as $r = 0.84$

over an 8-week period. The internal consistency coefficient (alpha) was reported as 0.93

(Hagerty & Patusky, 1995). The SOBI-P has shown good construct validity and

reliability with various populations across different cultural groups. The SOBI-P was

used with 351 retired Australians and tested for validity and reliability (McLaren et al.,

2007). Also, the SOBI-P has been translated into other languages, such Thai (Sangon,

2004). In that study, the Thai version of the SOBI-P showed evidence of validity and

reliability with data from 142 Thai women. Although there are a few other measures of

"sense of belonging" or "belonging," they did not have evidence of validity and

reliability. For instance, researchers developed items to measure belonging as needed,

yet did not test the psychometrics of the new measure and did not repeat using the

measure with different populations (e.g., Carvallo & Pelham, 2006; Ueno, 2005).

Therefore, the employment of the SOBI-P with Korean respondents in this study was

valuable, since it adds more evidence for its usage within different cultures.

In this study, the SOBI-P was translated into Korean, and the translated version

was examined in a pre-test study with 21 Korean adults, focusing on cultural and

developmental characteristics of Korean ACOAs. Test-retest reliability coefficient over a

2-week time span was $r = 0.91$ and the internal consistency coefficient for the pilot study

was 0.92. Cronbach's α in this study was 0.93.

Connor-Davidson Resilience Scale (CD-RISC). The CD-RISC (Connor &

Davidson, 2003) was used to measure resilience among the respondents. Connor and

Davidson (2003) developed this instrument with a wider range of respondents, including

community samples, primary care outpatients, and two clinical trials of PTSD and

reported evidence of construct validity through factor analysis. Lee (2009) translated the

CD-RISC into Korean and did a pilot test with Korean respondents, which confirmed the

cultural sensitivity of the instrument. The psychometric testing of the Korean version is

in progress with Korean general psychiatric outpatients (Lee, 2009). The CD-RISC is a

25-item self-report scale with a 5-point Likert-type response format (0 = rarely true and 4

= true nearly all the time). Connor and Davidson found five factors from their factor

analysis: (a) personal competence, high standards, and tenacity, (b) trust in one's instincts,

tolerance of negative affect, and strengthening effects of stress, (c) positive acceptance and secure relationships with others, (d) control, and (e) spiritual influence. However, inconsistent factor results were reported by different researchers employing the CD-RISC across cultures (e.g., Campbell-Sills & Stein, 2007; Jørgensen & Seedat, 2008; Yu & Zhang, 2007). As a result, most researchers used the overall CD-RISC score in their analyses. Thus, in this study, the overall score was used in the analyses.

Possible scores ranged from 0-100 with higher scores reflecting greater resilience. Mean scores in specific populations in the original validation study are as follows: US general population, 80.7; primary care patients, 71.8; psychiatric outpatients, 68.0; generalized anxiety, 62.4; and two PTSD samples, 52.8 and 47.8. Example items are: "I work to attain my goals no matter what roadblocks I encounter along the way." (personal competence); "Having to cope with stress can make me stronger." (strengthening effects of stress); "I am able to adapt when changes occur." (acceptance of change), "I have a strong sense of purpose in life." (control); and "Good or bad, I believe that most things happen for a reason." (spirituality).

There are some different measurements of resilience, such as the Adolescent Resilience Instrument (Haase et al., 1999), the Adolescent Resilience Scale (Oshio, Kaneko, Nagamine, & Nakaya, 2003), and the Resilience Scale (Wagnild & Young, 1993); yet, the CD-RISC has earned much attention from researchers for its high sensitivity to overall improvement of patients suffering from post-traumatic stress disorder (PTSD) after receiving psychological treatments (Connor & Davidson, 2003). In addition, the CD-RISC is a relatively brief measure tested with both community-based and clinical populations (Connor & Davidson, 2003).

The CD-RISC has sound psychometric properties with good internal consistency and test-retest reliability (Connor & Davidson, 2003). Coefficient alpha for the total scale was 0.89 with a community sample and test-retest reliability coefficient was 0.87 with generalized anxiety disorder and PTSD samples (Connor & Davidson, 2003). The original CD-RISC was further developed into a short, 10-item version with a sample of over 1,500 college students (Campbell-Sills & Stein, 2007). Based on exploratory and confirmatory factor analyses, the authors reported good internal consistency and construct validity. The CD-RISC has been used across different cultural groups. With the data from 701 South African adolescents, reliability coefficient of the CD-RISC was 0.93 (Jørgensen & Seedat, 2008). A Chinese version of the CD-RISC was tested for its psychometric properties (Yu & Zhang, 2007) and its reliability coefficient was 0.91. Also, strong correlations were found between the CD-RISC and the variables of self-esteem ($r = 0.49$, $p < 0.01$) and life satisfaction ($r = 0.48$, $p < 0.01$) (Yu & Zhang, 2007). No studies have yet been found to report psychometrics of the Korean version, but in the current study, a strong medium level correlation coefficient was also found between the CD-RISC and life satisfaction ($r = 0.47$, $p < 0.001$). Although further psychometric analyses may be necessary for the Korean version, the CD-RISC has appeared to be a valid instrument to measure resilience quantifiably. Cronbach's α in this study was 0.92.

Social Support Questionnaire (SSQ-6). The SSQ-6 (Sarason, Sarason, Shearin, & Pierce, 1987) was used to measure social support. This measure was included for comparison with the effect of sense of belonging. The SSQ-6 is a commonly used measure of social support, because the length of the tool is short, only having six items, and it is quick and easy to use. The SSQ-6 consists of the items to identify persons in the

respondents' environment that can help in the situation described by the item. The

respondents were also asked to evaluate on a 6-point scale their level of satisfaction with

the support they perceived, from 1 (very unsatisfied) to 6 (very satisfied). This yielded

two scores: the number of persons in their social network and the degree of satisfaction

with the support they perceived. Therefore, the SSQ-6 measured quantities and qualities

of actual support that the Korean respondents received in the given situations, whereas

the SOBI-P focused on more comprehensive aspects of the individual's connections or

perceived fit to families, friends, and environment.

Internal reliabilities ranged from 0.90 to 0.93 with U.S. 399 students (Sarason et

al., 1987). In Sarason et al.'s study (1987), the SSQ-6 had good results of construct,

convergent, and divergent validities as well as test-retest reliability. A study with 82

Americans with Parkinson's disease also reported a good internal reliability as 0.84

(Moore & Seeney, 2007). Cronbach's α in this study was 0.93.

Family Adaptability and Cohesion Evaluation Scale-III (FACES-III). Family

functioning was measured using FACES-III (Olson, Pontner, & Lavee, 1985). Ahn

(1988) adapted FACES-III into a Korean version, and tested its reliability and validity.

In Ahn's study, internal reliability was 0.90 with a group of male adolescents. Family

adaptability means the changeable range of a family system, and family cohesion means

the emotional intimacy in a family. Both parts include ten items each scaled from 1 to 4.

An example item is "My family asks for help from each other."

FACES-III has been widely used in other ACOA studies with an acceptable range

of internal consistency from 0.68 to 0.86 (e.g., Domenico & Windle, 1993; Lee, 2003).

Since family as a unit can be difficult to measure, FACES-III may not capture all of the

important family functioning. However, FACES-III in this study was shown to have convergent validity through strong negative associations with domestic violence variables. Researchers have agreed that FACES-III is a valuable measure describing a family's functioning in clinical studies (Crowley, 1998; Domenico & Windle, 1993).

One study with Korean adolescents who have problem-drinking parents reported coefficient alpha as 0.85 (Lee, 2003). Cronbach's α for the overall scale in this study was 0.89; for family cohesion, Cronbach's α was 0.86; and for family adaptability, Cronbach's α was 0.79.

Family-Related and Other Variables. The questionnaire also included items to ask whether respondents had any experience being exposed to domestic violence during childhood (i.e., being either a victim or witness of physical, emotional, verbal, and sexual violence in the family) and whether they had any experience with alcohol abuse or other substance abuse. Also, all respondents were asked if they thought that their parents (including alcoholic parents) had mental health problems other than alcohol abuse. Identifying these additional risk factors was important to distinguish certain individuals who may not be explained by the factors in the conceptual framework of the current study. Also, these risk factors were considered when analyzing and discussing the study results. Respondents' age, sex, education, and occupation were also asked along with the family's socio-economic status in a demographic questionnaire.

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Procedure

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Recruitment and Consent

The investigator previously tried to recruit Korean ACOAs through community mental health centers and self-help groups in Korea, but because of the stigma attached to

growing up in alcoholic families there were difficulties in recruiting respondents. Some experts in the field said that insufficient resources for ACOAs and a high level of stigma about having alcoholic parents prohibit Korean ACOAs from seeking health care or any resources and participating in any clinical or academic projects (Lee, personal communication, May 15, 2008). Similar difficulties have also been observed even in the U.S. with Korean participants. Due to these challenges for data collection with ACOAs, web-based survey methods were planned to guarantee the highest possible level of confidentiality for participants who may worry about exposing their experiences with alcoholic parents. This method also provides more chances to give honest or comprehensive responses to each question in a safe and quiet environment (Dillman, 2007).

The investigator applied for approval through eResearch, the online application system for the Health Sciences and Behavioral Sciences Institutional Review Boards (IRBs) at the University of Michigan. After acquiring IRB approval, the next step involved asking permission to advertise this study on boards and/or web-boards of the three Korean student associations. The advertising flyer included a web address (URL) to the survey so potential respondents can easily access the survey site. Those who volunteered and meet the inclusion criteria—self-identified Korean or Korean American male and female individuals aged 18 or older—were recruited. When potential respondents directly contacted the investigator by phone or email before their decision to participate, the investigator informed them in more detail about the purpose, scope, and contents of the study. There were about 10 who contacted the investigator for the study information before deciding to participate.

An on-line flyer including the survey web address (URL) was posted on web boards of the three Korean student associations. The paper flyers in the same format with the on-line flyer were posted at the sites. Also, the paper flyers were posted on community bus stops and designated public boards. Both types of flyers in English and Korean (see Appendix C) briefly addressed the purpose of the study and introduced the UM.Lesson survey site. The survey web address (URL) in the flyers took the individual directly to the first consent form, either in English or Korean. Both language versions of consent form and the questionnaires were available, so each individual was able to choose the language by clicking either version. The individuals were asked to read and sign the on-line consent form and agreed to participate by clicking "CONTINUE" button to view the survey (Appendix D). Once respondents agreed to participate and complete the survey, they were asked how they would like to receive a $10 gift card to their choices of a coffee house, a bookstore, a grocery or an electronic product as appreciation for taking their time and participating in the study.

Data collection

Data were collected through self-administered questionnaires measuring depressive symptoms, resilience, sense of belonging, social support and the other family-related variables using web-based survey methods. The invitation flyer in both English and Korean (see Appendix C) briefly addressed the purpose of the study and introduced the UM.Lesson survey site. Respondents having UM "uniqname" (individual ID for University of Michigan computing) entered the survey site with their passwords. For those who were outside the University of Michigan and did not have UM uniqname, only an email address was asked for to create a "Friend account" (a U-M guest computing

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account to allows someone who does not have a UM uniqname) instead. When they

entered the survey site, they had to complete an on-line informed consent form page

which addressed the following: introduction, purpose and content of the study; UM IRB

approval; anonymity, confidentiality and privacy of the data collected; written

instructions for the questionnaire; time required to complete the survey; risks and benefits

of participation; their rights related to the study; available community mental health

resources; and investigator and UM IRB contact information. In particular, the consent

form indicated: that their responses could not be linked to their names (anonymity); that

they may leave any question blank if they were unable or did not wish to answer it; and

that they could stop answering at any time if they felt uncomfortable or upset.

Respondents were able to choose either the English or Korean version of the

survey after signing the on-line consent form, but if they did not want to participate, they

were asked to click "EXIT" at the end of the page and had a "Thank you for your

consideration" message. Those who answered "Yes" then were asked to complete all the

questionnaires as well as a demographic questionnaire. The survey took 30 minutes or

less to complete the survey. A single web screen had 10 or less questions to limit

scrolling to read the contents. Each screen showed how many web pages remained to be

completed. Respondents were able to advance to the next page by clicking "NEXT" at

the bottom of each screen. They could choose "NEXT" with some questions not

answered if they wished. Once the respondent completed all the survey questions, a web

page thanked them for participation and explained about the $10 gift certificate as an

appreciation. The respondents were asked where they would like to receive the gift

certificate. All the data were obtained specifically for research purposes only. All information and answers were anonymous.

While the potential risks to the respondents were minimal, some might have experienced psychological distress during the process of the study related to thinking about parental alcoholism. Since each respondent was anonymous and those at even high risk for having serious mental problems could not be distinguished, information identifying community mental health resources was placed along with the consent form, right after the BDI-II questionnaire, and before the last page describing the incentive. The mental health resources for those enrolled in the University of Michigan are Counseling and Psychological Services (CAPS), U of M Psychiatric Emergency Services, Psychological Clinic, and University Center for the Child and the Family. For the respondents outside the university, Community Mental Health Services Programs, such as Washtenaw Community Health Organization and CMH Authority of Clinton-Eaton-Ingham Counties in Lansing, were introduced. The resources are presented in Appendix B. In addition, they were provided with the investigator's phone number and e-mail address so that they could express concerns or discuss any questions or concerns. There were two people who contacted the investigator by phone, but their questions were about a technical issue—how to find the web-based survey. If respondents contacted the investigator to ask about the study results, the investigator shared the results by providing them with executive summary of research findings.

Data Analysis

The data collected in the study were entered into the Statistical Package for the Social Sciences (SPSS) Windows 17.0 version. Responses from the instruments on the

web-based survey completed by the Korean and Korean American respondents were transferred into two separate excel files, one for the Korean version survey and the other for the English version survey. The two Excel files were merged together, and, the merged files were transferred into the SPSS data file for analyses.

After data management and cleaning, data analyses were conducted. Prior to addressing study aims, initial descriptive analyses were conducted. Univariate and bivariate statistical analyses, including frequencies, descriptives and mean difference analyses, were used to explore their sociodemographic and background characteristics. In order to compare ACOAs and non-ACOAs, the CAST score was dichotomized using a cutoff of 3 or higher for the ACOA group on the CAST. However, for correlation analyses and multivariate analyses, the CAST mean score as a continuous variable was used to address variation of the effect of parental alcoholism on outcome variables (Vail et al., 2000).

In order to examine the characteristics of the sample, simple descriptive statistics were used. Mean difference tests, such as independent sample t-test and ANOVA, were employed to examine any significant differences in the major study variables between ACOA and non-ACOA groups. Reliability estimates (internal consistency coefficient) were also calculated for each measure. All null hypotheses were tested at an alpha level of 0.05.

After preliminary analyses, multivariate analyses were conducted to explore the relationships of resilience with family functioning, parents' mental health problems, and a sense of belonging. Using multiple regression analyses, the major predictors of resilience were identified; then, the significant predictors of depressive symptoms were

also identified. In addition, using hierarchical multiple regression analyses, moderating and mediating effects by resilience, a sense of belonging, and any other influencing factors were tested on the relation between parental alcoholism and depressive symptoms. Finally using Amos 17.0 version, a series of structural equation modeling (SEM) analysis were conducted in order to find the best model explaining the relationship of the variables. The following statistical analyses were conducted for each specific aim and research question:

- *Aim 1. To examine the prevalence of having alcoholic parents in Korean people living in Midwestern cities*: Simple frequencies were calculated to explore the prevalence of having alcoholic parents, using the cutoff of 3 or higher score on the CAST.

- *Aim 2. To compare depressive symptoms, sense of belonging, resilience, social support, and family-related variables (family functioning, parental mental health problems and domestic violence) between Korean adult children of alcoholics (ACOAs) and in Korean people who are not ACOAs (non-ACOAs).*

  1. *Research question 2-1) Are depressive symptoms, sense of belonging, resilience, social support, and family-related variables different between Korean ACOAs and Korean non-ACOAs?*: Mean difference tests, such as independent sample t-tests and ANOVA, were used in order to examine any significant differences in depressive symptoms, resilience, sense of belonging, social support, and family-related variables between the two respondent groups.

  2. *Research question 2-2) To what extent do sense of belonging, resilience, social support, and family-related variables relate to depressive symptoms in Korean ACOAs and in Korean non-ACOAs?*: Bivariate correlation analyses were

conducted to examine correlations among resilience, sense of belonging, social

support, family-related variables, and depressive symptoms in the Korean

respondents. Based on the result of no demographic and background differences

between ACOAs and non-ACOAs, the combined sample was used in the

following analyses. For all the analyses with this entire sample, the CAST score

was treated as a continuous variable, based on suggestions from Vail et al. (2000).

They suggested that parental alcoholism based on the CAST ought to be treated as

a continuous variable in order to address variation among alcoholics and

differential effects on ACOAs, although a cut-off score on the CAST usually

leads grouping respondents into the two groups, ACOAs and non-ACOAs (Vail et

al., 2000). They concluded that this strategy can increase measurement sensitivity

and reduce between-group inconsistencies.

- *Aim 3. To explore relationships among parental alcoholism, depressive symptoms, sense of belonging, resilience, social support, and family-related variables in Korean participants.*

  1. *Research question 3-1) What demographic and background variables (including parental mental health problems and domestic violence experience) are associated with depressive symptoms, sense of belonging, resilience, social support, and family functioning in Korean participants*?: In order to have a specifically correct structural model in this study, a series of mean difference tests (independent sample t-tests and ANOVA) was conducted to identify important demographic and background variables (including parental mental health problems and domestic violence experience) influencing depressive symptoms, sense of belonging,

resilience, social support, and family functioning. The results from these analyses

were used to test the paths among the variables in the final structural equation

modeling (SEM) (Tomarken & Waller, 2005).

2. *Research question 3-2) What are significant predictors of depressive symptoms in*

   Korean participants, among parental alcoholism, sense of belonging, resilience,

   social support, family functioning, and demographic and background variables

   (including parental mental health problems and domestic violence experiences)?:

   Multiple regression analyses were performed to explore predictors of depressive

   symptoms. Predictors of resilience and sense of belonging were also examined in

   order to test potential paths among variables for the next SEM. Based on the result

   from previous bivariate analyses, independent variables were determined as

   important correlates of each of depressive symptoms, sense of belonging and

   resilience.. Only those statistically significant independent variables were entered

   into each regression model.

3. *Research question 3-3) Does sense of belonging moderate or mediate the relation*

   between parental alcoholism and depressive symptoms in Korean participants?:

   To test a moderating effect of sense of belonging on the relation between parental

   alcoholism and depressive symptoms, a hierarchical regression analysis was

   employed to examine main effects of sense of belonging and parental alcoholism

   as well as an interaction effect of sense of belonging and parental alcoholism on

   depressive symptoms. The variables were entered in the hierarchical regression in

   following order: parental alcoholism, sense of belonging, and parental alcoholism

   X sense of belonging. In moderation analyses in this study, predictor variables

were centered in order to increase interpretability of interactions, as numerous researchers (e.g., Aiken & West, 1991) recommend. If variables are not centered, there are possible problems with multicollinearity, which means that if the predictors or independent variables are not centered, their product (used in computing the interaction) is highly correlated with the original independent variable.

Mediation analyses were conducted for sense of belonging, on the basis of the mediation model assumption, a three-variable system (Baron & Kenny, 1986). There are two causal paths feeding into the outcome variable: the direct impact of the independent variable (Path c) and the impact of the mediator (Path b). There is also a path from the independent variable to the hypothesized mediator (Path a). In this study, mediation analysis for sense of belonging was conducted, focusing on whether sense of belonging (mediator) meets the following conditions: (a) variation in levels of parental alcoholism (independent variable) significantly account for variations in sense of belonging (mediator) (i.e., Path a), (b) variations in sense of belonging (mediator) significantly account for variations in depressive symptoms (dependent variable) (i.e., Path b), and (c) when Paths a and b are controlled, a previously significant relation between parental alcoholism (independent variable) and depressive symptoms (dependent variable) is no longer significant, with the strongest demonstration of mediation occurring when Path c is zero (Baron & Kenny, 1986).

4. *Research question 3-4) Does resilience moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?*: The same

steps of moderation and mediation analyses used for sense of belonging were employed for resilience. Using several series of hierarchical multiple regression analyses, main effects of resilience and parental alcoholism and an interaction effect of resilience and parental alcoholism on depressive symptoms were examined by entering parental alcoholism, resilience, and parental alcoholism X resilience to the regression model. In addition, combined or conjunctive moderating effect (Baron & Kenny, 1986; Smith, Smoll, & Ptacek, 1990) of sense of belonging and resilience was examined by entering the variables in following order to a hierarchical regression model: parental alcoholism, sense of belonging, resilience, sense of belonging X resilience, parental alcoholism X sense of belonging, parental alcoholism X resilience, and parental alcoholism X sense of belonging X resilience.

Mediation analysis for resilience was conducted focusing on whether resilience (mediator) meets the following conditions: (a) variabtion in levels of parental alcoholism (independent variable) significantly account for variations in resilience (mediator), (b) variations in resilience (mediator) significantly account for variations in depressive symptoms (dependent variable), and (c) when both parental alcoholism and resilience are entered into regression, a previously significant relation between parental alcoholism (independent variable) and depressive symptoms (dependent variable) is no longer significant.

5. *Research question 3-5) Do social support and family-related variables, moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?*: Any other significant predictors of depressive symptoms

were also tested, following the same steps of moderation and mediation analyses for resilience and sense of belonging..

- *Aim 4. To develop a path model that takes resilience, sense of belonging, social support, and family-related variable into account in order to explain the effects of parental alcoholism on depressive symptoms in Korean participants*: SEM was conducted to test and estimate hypothesized causal relationships among parental alcoholism, sense of belonging, resilience, depressive symptoms and family-related variables. SEM results clearly illustrated the critical relationships among the major variables that separate series of hierarchical regression analyses might not be able to capture easily.

The "fit" of the model to the data was evaluated using several techniques. The χ^2 statistic, which measures the error in the model, was used as one estimate of fit. Interpretively, the χ^2 statistic is counterintuitive in that a statistically significant ($p < 0.05$) result means that the data does not fit the model. In addition to χ^2 statistic, the following indices were used to assess the path model's fit: the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). Many researchers consider the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) no longer to be preferred, as GFI often runs high compared to other fit models (Garson, 2009). The following fit index cutoff values suggested by Hu and Bentler (1999) were used for determining goodness of fit: CFI > 0.95 and RMSEA < 0.06. Values close to 1 or greater than 0.95 for the CFI indicate good model fit. As additional indicators, the normal fit index (NFI) and the relative fit index (RFI) values greater then 0.90 also indicate good model fit (Hu & Bentler, 1999). The akaike

information criterion (AIC), a test of relative model fit, was also used to determine the best-fitting between models with the same variables. The preferred model was one with the lowest AIC value (Garson, 2009).

Human Subjects

Data were collected from individual responses through the web-based self-administered questionnaires. The data were obtained specifically for research purposes only from the respondents who accepted the on-line informed consent form. Those who volunteered and met the inclusion criteria were recruited. All information and responses were anonymous. Data obtained were monitored for safety by the data being kept in an encrypted laptop of the investigator, locked with a password, and kept in a locked office.

While the potential risks to the respondents were minimal, there could be risks of psychological distress related to parental alcoholism. Since any respondents at risks of having depression could not be distinguished, information about community mental health resources was placed at three different locations in the web-based survey, as described earlier.

Although there were no such respondents, if any respondent had contacted the investigator by calls or emails with their mental health issues, the investigator would have assessed him or her, based on professional knowledge and skills as an advanced practice psychiatric nurse. If the case had been determined to need expert help immediately, the investigator would have referred the person to proper services or provided the phone number to the UMHS Psychiatric Emergency services. Also, the investigator would have sought a nurse practitioner's prompt advice on the case to ensure that there would be no further interventions necessary. For non-emergent services, they would have been asked

to see their own primary health care providers, but if they did not have one, they would have been asked to call community mental health services introduced while answering the survey.

Privacy/Confidentiality/Security

Data were collected online in UM.Lessons and respondents authenticated using uniqnames. Those outside of UM were asked to create a 'Friend account' to access UM.Lessons site. A BLIND assessment was chosen in UM.Lessons so that names or emails were automatically not associated with any data. The owner or manager (i.e., the investigator) controlled the access setting. Among three possible access settings – authenticated access, anonymous access, and self-identified access, if the manager chooses the authenticated access, by default each respondent is identified in the data by uniqname or email. However, by requesting a blind authentication, the uniqnames or email addresses were not associated with respondent data. BLIND assessments did provide an alphabetical list of respondents who submitted the assessment. This list was only provided once every fifteen respondents had submitted. Thus, the respondents could not be associated with any responses and the investigator was blinded.

Start and submit times were provided for each respondent. When submitted, the respondent's name or email address showed on the final screen. However, the investigator did not see this information and this fact was stated on the final web page where the individual information appeared. This was a system default that could not be removed without causing undue time commitments for personnel from UM.Lessons (Perpich, 2008).

For security of the data, the UM.Lessons servers were housed in one of the secure machine rooms at the Information Technology Central Services (ITCS)'s Arbor Lakes facility. The building requires card-key access and the machine rooms require further authorization. When a UM.Lessons assessment is set to authenticated access, respondent data are encrypted as it travels to the UM.Lessons server. By default, respondent data are not encrypted when an assessment is set to anonymous or self-identified access. The manager may request that anonymous assessments are encrypted. Data gathered via a UM.Lessons assessment is stored on a secure server (https) that requires uniqname and Kerberos (or Friend) access. The manager (i.e., the investigator) of the assessment had control over which individuals could access the data. Data were downloaded by the manager as an Excel, CSV, or TSV file.

The data collected were kept in an encrypted laptop of the investigator, locked with password. The data will remain there until completion of the investigator's doctoral study and subsequent publication after further analyses. All identifiers have been removed by UM.Lessons, thus privacy was ensured for any analysis.

CHAPTER IV

RESULTS

This chapter presents the results of data analyses conducted to meet the study aims. The chapter consists of three sections. The first section of this chapter describes the results of univariate and bivariate statistical analyses (a) to determine the prevalence rate of parental alcoholism, (b) to explore the sociodemographic and background characteristics of the respondents, and (c) to compare the major variables between ACOAs and non-ACOAs in this study. The second section describes the significant relationships of depressive symptoms with resilience, sense of belonging, social support and family-related variables (i.e., family functioning, parental mental health problems, and experience of domestic violence). Finally the last section shows the structural equation modeling (SEM) results. A model, which took resilience, sense of belonging, social support, and family-related variable into account, was developed in this study to explain the effects of parental alcoholism on depressive symptoms in Korean respondents. The following section will delineate the findings, according to the specific aims and research questions in this study.

Univariate and Bivariate Analyses

Aim 1. To examine the prevalence of having alcoholic parents in Korean people living in Midwestern cities.

Prevalence of Parental Alcoholism

A total of 219 respondents responded to the web survey either in English or in Korean. Among these, the data from 206 respondents (94.04%) were selected; thirteen respondents (5.96%) were eliminated because they logged in but did not complete the survey or did not respond to the major sections of the survey.

Out of 206 respondents, nearly 15% were identified as having alcoholic parents based on their CAST-6 scores of 3 or above (see Table 2). The two groups, ACOAs and non-ACOAs, had, as expected, a significant difference in their mean scores of CAST-6, as shown in Table 1. On a range of 0 to 6, the mean of CAST-6 for all the sample was 0.82 (*S.D.* = 1.64). There were two more items asking which parent they ever thought was an alcoholic. Two more respondents reported that they thought their father was an alcoholic although their total score of the CAST-6 was both 2, which did not meet the criteria for being an ACOA. Based on the responses to these two questions, a total of 32 (15.9%) could be ACOAs among the total. For the original group of 30 ACOAs, 13 (43.33%) identified their father as an alcoholic, 1 (3.33%) identified the mother as an

Table 2

Frequency of Adult Children of Alcoholics (ACOAs) and Mean Difference in the CAST-6 score between ACOAs and Non-ACOAs

Category	Frequency (%)	CAST-6 Mean±S.D.	t
Adult Children of Alcoholics (ACOA)	30 (14.93)	4.43±1.07	-21.27[*]
Non-ACOA	171 (85.07)	0.19±0.51	

Note.   [*] $p < 0.001$.

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alcoholic, and 2 (6.67%) identified their both parents as alcoholics. The other 14

respondents did not identify which parent was an alcoholic.

Aim 2. To compare depressive symptoms, resilience, sense of belonging, social support,

and family-related variables (family functioning, parental mental health problems and

domestic violence) between Korean adult children of alcoholics (ACOAs) and in Korean

people who are not ACOAs (non-ACOAs)

- *Research Questions 2-1) Are depressive symptoms, resilience, sense of belonging,*

   social support, and family-related variables different between Korean ACOAs and

   Korean non-ACOAs?

Comparison in the Major Variables between ACOAs and Non-ACOAs

Before examining differences in the major study variables between ACOAs and

non-ACOAs, any differences in background variables were tested. As shown in Table 3,

two thirds chose and completed the English version of the web-based survey, and the

majority identified themselves as Korean and reported being born in Korea. More than

half lived in the U.S. for 5 years or less. For religion, more than 60% reported practicing

some kind of religion, and one third of these (n = 48) reported being born to a religious

family. Almost two thirds were either very satisfied or satisfied with their life in general,

and half of the sample perceived their health as either good or excellent. There were no

statistical differences found in these variables between ACOAs and non-ACOAs. In

order to test for differences in the sample characteristics by sex of the alcoholic parent,

using the data with 30 ACOAs only, further Chi-square tests were conducted. No

Table 3

Comparison of Background Characteristics between ACOAs (n = 30) and Non-ACOAs (n = 171)

		Frequency (%)			
Variable	Category	ACOA	Non-ACOA	Total	$\chi^{2*}(df)$
Survey	English ver.	9 (30.0)	49 (28.7)	58 (28.9)	0.00 (1)
version	Korean ver.	21 (70.0)	122 (71.3)	143 (71.1)	
Ethnicity	Korean American	5 (16.7)	26 (15.2)	31 (15.4)	0.00 (1)
	Korean	25 (83.3)	145 (84.8)	170 (84.6)	
Country born in	USA	3 (10.0)	19 (11.2)	22 (11.0)	0.00 (1)
	Korea	27 (90.0)	151 (88.8)	178 (89.0)	
Length of stay in the US	Less than 1 year	9 (30.0)	33 (19.4)	42 (21.0)	6.68 (4)
	1-2 years	3 (10.0)	45 (26.5)	48 (24.0)	
	3-5 years	5 (16.7)	41 (24.1)	46 (23.0)	
	6-10 years	7 (23.3)	23 (13.5)	30 (15.0)	
	More than 10 years	6 (20.0)	28 (16.5)	34 (17.0)	
Practice a religion?	Yes [#]	19 (63.3)	113 (66.5)	132 (64.1)	0.02 (1)
	No	11 (36.7)	57 (33.5)	68 (33.0)	
Life satisfaction	Satisfied	18 (60.0)	120 (72.7)	138 (70.8)	3.88 (2)
	Neutral	6 (20.0)	31 (18.8)	37 (19.0)	
	Dissatisfied	6 (20.0)	14 (8.5)	20 (10.3)	
Overall health status	Poor	4 (13.3)	9 (5.3)	13 (6.5)	4.51 (3)
	Fair	9 (30.0)	75 (44.1)	84 (42.0)	
	Good	13 (43.3)	58 (34.1)	71 (35.5)	
	Excellent	4 (13.3)	28 (16.5)	32 (16.0)	
Loss of parent(s) at an early age	Yes	1 (3.3)	7 (4.2)	8 (4.0)	0.00 (1)
	No	29 (96.7)	161 (95.8)	190 (96.0)	
Parents' marital status	Separated or divorced	3 (11.1)	4 (2.6)	7 (3.8)	2.54 (1)
	Never separated or divorced	24 (88.9)	152 (97.4)	176 (96.2)	

Note. [*] *ps* = NS.

[#] 48 (23.2%) reported being born to a religious family.

statistical differences were found, except for parents' marital status ($\chi^2(2) = 6.15$, $p <$ 0.05), which indicated that, compared to the case when the mother or both parents were alcoholics, if the fathers were alcoholics, the parents were more likely to be divorced.

In accordance to research question 2-1, the following tables 4, 5-1, and 5-2 provide the significant differences in the major study variables between ACOAs and non-ACOAs. Table 4 shows mean differences in depressive symptoms, resilience, sense of belonging, social support and family functioning variables. The ACOA group had significantly lower levels of sense of belonging and social support than the non-ACOA group. For depressive symptoms, ACOAs scored significantly higher than non-ACOAs.

Table 4

Means and Standard Deviations of Depressive Symptoms, Resilience, Sense of Belonging, Social Support, and Family Functioning in ACOAs (n = 30) and Non-ACOAs (n = 171)

Variables	ACOA	Non-ACOA	Total	*t*
Depressive symptoms (0-42) [#]	11.67±10.54	8.40±7.46	8.89±8.05	1.63[**]
Resilience (6-100)	67.57±12.98	71.99±12.76	70.61±14.04	1.75
Sense of Belonging (21-72)	54.37±10.14	59.71±8.59	58.65±9.38	3.03[**]
Social Support (4-36)	4.59±1.21	5.05±.97	28.35±7.51	2.32[*]
Family Functioning (24-100)	63.63±11.00	67.31±12.49	66.76±12.32	1.51
Family Cohesion (10-50)	33.77±6.23	36.30±7.24	35.92±7.14	1.80
Family Adaptability (14-50)	29.87±6.52	31.01±6.36	30.84±6.38	0.90

Note.　[*] $p < 0.05$, [**] $p < 0.01$.

　　[#] observed range of minimum to maximum scores.

No statistically significant mean difference was found in resilience and family functioning, both for overall score and the two subscale scores—family cohesion and family adaptability.

Among 30 ACOAs, 13 reported to have an alcoholic father, one respondent reported to have an alcoholic mother, and two reported that their both parents were alcoholics. The cell counts for the latter two groups were very small; thus ANOVA analysis could not be conducted. Even after combining ACOAs having an alcoholic mother and ACOAs having both parents as alcoholics into one group, no statistical differences were found by an independent sample t-test. .

There were many significant differences found in the number of various parental

Table 5-1

Means and Standard Deviations of the Numbers of Parental Mental Health Problems and Experience of Domestic Violence in ACOAs (n = 30) and Non-ACOAs (n = 171)

Variable	ACOA	Non-ACOA	Total	t
Number of parental mental health problems (0-5) [#]	1.80±1.50	0.67±.93	.83±1.10	4.02[**]
Number of parental mental health diagnoses (0-3)	0.70±.79	0.30±.63	0.35±0.67	2.63[*]
Number of any types of domestic violence ever been exposed (0-7)	2.27±2.30	0.54±1.23	0.78±1.55	4.00[**]

Note. [*] $p < 0.05$, [**] $p < 0.001$.

[#] observed range of minimum to maximum scores.

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mental health problems, lifetime diagnoses of mental health disorders, and children's

domestic violence experience, indicating that ACOAs and their parents suffered more

from these problems (see Table 5-1). For the data with 30 ACOAs only, there were no

further differences in the same variables by sex of alcoholic parents. For the types of

parental mental health problems (see Table 5-2), ACOAs reported that their parents had

more problems with depressed feelings, losing temper, and substance abuse problems (all

$ps < 0.01$). They also reported that their parents were more frequently diagnosed with

anxiety disorders and depressive disorders (both $ps < 0.05$). For domestic violence,

ACOAs experienced all the different types of violence, except sexual violence,

significantly more than non-ACOAs (all $ps < 0.05$). Using the data with 30 ACOAs,

further Chi-square tests were conducted, but no statistical differences by sex of the

alcoholic parent were found.

- *Research Questions 2-2) To what extent do resilience, sense of belonging, social*

  support, and family-related variables relate to depressive symptoms in Korean

  ACOAs and in Korean non-ACOAs?

   Since there were no demographic (see Table 1) and background differences

(Table 3) found between ACOAs and non-ACOAs, except employment status, the

combined, entire sample was used in the following analyses. Table 6 reports the Pearson

correlation coefficients among the study variables. There were several statistically

significant correlations found among the variables. Considering the major variables

(depressive symptoms, sense of belonging, and resilience), first, moderate to strong

Table 5-2

Differences in the Types of Parental Mental Health Problems and Experience of Domestic Violence in ACOAs (n = 30) and Non-ACOAs (n = 171)

Variable	Category	Frequency (%)			χ^2
		ACOAs	Non-ACOAs	Total	
Parental lifelong mental health problems	Anxious	5 (16.7)	27 (15.8)	32 (15.9)	0.00
	Depressed	**16 (53.5)**	**46 (26.9)**	62 (30.8)	7.17**
	Losing temper	**17 (56.7)**	**25 (14.6)**	42 (20.9)	24.81***
	Substance abuse problem	**13 (43.3)**	**3 (1.8)**	16 (8.0)	54.68***
	Eating too much or little	3 (10.0)	7 (4.1)	10 (5.0)	0.84
Parental lifelong mental health diagnoses	Anxiety Disorder	4 (13.3)	18 (10.5)	22 (10.9)	0.02
	Depressive Disorder	**9 (30.0)**	**23 (13.5)**	32 (15.9)	4.06*
	Substance Abuse Disorder	**8 (26.7)**	**3 (1.8)**	11 (5.5)	25.99***
	Eating Disorder	0 (0.0)	3 (1.8)	3 (1.5)	0.00
Domestic violence experience	Witness of any kinds of domestic violence	**13 (43.3)**	**19 (11.1)**	32 (15.9)	17.46***
	Verbal violence victim	**13 (43.3)**	**21 (12.3)**	34 (16.9)	15.37***
	Verbal violence perpetrator	**8 (26.7)**	**11 (6.4)**	19 (9.5)	9.96**
	Emotional violence victim	**15 (50.0)**	**18 (10.5)**	33 (16.4)	26.18***
	Emotional violence perpetrator	**6 (20.0)**	**4 (2.3)**	10 (5.0)	13.31***
	Physical violence victim	**7 (23.3)**	**15 (8.8)**	22 (10.9)	4.16*
	Physical violence perpetrator	**4 (13.3)**	**4 (2.3)**	8 (4.0)	5.45*
	Sexual violence victim	1 (3.3)	1 (0.6)	2 (1.0)	0.16
	Sexual violence perpetrator	1 (3.3)	0 (0.0)	1 (0.5)	0.97

Note.   * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

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Table 6

Correlations between the Major Study Variables for Korean Respondents (N = 206)

Variable	1.	2.	3.	4.	5.	5-a)	5-b)	6.	7	8.	9.
1. Depressive Symptoms (BDI-II)	1.00										
2. Sense of Belonging (SOBI-P)	-.42***	1.00									
3. Resilience (CD-RISC)	-.60***	.43***	1.00								
4. Social Support (SSQ-6)	-.28***	.42***	.33***	1.00							
5. Family Functioning (FACES-III)	-.11	.28***	.35***	.30***	1.00						
5-a) Family Cohesion	-.13	.32***	.37***	.32***	.92***	1.00					
5-b) Family Adaptability	-.06	.18**	.26***	.21**	.90***	.66***	1.00				
6. Number of Parental Mental Health Problem	.18*	-.12	-.02	-.09	-.21**	-.19**	-.20**	1.00			
7. Number of Parental Mental Health Diagnosis	.09	-.22**	.06	.00	-.16*	-.18*	-.11	.60***	1.00		
8. Number of Experiences with Domestic Violence	.12	-.19**	-.08	-.16*	-.39***	-.38***	-.33***	.49***	.36***	1.00	
9. Parental alcoholism (CAST-6)	.17*	-.22**	-.10	-.21**	-.18*	-.18*	-.14	.39***	.24***	.44***	1.00

Note.   * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

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negative correlations were found in the relationships of depressive symptoms with resilience and sense of belonging. Social support was also negatively related to depressive symptoms, but the correlation was weak, as the correlation coefficient, r, was less than 0.30. As hypothesized, sense of belonging was more highly correlated with levels of depressive symptoms than social support. Number of parental mental health problems and parental alcoholism showed positive and weak correlations with depressive symptoms. Second, in regard to sense of belonging, resilience, social support, and family functioning variables showed moderate positive correlations. In addition, the numbers of parental mental health diagnoses and domestic violence experiences, and parental alcoholism showed weak to moderate correlations to sense of belonging. Interestingly, the numbers of parental mental health diagnoses and domestic violence experiences were negatively correlated with sense of belonging, but not with depressive symptoms.   Lastly, for resilience, moderate correlations were found with sense of belonging, social support, and family functioning variables.

Aim 3. To explore relationships among parental alcoholism, depressive symptoms, resilience, sense of belonging, social support, and family-related variables in Korean participants.

- *Research question 3-1) What demographic and background variables (including parental mental health problems and domestic violence experience) are associated with depressive symptoms, resilience, sense of belonging, social support, and family functioning in Korean participants?*

Major Study Variables

Prior to the next multivariate analyses, using all of the sample, a series of mean difference tests was conducted to identify important demographic and background variables (including parental mental health problems and domestic violence experience) influencing depressive symptoms, sense of belonging, resilience, social support, and family functioning. The results from these analyses were used to test the paths among the variables in the final SEM (Tomarken & Waller, 2005).

Table 7-1 includes differences found in depressive symptoms, sense of belonging and resilience by respondents' demographic and background variables. Only parental marital status was significantly associated with depressive symptoms ($p < 0.05$), indicating that those whose parents were separated or divorced had significantly more severe level of depressive symptoms than their counterparts. For sense of belonging, early loss of a parent and parental marital status were significant factors ($p < 0.01$, $p < 0.05$, respectively). The Korean respondents who did not experience a loss of their parent and those whose parents were never separated or divorced had significantly higher levels of sense of belonging. For resilience, ethnicity and the length of stay in the U.S were significant factors (both $ps < 0.05$). Korean American respondents reported higher levels of resilience than Koreans. Post-hoc analysis was conducted for the difference in resilience by the length of stay in the U.S., yet there were no pairs of categories with significant difference. Looking at the mean scores, as increasing the number of years of stay in the U.S. up to 5 years, the level of resilience was also increased, but those staying in the U.S. for 6 to 10 years scored resilience the lowest. Those who stayed for more than 10 years had the highest level of resilience.

As shown in Table 7-2, student status and employment status were significantly associated with social support (both $ps < 0.05$). In particular, post-hoc analysis revealed that students seeking Master's degree had a significantly higher level of social support than those who were not students. Also, those who were not the students and not employed showed a significantly lower level of social support than student group, regardless of their employment status. For family cohesion, one of two sub-scales of family functioning, was also associated with employment status ($p < 0.05$), indicating that those who were not students and not employed showed a significantly lower level of family cohesion than their student counterparts who were not employed. Ethnicity was another variable to influence family cohesion ($p < 0.05$); Korean Americans reported significantly higher, levels of family cohesion. For the remaining sub-scale of family functioning, family adaptability, especially students in Baccalaureate programs reported significantly higher family adaptability than non-student group ($p < 0.05$).

Tables 8-1 and 8-2 include differences in the major variables by parental lifelong mental health problems and diagnoses. Depressed symptoms were positively associated with parental mental health problems with depressed feelings ($p < 0.01$) and losing their temper ($p < 0.05$) and parental diagnosis with anxiety disorder ($p < 0.05$). For sense of belonging, the respondents' sense of belonging was significantly negatively associated with their parental problems with losing their temper ($p < 0.05$), parental diagnoses with anxiety ($p < 0.01$) and depressive disorders ($p < 0.01$). No variable was found to be related to either resilience or social support. Both family cohesion and family adaptability of the Korean respondents were significantly negatively associated with parental problems with losing their temper (both $ps < 0.01$). For family adaptability,

Table 7-1

Depressive Symptoms, Sense of Belonging, and Resilience by Demographic and Background Variables in Korean Respondents (N = 206)

Variable	Category	Depressive Symptoms		Sense of Belonging		Resilience	
		Mean±S.D.	t or F	Mean±S.D.	t or F	Mean±S.D.	t or F
Ethnicity	Korean American	8.68±9.13	0.16	60.53±8.88	1.24	**75.22±11.56**	2.00[*]
	Korean	8.92±7.86		58.30±9.45		**70.14±13.51**	
Sex	Male	7.55±7.40	1.80	59.63±8.78	0.74	72.65±14.06	1.20
	Female	9.61±8.25		58.67±9.07		70.42±12.07	
Country born in	USA	8.45±6.81	0.21	59.91±6.87	0.11	73.68±9.94	0.91
	Korea	8.83±8.09		58.89±9.19		71.03±13.20	
Length of stay in the US	Less than 1 year	9.64±8.26	1.23	58.62±9.19	1.96	**69.38±11.87**	2.73[*]
	1-2 years	7.77±6.59		59.73±7.66		**71.31±13.61**	
	3-5 years	7.61±6.46		60.72±7.78		**73.96±10.84**	
	6-10 years	11.37±9.45		55.17±10.62		**66.00±15.94**	
	More than 10 years	8.47±9.37		59.50±9.75		**74.85±11.22**	
Practice a religion?	Yes	8.74±7.45	0.11	59.16±8.85	0.35	72.35±12.69	1.58
	No	8.87±8.87		58.69±9.23		69.32±13.13	
Marital status	Never married	9.60±8.03	1.71	58.70±9.19	0.31	71.38±12.83	0.01
	Married	7.62±7.76		59.11±8.69		71.39±13.32	
Student: Education degree seeking	Baccalaureate	10.66±9.05	1.43	57.87±9.56	1.12	71.60±12.43	1.01
	Master's	8.28±5.94		59.73±8.47		73.15±13.40	
	Doctoral (including MD, JD)	7.63±8.21		60.18±8.91		71.97±12.99	
	Not a student	9.14±7.87		57.52±8.77		68.52±13.00	
Employment status	Student, not employed	7.97±9.05	0.70	59.83±9.39	1.08	71.77±13.90	1.91
	Student, employed	9.41±7.02		59.37±8.53		72.35±11.75	
	Not a student, not employed	7.83±7.72		58.30±9.02		73.26±12.42	
	Not a student, employed	10.00±8.23		56.24±8.90		65.80±13.42	
Monthly household income	None (living alone, not employed)	10.10±6.97	0.37	57.88±9.81	0.95	68.35±13.20	2.61
	Up to $3,000	7.92±8.27		59.84±8.93		70.04±14.76	
	More than $3,000	8.88±8.14		60.28±7.98		73.48±10.06	
Loss of parent(s) at an early age	Yes	13.88±9.95	1.88	**50.25±11.22**	2.86[**]	64.88±21.17	0.89
	No	8.55±7.77		**59.37±8.74**		71.58±12.51	
Parents' marital status	Separated or divorced	**14.71±9.79**	2.22[*]	**51.86±12.59**	2.37[*]	68.57±16.66	0.57
	Never separated or divorced	**8.26±7.46**		**59.75±8.49**		71.39±12.73	

Note. [*] $p < 0.05$, [**] $p < 0.01$.

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Table 7-2

Social Support, Family Cohesion, and Family Adaptability by Demographic and Background Variables in Korean Respondents (N = 206)

Variable	Category	Social Support Mean±S.D.	t or F	Family Cohesion Mean±S.D.	t or F	Family Adaptability Mean±S.D.	t or F
Ethnicity	Korean American	5.21±1.28	1.34	**38.62±6.11**	2.31*	30.87±6.08	.03
	Korean	4.94±0.97		**32.43±7.22**		30.83±6.45	
Sex	Male	4.90±1.06	0.87	35.36±6.59	0.82	29.84±5.89	1.74
	Female	5.03±1.00		36.20±7.46		31.43±6.60	
Country born in	USA	5.01±1.31	0.12	38.09±5.71	1.52	31.36±4.61	0.41
	Korea	4.98±0.99		35.65±7.27		30.77±6.57	
Length of stay in the US	Less than 1 year	4.89±0.96	1.09	35.36±6.97	1.34	30.86±6.38	1.49
	1-2 years	5.07±0.94		35.08±6.30		30.38±6.01	
	3-5 years	5.10±0.96		37.78±7.45		32.72±6.79	
	6-10 years	4.68±1.08		34.57±8.41		29.83±6.88	
	More than 10 years	5.09±1.23		36.47±6.68		29.79±5.61	
Practice a religion?	Yes	5.06±1.04	1.58	36.18±7.14	0.72	30.55±6.05	0.87
	No	4.83±0.99		35.41±7.17		31.38±6.98	
Marital status	Never married	5.01±1.02	0.64	36.29±7.38	0.97	31.30±6.49	1.12
	Married	4.93±1.05		35.26±6.91		30.26±6.01	
Student: Education degree seeking	Baccalaureate	**5.05±1.05**	3.36*	37.66±5.90	2.47	**33.22±5.47**[a]	3.78*
	Master's	5.27±0.78[a]		36.70±7.32		**31.23±6.06**	
	Doctoral (including MD, JD)	5.01±0.94		35.75±7.19		**30.27±6.54**	
	Not a student	4.59±1.23[a]		33.77±7.83		**28.98±6.79**[a]	
Employment status	Student, not employed	**5.18±0.86**[a]	2.84*	**36.71±6.70**[a]	2.67*	31.19±6.74	1.74
	Student, employed	**5.06±0.90**[b]		**36.37±6.81**		31.15±6.06	
	Not a student, not employed	**4.32±1.51**[ab]		**32.17±7.57**[a]		28.09±6.36	
	Not a student, employed	**4.77±1.06**		**36.40±7.49**		31.68±5.75	
Monthly household income	None (living alone, not employed)	5.05±0.93	0.22	37.08±5.69	1.45	32.68±5.30	3.03
	Up to $3,000	4.95±1.02		35.39±6.86		30.12±6.26	
	More than $3,000	4.91±1.12		34.76±7.18		29.84±6.25	
Loss of parent(s) at an early age	Yes	4.79±0.79	0.53	32.38±8.38	1.42	28.75±5.23	0.95
	No	4.98±1.04		36.05±7.09		30.92±6.39	
Parents' marital status	Separated or divorced	4.93±1.41	0.15	36.14±4.71	0.05	29.57±5.50	0.50
	Never separated or divorced	4.99±1.03		35.99±7.28		30.82±6.44	

Note. *$p < 0.05$. [a-b] Means with the same subscript were statistically significantly different based on Bonferroni post hoc tests.

Table 8-1

Depressive Symptoms, Sense of Belonging, and Resilience by Parental Lifelong Mental Health Problems and Diagnoses in Korean Respondents (N = 206)

Variable	Category	Depressive Symptoms		Sense of Belonging		Resilience	
		Mean±S.D.	t	Mean±S.D.	t	Mean±S.D.	t
Parents' anxious feelings	Anxious	10.63±8.05	1.34	57.91±8.91	0.49	71.97±11.88	0.48
	Not anxious	8.56±8.03		58.78±9.48		70.74±13.60	
Parents' depressed feelings	Depressed	**11.15±8.18**	2.70**	57.02±9.28	1.65	70.65±10.15	0.20
	Not depressed	**7.88±7.81**		59.36±9.36		71.05±14.51	
Parents' problem with losing temper	Losing temper	**11.67±8.41**	2.55*	**55.69±9.48**	2.32*	70.36±12.25	0.31
	Not losing temper	**8.15±7.81**		**59.41±9.23**		71.07±13.62	
Parents' problem with substance abuse	Substance abuse problem	8.94±7.23	0.03	57.31±9.28	0.59	70.81±14.56	0.04
	No problem with substance abuse	8.88±8.13		58.76±9.40		70.94±13.26	
Parents' problem with eating	Eating too much or little	8.10±5.17	0.32	59.00±7.10	0.12	71.60±9.68	0.16
	No problem with eating	8.93±8.18		58.63±9.49		70.89±13.50	
Parents' Anxiety Disorder	Anxiety Disorder	**12.59±9.87**	2.31*	**52.95±10.39**	3.08**	69.91±11.06	0.38
	Never diagnosed with Anxiety D.	**8.43±7.70**		**59.34±9.04**		71.05±13.59	
Parents' Depressive Disorder	Depressive Disorder	10.69±7.88	1.39	**54.03±9.89**	3.10**	72.84±10.36	0.89
	Never diagnosed with Depressive D.	8.54±8.06		**59.51±9.05**		70.57±13.80	
Parents' Substance Abuse Disorder (SAD)	Substance Abuse Disorder	5.64±6.20	1.38	58.91±10.42	0.10	77.64±9.67	1.73
	Never diagnosed with SAD	9.07±8.12		58.63±9.34		70.55±13.42	
Parents' Eating Disorder	Eating Disorder	9.33±3.06	0.10	58.67±.58	0.00	71.67±8.96	0.10
	Never diagnosed with Eating D.	8.88±8.10		58.65±9.45		70.92±13.39	

Note. * $p < 0.05$, ** $p < 0.01$.

Table 8-2

Social Support, Family Cohesion, and Family Adaptability by Parental Lifelong Mental Health Problems and Diagnoses in Korean Respondents (N = 206)

Variable	Category	Social Support		Family Cohesion		Family Adaptability	
		Mean±S. D.	t	Mean±S. D.	t	Mean±S. D.	t
Parents' anxious feelings	Anxious	4.93±1.18	0.33	34.44±9.32	1.02	**28.44±7.52**	2.35*
	Not anxious	4.99±0.99		36.20±6.64		**31.29±6.05**	
Parents' depressed feelings	Depressed	4.98±0.90	0.04	35.44±7.00	0.64	30.50±6.37	0.50
	Not depressed	4.98±1.08		36.14±7.22		30.99±6.40	
Parents' problem with losing temper	Losing temper	4.76±1.10	1.62	**32.98±6.86**	3.07**	**28.00±6.66**	3.32**
	Not losing temper	5.04±1.00		**36.70±7.03**		**31.59±6.10**	
Parents' problem with substance abuse	Substance abuse problem	4.84±0.97	0.57	32.88±7.30	1.79	29.38±7.89	0.95
	No problem with substance abuse	4.88±1.03		36.18±7.08		30.96±6.24	
Parents' problem with eating	Eating too much or little	4.94±1.06	0.13	32.70±7.59	1.47	**26.70±8.01**	2.12*
	No problem with eating	4.98±1.02		36.09±7.10		**31.05±6.23**	
Parents' Anxiety Disorder	Anxiety Disorder	4.90±1.11	0.39	33.82±8.53	1.47	30.72±7.29	0.08
	Never diagnosed with Anxiety D.	4.99±1.01		36.18±6.93		30.85±6.28	
Parents' Depressive Disorder	Depressive Disorder	5.08±0.72	0.57	34.50±7.63	1.23	30.06±6.97	0.75
	Never diagnosed with Depressive D.	4.96±1.07		36.19±7.03		30.98±6.27	
Parents' Substance Abuse Disorder (SAD)	Substance Abuse Disorder	4.98±0.78	0.01	34.00±6.88	0.92	28.36±7.90	1.32
	Never diagnosed with SAD	4.98±1.04		36.03±7.16		30.98±6.27	
Parents' Eating Disorder	Eating Disorder	4.94±0.77	0.06	33.00±8.19	0.71	31.67±8.74	0.23
	Never diagnosed with Eating D.	4.98±1.03		35.96±7.14		30.82±6.37	

Note. * *p* < 0.05, ** *p* < 0.01.

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two more variables were negatively associated: parental problems with anxious feelings and eating (both $ps < 0.05$).

Tables 9-1 and 9-2 show differences in the major variables by the Korean respondents' experience of domestic violence using independent sample t-tests. Depressed symptoms were associated with experience of emotional violence victimization within the family ($p < 0.01$), indicating that those who were emotional violence victims reported significantly more severe levels of depressive symptoms than those who did not have the same experience. For sense of belonging, those who were verbal violence victims ($p < 0.05$), emotional violence victims ($p < 0.01$), emotional violence perpetrators ($p < 0.05$), or sexual violence victims ($p < 0.05$) reported significantly lower levels of sense of belonging than non-victim. Again, resilience was not associated with any of the domestic violence experiences. Social support was associated with emotional violence experience, indicating that those who were either a victim or a perpetrator of emotional violence reported significantly lower levels of social support than each counterpart (both $ps < 0.05$). The two family functioning sub-scales were significantly associated with the majority of domestic violence experiences. The Korean respondents reported significantly lower levels of family cohesion and family adaptability when they had experiences of witnessing any kinds of domestic violence, who were verbal violence victims or perpetrators, emotional victims or perpetrators, or physical violence victims (all $ps < 0.05$). Those who were physical violence perpetrators also reported a lower level of family cohesion ($p < 0.05$).

Table 9-1

Depressive Symptoms, Sense of Belonging, and Resilience by Experiences of Domestic Violence in Korean Respondents (N = 206)

Variable	Category	Depressive Symptoms		Sense of Belonging		Resilience	
		Mean±S.D.	t	Mean±S.D.	t	Mean±S.D.	t
Witness of any kinds of domestic violence	Yes	10.69±7.23	1.39	56.88±8.08	1.17	71.25±11.78	0.15
	No	8.54±8.17		58.98±9.59		70.87±13.62	
Verbal violence victim	Yes	10.06±7.08	0.93	**54.97±8.32**	2.54*	68.76±14.80	1.04
	No	8.65±8.23		**59.38±9.43**		71.35±13.02	
Verbal violence perpetrator	Yes	9.16±6.82	0.16	56.68±10.18	0.96	69.84±12.93	0.37
	No	8.86±8.18		58.85±9.30		71.04±13.39	
Emotional violence victim	Yes	**12.24±8.36**	2.66**	**53.33±8.79**	3.51**	67.61±13.73	1.57
	No	**8.23±7.84**		**59.63±9.19**		71.56±13.19	
Emotional violence perpetrator	Yes	10.50±6.92	0.65	**51.80±6.81**	2.40*	67.50±14.65	0.83
	No	8.80±8.11		**59.00±9.37**		71.10±13.27	
Physical violence victim	Yes	9.45±6.85	0.35	56.50±10.21	1.14	68.14±18.41	0.78
	No	8.82±8.20		58.91±9.27		71.26±12.61	
Physical violence perpetrator	Yes	7.63±7.54	0.45	57.63±9.33	0.31	73.88±12.51	0.64
	No	8.94±8.08		57.63±11.12		70.81±13.37	
Sexual violence victim	Yes	26.00±18.39	1.33	**44.00±4.23**	2.24*	54.50±2.12	1.76
	No	8.71±7.79		**58.79±9.30**		71.09±13.29	
Sexual violence perpetrator	Yes	39.00	-	41.00	-	53.00	-
	No	8.74±7.78		58.73±9.32		71.01±13.30	

Note.　*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table 9-2

Social Support, Family Cohesion, and Family Adaptability by Experiences of Domestic Violence in Korean Respondents (N = 206)

Variable	Category	Social Support		Family Cohesion		Family Adaptability	
		Mean±S. D.	t	Mean±S. D.	t	Mean±S. D.	t
Witness of any kinds of domestic violence	Yes	4.70±1.11	1.68	31.41±8.20	4.05***	27.00±6.23	3.84***
	No	5.03±1.00		36.78±6.61		31.57±6.16	
Verbal violence victim	Yes	4.70±0.97	1.77	30.12±7.70	5.58***	26.62±5.93	4.43***
	No	5.04±1.03		37.11±6.43		31.70±6.13	
Verbal violence perpetrator	Yes	4.57±1.07	1.87	30.63±7.23	3.49**	27.79±6.61	2.21*
	No	5.02±1.01		36.48±6.92		31.15±6.29	
Emotional violence victim	Yes	4.58±1.01	2.51*	31.70±7.84	3.85***	27.39±6.78	3.49**
	No	5.06±1.01		36.75±6.71		31.52±6.09	
Emotional violence perpetrator	Yes	4.35±1.11	2.01*	29.40±8.86	3.02**	25.00±7.48	3.03**
	No	5.01±1.01		36.26±6.90		31.14±6.19	
Physical violence victim	Yes	4.62±1.11	1.78	29.50±7.40	4.70**	25.36±6.00	4.46**
	No	5.03±1.01		36.71±6.71		31.51±6.11	
Physical violence perpetrator	Yes	4.58±1.31	1.13	31.00±8.16	2.00*	26.75±6.58	1.86
	No	5.00±1.01		36.13±7.04		31.01±6.33	
Sexual violence victim	Yes	3.58±0.12	1.96	32.00±2.83	0.78	30.00±7.07	0.19
	No	5.00±1.02		35.96±7.16		30.84±6.39	
Sexual violence perpetrator	Yes	3.67	-	34.00	-	35.00	-
	No	4.99±1.02		35.93±7.16		30.81±6.39	

Note.   * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

- *Research question 3-2) What are significant predictors of depressive symptoms in Korean respondents, among parental alcoholism, resilience, sense of belonging, social support, family functioning, and demographic and background variables (including parental mental health problems and domestic violence experiences)?*

Multivariate Analyses

The first set of multiple regression analyses was performed to explore predictors of depressive symptoms. Predictors of resilience and sense of belonging were also examined in order to test potential paths among variables for the SEM (see Table 10). Based on the result from previous bivariate analyses, independent variables were determined as important correlates of each of depressive symptoms, sense of belonging and resilience. Only those variables showing statistically significant association with depressive symptoms, sense of belonging and resilience in bivariate analyses were entered into each regression model. The overall model of depressive symptoms explained 37.3% of the variance. Sense of belonging (b = -0.45, $p < 0.001$) and resilience (b = -0.26, $p < 0.001$) significantly predicted depressive symptoms. Social support, family functioning, parental alcoholism, parental mental health problems, and domestic violence experiences did not predict depressive symptoms. Based on its beta coefficient, sense of belonging was determined to be the strongest predictor of depressive symptoms, and the next multiple regression to explore predictors of sense of belonging was conducted.

Resilience (b = 0.29, $p < 0.001$), social support (b = 0.26, $p < 0.001$), the number of domestic violence experiences (b = 0.45, $p < 0.05$), experience of victim of verbal

Table 10

Predictors of Depressive Symptoms, Sense of Belonging, and Resilience in Korean Respondents (Controlling for Demographic and Background Variables) (N = 206)

Dependent Variables	Depressive Symptoms			Sense of Belonging*			Resilience		
	B	β	p	B	β	p	B	β	p
Independent Variables									
Sense of Belonging	-.39	**-.45**	.00						
Resilience	-.16	**-.26**	.00	.20	**.29**	.00			
Social Support	.02	-.01	.84	.31	**.26**	.00	.41	**.24**	.00
Family Cohesion	.10	.10	.29	.12	.10	.29	.49	**.27**	.00
Family Adaptability	.05	.04	.64	-.04	-.03	.70	.11	.05	.55
Parental Alcoholism	.14	.03	.68	-.64	-.12	.10	-.24	-.03	.69
Number of Parental Mental Health Problems	.30	.04	.75	1.24	.15	.13	.18	.02	.84
Number of Domestic Violence Experience	-.21	-.04	.70	2.53	**.45**	.05	.55	.07	.42
Complete Model									
R		.61			.64			.44	
R^2		.37			.41			.20	
	$F_{(13, 169)} = 7.75$			$F_{(17,164)} = 6.67$			$F_{(8, 191)} = 5.73$		
	$p < 0.001$			$p < 0.001$			$p < 0.001$		

Note. * Among background variables, experience of verbal violence victim (b = -0.27, $p < 0.05$) and emotional violence perpetrator (b = -0.23, $p < 0.05$), parental anxiety (b = -0.17, $p < 0.05$), and parental depression (b = -0.22, $p < 0.01$) were also significant predictors of sense of belonging.

violence (b = -0.27, $p < 0.05$), experience of perpetrator of emotional violence (b = -0.23, $p < 0.05$), parental anxiety disorder (b = -0.17, $p < 0.05$), and parental depression disorder (b = -0.22, $p < 0.01$) significantly predicted sense of belonging. Like in the correlation analysis results, parental mental health diagnoses and domestic violence experiences predicted sense of belonging, not depressive symptoms. However, the number of domestic violence experiences had a positive beta in prediction of sense of belonging, which differs from the result of the bivariate correlational analyses. This may be due to multicollinearity and having a large number of predictors for a relatively small sample. The overall model of sense of belonging explained 40.9% of the variance.

Lastly, for resilience, social support (b = 0.24, $p < 0.01$) and family cohesion (b = 0.27, $p < 0.01$) were significant predictors. The overall model of resilience explained 20% of the variance. Residual analyses for the three models revealed no violations to the use of multiple regression analysis. There were no multicollinearity problems found.

- *Research Questions 3-3) Does sense of belonging moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean respondents?*
- *Research Questions 3-4) Does resilience moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?*
- *Research Questions 3-5) Do social support and family-related variables, moderate or mediate the relation between parental alcoholism and depressive symptoms in Korean participants?*

The second set of multiple regression analyses was conducted to test for moderating effects of sense of belonging and resilience to the relationship between parental alcoholism and depressive symptoms, using hierarchical multiple regression.

Sense of belonging and resilience were the only predictors of depressive symptoms in the previous result, thus, the two variables were used to create the interaction terms with depressive symptoms (see Table 11). The main effect of parental alcoholism explained approximately 3% of the variance in depressive symptoms. When entering sense of belonging and resilience, the significant effect of parental alcoholism disappeared, instead, the main effects of sense of belonging and resilience together explained 38.6% more of the variance in depressive symptoms. In order to examine moderating effects, the interaction variables (Sense of belonging X Resilience, Parental alcoholism X Sense of belonging, Parental alcoholism X Resilience, and Parental alcoholism X Sense of belonging X Resilience) were introduced. However, none of the interaction variables contributed significantly to the explanation of the dependent variable in this study. In other words, neither sense of belonging nor resilience moderated the negative effect of parental alcoholism on depressive symptoms.

Lastly, mediation analyses were conducted for sense of belonging and resilience with four steps, suggested by Baron and Kenny (1986). The initial equation regressed depressive symptoms on parental alcoholism ($b = 0.17$, $p < 0.05$) (see Figure 2). Parental alcoholism explained about 3% of the variance in depressive symptoms. The first equation (Path a) regressed sense of belonging on parental alcoholism ($b = -0.22$, $p < 0.01$). Parental alcoholism explained 5% of the variance in sense of belonging. The second equation (Path b) regressed depressive symptoms on sense

Table 11

Summary of Hierarchical Multiple Regression Analysis of Depressive Symptoms in Korean Respondents (N = 206)

Independent Variables*	Model 1			Model 2			Model 3			Model 4		
	B	β	p	B	β	p	B	β	p	B	β	p
Parental Alcoholism	.81	**.17**	.02	.17	.04	.54	.04	.01	.89	-.02	-.01	.94
Sense of Belonging				-.45	**-.50**	.00	-.43	**-.48**	.00	-.43	**-.48**	.00
Resilience				-.12	**-.19**	.00	-.13	**-.20**	.00	-.12	**-.19**	.01
Sense of Belonging X Resilience							.00	.01	.94	.00	.01	.86
Parental Alcoholism X Sense of Belonging							-.06	-.12	.06	-.06	-.12	.06
Parental Alcoholism X Resilience							-.01	-.03	.64	.00	.00	1.00
Parental Alcoholism X Sense of Belonging X Resilience										.00	.05	.56
Complete Model												
R		.17			.62			.64			.64	
R^2		.03			.39			.40			.40	
R^2 Change		.03			.36			.02			.00	
	$F(1, 199) = 5.61$			$F(3, 197) = 41.26$			$F(6, 194) = 21.81$			$F(7, 193) = 18.68$		
	$p < 0.05$			$p < 0.001$			$p < 0.001$			$p < 0.001$		

Note.   * Centered predictors were calculated and used to avoid possible problems with multicollinearity.

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of belonging (b = -0.60, $p < 0.001$). Sense of belonging explained 35% of the variance in

depressive symptoms. When both sense of belonging and parental alcoholism were

entered as independent variables in the third equation, the relationship between sense of

belonging and depressive symptoms was significant (b = -0.59, $p < 0.001$). However,

parental alcoholism was no longer significantly associated with depressive symptoms (b

= 0.04, $p = 0.54$). Thus, mediation analysis indicated that sense of belonging, completely

mediated the impact of parental alcoholism on depressive symptoms.

Figure 2

Mediator Effect of Sense of Belonging on the Link between Parental Alcoholism and

Depressive Symptoms in Korean Respondents (N = 206)
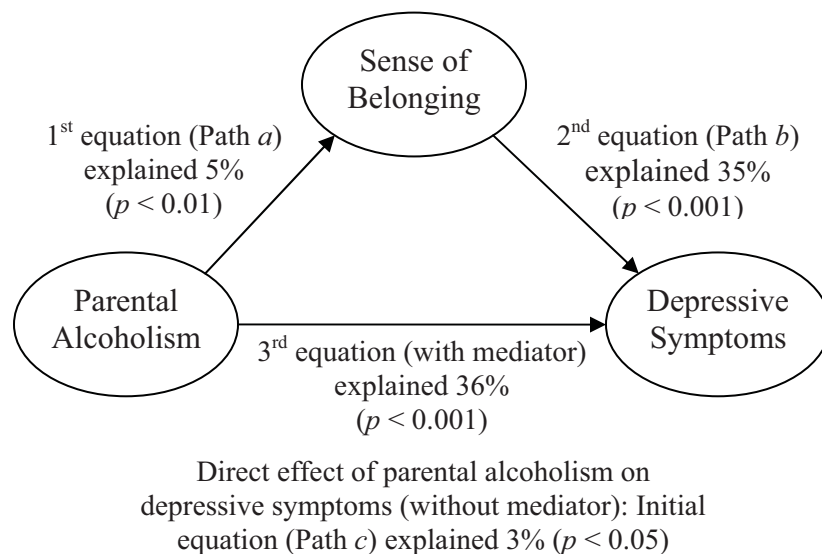
The same steps of multiple regression analyses were conducted for resilience as a

potential mediator. The initial equation regressed depressive symptoms on parental

alcoholism (b = 0.17, $p < 0.05$). The first equation (Path *a*) regressed resilience on

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parental alcoholism (b = -0.10, p = 0.15), yet, parental alcoholism did not contribute

significantly to the explanation of resilience as a mediator. In other words, resilience did

not have any mediating effect of parental alcoholism on depressive symptoms.

Aim 4. To develop a path model that takes resilience, sense of belonging, social support,

and family-related variable into account in order to explain the effects of parental

alcoholism on depressive symptoms in Korean participants.

Structural Equation Modeling

Based on the results of the bivariate and multivariate analyses, significant

influencing and mediating factors were entered into the structural equation model to

examine the hypothesized causality of all the variables. In the initial model to explain

depressive symptoms, exogenous variables were parental alcoholism, family cohesion,

family adaptability, the numbers of parental mental health problems and domestic

violence experiences, and types of parental mental health problems and domestic

violence experiences. The following variables were mediating variables in the model:

sense of belonging, resilience, and social support. Through several series of SEM, the

best model was found, as shown in Figure 3. The result of the standardized path

coefficients calculated by AMOS is shown in the figure.

A good fit of the model was obtained: χ^2 = 7.33, df = 8, p = 0.50, CFI = 1.00, NFI

= 0.97, RFI = 0.91, RMSEA = 0.00. All beta weights were statistically significant (all *ps*

< 0.05). Consistent with the results from the hierarchical multiple regression analyses,

depressive symptoms were predicted by sense of belonging (b = -0.53, p < 0.001) and

resilience (b = -0.24, $p < 0.001$). Resilience also had a significant indirect (mediated) effect (b = -0.18); thus, the standardized total (direct and indirect) effect of resilience on depressive symptoms was -0.53. In addition to sense of belonging and resilience, the number of parental mental health problems and family cohesion also had direct effects on depressive symptoms (both $ps < 0.05$). Parental alcoholism did not have a direct effect on depressive symptoms, but had a significant, small indirect effect on depressive symptoms (b = 0.12, $p < 0.05$). The other significant indirect effects on depressive symptoms were found from social support (b = -0.27), family cohesion (b = -0.21) and

Figure 3

Results of the Structural Equation Model for Depressive Symptoms
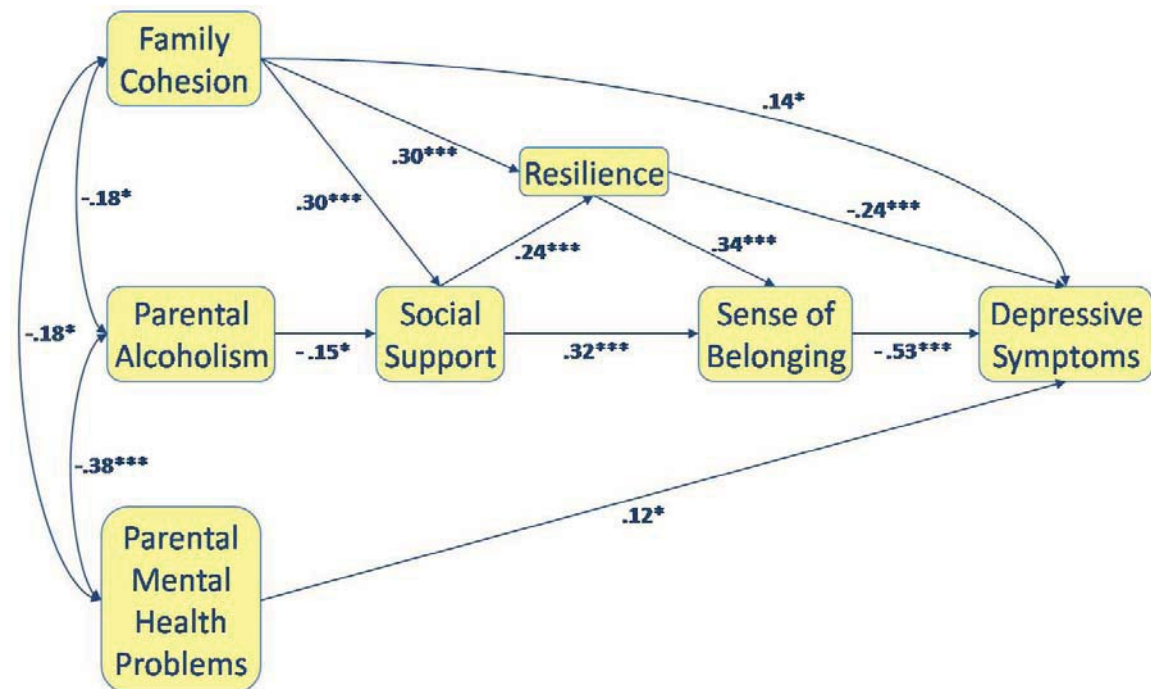
Note. R^2 for depressive symptoms = 0.44; R^2 for sense of belonging = 0.29; R^2 for resilience = 0.19; R^2 for social support = 0.13.

$^* p < 0.05,$ $^{**} p < 0.01,$ $^{***} p < 0.001.$

parental alcoholism (b = 0.04). Interestingly, there was a positive beta weight as a direct effect from family cohesion to depressive symptoms, once both direct and indirect effects of family cohesion were accounted, the beta weight of the total effect was -0.07. These predictors of depressive symptoms explained 43.5% of its variance.

Sense of belonging was significantly predicted by resilience ($p < 0.001$) and social support ($p < 0.001$). Social support also had an indirect effect through resilience (b = 0.08); thus the standardized total effect of social support on sense of belonging was 0.40. Other significant indirect effects were from family cohesion and parental alcoholism (b = 0.22; b = -0.06, respectively). The model of sense of belonging explained 29.1% of the variance. Resilience was significantly predicted by family cohesion ($p < 0.001$) and social support ($p < 0.001$). Family cohesion also showed a significant indirect effect on resilience (b = 0.07); thus the total effect of family functioning on resilience was b = 0.37. Parental alcoholism had a significant indirect effect on resilience (b = -0.04). The model of resilience explained 19.4% of the variance. Lastly, social support was significantly predicted by family cohesion and parental alcoholism ($p < 0.001$, $p < 0.05$, respectively). The model of social support explained 12.7% of the variance.

Summary

Among the Korean respondents in this study, nearly 15% were identified as ACOAs. No differences in demographic and background variables were found, except employment status. ACOAs reported more depressive symptoms, more parental mental health problems, more experiences of domestic violence, and lower levels of sense of belonging and social support, compared to non-ACOAs. The results from multivariate

analyses using the entire sample revealed sense of belonging and resilience as significant predictors of depressive symptoms among the Korean respondents. Parental alcoholism and other risk family-related variables did not appear to significantly predict depressive symptoms when other variables were statistically controlled. These findings were confirmed in the SEM model; along with resilience and social support, sense of belonging, the strongest predictor, mediated the negative impact of parental alcoholism on depressive symptoms.

CHAPTER V

DISCUSSION

The major purposes in this study were, first, to compare depressive symptoms, sense of belonging, resilience, social support and family-related variables (family functioning, parental mental health problems and domestic violence) between Korean ACOA and non-ACOA groups, and, second, to explore the relationships among these study variables. Resilience and sense of belonging, very rarely examined with a sample of ACOAs, were theoretically addressed, empirically measured, and tested with 206 Koreans in this study. In the following sections the findings of this study will be discussed in relation to the existing research and theory about depressive symptoms in ACOAs and the significance of these findings to health care research and practice. Also, the limitations of the study and suggestions for future studies will be presented.

Sampling, Design, and Measures

Sampling

The sampling method in this study was convenience- and nonprobability-sampling with community-based respondents, a method which has been used in many other ACOA studies (e.g., Hall & Webster, 2002; Kelley, French, Bountress, Keefe, Schroeder, et al., 2007; Larson et al., 2001). The same convenience sampling method, but with clinical populations were used in some studies (Díaz, Gual, García, Arnau, Pascual, et al., 2008; Lease, 2002). In these studies, ACOAs were recruited through contacts at alcohol treatment centers or self-help groups for alcoholics and their families.

In addition, random sampling was used in a study on effects of parental alcoholism on ACOAs' psychological distress (Neff, 1994). The author in that study randomly selected and recruited more than 1,700 adults from the community.

For the current study, the recruiting methods through self-help groups was originally proposed so that data could primarily be obtained from ACOAs, but there were several barriers to the employment of such methods. According to Korean experts in the field, a high level of stigma about having an alcoholic parent, insufficient resources for ACOAs, and, at the same time, a lack of social awareness about importance of treating ACOAs prevent many Korean ACOAs from seeking health care and resources or participating in any study projects. In this study, therefore, a general community-based sample was used; then, ACOAs in the sample were identified and compared to non-ACOAs.

Design

The design of this study was a cross-sectional and comparative design using a convenience sample and web-based survey methods. In this study, all respondents voluntarily participated in the web-survey. Most studies on ACOAs or COAs have used a cross-sectional design, while some were longitudinal studies to explore the effects of parental alcoholism on lifelong consequences among children. As an example of a longitudinal study on COAs with a highly controlled study design, Zucker and colleagues (2000) conducted a longitudinal, prospective, and multiwave study that tracked a community sample of families with high levels of alcohol use disorder, along with a community contrast sample of families drawn from the same neighborhoods who do not show any substance abuse profiles. There have been few intervention studies in this area.

Cross-sectional design of the current study may not be possible to determine the effects of parental alcoholism on ACOAs' consequences. More longitudinal studies of ACOAs need to be conducted to better distinguish whether and how parental alcoholism, sense of belonging, and resilience influence ACOAs' lifelong consequences.

The main objective of using the web-based survey method employed in this study was to maximize the study respondents' privacy and confidentiality. The way the instruments are administered can have an effect on the final scores. For instance, if a respondent is asked to fill out a survey in front of other people, social expectations may elicit a different response compared to administration via a postal survey or web-based survey. A study with more than 5,000 college students on non-medical prescription drug use showed that a web-based survey method was feasible and effective for research on alcohol and other drug use, especially among young adults (McCabe, 2008).

Reliability and Validity of Measures

In this study, both English and Korean versions of the survey were used for data collection. Since no significant differences in the scores were found between the data from the two language versions on the major questionnaires, all the data were used together in the analysis, rather than being separated them for analysis. All tests for reliability and validity also used all the data, without distinction of the language version. As discussed in Chapter 3, all the measures used in this study had acceptable internal consistencies with the Korean respondents.

Demographic Findings

This study introduces findings from respondents of both sexes and two ethnic groups—Koreans and Korean Americans—who were staying in the United States. These

ethnic groups have not been widely studied in the field. A few studies have included Asians as their participants (e.g., Larson et al., 2001), yet their proportion of the sample was 0 to 5%. Except for the ethnic difference, the sample of this study did not much differ from those in other studies on children of alcoholics in that the majority was undergraduate or graduate students and that it is a combined sample of both students and non-students. Vail and colleagues (2000) reviewed 98 empirical studies on ACOAs and found that almost 40% of the studies they reviewed recruited college students and 22% used a combined sample of college student and nonstudent adults. Although there have also been studies with clinical populations, such as children recruited via alcohol abuse treatment centers where their alcoholic parents had been treated, the current study recruited a sample similar to those from a majority of ACOA studies. In addition, the sample of this study included a comparable representation of female and male, and an equal representation of employed and non-employed. Having more female respondents is consistent with many other ACOA studies (e.g., Díaz et al., 2008; Hall & Webster, 2002; Kelley, Nair, Rawlings, Cash, Steer, et al., 2005). Yet other studies have rarely distinguished participants according to their employment status.

Background variables, including religion, life satisfaction, and overall health status were measures in this study; and, no significant differences were found between ACOAs and non-ACOAs. A review study reported religion as a protective factor for both sex groups to deal with alcohol-related family adversities (Kerr-Corrêa, Igami, Hiroce, & Tucci, 2007). Not many studies on ACOAs measured life satisfaction and overall health status; instead, most have focused on negative consequences resulting from parental alcoholism.

Prevalence of Korean ACOA

About 15% of the respondents in this study were identified as ACOAs based on a CAST-6 score of 3 or higher (Hodgins et al., 1993). This rate is low compared to other studies where voluntary respondents were recruited. In studies with U.S. college student participants (Hall & Webster, 2002; Kelley et al., 2007; Larson et al., 2001), 22%, 28%, and 18% of their samples were identified as ACOAs, respectively. These rates are higher than those in the report of the national statistics, indicating that 9% of the U.S. children (equal to over 6 million children) live with an alcoholic or other type of substance-abusing parent (Office of Applied Statistics, 2002). Since this national rate is already higher than other international rates—for example, a study with Belgian children (mean age = 12 years) identified 6% of their sample as COAs (Bijttebier, Goethals, & Ansoms, 2006), the rates from the studies with college students are alarming.

The difference between prevalence findings could result from the fact that these studies employed the original, 30-item CAST as their screening tool with a cut-off of 6, whereas the current study employed the short, 6-item version of CAST with a cut-off of 3. Havey and Dodd (1995) compared the percentages of their participants classified as children of alcoholics (COAs) using both versions of the CAST. Their findings indicate that the 6-item version yielded a nearly identical percentage of COAs among their samples with what the 30-item version had, although the 6-item version seems more conservative in identifying COAs (Havey & Dodd, 1995). It should be noted, though, thatsixth graders were their major respondents, and their study is among the few employing both versions of the CAST with the same respondents. Therefore, their study

may not explain variation in rates of ACOAs between the current study and the other studies with college students.

Another possible reason for the lower prevalence rate of ACOAs in the current study was found in Kumpfer's (1999) review of clinical work with COAs. In the review, some issues related to Asian Americans' responses were reported during data collection. Kumpfer (1999) said that some Asian youths and families are less trustful than non-Asians and that Asian group in general is less likely to divulge negative family or personal information until they have been in the intervention and begin to trust the staff.

However, the prevalence rate in this study is still low compared to findings from studies with Korean respondents. The prevalence rates vary, but have mostly been reported as 15% to 30% (Baek, 2000; Choi & Kim, 2001; Lee, 2003). Possible contributing factors to such variations are differences in the age of participants (i.e., mid-teens vs. mid-twenties), regional areas in which the study was conducted (i.e., rural vs. urban, Korea vs. the U.S), and, most importantly, the use of different cut-offs for classifying COAs (i.e., 6 vs. 13 on the 30-item CAST). Some researchers accounted for the fact that Korea has a much higher alcoholism prevalence rate than other nations by using a more conservative cut-off of 13, whereas the others followed what the author of the CAST, Jones (1983), recommended and what most Western researchers employed.

Compared to the prevalence rates of alcoholism reported in recent studies, 15%—the rate of ACOAs in this study—is lower. There has not been any exact or estimated prevalence rate of ACOAs or COAs reported in Korea, but the Korean Alcohol Research Foundation (KARF) (2005) reported that the rate of alcoholism in Korea has reached over 20% in adults, and clinical studies also echoed this finding (e.g., Kim, 2002; Min,

1995). The difference in the rate of ACOAs between this national statistic and the

prevalence rate in the current study may result from two major factors. First, the

difference between may result from the unique sample population in the current study,

Korean people in the U.S. In particular, the sample was a mixture of Koreans (84.5%)

and Korean Americans (15.5%), and this combination has not been examined in any

previous studies. Also, more than 80% of the sample were students, most were single,

and their mean age was the late 20s, and the majority of them had moved from Korea to

the States within the last 5 years. Thus, this sample may not be representative of the

usual Korean adult population. Second factor for the difference in the rate of ACOAs

may be due to the fact that the majority of the sample was undergraduate or graduate

students. It should be noted that the ACOA respondents in this study could be from

families with significant resources that could provide the means for these students to

achieve their academic goal of studying in a competitive university. Therefore, this study

might have excluded Korean ACOAs who suffered from growing up in alcoholic families

and did not have the resources to obtain advanced education.

Nonetheless, this finding is meaningful to explain the distinctive experience that

Korean and Korean American people have had. Another explanation for the lower

prevalence rate could be that some alcoholics or alcohol abusers would be more likely to

have troubles in maintaining intimate relationships so they would not have been married.

Under these circumstances, it is not possible to capture these alcoholics through report of

a second generation.

Korean Culture of Drinking

Although the rate of Korean ACOAs in the current study is not high as what has been reported in other studies, specific cultural characteristics of drinking in Korea should be discussed the alarming rate of alcoholism in Korea. In accordance with the WHO report (2004) indicating Korea as the country with the second highest alcohol consumption per adult in the world (following the Republic of Slovenia), Korean people consume a tremendous amount of alcohol annually. The Ministry of Health and Welfare in Korea reported that the average amount of alcohol each Korean adult annually consumes is 9.3 liters, which is 4.4 times the world average of 2.1 liters (WHO, 2004). In addition, the major university town in Korea, called *Shin-Chon*, has been reported as the place with the largest number of bars or pubs per unit area in the world (Lee, 2002). Like Shin-Chon, most other college towns also have many bars. Other types of places, where young adults could enjoy various social activities, such as gymnasiums, parks, museums, or theaters, are found to be fewer as compared to bars.

In addition to such environmental and cultural factors, irresistible social pressure is observed in social drinking in Korea. Foreigners in Korea have reported that, unlike in other Western countries where people drink of their own free will and can freely express their preference to whether or not to drink; in particular, when a boss or senior person asks, Korean people cannot even consider saying "no" (Jun, 2010). Such an authoritative hierarchy persists in Korean society. Although the severity of the problem related to heavy drinking among younger generations has been reduced in recent years, many young people still follow the older habit or convention. Once an individual is asked to drink by any senior in the group, there are not many options. The junior would hardly

refuse to drink, or at least express a preference not to drink. If the junior rejects the

senior's invitation, the junior's action would be considered a challenge to the senior or a

violation of the social rule, "no one can disobey seniors." The power of control over

drinking at a social occasion is considered to be owned by the most senior person. These

societal factors play a critical role for Korean ACOAs. Such societal factors should be

considered when health care providers approach Korean ACOAs.

Differences between Korean ACOAs and non-ACOAs

The bivariate descriptive analyses conducted in this study found no differences

between ACOAs and non-ACOAs found in demographic and background variables,

except for employment status. Yet, additional post hoc analysis failed to identify

demographic variables that distinguished the two groups. This section will focus on all

of the meaningful differences in depressive symptoms, sense of belonging, resilience and

family-related variables between Korean ACOAs and non-ACOAS.

ACOAs reported more depressive symptoms than non-ACOAs. Based on the

BDI-II scores in the current study, the mean score of ACOAs' depressive symptoms was

significantly higher than non-ACOAs' score. Although ACOAs' mean sits in the range

for minimal depression (0-13, Beck et al., 1996), on the basis of the observed score range,

some ACOAs appeared to have up to a moderate level of depression. Also, with a cut-off

at > 9 of the BDI-II, 40% of ACOAs appeared to be clinically at risk for being diagnosed

with depression, while 34% of non-ACOAs were similarly at risk. It is indeed evident

that parental alcoholism affected the adult children's depressive symptoms. Various

studies and reports have echoed this association; ACOAs or COAs have been reported to

exhibit symptoms of depression and anxiety more commonly than non-ACOAs or non-

COAs (e.g., Adger, Blondell, Cooney, Finch, Graham et al., 2007; Anda, 2007; Lease, 2002). Studies reported that the effect of parental problem drinking on negative mental health consequences for children persists even far into adulthood (Balsa, 2009). Studies with adolescents revealed that female adolescents are more sensitive to stressful situations in the family and are more influenced emotionally by parental alcoholism than male adolescents are (Carle & Chassin, 2004; Chassin et al., 2004; Werner & Johnson, 2004). However, due to small cell counts for male and female ACOAs in this study, any further analysis to confirm those studies' results could not be conducted.

Although no differences were found in resilience and family functioning, the two study groups differed in sense of belonging and social support. Mylant et al. (2002) reported that adolescent COAs scored significantly lower on all psychosocial factors of family and personal strengths and significantly higher on all factors of at-risk temperament, feelings, thoughts, and behaviors than non-COAs. Not much literature has gone into depth about sense of belonging in ACOAs, yet it can be concluded that ACOAs are more likely to suffer from lower levels of resources and from higher levels of negative psychological consequences. For family-related variables, ACOAs reported having more parental mental health problems and having experienced more domestic violence than non-ACOAs. These results are consistent with other ACOA studies (Hall & Webster, 2002; Kelley et al., 2007; Larson et al., 2001), and one study posited that the major reason ACOAs report more negative experiences may be their having witnessed the negative effects of alcohol on their parents and family (Lieberman, 2000). In particular, as other studies reported, this study also confirmed that alcoholic parents have

not only alcohol or substance abuse problems but also depression as reported by their children.

A possible reason for the absence of a statistically significant difference in resilience on the CD-RISC is that the majority of respondents in this study were students in either undergraduate or graduate programs. The ACOAs in this study represent a nonclinical population of ACOAs who attend college. In their daily-life activities, they may tend to be higher functioning (e.g., academically successful, higher socioeconomic resources) ACOAs who are likely to be more resilient and have better coping skills then non-college ACOAs; consequently, the results may be less applicable to ACOAs in general. Regarding the mean score of the entire sample, including both ACOAs and non-ACOAs, the Korean respondents in this study scored lower than what the US general population had. According to Connor and Davidson (2003), US general participants in their study exhibited mean scores of 80.7 with the CD-RISC tool, for primary care patients, 71.8; for psychiatric outpatients, 68.0; for generalized anxiety disorder patients, 62.4; and for PTSD patients, 52.8. Looking at the descriptive mean score, ACOAs' resilience score was even lower than that of the U.S. psychiatric outpatients. Very few studies focus on resilience among Korean respondents, and none reported the mean score of the CD-RISC with Korean respondents; thus it is hard to be certain that the current finding is generalizeable. Nonetheless, some factors may be able to account for the lower mean level in the current study. Most respondents moved from Korea into the U.S. within the last 5 years, mainly for education; thus these individuals would have higher stress levels than the others, as a result of their studying, being away from home and families, and struggling to adjust to a new culture.

For family functioning, the overall score and both sub-scales did not differ between ACOAs and non-ACOAs, based on the bivariate analysis results. A great deal of variability in ACOAs' experiences would be likely and not all ACOAs who took part in the present study experienced family dysfunction. This finding slightly differs from findings in other ACOA studies. For example, a study with a community sample of 616 female adults used FACES-III, the same measure used in this study, and the authors reported that ACOA females had significantly lower levels of family cohesion than non-ACOA females, while there was no difference in family adaptability (Domenico & Windle, 1993). However, their study recruited only females, whereas the current study included both sexes. In a recent descriptive study (Kelley et al., 2005), although they did not use the same concept of family functioning, they were focusing on parentification and family responsibility in ACOAs, ACOAs were more likely to report parentification, instrumental caregiving, emotional caregiving, and past unfairness in their families of origin than non-ACOAs. As compared to ACOAs who indicated that their father was the alcohol-abusing parent or non-ACOAs, respondents who thought their mothers had an alcohol problem reported greater past unfairness. In addition, ACOAs who thought their mothers had a problem with alcohol abuse reported more parentification and emotional caretaking than did non-ACOAs (Kelley et al., 2005). The current study also asked ACOAs which parent they thought was an alcoholic, and most reported paternal alcoholism. However, the number of cases was too small, so no further analysis with other variables was possible.

Depressive Symptoms, Sense of Belonging, Resilience and Family-Related Variables

Depressive Symptoms and Their Correlates

The bivariate analysis results showed that those whose parents were separated or divorced had a significantly higher level of depressive symptoms than their counterparts. Conflict in marital life or divorce has been reported to be associated with negative psychological consequences among children (Kerr-Corrêa et al. 2007; Troisi & D'Argenio, 2004). Although the amount of its impact may vary, such an unwanted influence seems to last for a long time even until after the children have grown up, based on the result of the current study.

Also, those whose parents suffered from depressed feelings, inability to keep their temper, or anxiety disorder reported significantly more severe levels of depressive symptoms than each counterpart. This finding is also consistent with previous studies (e.g., El-Sheikh & Flanagan, 2001; Focht-Birkerts & Beardslee, 2000). Both genetic factors and family environmental factors, such as dysfunctional family relationships related to ineffective emotional expressions, can explain the relationship between parental mental health problems and adult children's depressive symptoms.

For domestic violence experiences, those who were emotional violence victims reported significantly more severe levels of depressive symptoms than those who did not have such experiences. These findings are consistent with studies on the relationship between depression and parental factors. For example, Verduyn and Calam (1999) reported that among various types of violence, emotional abuse in the family is associated with aggression, emotional instability, dependency, social difficulties, or negative self-evaluation. Nicholas and Rasmussen (2006) reported that different abusive and

supportive behaviors in the family were significant predictors of both depression and aggression, although parental alcoholism itself was not a predictor.

Sense of Belonging and Its Correlates

Those who experienced the loss of a parent and those whose parents were separated or divorced had significantly lower levels of sense of belonging. Also, those whose parents lost their temper or were diagnosed with anxiety or depressive disorders reported significantly lower levels of sense of belonging than each counterpart. For domestic violence experience, the results showed that those who were verbal violence victims, emotional violence victims, emotional violence perpetrators, or sexual violence victims had significantly lower levels of sense of belonging than each counterpart.

Few studies focusing on the effect of early loss of a parent, parental mental health problems, or domestic violence on sense of belonging have been conducted. However, given the strong negative correlation between depressive symptoms and sense of belonging in this study, the findings above can be easily interpreted in relation to the positive correlations between depressive symptoms and family dysfunction.

Higher levels of partner conflict in their parents and conflict within the family may decrease individuals' sense of belonging. In a study on parent-infant relationship in alcoholic families, parents' marital conflict was reported as the major predictor of negative psychological outcomes among infants (Eiden et al., 2004). Although the authors in that study focused on the infant-level outcomes, the negative results in the primary relationships with parents may be likely to last into later life. Also, opportunities to build sense of belonging are expected to be limited in divorced or violent families.

Hagerty, Williams and Oe (2002) found that significant antecedents of sense of belonging include adult children's perceived caring by both mother and father while growing up and parental divorce. ACOAs' lower sense of belonging in the current study can be explained by the fact that alcoholic families may lack positive parental caring and in some instances the parents are more likely to be divorced due to marital conflict related to alcoholism.

Resilience and Its Correlates

In this study, Korean American respondents reported higher levels of resilience than Koreans. A comparable difference in resilience by ethnicity is found in a study with South African adolescents (Jørgensen & Seedat, 2008). In their study, the black ethnic group had significantly lower scores than their white and mixed race counterparts (Jørgensen & Seedat, 2008). Because the sample groups in their study and in the current study were different, universal reasons to explain ethnicity-based difference in resilience are not easy to identify. Regarding the length of stay in the US, as respondents' years of stay in the U.S. increased up to 5 years, their level of resilience also increased, but those staying in the U.S. for 6 to 10 years reported the lowest levels of resilience. Interestingly, those who stayed for more than 10 years had the highest level of resilience. These findings may represent the same phenomenon as the ethnic difference in resilience. It is possible for those who temporarily stayed in the U.S. or stayed for a short time period to have lower levels of resilience than those staying in the U.S. more than 10 years, such as Korean Americans. For the former group, most of them could lack the practical resources that they can utilize for better health outcomes since they were not yet familiar with the U.S society and system. Also, they live away from home country and family,

where they otherwise could have important support. A study reported that for both sexes, a lack of acculturation was a strong influence in negative psychological outcomes (Kerr-Corrêa et al., 2007).

Unlike other studies, this study found no differences in resilience were sex. Many resilience studies with children or adolescents reported meaningful differences between boys and girls. Sex-based differences in resilience have been reported to be associated with the differences in scholarly competence, perception of supportive network (e.g., teacher vs. peers), and coping skills by sex (Hasse, 2004a; Lifrak, McKay, Rostain, Alterman, & O'Brien, 1997; Masten et al., 1999; Rew & Horner, 2003). We could not find sex differences in resilience in the current study because of the relatively small sample size for the additional analysis.

In regard to age difference in resilience, which was not found in this study, researchers focusing on adolescents and/or children have observed that a developmental phase or age can be another factor to influence resilience. Based on their retrospective clinical interview data, Wolin and Wolin (1995) identified the characteristics of resilience across developmental phases; the seven resilience characteristics include insight, independence, relationships, initiative, creativity, humor, and morality (Wolin & Wolin, 1995). Considering some concepts closely related to resilience, age variation in resilience would not be unexpected. For example, the levels of intelligence and cognitive function have been identified as important factors that are strongly associated with resilience (Masten et al., 1999; Southwick et al., 2005). The main reason no age difference was found in this study might be that data were collected only from those 18 years old or older. Although the current results could serve as an in-depth treatment of

Koreans in their mid-20s, they may be unsuited to show variations in different age groups or different development phases.

Social Support and Its Correlates

Student and employment status resulted in differences in social support in this study. In particular, students seeking master's degrees had a significantly higher level of social support than those who were not students. Also, those who were not students and not employed showed a significantly lower level of social support than the student group, regardless of their employment status. These findings may indicate the same phenomenon: if an individual does not have a social network, such as peers at school or work, he or she would report a lack of social support. Stice, Ragan and Randall (2004) also described the importance of peer support as well as familial support as a protection against depressive symptoms. Most of the Korean respondents in this study might be living into the U.S temporarily; therefore, they would not easily have a social network in the U.S., unless they are students.

For family-related variables, those who were either victims or perpetrators of emotional violence reported significantly lower levels of social support than each counterpart. This negative association between emotional violence experience and social support was also found in a study of COAs and childhood abuse (Nicholas & Rasmussen, 2006). The authors reported that the emotional abuse experience, not parental alcoholism itself, within the family increased the risk for depression among COAs. They also explained that the negative messages of emotional child abuse causes inner damage that either destroys or impairs the development of a positive sense of self and others. Such a

negative view of the self and others may prevent emotionally abused individuals from recognizing any social support resources.

Family Functioning and Its Correlates

The Korean respondents who were not students and not employed showed a significantly lower level of family cohesion than student respondents who were not employed. In regard to ethnicity, Korean Americans reported a significantly higher level of family cohesion than Koreans. In terms of family adaptability, students in baccalaureate programs especially reported significantly better family adaptability than non-student groups. The relationships among employment, education level, and family functioning have not been thoroughly studied.

Both family cohesion and family adaptability of the Korean respondents were significantly influenced by their parents' parental problems with loss of temper. Those whose parents had problems with losing their temper reported lower scores on both family sub-scales than each counterpart. For family adaptability, two more variables were significant factors: parental problems with anxious feelings and eating problems. The respondents whose parents had problems with anxious feelings or eating reported significantly lower levels of family adaptability. Skarsater (2006) also reported that parental mental health problems influence family dynamics as well as the children's psychological outcomes. Silberg, Maes and Eaves (2010) pointed out that both environmental and genetic factors related to parental mental health problems together impact the children's emotional and behavioral outcomes.

The two family functioning sub-scales were also significantly associated with the majority of domestic violence experiences, including verbal, emotional, and physical

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violence. Those who were physical violence perpetrators also reported a lower level of family cohesion. One ACOA study clearly described the same finding, regarding close relationships among family violence, abuse, and family functioning (McGaha & Leoni, 1995). Domestic violence is more likely to create constant fear for every family member, including children; thus, it may be difficult for family members to build a cohesive and adaptable family among themselves.

SEM Findings: Protective Factors against Depressive Symptoms
Related to Parental Alcoholism

From the SEM analysis, sense of belonging appeared to be the most powerful and proximal predictor of depressive symptoms. This sense of belonging significantly mediated the negative effect of parental alcoholism, along with social support and resilience. Also, sense of belonging partially mediated the positive effect of resilience in protecting individuals from depressive symptoms. Resilience also appeared to be a significant predictor, partially mediating the effects of family cohesion (a sub-scale of family functioning) and social support on depressive symptoms. Other direct effects on depressive symptoms were found from family cohesion and the number of parental mental health problems. Although these relationships differ from what were proposed earlier in the conceptual framework (Figure 1, p. 35) in this study, the importance of sense of belonging and resilience was expected to mediate the negative effect of parental alcoholism on depressive symptoms in ways that confirms the SEM findings. Further discussion on each factor will follow in a separate section.

Parental alcoholism did not have a significant direct effect on depressive symptoms in the SEM model. Although parental alcoholism had an indirect effect

through social support, resilience, and sense of belonging, its negative effects were completely mediated by those protective factors. This finding means that the negative impact of parental alcoholism is indeed mediated by supportive interpersonal relationships, perceptions of the value of such relationships, and individual strengths or capacity to withstand stressors. A study with a community-based, random sample of more than 1,700 adults also showed that parental alcoholism appeared to have little impact upon psychological distress (Neff, 1994). ACOAs, therefore, merit significant preventive intervention approaches that take these protective factors into account.

Sense of Belonging

Sense of belonging has been reported as having a negative association with depression in several studies (e.g., Choenarom et al., 2005; McLaren et al., 2007). The current study added more evidence to explain such a relationship. In the final SEM model, sense of belonging was the strongest factor influencing depressive symptoms, with a moderate to high level of effect (b = -0.51, $p < 0.001$). Hagerty et al. (1992) defined the major attributes of sense of belonging: (a) valued involvement or the experience of feeling valued, needed, or accepted by others; and (b) the perception of fit, i.e., that the individual's characteristics articulate with the system or environment. Considering this valuable connection with people and environment, indeed a lack of sense of belonging consequently may result in depressive symptoms. In accordance with the hypothesis of Hagerty and Patusky (1995), the SEM model developed in the current study clearly illustrated that the lack of sense of belonging is a major correlate or vulnerability factor for depressive symptoms. Sense of belonging played an important role in protecting the individuals from depressive symptoms.

The powerful protective effects of sense of belonging have been increasingly

reported across areas or disciplines with various populations. In a study focusing on

positive effects of mentors on COAs, for some COAs, natural mentors (not parents) may

be the only adults available to fill that role (Cavell, Mcchan, Heffer, & Holladay, 2002).

The mentors were usually of the same race and sex as the COA but were equally likely to

be relatives or non-relatives. Studies from health sciences and psychology indicate that

sense of belonging is closely associated with human psychological health and social

functioning (e.g., Choenarom et al., 2005; McLaren & Challis, 2009; Steger & Kashdan,

2009). Particularly, health sciences including nursing have been focused on protective

roles of sense of belonging against mental illnesses (Baumeister & Leary, 1995), and

psychology literature emphasizes sense of belonging as the most fundamental human

need and motivation. In studies of social behaviors, belonging was associated with an

individual's positive identity (e.g., racial, ethnic or sexual identity), sense of

meaningfulness of life and attitudes toward positive attitude toward aging (Barron,

Davies, & Wiggins, 2008; Kissane & McLaren, 2006; Ng, Kam, & Pong, 2005).

Educational literature focused on the positive association of sense of belonging with

students' interpersonal relationships (e.g., with peers or teachers), social functioning and

academic achievement (Freeman, Anderman, & Jensen, 2007; Kuperminc, Darnell, &

Alvarez-Jimenez, 2008).

Just as Maslow (1968) identified belonging as a basic human need, sense of

belonging is critical for explaining how human attachment in individual relationships

influences the human behavioral system. In particular, sense of belonging has the

capacity to alter an individual's stress response, which was also observed in the

relationships among parental alcoholism, sense of belonging, and depressive symptoms from the path model in this study. Stronger sense of belonging may help individuals to distinguish or recognize more positive aspects of their relationships. Such perception of positivity from human relationships can reduce the number of stressful life events that an individual perceives, protect the person from deleterious effects of sustained stress, and improve health outcomes. Sense of belonging also plays a role in increasing or reinforcing effects of social support on human psychological outcomes, as described in the theory of human relatedness (Hagerty et al., 1992).

Social Support

The SEM model also illustrated a significant indirect protective effect of social support on depressive symptoms through resilience and sense of belonging. At this point, it is important to note the difference between sense of belonging and social support to explain depressive symptoms. Social support could be seen as a concept similar to a sense of belonging in terms of its protective role in human mental health to meet interpersonal needs. While the studies of a sense of belonging have been mostly reported since 1995, a large volume of social support research begun in the mid-20th century showed that adequate social support had a positive impact on health and well-being (Beeber & Canuso, 2005). Recent studies on social support have attempted to include a concept of sense of belonging to operationally define social support, yet some researchers did not clearly distinguish the concepts or define them distinctively (Constantino et al., 2005; Hale et al., 2005). For example, Constantino et al. (2005) mixed the concept of belonging in the use with three different concepts (evaluation, self-esteem, and tangible support) in their social support intervention for women at a domestic violence shelter.

Hale et al. (2005) also treated belonging as a sub-domain, defined as connection to a group of others, along with tangible support (material, instrumental support), disclosure (availability of others with whom to share intimate details), and social intimacy (closeness, caring) in their support domains. Hale et al. (2005) measured belonging by asking individuals about the availability of people with whom they could interact and socialize (e.g., "I hang out in a friend's room or apartment quite a lot"), not asking how much they felt valued by or perceived himself to fit in with any group of people.

Results from the SEM analyses suggested that individual sense of belonging plays a different, much more significant, role than that of social support, although both of them impact depressive symptoms. Sense of belonging is the most proximal and strongest protective factor of depressive symptoms, while social support is one of distal factors, including family functioning and resilience. Therefore, clinical studies that include depressive symptoms with vulnerable populations should clearly distinguish between sense of belonging and social support so that more effective interventions can be developed accounting for effects of sense of belonging on depressive symptoms.

Resilience

Resilience, or a salutogenetic perspective, focuses on an individual's gain and possibility in the face of adversities, instead of focusing on his or her negative health consequences, both physical and psychological. Resilience and its related concepts such as "hardiness" have been noted to be indices of mental health (Lundman, Aléx, Jonsén, Norberg, Nygren et al., 2010). Studies showed that hardiness and resilience contribute to protection against developing major depression and/or post-traumatic stress disorder after

combat or childhood trauma (Agaibi & Wilson, 2005; Connor & Davidson, 2003; Schumm et al., 2006; Wilson, Raphael, Meldrum, Bedosky, & Sigman, 2000).

Personal competence has been widely reported as one of the critical attributes of resilient people (Lifrak et al., 1997; Luthar et al., 2000; Masten et al., 1999; Rew & Horner, 2003), thus, resilient people may better develop positive problem-solving or coping skills, which help them overcome depressive symptoms more easily or make them less vulnerable to negative emotional outcomes. In addition, resilient people are more likely to have tolerance of negative affect or positive acceptance of change; thus they would be less likely to suffer from depressive symptoms. Such characteristics can be further explained by optimism, plasticity, and cognitive flexibility, such as positive appraisal and acceptance (Connor & Davidson, 2003; Southwick et al., 2005; Tusaie & Dyer, 2004; Wagnild & Young, 1993).

In the current study, sense of belonging also appeared to be closely associated with resilience protecting individuals from depressive symptoms. Although very few studies have attempted to explain this direct association, a recent study suggested a significant relationship between sense of belonging and resilience. A qualitative study with 24 elderly people by a nurse revealed that resilience is very closely related with both "feeling connected" and "feeling independent" (Aléx, 2010). The results showed that not only receiving support from others but also caring for others and giving social support are important to increase the individuals' resilience. This finding may support a strong association between resilience and sense of belonging, as found in this study.

Lately more studies have been focused on physical and genetic aspects of resilience in order to clarify more observable or measurable effects of resilience on

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health. Some studies reported evidence of genetic correlation to resilience, using biological indicators of resilience, such as dehydroepiandrostrone (DHEA), neuropeptide Y, galanin, serotonin, the alpha-2 adrenergic gene and dopamine gene (Davidson, Baldwin, Stein, Pedersen, Ahmed, et al., 2008; Southwick et al., 2005). It has also been suggested that the concept of resilience be integrated into clinical practice. The author group of the CD-RISC evaluated the efficacy of venlafaxine extended release (ER) on characteristics of resilience, measured by the CD-RISC, in their randomized, international, muticenter study with PTSD patients (Davidson et al., 2008). They showed that venlafaxine ER is associated with a superior effect compared with placebo on many individual items of the CD-RISC as well as on the 2-item and 10-item versions.

Indeed, increased resilience may be associated with improvement in both physical and mental health. For this reason, understanding resilience may prove to be critical in developing preventative treatments for the major psychiatric diseases, including depression and PTSD (Vaishnavi, Connor, & Davidson, 2007). As Bonanno (2004) explained, although psychopathology can occur among a minority of those exposed to life-threatening events, there are possibilities of other outcomes, including benefits.

Family Functioning

Although both family adaptability and family cohesion showed significant bivariate correlations with sense of belonging, resilience, and social support, only family cohesion appeared to be significant in the final model. The influence of family cohesion on alcoholic family members has been emphasized in other studies (e.g., Bijttebier et al., 2006; Jennison & Johnson, 1997). Interestingly, the SEM model in this study showed that family cohesion has negative indirect impact as well as positive direct effect on

depressive symptoms, although the total effect was negative. This finding can be difficult to interpret, yet, when considering the major aspect of family cohesion (i.e., the emotional intimacy in a family) measured by FACES-III, it is possible to see two sides of the effect of family cohesion, especially within the alcoholic families, on depressive symptoms. The closed system of alcoholic families (Robinson & Rhoden, 1998) can increase the risk of depressive symptoms by exacerbating effects of familial stressors and hindering possible support from outside, but because of the closed system, ACOAs may also find support to build up their resilience from both of their parents, regardless of the status of parental alcoholism (Jennison & Johnson, 1997). Such a direct positive relationship between family cohesion and resilience was found in the SEM model.

Nonetheless, family cohesion is one of the important resources for young people exhibiting multiple risk factors. Family focused-intervention showed the greatest potential for success, producing significant improvements in some secondary outcomes of family functioning (including positive parenting styles and child behavior) (Johnson et al., 1998; Walsh, 2003; Warka, 2001). In particular, for ACOAs or children of substance users, the evidence suggested that while a range of family based program (e.g. home visitations, alcohol treatment) could have a significant impact upon parental outcomes, there was little evidence for effects upon the drug use or behavior of the child (Kumpfer & Bluth, 2004).

Parental Mental Health Problems

Parental mental health problems affected the respondents' depressive symptoms, yet this parental variable seems also to correlat with other familial exogenous variables in the SEM model. A recent twin study, which examined an association between parental

and juvenile depression, reported that family environmental and genetic factors accounted for this association; that is, parental depression can have both an environmental and genetic impact on children's behavior and psychological outcomes (Silberg, Maes, & Eaves, 2010). This explanation can be helpful in interpreting the relationship of parental mental health problems to the adult children's depressive symptoms. Although this study did not include genetic factors which might have been measured, which could further elucidate the relationship, the direct relationship between parental mental health problems and adult children's depressive symptoms may indicate some effect of genetic influence.

As shown in the path model in this study, compared to parental alcoholism, parental mental health problems may have stronger impact on children's negative consequences. A study with a large sample of community respondents (Neff, 1994) showed that individuals whose parents had mental illnesses reported more problems than their counterparts on depression, anxiety, somatization, and quantity of alcohol they consumed. Neff (1994) also indicated that those respondents reporting parental mental illness, not alcoholism, had significantly higher levels of those outcome variables.

However, and most importantly, the effect from parental mental health problems in the current study was much weaker than the effects of resilience and sense of belonging. This finding can mean that enhancing children's sense of belonging and resilience may prevent development of depressive symptoms. In the SEM model, resilience and social support also mediated negative effects of parental alcoholism on the adult children's depressive symptoms; therefore, clinical approaches to treatments of

respondents at risk for depression should take sense of belonging, resilience, and social support into account.

Significance to Nursing and Health Care Studies and Practices

The issues related to alcoholic families have a long history, and have been studied since the 1970s. However, most of the studies have focused on the pathological and etiological processes of how parental alcoholism negatively influences the children or on the negative outcomes, mostly compared with non-COA groups. This study also compared depressive symptoms and other familial risk factors between Korean ACOAs and non-ACOAs; its focus, however, is on exploring buffering effects of sense of belonging and resilience. The results from this study provide important evidence for understanding the protective roles of sense of belonging and resilience in Korean ACOAs.

The findings of this study will contribute to development of a body of knowledge that explains the relationships among depressive symptoms, resilience, and sense of belonging in a minority group who have alcoholic parents, such as Korean ACOAs. Clinicians need to know whether and what protective factors, such as a sense of belonging, may lead to being resilient and defeating depressive symptoms in ACOAs in order to develop effective strategies for the respondents who report emotional problems. This result will help researchers more effectively study Korean ACOAs' experiences and help health care providers develop effective and culturally sensitive intervention programs, which can reduce risks and promote mental health of ACOAs.

The results of this study have implications for the development of preventive intervention programs of this sort. As Kumpfer (1999) recommended, early intervention

with COAs and their families is critical. According to the specific areas that Kumpfer (1999) addressed, intervention programs for Korean ACOAs and their families should focus on: (a) educating the parents, including the alcoholic parent, to change their ability to monitor, supervise, and discipline their children, and to reduce their own negative role modeling, (b) delivering parent and family skills training to build up their own repertoire of coping strategies, (c) offering universal prevention programs in the community, which can reduce societal stigma associated with alcoholism (e.g., for Korean Americans or Koreans staying in the U.S., public seminars can be held regularly, and information fliers can be mailed to them), and (d) modifying any existing effective interventions to better fit with Korean ACOAs and their families' own culture (e.g., since validated programs have predominantly been developed in the U.S. and in Western societies, those should be modified for Korean people's needs). Evidence indicating the success of an intervention targeting a particular factor or adhering to a particular model therefore needs to be tested in local cultural contexts.

Limitations

In this cross-sectional study, the respondents self-reported the amount and severity of their depressive symptoms; however, no data were collected about whether each respondent has been exposed to any related clinical treatments, such as psychotherapy, family therapy, or pharmacological therapy. The previous experience of being clinically treated for depressive symptoms, even for any mental health issues related to parental alcoholism, may significantly influence the relationship between the level of risk factors (i.e., parental alcoholism, parental mental health problems) and the outcome (i.e., the current depressive symptoms). There may be a low rate of respondents

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reporting such treatment experience in the past because there is a high level of stigma attached to growing up in alcoholic families and having treatment for mental health problems in Korea. However, only measuring the previous treatment experience will allow more accurate findings of the relationships among parental alcoholism and depressive symptoms, after controlling for previous treatment scenarios.

Although both ethnic groups (Koreans and Korean Americans) and both sexes were recruited, no further analyses to test ethnic and sex differences, in terms of the prevalence or impact of parental alcoholism, were performed. The number of cases in the subgroups was extremely small in the data of this study, but these potential differences clearly merit further examination.

In this study, although it was not intended, mostly undergraduate and graduate students participated. This sample may not be representative of the general population of Korean ACOAs. Since the negative effects of parental alcoholism may be experienced later in life (Vail et al., 2000), the limited range of age might obscure any significant age variations of the findings. In addition, children or adolescent COAs were not recruited, so the results of this study cannot reflect the whole spectrum of children and adolescent development. Another issue regarding the fact that the majority of the sample were undergraduate or graduate students is that they may have already achieved high levels of academic performance. Therefore, ACOAs who have not been able to have academic achievement may not have been represented in this study. These ACOAs might have too many adversities or crises within the family and fewer resources available than non-ACOAs, both of which would hinder their goal of obtaining higher education. It would be valuable to control for or stratify the student status variable when recruiting.

For the measure of parental alcoholism, since this study did not use direct assessment of parents, but instead employed an indirect method via ACOAs' self-reports regarding their parents' drinking behaviors, the incidence of parental alcoholism may be underrepresented. Some AOCAs might experience fear or discomfort about disclosing parental alcoholism and negative family dynamics. Since in Korea many people perceive social drinking, especially with some interruptions in daily life, as a socializing activity, Korean ACOAs may under-report problems related to their parental alcoholism. In Vail and colleagues' (2000) review of 98 ACOA studies, the authors indicated that some studies identified a much lower prevalence of parental alcoholism than the actual rate of alcoholism among their parents. It may also be the case that some ACOAs might not know their parents were abusers of alcohol. Some alcoholic parents, especially in cases of maternal alcoholism, try to make sure their children do not know they are alcoholics. When ACOAs are young and the parents are generally functional, there is almost no way for the children to know about an alcohol problem unless an adult tells them. In certain situations, the children may have some idea that something is wrong, but they can still deny the problems that we recognize as parental alcoholism.

An additional issue to consider in this study is the influence of the social desirability on ACOAs' self-reporting responses. However, authors who compared self- and other-reported data stated that researchers need not worry about social desirability bias related to their self-reporting (Chao & Lam, 2009). Their findings clearly showed that there is no significant difference between self-reported and other-reported data and that both types of data can represent actual behavior to a certain extent.

In regard to survey methodology, this study used web-based survey methods; thus, potential respondents with limited access to the Internet or a computer were not able to be recruited. In other words, there could be a recruitment bias in this study, meaning that only those who had access to a computer with an internet connection could participate. For example, although some respondents aged over 60 years old were recruited, other potential older respondents may have decided not to participate in the study because they were not familiar with using computers or the internet.

For measurement, because the BDI-II included physical symptoms related to depression, such as fatigue, the scores in this study may not reflect individuals' depressive symptoms accurately if they have physical illness. No physical illnesses were measured, which might influence their answers to the BDI-II. Further analysis should focus on only the BDI-II items that belong to the Beck Depression Inventory for Primary Care (BDI-PC) (Steer, Cavalieri, Leonard, & Beck, 1999) in order to minimize such limitations.

Although most of the respondents might suffer from difficulty in adjusting to the new Western culture, any related issues, such as the level of acculturation, were not measured in this study. Acculturation may distinguish the stress experiences of ACOAs and non-ACOAs or Koreans and Korean Americans. Such effects could further contribute to their depressive symptoms. Also, only childhood maltreatment or trauma were assessed in this study; thus there was no way to determine whether they had a history of other types of trauma, which might influence their depressive symptoms, sense of belonging, resilience, and other major variables. As a final consideration, the adults'

retrospective reports of adverse childhood experiences might be influenced by their current mood state or memory biases.

Future Studies

The current findings provide significant evidence that individuals' strengths or resources, including sense of belonging and resilience, are important correlates of depressive symptoms, however, further studies must be conducted to confirm these findings with an ACOA-only group. In addition, future studies will focus on not only ACOAs' familial factors but also their current psychological risks and well-being, both of which can influence depressive symptoms.

Sampling can be extended to other Asian groups. Many reports have revealed that Korea has much higher alcohol consumption than any other Asian nations, yet very little has been studied regarding parental alcoholism and the adult children's lifelong experiences. In addition, future studies will test the SEM model developed in the current study with different ethnic groups, including white, black, and Hispanic, in order to determine whether the relationships among the study variables are universal or specific to only Korean respondents.

Instead of a web-based survey only, a combination of web-based survey and paper survey can be employed to access a wider range of respondents regardless of their computer literacy levels. In addition, the feasibility of the web-based survey methods will be examined by comparison with the paper survey method.

Further psychometric evaluation of the CD-RISC and the SOBI will be performed, using exploratory and confirmatory factor analyses. Future studies will conduct cross-cultural comparison of these measurements, focusing on whether the

psychometric results from the original measurement development studies would be replicated with Korean respondents.

Finally, clinical intervention programs for ACOAs will be developed based on the current findings. Sense of belonging and resilience will be the key components of the clinical programs protecting ACOAs from depression or reducing their depressive symptoms. In addition, group intervention and web-based intervention will be compared for effectiveness and feasibility.

APPENDICES

APPENDIX A

Korean Community Organizations

This project was advertised at the following Korean community organizations located in Midwestern cities. These Korean student associations were selected in order to represent homogeneous groups of Korean respondents.

1. Korean Student Association-Graduate (KSAG) at the University of Michigan, Ann Arbor

   - 559 members are enrolled (as of August, 2007)

   - The purpose of the KSAG is to unite and serve the Korean graduate student community on the campus while generating greater interaction and awareness about Korean culture beyond the Korean community.

   - Anyone who is interested in Korea and Korean culture can join the organization.

   - No mailing address available. Members mostly communicate through their website (http://www.umich.edu/~ksag/).

2. Korean Student Association (KSA) at the University of Michigan, Ann Arbor

   - Located on the Central campus

   - Approximated 300 members are enrolled

   - The KSA seeks to promote Korean culture through cultural, social, and community service events.

   - Any students of any year (undergrad and graduate) can join the organization.

3. Korean Student Organization (KSO) at Michigan State University, East Lansing

- A non-profit, voluntary and self-governing body

- More than 1,000 members are enrolled

- The KSO's mission is to form a sound community, to encourage integrity among Korean community in the Lansing area, to protect rights of Korean students, and to exchange Korean culture and traditions with other communities.

- Members communicate one another through their website (https://www.msu.edu/~kso/).

APPENDIX B

Information about Community Mental Health Resources

1) UM affiliated mental health resources

    a. Psychological Clinic

- Phone: (734) 764–3471

- Website: http://www.psychclinic.org

- The University of Michigan Psychological Clinic provides psychological care for students and residents of Ann Arbor and neighboring communities, including University staff and faculty, graduate and undergraduate students.

- Eligibility: No restrictions

- Hours: 8:00am–9:00pm, Monday–Thursday

        8:00am–6:00pm, Friday

- Location: 525 E. University, Suite 2463 (East Hall)

- Fees: Sliding Scale from $28–100. MCare and GradCare, and most other insurances are accepted.

    b. University Center for the Child and the Family

- Phone: (734) 764–9466

- Website: http://www.umuccf.org

- The University Center for the Child and the Family is a University of Michigan agency offering a comprehensive range of mental health services for children and families in the community. University affiliation is not required to receive services. Services include comprehensive

assessments and therapies for the full range of child, couple and family concerns; psychological and educational testing; therapy and guidance for children and families experiencing loss; lesbian, gay, and bisexual family services; and groups in such areas as social skills and parenting.

- Eligibility: Children and families

- Hours: 8:00am–8:00pm, Monday–Thursday

    8:00am–6:00pm, Friday

- Location: 525 E. University, Suite 1465 (East Hall)

- Fees: Sliding scale $30-100, MCare, GradCare, and some other insurances accepted.

c. Counseling and Psychological Services

- Phone: (734) 764–8312 or (734) 763–9658

- Website: http://www.umich.edu/~caps/

- Counseling is available to all enrolled University of Michigan Ann Arbor campus students. Counseling and Psychological services include crisis intervention, brief personal counseling and short term psychotherapy for individuals, couples, and groups. Common reasons people go to CAPS are: anxiety, depression, relationship issues, academic stress, and eating disorders. Consultation and workshops on various informational and skill–building topics are also available.

- Eligibility: UM Ann Arbor Campus students

- Hours: 8:00am–5:00pm Monday–Friday

    5:00pm–8:00pm Tuesday

8:00am–5:00pm Monday–Thursday (Pierpont Commons)

- Location: 3100 Michigan Union 530 S. State St./ Pierpont Commons, 2101 Bonisteel

- Fees: None

d. U of M Psychiatric Emergency Services

- Phone: 24 hour crisis line (734) 996-4747

- Website: http://www2.med.umich.edu/healthcenters/clinic_detail.cfm?service_id=30

- Location: University Hospital, 1500 East Medical Center Drive, Floor B1, Room B1C204, Reception: Emergency Medicine, Ann Arbor, MI 48109-5020

2) Community mental health resources outside of UM: Community Mental Health Services Programs (CMHSPs) in Michigan

a. Washtenaw Community Health Organization

- Contact person: Kathleen Reynolds, Executive Director

- Location: 555 Towner, PO Box 915, Ypsilanti, Michigan 48197

- E-mail: reynoldk@ewashtenaw.org

- Phone: 734-544-3000 or 800-440-7548 (Voice)

  734-996-4747 (24-Hour Crisis)

  800-649-3777 (TDD/TTY)

  734-544-6732 (Fax)

b. CMH Authority of Clinton-Eaton-Ingham Counties

- Contact person: Robert Sheehan, Executive Director

- Location: 812 East Jolly Road, Suite G-10, Lansing, Michigan 48910

- E-mail: sheehan@ceicmh.org

- Phone: 517-346-8200 (Voice)

    800-372-8460 (24-Hour Crisis)

    517-374-7037 (TDD/TTY)

    517-346-8245 (Fax)

Study Flyers

1) Flyer in English

University of Michigan
School of Nursing
Research Project

"SOCIAL EXPERIENCES OF KOREANS AND KOREAN AMERICANS"
(#HUM00026116)

**Please Help Us Learn about Korean or
Korean American People's Mental Health and
Earn a Gift Certificate Worth $10 for 30 minutes of Your Time!**

We are conducting a study on family and interpersonal experiences and mental health in Korean and Korean American people.

- **Who Should Participate?**
  Korean or Korean American aged 18 or older
  Who Can Read and Understand Korean or English

- **What: Online Web-Survey in UM.Lessons**

- **Time: 30 minutes or less**

- **Confidentiality: All answers are ANONYMOUS.** In order to provide payment, your name and UM-uniqname (only for UM students/faculties) or email address will be given to the investigator, but *your information WILL NOT BE LINKED to your answers to the survey*.

- **Payment:** Participants who complete the survey will be **paid with a gift certificate worth $10** (to one of Starbucks, iTune, Borders Bookstore, or Target).

- **Contact:** If you have questions, please contact the researcher, Hyunhwa (Henna) Lee, at (734) 717-1069 or by email mizbean@umich.edu.

If interested, please check the following link:
➜ http://www.umich.edu/~mizbean/Survey.htm

2) Flyer in Korean

미시간 대학교 간호대학 연구 프로젝트

"한국인, 한국계 미국인의 사회적 경험"

(#HUM00026116)

미시간 대학 간호대학에서는 한국인과 한국계 미국인들이 경험하는 가족관계, 대인관계 특성, 그리고 정신건강에 대한 연구를 실시하고 있습니다.

잠시 30 분 정도 시간을 내어 온라인 설문에 응답해 주시면

한국인, 한국계 미국인의 정신건강 연구 발전에 큰 도움이 될 것입니다.

설문에 참여하신 모든 분들께 10 불 상당의 상품권을 보내 드립니다!

- **참여 가능하신분:**
  18 세 이상의 한글이나 영어를 읽고 이해할 수 있는 한국인 또는 한국계 미국인
- **무엇을?** UM.Lessons 사이트에 게재된 온라인 설문에 응답
- **예상 소요 시간?** 30 분 또는 그 이하
- **설문 응답은 기밀로 유지됩니다!** 답해주신 모든 응답은 무기명으로 처리됩니다. 상품권을 보내드리기 위해 부득이하게 성함이나 UM-uniqname (University of Michigan 학생들과 직원들 경우) 또는 이메일 주소가 필요하지만, 이 정보들은 **절대** 설문에 응답하신 내용과 **연결되지 않을 것입니다.**
- **상품권:** 설문에 모두 응답하신 분들께는 각 10 불 상당의 **상품권** (Starbucks, iTune, Borders Bookstore, or Target)을 **보내 드립니다.**
- **연락처:** 이 설문연구에 대한 질문이 있으시면, 연구자 이현화에게 전화 (734) 717-1069 또는 이메일 mizbean@umich.edu 로 연락주시기 바랍니다.

관심 있으신 분은 다음 웹 링크를 클릭해서 온라인 설문에 대한 더 자세한 정보를 얻으세요:
➔ http://www.umich.edu/~mizbean/Survey.htm

APPENDIX D

Screen Shots of the On-line Informed Consent

Social Experiences of Koreans and Korean Americans

Welcome and Introduction

As a doctoral student in the School of Nursing at the University of Michigan, I'm conducting this survey to better understand the overall social experience issues facing Korean and Korean American people, especially focusing on relationships among their depressive symptoms, resilience, and sense of belonging. This survey has been approved by the University of Michigan Institutional Review Board (IRB)(#HUM00026116).

To be a part of this survey you must be:

* Korean or Korean American
* aged 18 years or older.

This survey includes questions about your social and family experiences, your feelings, and yourself.

PLEASE NOTE

* The survey should be completed in ONE sitting.
* Your answers to the survey will remain ANONYMOUS and will not identify you.
* Your participation is voluntary and you may skip any question. Also you may stop the survey at any time without penalty. You will find an exit button on every survey page. If you exit the survey without submitting, the data ended prematurely will not be used in this study.
* In order to provide payment, your name and UM-uniqname (only for UM students/faculties) or email address will be given to the investigator. However, your name and/or email WILL NOT BE LINKED to your answers to the survey.
* All survey answers will be stored in a locked database for 3 years only for data analysis. All the data will be destroyed upon the completion of the study.
* When the analysis is completed, an executive summary of research findings will be available. The summary will be on the same UM Lessons site to you as a participant. Related information about the site will be sent to you along with your gift certificate.
* The survey should take about 30 minutes to complete.

Benefit and Risk

* There are no direct benefits of this research to the participants, yet the results from this study will be used to better understand

Benefit and Risk

* There are no direct benefits of this research to the participants, yet the results from this study will be used to better understand social experiences and mental health among Korean and Korean American people.

* There are no known physical risks to taking this survey. However, you may find some questions uncomfortable while answering about yourself and your experiences. If such is the case, please be sure to contact any campus or community health center immediately for the necessary service. You will be informed about available health centers before starting the survey.

GIFT

*When you finish the survey you will earn a gift certificate worth $10 to one of Starbucks, iTune, Borders Bookstore, or Target. If you choose to end the survey without completing, you will not be eligible for compensation.

If you have questions about the survey, please contact the researcher:

Consent Form

I am:
(1) 18 years of age or older (If you have not yet reached your 18th birthday, please do NOT continue with the survey), and
(2) Korean or Korean American (If you are not a Korean or Korean American, please do NOT continue with the survey.)

If you agree to take the survey after reading the above statements, please proceed to the first section of the survey by clicking "CONTINUE."

If you do not agree to take the survey or any of the above statements does not describe yourself, please exit this survey by closing this window.

Thank you for your consideration in participating in this study. If you do participate your response to the survey will help us improve services and community resources for ethnic minority groups, especially Korean and Korean American people.

UM Lessons uses both cookies and JavaScript.

Please contact us (korean.survey@gmail.com) if you are encountering difficulties.

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Note: UM Lessons is sometimes unavailable for maintenance Sundays, 5-7AM.

socrates.ds.itd.umich.edu

Continue

Measures employed in the Study

1. A short version of the Children of Alcoholics Screening Test (CAST-6) (Hodgins et al., 1993)

      Please check the answer below that best describes your feelings, behavior and experiences related to a parent's alcohol use. Take your time and be as accurate as possible.

(1=Yes, 0=No)

1) Have you ever thought that one of your parents had a drinking problem?

2) Did you ever encourage one of your parents to quit drinking?

3) Did you ever argue or fight was a parent when he or she was drinking?

4) Have you ever heard your parents fight when one of them was drunk?

5) Did you ever feel like hiding or emptying a parent's bottle of liquor?

6) Did you ever wish that a parent would stop drinking?

(Two additional questions were "Did you ever think your father was an alcoholic?" and "Did you ever think your mother was an alcoholic?")

2. Sense of Belonging Instrument-Psychological (SOBI-P) (Hagerty & Patusky, 1995)

Please select one that most closely reflects your feelings about each statement.

(1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree)

1) I often wonder if there is anyplace on earth where I really fit in.

2) I am just not sure if I fit in with my friends.

3) I would describe myself as a misfit in most social situations.

4) I generally feel that people accept me.

5) I feel like a piece of a jig-saw puzzle that doesn't fit into the puzzle.

6) I would like to make a difference to people or things around me, but I don't feel that what I have to offer is valued.

7) I feel like an outsider in most situations.

8) I am troubled by feeling like I have no place in this world.

9) I could disappear for days and it wouldn't matter to my family.

10) In general, I don't feel a part of the mainstream of society.

11) I feel like I observe life rather than participate in it.

12) If I died tomorrow, very few people would come to my funeral.

13) I feel like a square peg trying to fit into a round hole.

14) I don't feel that there is anyplace where I really fit in this world.

15) I am uncomfortable knowing that my background and experiences are so different from those who are usually around me.

16) I could not see or call my friends for days and it wouldn't matter to them.

17) I feel left out of things.

18) I am not valued by or important to my friends.

3. Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003)

Please indicate how much you agree with the following statements as they apply to you over the last **_month_**. If a particular situation has not occurred recently, answer according to how you think you would have felt.

(0=Not true at all, 1=Rarely true, 2=Sometimes true, 3=Often true, 4=True nearly all the time)

1) I am able to adapt when changes occur.

2) I have at least one close and secure relationship that helps me when I am stressed.

3) When there are no clear solutions to my problems, sometimes fate or God can help.

4) I can deal with whatever comes my way.

5) Past successes give me confidence in dealing with new challenges and difficulties.

6) I try to see the humorous side of things when I am faced with problems.

7) Having to cope with stress can make me stronger.

8) I tend to bounce back after illness, injury, or other hardships.

9) Good or bad, I believe that most things happen for a reason.

10) I give my best effort no matter what the outcome may be.

11) I believe I can achieve my goals, even if there are obstacles.

12) Even when things look hopeless, I don't give up.

13) During times of stress/crisis, I know where to turn for help.

14) Under pressure, I stay focused and think clearly.

15) I prefer to take the lead in solving problems rather than letting others make all the decisions.

16) I am not easily discouraged by failure.

17) I think of myself as a strong person when dealing with life's challenges and difficulties.

18) I can make unpopular or difficult decisions that affect other people, if it is necessary.

19) I am able to handle unpleasant or painful feelings like sadness, fear and anger.

20) In dealing with life's problems, sometimes you have to act on a hunch without knowing why.

21) I have a strong sense of purpose in life.

22) I feel in control of my life.

23) I like challenges.

24) I work to attain my goals no matter what roadblocks I encounter along the way.

25) I take pride in my achievements.

4. Social Support Questionnaire (SSQ-6) (Sarason et al., 1987)

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the persons' initials, their relationship to you (see example). Do not list more than one person next to each of the numbers beneath the question.

For the second part, circle how satisfied you are with the overall support you have. If you have had no support for a question, type the words "No one", but still rate your level of satisfaction. Do not list more than nine persons per questions.

EXAMPLE:

Q1. Who do you know whom you trust with information that could get you in trouble?

(type "no one" if you have had no support)_____

1. T.N.(brother)	2. L.M.(friend)	3. R.S.(friend)
4. T.N.(father)	5. L.M.(employer)	6._____
7._____	8._____	9._____

Q2. How satisfied?

(1=Very Dissatisfied, 2=Fairly Dissatisfied, 3=A Little Dissatisfied, 4=A Little Satisfied, 5=Fairly Satisfied, 6=Very Satisfied)

1-a) Whom can you really count on to be dependable when you need help?

1-b) How satisfied?

2-a) Whom can you really count on to help you feel more relaxed when you are under

   pressure or tense?

2-b) How satisfied?

3-a) Who accepts you totally, including both your worst and your best points?

3-b) How satisfied?

4-a) Whom can you really count on to care about you, regardless of what is happening to

   you?

4-b) How satisfied?

5-a) Whom can you really count on to help you feel better when you are feeling generally

   down-in-the-dumps?

5-b) How satisfied?

6-a) Whom can you count on to console you when you are very upset?

6-b) How satisfied?

5. Family Adaptability and Cohesion Evaluation Scale-III (FACES-III) (Olson et al., 1985)

Here are some statements about your family. Please select one that most closely reflects your feelings about each statement.

(1=Almost Never, 2=Once in a While, 3=Sometimes, 4=Frequently, 5=Almost Always)

1) Family members ask each other for help.

2) In solving problems, the children's suggestions are followed.

3) We approve of each other's friends.

4) Children have a say in their discipline.

5) We like to do things with just our immediate family.

6) Different persons act as leaders in our family.

7) Family members feel closer to other family members than to people outside the family.

8) Our family changes its way of handling tasks.

9) Family members like to spend free time with each other.

10) Parent(s) and children discuss punishment together.

11) Family members feel very close to each other.

12) The children make the decisions in our family.

13) When our family gets together for activities, everyone is present.

14) Rules change in our family.

15) We can easily think of things to do together as a family.

16) We shift household responsibilities from person to person.

17) Family members consult other family members on their decisions.

18) It is hard to identify the leader(s) in our family.

19) Family togetherness is very important.

20) It is hard to tell who does which household chores.

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