ABSTRACT

Title of Thesis: MEASURING CAREER ASPIRATIONS IN

KOREAN COLLEGE WOMEN

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Psychology

The purpose of this study was to translate and evaluate the Korean version of the Career Aspirations Scale Revised (K-CASR). The American version of the Career Aspirations Scale-Revised (Gregor & O'Brien, 2013) was translated into Korean using multiple translation strategies. The psychometric properties of the K-CASR were examined with data from 377 college women in Korea. The confirmatory factor analysis indicated that the 18-item version of the K-CASR had good model fit with the hypothesized three factor structure (achievement aspirations; leadership aspirations, educational aspirations). The K-CASR also exhibited moderately high internal consistency and stability. Convergent validity was supported by positive correlations with achievement motivation, career orientation, and career goal engagement. Implications for future research and counseling were discussed.

MEASURING CAREER ASPIRATIONS IN KOREAN COLLEGE WOMEN

By

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Chapter 1: Introduction

Women's career development is complex and needs to be understood through a multidimensional lens that considers social, cultural, and psychological influences (Fouad & Kantamneni, 2008). Although women have made considerable advances in participation in higher education and professional fields throughout the world, women continue to demonstrate a gendered pattern of occupational choices. In South Korea, women face a number of challenges and barriers to participation and success in the labor force (Son, 2013). In fact, South Korea ranks the lowest of all Organization for Economic Co-operation and Development member countries in terms of gender equality in the workplace due to the paucity of women in high-level jobs and the largest gender wage disparity (Organization for Economic Co-operation and Development; OECD, 2010). The purpose of this study was to translate and evaluate a measure of a salient career-related variable for Korean women, career aspirations.

Interestingly, increasing numbers of young Korean women actively engage in economic activities. A national survey indicated that the employment rate of women in their 20s has begun to surpass men for the first time (Statistic Korea, 2013). In addition, the number of women employed in non-traditional and high-ranking positions has increased (Choi & Im, 2010; Han & Chang, 2005). However, there is a considerable decline in the rate of Korean women's employment after they turn 30 years old (Statistic Korea, 2013). Because the average age of marriage in Korea is around 30 (Statistic Korea, 2013), it is likely that demands associated with other liferoles have a profound impact on women's career achievements. Although a number of women return the labor market in their 40s, educated women who graduated from

college less often choose to re-enter their careers, indicating a continuous decreasing L-shaped employment rate (Nam & Jang, 2003).

Societal and cultural factors appear to contribute to this notable trend. Recent research has shown that Korean working women experienced less support from their employers and spouses, and reported more depression when compared to women in the United States and Israel (O'Brien, Ganginis Del Pino, Yoo, Cinamon, & Han, 2014). Korean women are pressured to prove their qualifications and legitimacy in the workplace, and they are judged more harshly when compared to men in the same positions (Park, 2007). In addition, cultural expectations for women in Korean society burden working women, as they have primary responsibility for taking care of family members including children, spouse, in-laws, and extended family (Choi & Kim, 2007). These findings point to the importance of examining the degree to which young Korean aspire to career achievements given their decline in employment over time and the myriad responsibilities associated with married life.

Eccles and her colleagues (Eccles, 2009; 2011; Wigfield & Eccles, 1992; 2000) provide a useful theoretical foundation to understand different aspects of women's career choice and achievements. According to their Expectancy-Value Model of Achievement, women make decisions based on their expectations for success and subjective task values. Their expectations and values are tied to perceived social and cultural expectations for gender roles, and then they exert a powerful influence on patterns of women's career consideration and choice. These internalized gender roles influence women's perceptions of viable options for their careers and their expectations for success. Therefore, women's attitude toward career achievements is

one of the key constructs to support their success and it should be addressed within a context of their specific culture.

With regard to prior research on the career development of young Korean women, studies have focused on challenges related to vocational success including career barriers (Lee & Yu, 2009; Son & Kim, 2002), career decision-making difficulties (Go, 2008; Park, Kim, & Lee, 2008) or career indecision (Jeong, 2005; Kim, 2003). Although these studies have implications for addressing the career concerns of young women, they neglected to address facilitative factors related to the career development of women. Consistent with counseling psychology historical emphasis on the strengths of clients (Gelso & Fretz, 2001), research on positive factors related to career development could advance our understanding of vocational development and career counseling for young Korean women.

Career Aspirations

One of the positive outcome variables considered in vocational psychology is career aspirations (Fisher, Gushue, & Cerrone, 2011; Flores & O'Brien, 2002). Historically, women's career aspirations were understood dichotomously as working within the home or outside the home, being employed in traditional versus non-traditional careers, or having a career versus family orientation (Betz & Fitzgerald, 1987; Fassinger, 1990). However, this concept of career aspirations failed to capture the complex and dynamic processes of women's career choices. For example, although a woman is employed in a traditional occupation such as teacher or nurse, she can aspire to leadership roles or higher achievement within these traditional careers.

Therefore, O'Brien (1996) redefined career aspirations as the degree to which women

aspire to leadership positions and continued education within their careers. This definition of career aspirations enables us to understand how much women aspire to achieve within their career and how their career aspirations may change over time. In this study, this concept of career aspiration can be applied to Korean women, because it can contribute to our understanding of young Korean women's attitudes toward their career achievements. In addition, it will broaden our knowledge about facilitative factors related to the career development of young Korean women. The study of career aspirations among young Korean women will advance knowledge regarding how personal aspirations can shape a unique path for each woman's career in Korea. Therefore, this study sought to assess career aspirations among young Korean women by translating a measure which was originally developed in the United States by O'Brien (1996). This process will help use a body of knowledge in the United States to understand Korean women as well as allow cross-cultural comparisons to expand our understanding about cultural aspects of women's career development.

The Career Aspiration Scale (CAS) was developed to assess women's career aspirations (O'Brien, 1996) and the original CAS has been revised to improve its psychometric properties in the United States. In 2007, a version of CAS with two subscales (educational aspirations and leadership aspirations) was examined and preliminary support was found for the psychometric properties of this instrument (Gray & O'Brien, 2007). However, the educational aspirations scale had low internal consistency and support for the two-factor structure of the scale was relatively weak, especially for women of color (Gray & O'Brien, 2007). Thus, researchers revised the scale, added additional items, and evaluated the factor structure of the new measure

(Gregor & O'Brien, 2013). Findings supported a three-factor model with scales assessing leadership, educational, and achievement aspirations. Moreover, the revised version of Career Aspirations Scale (CASR) had sound psychometric properties with a sample of young women in the United States (Gregor & O'Brien, 2013). The CASR was correlated in the expected directions with related career variables including achievement motivation (Gregor & O'Brien, 2013).

In Korea, the original Career Aspiration Scale was translated into Korean (Choi, 2002) and was administered to multiple populations, including college men and women (Lee, 2014; Lee & Hwang, 2012; Park & Lee, 2008) and adolescents (Lee, 2006). A meta-analysis of research on social-cognitive career theory with Korean college students found that eight studies out of 44 used the CAS as an outcome variable (Kim & Ahn, 2012). Despite its wide application, several issues emerged regarding the reliability and validity of the measure. First, the CAS was translated into Korean by a single researcher without multiple reviewing translation processes, which might contribute to problems with content validity. Moreover, the reliability and factor structure have not been tested with sound procedures and the target population. Thus, this study aimed to improve the measurement of career aspirations for young Korean women by translating the CASR into Korean and investigating the cultural equivalence and psychometric properties of this instrument with Korean college students.

Methodological Issues in Translated Measures

Historically, many counseling psychologists have translated measures from English to another language for use in research with non-English speaking populations.

Translating measures allows researchers to explore how certain behaviors manifest in similar or different ways across cultures. To maximize the utility of translated measures, there is a critical need to determine whether the translated measure is operating in a similar way to the original measure (Miller & Sheu, 2008). To ensure equivalence across measures, several methodological issues should be considered in translation procedures.

First, translated items should convey the same meaning in a semantic way as well as they should be readable and natural to the participants who speak the target language. When English is translated into Korean, a liberal translation (i.e., a broad translation based on the whole meaning of an item) rather than a literal translation (i.e., word-for-word translation) is recommended due to the different sentence structure in the two languages (Willgerodt, Kataoka-Yahiro, Kim, & Ceria, 2005). For example, the English word 'leadership' sounds more natural in the Korean language when it is written as foreign word with Korean letters because there is no direct word to convey the semantic meaning of 'leadership' in the Korean language. Also, 'leadership' is used most often among Korean-speaking groups as a foreign word. Therefore, translating English words and sentences into Korean should focus on the meaning rather than the literal translation.

The most common method to translate a measurement has been the translation-back translation method conducted by a bilingual translator, but this approach raises several concerns. For example, a bilingual translator may automatically correct slight errors in translation when reading the target, because she or he has ability to understand both languages. To improve the quality of translation, Brislin (1970, 1986)

suggested decentering, which refers to a continuous translation and back-translation process. In this approach, both the original language and the target language versions are considered equally important. In addition, a translation committee which is comprised of translators, translation reviewers and translation adjudicators can work collaboratively on a translation procedure instead of having the translation completed by a single translator (Harkness, van de Vijver, & Moher, 2003). The committee approach improves translation by incorporating multiple rounds of modification with diverse perspectives.

Moreover, the cultural context should be explored related to the meaning of the construct. Many studies have noted that several career-related constructs operate differently in Asian cultures as compared to Western culture, e.g., occupational values (Leong, 1991), career indecision (Keller & Brown, 2013) and choice of college majors (Song & Glick, 2004). Regarding career aspirations, it is notable that in addition to the more universal understanding of 'leadership' or 'achievement,' this construct may have additional nuances for Korean women. Considering that female leaders are rare in Korea, young Korean women have less exposure to female leadership when compared to women in the United States. Thus, it is important to consider cultural context when translating and using measures developed in one culture with individuals in another culture.

Summary

To summarize, despite the various challenges experienced by working women and the departure of many women from the workplace after marriage and children, some young Korean women participate in diverse economic activities including non-

traditional occupations and high status professions. To facilitate their achievement as well as to understand culturally-related vocational challenges, it was necessary to explore the career aspirations of young Korean women. Therefore, this research translated the CASR into Korean and examined the psychometric properties of this translated instrument when used with Korean college women.

Chapter 2: Review of Literature

The purpose of this study was to develop an instrument, based on existing research, to assess career aspirations of young Korean women. The review introduced the broad context of and theoretical foundation underlying women's career choice and development. Then, it focused on how Korean women experience work in Korean society and what is currently known about young Korean women's career development. Next, the construct of interest, career aspirations, was described regarding its definition, assessment, related research findings, and relevant variables. Last, we presented a summary regarding cultural equivalence issues in cross-cultural measurements.

Women's career choice and development

Historically, both in Eastern and Western society, it was assumed that a woman's role was limited to housekeeping and childcare. However, along with the global transformation to an industrial society, women have moved into the labor force as their participation in work outside the home has increased over time. As a result, women's career choice and development have become a critical part of modern women's lives (Betz, 2005).

Women have made considerable advances in participation in higher education and an increasing number of women take part in the labor market throughout the world (Hausmann, Tyson, & Zahidi, 2011). Although women are involved actively in a variety of vocational fields, women continue to face gender-related issues in their career choices and outcomes. For example, women's occupational choices demonstrate a gendered pattern which concentrates on traditional jobs such as

administrative assistants, nurses or teachers in the United States (U.S. Department of Labor, 2008). In addition, perceived wage gaps between women and men appear to be large in many countries around the world (Hausmann et al., 2011) and women remain under-represented in upper management positions (Baumgartner & Schneider, 2010).

Meanwhile, modern women are pressured by traditional expressions of women's roles as well as new career-related expectations (Novack & Novack, 1996). This conflict reflects the demands of multiple roles for working women, including participating in a labor market, managing household affairs and retaining the primary role of caregiving. It is notable that women are required to provide a disproportionate share of responsibility of house chores and caregiving.

As a consequence of these demands, many women adjust their work involvement to the needs of their family, especially when children are present. For example, women with children report greater time-pressure than women without children at the same age, and they are likely to lower the time-pressure by the reduction of working hours (Laurijssen & Glorieux, 2012). Even among young women who do not face conflicts due to multiple roles, those who expect negative work-life balance and hold stereotypically masculine assumptions regarding managerial jobs are less likely to apply for certain managerial positions (Barbulescu & Bidwell, 2013). Researchers have called for studies to explore women's perceptions and attitudes regarding career to advance knowledge regarding gendered career patterns and women's career achievement.

Theoretical foundation

The Expectancy-Value Model of Achievement provides a useful framework to understand dynamics and patterns in women's career choice and development within individual life contexts. Eccles and her colleagues (Eccles, 2009; 2011; Wigfield & Eccles, 1992; 2000) offer a comprehensive explanation of individual's choice, persistence, and performance regarding a certain task. They developed their model based on broader perspectives including social and cultural expectations which have an influence on patterns of women's career consideration and choice. Specifically, they explained the process of how women's expectations for success and subjective task values shape gendered educational and occupational choices.

Based upon this theory, people make a decision for which they have the highest expectations for success and to which they attach the greatest subjective task value. This means that people are more likely to pursue certain career-related choices and behaviors because they are most confident in these choices and value them the most. For example, when a woman has a high expectation for her success regarding a certain job (e.g., "I am good at learning new materials in mathematics") and when she values the task (e.g., "Being good in math is very important for me"), she is likely to choose and persist in this job. However, they also suggested that women and men may develop different expectations for their similar educational and occupational achievement as well as dissimilar subjective value systems related to their choices.

Eccles (2011) especially emphasized the influence of socializers, including parents, teachers, peers and media, in shaping individuals' perceptions of expectations for success and subjective task value, along with individual characteristics. Cultural

norms about gender roles are conveyed to individuals throughout gendered socialization practices at home, in schools, and among peers. These internalized gender roles influence individual's perceptions of the field of viable options for their career choices. Thus, women's perceptions about possible career choices are not separated from their internalized gender roles along with other social and cultural considerations.

Korean women's career development

As developing indigenous career-related theories and models has become a central issue in counseling psychology (Heppner, Leong, & Chiao, 2008; Herr, 2001), researchers have made efforts to address similar and different characteristics of career development in Asian societies (e.g., Gong, Deng, Yagi, Mimura, Hwang, & Lee, 2013; Zhou, Leung, & Li, 2012). Along with those efforts, the specific social and cultural context will be discussed in this section on career development of Korean women.

Korean women's work experience

According to the global gender gap report, South Korea ranked 117 among 135 countries on economic participation and opportunity based on gender, the lowest-ranking among Organization for Economic Co-operation and Development countries (Hausmann et al., 2011). This large gap appeared mostly due to the considerable gap on wages for similar jobs (Hausmann et. al., 2011). Specifically, in 2010, Korean women earned on average 39% less than men. This result can be interpreted in light of the research finding that Korean working women experienced less support from their employers and spouses, and reported more depression when compared to women in

the United States and Israel (O'Brien et al., 2013). These indexes suggest that Korean working women will face considerable challenges in pursuing their career achievements.

Indeed, Korean women demonstrate a sharp drop of employment rate in their 30s. A national survey showed that women's employment rate approached 62.9% in their 20s, but sharply decreased in their 30s, and then gradually increased in the 40s (Statistics Korea, 2013). This indicates that many women leave their career due to their responsibilities for family in 30s and may return to workforce when their roles for family are less salient. However, women who graduated from college showed a L-shaped curve rather than an M-shaped curve in their employment rate with a continuous decreasing pattern even after they turned 40 (Kim, 1996; Nam & Jang, 2003). This means that women who have higher skills and knowledge are less likely to return to work after the interruption of their career.

Son (2013) investigated how highly educated professional women's expectations and experiences changed over time regarding their career development. She interviewed eleven women who engaged in their professional fields for more than five years and less than ten years. The results showed that most participants needed to change their expectation for career success and career aspirations along with the experiences of life events such as marriage and birth of children. Specifically, they reported difficulties in their career goals due to unbalanced responsibility for taking care of children, masculine culture at workplace and lack of female role models. However, they coped with those difficulties by using their internal and external resources.

These findings were consistent with a previous study that noted that individual characteristics such as openness and social support from spouse and employer had a positive influence on work and family enhancement for Korean working women (Yoo, Han, & Cho, 2011). These studies point to the importance of future research focused on career-related experiences of educated women and strategies to facilitate their future success.

Career development of young Korean women

One of the possible ways to improve positive career outcomes of women is to facilitate the potential and strength of young female students. In fact, an increasing number of young Korean women are making progress in their academic and career achievements. The national survey on academic achievement of middle school students reported that female students surpassed male students in their academic performance in Korean and English between 2003 and 2008 (Jeong, Choi, Kim, Kim, & Yoo, 2009). Interestingly, in math and science which are considered as nontraditional fields for women, there were no gender differences in their performance (Jeong et at., 2009). Also, so-called 'Alpha-girls' in the younger generation showed higher career maturity, higher preferences of non-traditional fields and higher expectations for future success with more liberal gender role attitudes compared to other groups of women (Choi & Im, 2010). As a result of progress in women's academic achievement, the college entrance rate for females reached to 75.0% while 70.2% of male students entered the college in 2011 (Ministry of Education, Science, and Technology, 2011). Therefore, more active involvement in the professional fields is expected considering women's advanced performances in various academic and occupational fields.

However, perceived career-related barriers and challenges can influence the fulfillment of young women's potential. Several studies found gender differences in perceptions about career-barriers or other related variables. For example, with a sample of 1,066 college students in Korea, a stronger relationship between social support and career barriers was found in women as compared to their male counterparts (Lee & Yang, 2007). In addition, academic self-efficacy played in a different role for women and men in the relationship between career barriers and career aspirations with a sample of academically talented adolescents (Yoo, Hong, & Lee, 2006). They found that perceived career barriers had an indirect effect on career aspirations through academic self-efficacy for female students. However, for male students, there was no direct or indirect effect of perceived career barriers on career aspirations. This implied that higher social expectations for the success of academically talented men may contribute to the gender difference regarding career barriers.

In a study examining gender difference in career indecision, Kim and Seo (2009) examined the mediating effect of coping self-efficacy and outcome expectancy with a sample of 672 engineering students. Although contextual supports and career indecision was fully mediated by coping self-efficacy and outcome expectance for both men and women, gender differences also were reported. Specifically, outcome expectance had a stronger effect on career-indecision than coping self-efficacy for female students, but coping self-efficacy showed higher effect than outcome

expectance for male students. Female student may have considered future outcomes more seriously in career decision-making process than male students.

In terms of career maturity, there were no gender differences in overall career maturity, but differences were found in subscales (Lee, Song, Lim & Jeon, 2004). Specifically, male students reported higher independence when compared to female students in a sample of 228 college students. This result implied that women and men have different mechanisms for developing their career-related attitudes. Therefore, it was concluded that more efforts are needed to explore women's attitudes and beliefs regarding their career development and achievement to facilitate advancement in their careers.

Career aspirations of young women

Definition of career aspirations

One of the key factors involved in women's career success is career aspirations (Fisher, Gushue, & Cerrone, 2009; Flores & O'Brien, 2002). Historically, understanding career aspirations for women developed along with perspectives on the career choices of women. In early industrial society, women's career choices were limited to the choice between work outside the home and work at home. In that era, it was assumed that women's employment would terminate with marriage (Evans, 1987). Therefore, women likely aspired to having a job only before they got married. In this sense, women's career choices and their aspirations were understood in the dichotomous frame of pursuing a career versus family orientation (Betz & Fitzgerald, 1987; Fassinger, 1990).

However, these dichotomous perspectives on women's career aspirations cannot fully capture the more dynamic characteristics of women's career choices in modern society; specifically, more women pursue of both career and family as an important part of their lives. In addition, women in traditional occupations can aspire to advance in these roles. For example, a female nurse can aspire to be a training director or faculty in a nursing school. Since women's motivation for achievement and leadership may vary within their chosen careers, it is necessary to define career aspirations as a more continuous variable with different dimensions rather than as point-in-time expression of vocational preferences (Johnson, 1995). Thus, in this study, career aspirations are defined as the degree to which women aspire to leadership positions and continued education within their careers (O'Brien, 1996). Investigation of this career aspiration can contribute to encourage young Korean women to motivate with positive career achievements in their fields, especially considering lack of female leadership in Korean society.

Development of a measure of career aspirations

Along with the above definition of career aspirations, O'Brien (1996) developed the Career Aspiration Scale (CAS) to assess this variable. The original CAS had 10 items to measure the degree to which women pursue career-related goals in their lives, including the three themes: (a) aspiring to leadership and promotions, (b) training and managing others, and (c) pursuing further education.

As the CAS was utilized in many studies to assess characteristics of women's career development, researchers began to explore the psychometric properties of the scale (Gray & O'Brien, 2007). Gray and O'Brien (2007) investigated the psychometric

properties of the CAS based in five different studies. They concluded that the CAS provided a valid and reliable result when it applied to adolescent, college, and post-college samples comprised mainly of White women. For example, the CAS demonstrated strong test-retest reliability over a 2-week period and it showed moderated internal consistency across different studies. Also convergent validity was evidenced by scale correlations with related measures such as gender role attitudes, career decision self-efficacy, multiple role self-efficacy, occupational self-efficacy, instrumentality, and relative importance of career versus family. Also, a two factor structure was found with subscales including leadership aspirations and educational aspirations in samples of White women.

Although the general reliability and validity were partially supported, according to Gray and O'Brien (2007), several questions related to the CAS emerged. Specifically, one of the subscales which assessed educational aspirations demonstrated inconsistent internal consistency across samples, probably because of the low number of items. In addition, a study with a sample of Mexican American adolescent girls did not replicate the same factor structure as studies of predominantly White women. Therefore, these findings indicated that women's career aspirations can be more clearly understood with an improved measure to assess various forms of career aspirations. Furthermore, additional efforts to assess career aspirations across various cultural groups are necessary to understand the social and cultural context related to women's career development.

Thus, Gregor and O'Brien (2013) revised the original CAS. They added more items and evaluated the factor structure of the revised scale. The revised version of the

career aspirations scale (CASR) of 20 items consisted of a three factor structure of leadership aspiration, educational aspiration, and achievement aspiration with a sample of 202 ethnically diverse female graduate students. Each subscale demonstrated higher internal constancy compared to the original CAS. Although this result provides primary support to apply the CASR in certain groups of young women in the U.S. by demonstrating adequate convergent validity with related scales (e.g. career salience and achievement motivation), the utility of the CASR should be continuously explored to examine career patterns of young women in more diverse social and cultural contexts.

Research findings related to career aspirations in the U.S.

In the United States, career aspirations have been studied in relationship to other career-related variables for women. For this part of the literature review, studies that applied the definition of career aspirations and used the measure by O'Brien (1996) are summarized.

Historically, multiple studies have examined factors related to career aspirations among young women including individual characteristics, familial factors, and social contextual factors. For example, Rainey and Borders (1997) explored influential factors on the career aspiration of early adolescent girls. They surveyed daughters in seventh and eighth-grade as well as their mothers and participants were predominantly Caucasian (96% of the sample). Both daughters' agentic characteristics and mother-daughter relationship were related to the career aspirations of daughters. It is notable that both individual characteristics, such as instrumental personality and

familial factors such as mother and daughter relationship, are influential in their anticipation for further advancement in career.

Career aspirations changed over time (O'Brien, Friedman, Tipton & Linn, 2000). O'Brien and her colleagues (2000) investigated the development of career aspirations over a 5-year period with a sample of 207 young women. Interestingly, young women showed decreases in their career aspirations indicating that they selected more traditional and less prestigious careers than they aspired to in their senior year of high school. Being attached to parents had a direct effect on the development of confidence in pursuing career-related tasks, which related to higher career aspirations of young women. Therefore, this research showed that understanding the developmental pattern of career aspirations and related protective factors is important to facilitate young women's career development.

In addition to individual and familial factors, the influence of contextual and social cognitive variables on career aspirations was examined (Flores & O'Brien, 2002). With a sample of 364 Mexican American adolescent women, a positive relationship emerged between career aspirations and acculturation level. They also found that Mexican adolescent women who are more oriented toward the Western culture may have higher career aspirations. Furthermore, feminist attitudes were a predictor of career aspirations among Mexican adolescent women, suggesting that women who pursue non-traditional gender roles may exhibit a higher level of career orientation. Thus, this study indicated that contextual variables such as gender role attitudes or cultural identity relate to the development of career aspirations among young women.

Career aspirations of Korean women

To assess career aspirations of Korean women, the original Career Aspirations Scale (CAS; O'Brien, 1996) was used in Korean research. Choi (2002) translated the original CAS to examine the career aspirations of Korean college women. She initially translated the items into Korean and another psychologist reviewed the translated items. Participants were asked to answer 10 items of the translated version of the CAS with the same Likert scale as the original version. A Cronbach alpha of .74 emerged with a sample of 270 undergraduate Korean women.

Since the translated version of the CAS was introduced in Korea, several studies have been conducted with this measure. As studies in the United States have focused on related factors of the development of career aspirations, studies in Korea also examined individual and contextual variables related to career aspirations. For example, relations were found among parental support and career aspirations with a sample of 462 high school students in Korea (Woo & Hong, 2011). Also, career aspirations served as a mediator between parental support and career maturity.

Moreover, the concept of career aspirations has been explored in a more general context of career development rather than focusing on characteristics of women's career development in Korea. For example, Lee and Hwang (2012) investigated the effects of academic self-efficacy and achievement goal orientations on the career aspirations of college students. The study of 446 college students showed that academic self-efficacy and achievement goal orientation served as predictors of career aspirations. Although this research suggested that motivation to higher achievement is related to career aspirations among college students, it does not provide

information regarding gender differences in career development. Moreover, the instrument was used to assess career aspirations among Koreans without adequate investigation of the psychometric properties and factor structure. Although the translated version of the CAS demonstrated a moderate level of internal consistency, several limitations exist regarding its reliability and validity.

Specifically, several threats to validity emerge related to the translation process of the CAS. It was translated into Korean by a single researcher and other strategies such as centering process was not applied in the translation procedures. This simple process may cause lack of linguistic and content validity regarding the complex characteristics of translated measures. In addition, the psychometric properties of the translated CAS were not explored with appropriate examinations such as factor analysis. Because the original CAS demonstrated different psychometric properties across samples in the United States (Gray & O'Brien, 2007); the reliability and validity need to be explored using multiple steps when applied to different cultural groups. Therefore, this study aims to improve the measurement of career aspirations of young Korean women.

Achievement motivation

Although various individual and contextual factors were related to women's career aspirations, one of the key constructs which is closely associated with career aspirations is achievement motivation. For example, with a sample of female graduate students in clinical and counseling program in the United States, moderate correlations between career aspiration and achievement motivation were found (Gregor & O'Brien

2013). Achievement motivation seems to relate to important aspects of women's career aspirations.

Achievement motivation has been defined in various ways depending on theories and context, but it refers to "the desire to accomplish something of value or importance through one's own efforts and to meet standards of excellence in what one does" (Hyde & Kling, 2001). Historically, gender differences in achievement motivation have been one of the essential areas in psychology (e.g., McClelland, Atkinson, Clark, & Lowell, 1953), but the findings were questioned due to flawed methodology (Hyde & Kling, 2001).

To provide an unbiased instrument to measure women's motivation, Sepnce and Helmreich (1983) developed the Work and Family Orientation (WOFO)

Questionnaire. It was designed as a self-report measure with multiple dimensions of motivation such as work orientation, mastery needs, competition, and personal unconcern. The construct validity of the scale was supported regarding its relationship with educational and career aspirations (Adams, Priest, & Prince, 1985). This measure has been used in investigations of women's attitudes toward higher education and career outcomes.

Since the WOFO was introduced to the field of psychology in Korea (Kwon, 1997), several factors hypothesized to be associated with achievement motivation have been explored for Korean women. Individual factors such as self-esteem, employment motivation, and work satisfaction as well as contextual factors including emotional, perceived social economic status were shown to be related to achievement motivation for married women (Kwon, 1997). Also, working women who have high achievement

motivation perceived fewer negative associations between family and career commitment (Kang & Lim, 2000). The Korean version of the WOFO was also applied to a sample of college men and women investigated the relationship among parental attachment, gender egalitarianism, and achievement motivation (Jang, Seong, & Kwon, 2011).

Career orientation

Another construct of interest regarding its relationship with career aspiration is career orientation. The definition of career orientation varies, for example, career orientation refers to individual preferences for a certain occupation, but it also has been used to describe internal attitudes toward work or career (Carlson, Brooklyn, & Adsworth, 2003). For this study, career orientation is operationalized as women's perceptions of the importance they place on family and career in their lives (Battle & Wigfield, 2003). So, high levels of career orientation will correspond to career being a priority over other life roles.

Battle and Wigfield (2003) examined women's orientations toward family, career, and graduate school with a sample of 216 female students in the United States. There were positive correlations among career orientation, intrinsic-attainment value, and utility value while a negative relationship between career orientation and cost value was found. This suggested that high intrinsic motivation and consideration regarding the usefulness of pursuing careers were relevant to women's prioritizing career versus family. Also, when they consider the cost associated with their career choices, women might not have a strong orientation toward a career. Therefore, career

aspirations are associated with career orientation and both play an important role in shaping women's career patterns.

Career orientation of Korean college women also was explored regarding its relationship with attitudes toward multiple-role planning, self-efficacy in the relationship, and life-satisfaction (Kim, Yoo, & Lim, 2011). Kim et al. (2011) found that career orientation has an effect on career decision-making self-efficacy through a mediating effect of attitudes toward multiple-role planning with a sample of 345 female college students in Korea. Based on the finding, the authors recommended strategies to facilitate career success by increasing awareness of career-related attitudes of Korean women. This research also suggested that career orientation may be used as an indicator to reflect facilitative factors in women's career development in addition to career aspirations for Korean women.

Career goal engagement

Another construct is hypothesized to relate to career aspirations is career goal engagement. Career goal engagement refers to being engaged in the process of achieving individual career goals which includes commitment to achieve career goals and perceived competency to fulfil these career-related goals (Boo, 2012).

This construct has been examined with a sample of high school students in Korea (Boo, 2012). Specifically, the relations among career goals, career-related goal engagement, and school adjustment were studied with a sample of 477 high school students in a rural area in Korea. Career-related goal engagement was positively correlated with students' plans to acquire more skills and knowledge of their vocational competency. Also, high scores on career goal engagement were associated

with school adjustment. Based upon this finding and the conceptual meaning of each construct, it is hypothesized that high career aspirations will be correlated positively with career goal engagement, because women who aspire to achieve within their careers are likely to demonstrate commitment and competence regarding career goals.

Methodological issues in translated measures

Historically cross-cultural research has played an essential role in understanding the cultural context of career development. However, when cross-cultural research is not based on culturally appropriate instruments, its scientific and practical implications cannot be applied to the populations of interest. Therefore, methodological issues related to the translated measures should be considered to assess cultural equivalence and bias (van de Vijver & Tanzer, 2004).

Cultural equivalence across measures

The idea of cross-cultural equivalence has been established on the 'etic' approach, which hypothesizes some universality across cultures (Berry, 1981).

Therefore, cultural equivalence generally refers to the comparability of observations across cultures, which indicates whether obtained scores can be interpreted in the same way across populations (van de Vijver, 2001). Cultural bias can be used as the opposite term, but cultural equivalence has been more attached to the measurement level (van de Vijver & Tanzer, 2004). Cultural equivalence can be defined in multiple ways related to its roots and consequences (£ gisdóttir et al., 2008; Hui & Triandis, 1985; Phillips, de Hernandez, & de Ardon, 1994; Willgerodt et al., 2005), but it can be conceptualized by four types: 1) linguistic equivalence, 2) conceptual equivalence, 3) metric equivalence, and 4) functional equivalence (£ gisdóttir et al., 2008; Lonner,

1985). There may be overlapping areas among four types of equivalence, but they emphasize different aspects of cultural equivalence in measurement.

Linguistic equivalence indicates whether wording of items in different language versions conveys the same semantic meaning. It is especially related to the quality of translation when the source measurement is applied to another language group. Conceptual equivalence refers to the commonalities in meaning related to certain behaviors and concepts across cultures. When a construct (e.g., meaning of seniority) is so dissimilar in focal culture, it can result in conceptual non-equivalence across cultures. In addition, metric equivalence has to do with psychometric properties of translated or adapted measurements. It is assumed to that the measurement has reliable and equivalent factor structures across cultures. Last, functional equivalence indicates the concept or behavior of interest works in the same way or function across cultures. For example, if certain career-related attitudes increase job satisfaction in different societies, there may be sufficient commonalities between the functions of the behavior across cultures.

Issues in translations

When English measures are translated into Korean, the linguistic equivalence is basically examined by sound translation procedures, because some items might have different meanings in Korean as compared to English. For example, when 'ignoring' is translated in Korean, research found out that 'ignoring' may have more negative connotation compared to the original meaning in English such as 'avoidance,' or 'disinterest' (Willgerodt et al., 2005). Therefore, it is important to plan a translation procedure that considers characteristics of the target language.

The most common method to translate a measurement is the translation-back translation method used by a bilingual translator, but this approach raises several issues (Barger, Nabi, & Hong, 2010). To be specific, a bilingual translator may automatically correct slight errors in translation, because she or he has ability to understand both languages. Also, certain words or idioms such as emotional terms may need a more painstaking process to find the equivalent term in the targeted language (Barger et al., 2010). To consider these aspects, the efficacy of the translation-back translation method should be evaluated based on understanding of its limitations.

Moreover, linguistic structure in the targeted language can have an influence on choosing translation methods. For example, a liberal translation (broad translation based on the whole meaning of an item) rather than a literal translation (word-for-word translation) is more recommended when English is translated into Korean due to their different sentence structures (Willgerodt et al., 2005). For example, when personal pronouns such as "her" or "him" are directly translated into Korean, it may sound unnatural and odd in Korean sentences. Therefore, multiple methods or multiple rounds of translations rather than a literal translation by a single expert are encouraged to decrease erroneous translation (Brislin, 1970; £ gisdóttir et al., 2008).

Brislin (1970, 1986) recommended a translation procedure that incorporates multiple rounds of translation and a back-translation process. In this procedure, a source instrument with simple and straightforward language is prepared at first. Next, a bilingual translator who is knowledgeable about the content translates the items into the target language. Then, another translator independently and blindly translates back

from the target to the original language. After initial translation and back-translation, several reviewers examine both versions of the measurement. In this step, the "decentering" process occurs, where both the original language and the target language versions are considered equally important (Brislin's, 1970, 1986).

Considering considerable differences between English and Korean, the decentering process can contribute to develop equivalent or near-equivalent Korean that corresponds to the original version. When the reviewers agree on translation, it needs to be pre-tested with a group of target language-speaking people. Based on the result of the pre-test, the researchers revise the measurement. Moreover, a group of bilingual people simultaneously or separately tests the original and translated versions to check the accuracy of the translation. Then, the researcher can finalize the translated version of the measurement based on the result of the pre-tests. The whole process may require considerable efforts, but the interactive process helps to ensure the quality of language equivalence.

In addition to this procedure, the researchers emphasize the involvement of a group of people who have different expertise (Harkness et al., 2003; van de Vijver & Tanzer, 2004). In this approach, a translation committee with translators, translation reviewers and translation adjudicators can put in cooperative efforts to develop translated scales. The quality of translation can be progressed by multiple rounds of modification with diverse perspectives regarding its cultural, linguistic, and psychological aspects. This committee approach can be powerful to detect erroneous translations, especially when the members have complimentary areas of expertise (van de Vijver & Tanzer, 2004).

Metric equivalence

Metric equivalence refers to the quantitative characteristics of the measurement and is mainly examined with regard to the psychometric properties of the instrument. Examinations of metric equivalence can be performed in several ways (van de Vijver & Leung, 2000), but generally includes testing correlations between items, internal consistency, and factor structures within the translated measurement or across measurements. In particular, factor analysis techniques must be used to test whether the construct of interest operates meaningfully across groups (Miller & Sheu, 2008).

Metric equivalence needs to be considered carefully, especially when the measures are used to make comparisons in different cultures. For example, Chen (2008) demonstrated that the relationship between variables tends to be artificially stronger in the source population (e.g., the United States), than when factor loadings of a predictor in the source group are higher in the targeted population (e.g., China). Based on this result, it is suggested that tests of measurement invariance should be performed as a first step in group comparisons before making group comparisons.

Several studies have been performed to test metric equivalence when the translated measurements are applied to different populations. For example, the metric equivalence of the Korean version of the depression scale was tested with several techniques (Kim, Han, & Phillips, 2003). The researchers explored its inter-item and item-total correlations, Cronbach's alpha coefficients, and factor structures with a sample of Korean Americans and European Americans. The result showed that both measurements had reliable internal consistency and a two-factor structure. However, several items asking about "not as good as others' and "not hopeful about the future"

showed a lower item-total correlation, which may reflect less emphasis on positive expression in Asian culture compared to Western society. Based on this finding, they suggested that "the evaluation of factorial similarity alone is not a powerful enough technique for testing the universality of the structure underlying an instrument" (Kim, Han, & Phillips, 2003, p. 16). Thus, it is important to consider multiple aspects related the factorial similarity when metric equivalence across measurements is tested.

Another example of the examination of metric equivalence across different measurements was found in a study about achievement goals (Murayama et al., 2009). They examined the psychometric properties of the achievement goal questionnaire with a sample of Japanese and Canadians. The result of the confirmatory factor analysis revealed the same four-factor structure across cultures, which indicates similar relationships between common factors and observed item scores across groups. However, they also suggested that these similarities across cultures were not conclusive considering different inter-factor correlations and a gap in the internal consistency coefficients between Japanese and Canadian groups. This implied that there may be systemic errors in responses between the two samples. Again, a single test to check factorial similarity was not sufficient to evidence metric equivalence across measurements.

A study about self-esteem among Korean Americans also provides support for the hypothesis that differences among various ethnic groups in the scale may reflect metric non-equivalence across measures rather than actual differences in attitudes (Bae & Brekke, 2003). Bae and Brekke (2003) found that Korean Americans scored lower than other ethnic groups such as White, Latino, and African Americans in the self-

esteem scale, perhaps due to different responses toward positively or negatively worded items. Specifically, Korean Americans reported lower scores on positively worded items, while there was no difference in responses to negatively worded items. This finding suggested that the differences in total scores cannot be assumed for showing actual differences about the targeted construct when there is non-equivalence in responses to different types of items depending on groups.

Summary

In summary, women's career choice and development is complicated and influenced by many factors beyond individual achievement. Moreover, women's expectations and motivation for career achievements cannot be separated from other life roles and related social contexts (Eccles, 2011). Notably, Korean women experience diverse challenges and barriers in the workplace (Hausmann et al., 2011), yet many young Korean women continue to progress in their academic and career achievements (Jeong et al., 2009). A salient construct related to women's career expectations and motivation is career aspirations (O'Brien, 1996). Career aspirations have been studied to understand women's career development and to provide a psychometrically sound measure of this construct in the United States (Gray & O'Brien, 2007). Most recently, the Career Aspiration Scale-Revised (Gregor & O'Brien, 2013) has shown promise for measuring this construct.

Although there are benefits to building on the body of literature related to career aspirations among women in the United States by using existing psychometrically tested measures, caution is needed prior to using instrumentation developed in the United States with women in other countries due to the need to

evaluate and ensure cultural equivalence (£ gisdóttir et al., 2008). Therefore, this study aimed to translate the CASR into Korean using empirically-supported translation methods and test the appropriateness of use of this measure with young Korean women.

Research Questions and Hypotheses

The overall question that this study sought to address was "To what degree is the Korean version of Career Aspirations Scale-Revised (K-CASR) an adequate measure of career aspirations for college women in Korea?" The psychometric properties of the translated measure were examined. The specific research hypotheses were tested:

- 1. To what degree was the Korean version of Career Aspirations Scale-Revised (K-CASR) an adequate measure of career aspirations for college women in Korea?
 - a. The K-CASR would show adequate reliability with a sample of female college students in Korea.
 - b. The three factor structure (educational aspirations/ leadership aspirations/ achievement aspirations) would emerge in the K-CASR.
 - c. The subscales of the K-CASR would be correlated positively with all subscales of the Achievement Motivation, Career Orientation, and Career Goal Engagement scales.

Chapter 3: Methods

The purpose of this study was to translate a measure of career aspirations and to assess the adequacy of this instrument for use with Korean female college students. First, the original version of CASR was translated into Korean and the appropriateness of the translated measure was examined (Pilot Study). Then, several statistical analyses were conducted to explore the psychometric properties of the K-CASR and the relationships among the K-CASR subscales and other instruments assessing constructs hypothesized to be associated with career aspirations (Main Study).

Pilot Study

Translation

This study applied translation strategies based on multiple methods including the use of a translation committee (Brislin, 1970, 1986; £ gisdóttir et al., 2008; Harkness, Van de Vijer, & Moher, 2003; Hui & Triandis, 1985). According to suggestions from the literature, two translators, three translation reviewers, and three translation adjudicators formed a translation committee. In addition, five native Koreans who were not majoring in psychology were invited to provide feedback.

The translators were bilingual doctoral students in counseling psychology in the U.S. who speak English and Korean fluently. A counseling psychology doctoral student who speaks Korean and English and who was the principal investigator of the study, an English speaking counseling psychologist who was the original author of the Career Aspiration Scale, and a Korean-English bilingual doctoral student in linguistics who has linguistic knowledge of the differences in English and Korean participated as translation reviewers. Also, the three translation adjudicators were professors who

specialized in career counseling in Korea and who can speak both languages. Two of the adjudicators were faculty members in counseling programs and one of them was a practitioner at a university counseling center in Korea.

The translation procedures involved several steps. First, the English items on the CASR were translated English into Korean by a single bilingual translator. Then, another bilingual translator back-translated the Korean items into English. The translation reviewers discussed and revised the K-CASR by repeated examinations of translated and back-translated items. Although most items showed similar meanings, differences between two versions appeared. First, several back-translated items conveyed different nuisances in the degree to which items described purposeful plans or activities in terms of pursuing continuing education. For example, the translation reviewers discussed difference between an original item (e.g., take continuing education courses) and a back-translated item (e.g., receive continuous educational courses). In this item, the translation was revised so the Korean item indicated a more purposeful educational plan. Also, there were a few expressions in the original items that sounded unnatural to the native Korean speakers when directly translated. For example, "I want to be among the very best in my field" was initially translated into "I would like to be the best in my field," because "among the very best" seemed to be an English-oriented sentence to native Korean speakers when it is literally translated. Therefore, this item was modified as "I want to become one of the best experts in my field" not only to keep the original meaning, but also to be more natural to Korean speakers.

After the repeated examinations, the revised version was distributed to the three translation adjudicators. The translation adjudicators rated on a 5-point scale the degree to which each K-CASR item reflected the meaning of career aspirations given the definition (from 1 (it does not represent the concept at all) to 5 (it represents the concept very well). The average score of 3 (it moderately represents the concept) among three raters was selected a priori as a cut-off score to assess the conceptual equivalence of the items. All of the items received average scores greater than or equal to 3 (see Table 1). Moreover, the adjudicators were asked to generate additional items for possible inclusion on the instrument to ensure that this measure reflected the construct of career aspirations for Korean women (e.g., "What items would you add to address career aspirations for Korean women if needed?"). We also included an open ended question that asked for any additional comments (e.g., "Please, provide any feedback about the measure").

In general, the three raters agreed on that the items reflected the construct of career aspirations for college women in Korea. One of the adjudicators pointed out different nuisances in the negatively worded Korean items, suggesting that participants might not respond in the intended way for extremely negatively worded items. For example, she noted that Korean participants may be more likely to avoid extreme responses for negative worded such as not responding "very true of me" for "Achieving in my career is not important at all to me" item even if the participant had low career aspirations. The adjudicators also suggested adding several items such as "I would not prioritize my career achievement if my family was against it" to expand the scale to married women, but this idea was not included in the current version of K-

CASR. Based on feedback regarding changes to the original items (not additions to the scale), the translated version was revised and finalized for use in subsequent analyses.

Finally, we invited six Korean speakers who were not majoring in psychology to read all items and review the clarity of the statements. They mostly indicated that the meaning of items was clear to them. Two participants reported that they were not sure how to answer negatively-worded items such as "Achieving in my career is not at all important to me" with a 5-likert scale. However these negatively-worded items were retained as the majority of raters reported that they understood the item clearly.

Main Study

The purposes of the main study were to examine the psychometric properties of the K-CASR, test the factor structure, study the relationships among the subscales and constructs hypothesized to be related to career aspirations (achievement motivation, career orientation and career goal engagement), and examine the reliability and test-retest reliability of the subscales with a sample of female college students in Korea.

Procedure

Ten four-year universities in Korea (in the Seoul, Gyongki, Chungcheng, Kwangju areas) were identified where the principal investigator had contacts to assist in the recruitment of the participants. The principal investigator and a research assistant in Korea contacted several instructors and asked if they would distribute the survey to female college students in their undergraduate Education or Psychology classes. The surveys and consent forms were sent to the instructors who agreed to help with data collection.

The instructors introduced and distributed the survey either during the break or at the end of class according to the directions from the research team. The students read the informed consent form and those interested in participating completed the 20 minute survey. A pen, which cost about 50 cents, was given to the students as small compensation for their participation. When they completed the survey, they placed the survey in an envelope that was located on the table around the corner of the classroom. Students who did not complete the survey were asked to place the blank survey in the same envelope. The last student who submitted the survey was asked to seal the envelope. Then, the instructors sent the envelope to the research assistant.

Two weeks after completion of the first survey, 31 participants from two of the classes who participated in the first survey were invited to complete the K-CASR again to assess test-retest reliability. The second K-CASR survey took 5 minutes to complete. Twenty-nine women participated in the Time 2 test.

Initially, 399 surveys were returned to the research team (response rate: 93.85%). The data for 399 participants were examined prior to conducting statistical analyses. Three participants who identified as being married woman, one participant who was 42 years old, and 12 surveys which did not pass two validity check items were excluded. Then, the missing data were addressed using recommendations from Schlomer, Bauman and Card (2010). Six participants with more than 10% missing data were not retained for further analysis. Therefore, 377 out of 399 surveys were included in the statistical analyses. A missing data analysis indicated that the percentage of missing responses ranged from 0 to 1.1% across items of the scales. We

imputed missing values by the expectation maximization method using SPSS Version 22.

Participants

A total of 377 female college students from nine four-year universities in South Korea participated in this study. The universities varied in terms of regions (Seoul, Gyongi, and Chungcheng) and university rankings (three of them were from topranking universities, three were from moderately ranked universities, and two were from less prestigious universities). The ages of the participants ranged from 18 to 28 years (M = 20.66, SD = 1.70) and all were single. Regarding class levels, 16.4% of the participants were first year students, 23.1% were sophomores, 32.6% were juniors, 19.6% were seniors, 2.4% were fifth-year students and 5.8% did not report their class level. The majors of participants were varied, but most were majoring in the social sciences (32.4%) and education (27.1%). In terms of educational plans, participants aspired to obtain bachelor (32.6%), doctoral (32.6%), master's (27.3%), or other professional degrees such as law school (2.1%).

The majority of the participants (69.5%) indicated that they have decided on their future career. Of the participants, 75.9% planned on getting married in the future and 69.8% planned on having a child in the future. Regarding their parents' employment, most participants' fathers were full-time employed (89.9%) and part-time employed (5.8%), while 48.5% of their mothers were full-time employed and 11.1% of them were part-time employed. Most participants were from the middle class as perceived social class scores were 6.49 (SD = 1.62) in their community and 5.99 (SD = 1.70) in Korea.

Measures

Career aspirations. The newly translated K-CASR (see Appendix A) was used to measure career aspirations. The original CASR consists of three subscales including leadership, educational and achievement aspirations (Gregor & O'Brien, 2013; see Appendix B). The leadership aspirations subscale measures the degree to which women aspire to a leadership position within their career (e.g., "I hope to become a leader in my career field."). The educational aspirations subscale refers to the degree to which women aspire to continue education or training within their career (e.g., "Even if not required, I would take continuing education courses to become more knowledgeable"). Last, the achievement aspirations subscale measures the degree to which women aspire to achieve recognition within their career (e.g., "I aspire to have my contributions at work recognized by my employer").

The CASR asks participants to indicate their degree of agreement with 24 items. Response options range from 0 (*not at all true of me*) to 4 (*very true of me*). To score the measure, negatively worded items were reverse coded, and then the total score of each subscale was summed. High scores reflected strong career aspirations. In a previous study, Cronbach's alpha coefficients ranged from .71 to .88 with 202 graduate female students in the United States (Gregor & O'Brien, 2013). Positive correlations were found among the subscales and measures of achievement motivation and career salience.

Achievement Motivation. Kwon (1996; see Appendix C) translated a Korean version of an achievement motivation scale by back-translation procedures, which was constructed initially as the Work and Family Orientation Questionnaire by Spence and

Helmreich (1983; see Appendix D) The achievement motivation scale included 19 items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*), e.g., "I prefer to work in situations that require a high level of skill." The scale originally was developed for three dimensions of achievement motivation: competitiveness, mastery, and work. However it was recommended to combine the work and mastery domain given the high correlations between two dimensions (Spence & Helmreich, 1983). Therefore, this study also used two domains only: work/mastery and competitive. Scores on the items were summed and high scores reflected strong levels of achievement motivation. The Cronbach's alpha coefficient was .80 with a sample of college students in Korea (Seong et al., 2010). In this study, the Cronbach's alpha coefficient was .79 for work/mastery and .83 for competitiveness. The achievement motivation demonstrated positive correlations with self-esteem, employment motivation, and work satisfaction with a sample of working mothers in Korea (Kwon, 1996).

Career Orientation. Battle and Wigfield (2003) developed the Family and Career Scale to assess family versus career orientation of young women in the United States; see Appendix E. Sixteen items were answered on a scale ranging from 1 ($strongly\ disagree$) to 5 ($strongly\ agree$). Half of items were reverse-scored and then items were summed. An example item was "I think women should have a career whether they have children or not." A high score indicated strong levels of career orientation. Battle and Wigfield (2003) reported a sufficient level of internal consistency (Cronbach's $\alpha = .89$) with a sample of college women in the United State.

The Korean version of the Family and Career Scale was developed by Kim, Yoo, and Lim (2011; see Appendix F). The research team utilized the translation and back-translation method including rating process by two doctoral students who were familiar with the content. A moderate level of internal consistency (Cronbach's α = .77) was found with a sample of Korean college women in a previous study (Kim et al., 2011). In this study, the Cronhach alpha coefficient was .80. Career orientation was correlated negatively with women's willingness to compromise their career plans for family in the United States (Ganginis Del Pino, O'Brien, Mereish, & Miller, 2013) and was correlated positively with multiple role planning and self-efficacy for career decision-making among Korean young women (Kim et al., 2011).

Career Goal Engagement. Career goal engagement was defined as engagement in the process of achieving one's career goals (Boo, 2012). The scale to assess career goal engagement was developed in Korean by Boo (2012) and includes two components of the construct, individual commitment to achieve the career goal and perceived competence to actualize the career goal (see Appendix G for the original Korean version and see Appendix H for the translated English version). The scale consisted of eight items on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item was "I spend a great deal of time to achieve my career goal." With a sample of high school students in Korea, a moderate level of internal consistency was reported (α =.85; Boo, 2012). The Cronbach alpha coefficient was .90 in this study. In addition, the validity of the scale was supported by a positive correlation with a scale measuring motivation to acquire more skills and knowledge for career (Boo, 2012).

Demographic Scale. Participants were asked to provide basic demographic information including their age, gender, education plan, major, career choice, grade, marital status, parents' occupations and education levels, and socioeconomic status (See Appendix I for English and Appendix j for Korean). Socioeconomic status was assessed with two items asking about the participants' social class in their community and in Korea; the items were rated on a scale from 1 (*at the bottom*) to 10 (*at the top*).

Random Response Check Scale. Two questions to screen for random responding were included in the survey according to the recommendation from literature (Osborne & Blanchard, 2011). The participants were required to endorse a specific response for these questions (e.g., "Please select 4 for this question").

Analytic approach

Means, standard deviations, reliabilities, and ranges were calculated for all scales. Confirmatory factor analyses (CFA) were conducted with Mplus version 6 (Muthen & Muthen, 1998-2008) to examine the factor structure of the revised measure. This study tested the hypothesized relationship between observed variables and their underlying latent construct based on the structure of the CASR (See Figure 1; Gregor & O'Brien, 2013). CASR presented a three-factor structure: achievement aspirations, leadership aspirations, and educational aspirations when it was administered to women in the United Sates (Gregor & O'Brien, 2013). The comparative fit index (CFI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR) were selected a priori to assess model fit. CFI values greater than or equal to .90, RMSEA values less than .08, SRMR values less than or equal to .09 were considered indicative of adequate model fit (Hu &

Bentler, 1999). Additionally, bivariate correlations were performed to assess the relationships among the K-CASR subscales, achievement motivation, career orientation, and career goal engagement to test hypothesized relationships among relevant variables.

Chapter 4: Results

Confirmatory factor analyses

A confirmatory factor analysis was conducted to examine the 24 item three-factor model of the K-CASR. Table 2 shows the descriptive statistics for each item and Table 3 provides the correlations among the K-CASR items. The data were non-normally distributed with skew values ranging from -2.24 to -.07 and kurtosis values ranging from -.1.05 to 5.49. Therefore, the Maximum Likelihood Robust (MLR) estimation procedure was used for all analyses.

The confirmatory factor analysis with the 24-item three-factor model did not exhibit adequate model fit indices (χ^2 (248, N=378) = 982.477, p < .01, CFI = .832, and RMSEA = .089 (95% CI: .083 ~ .094). The CFI and RMSEA did not meet the standards for a well-fitting model. Only the SRMR indicated good model fit (SRMR = .077).

Thus, we tested an alternative model of the K-CASR (see Figure 2). The alternative model was developed by deleting six items from the original K-CASR. First, three items of the K-CASR were deleted due to low factor loadings. Low factor loadings were found for items 10 (.17), 11 (.27) and 14 (.40). Next, two items were deleted due to restricted range. Items 6 and item 7 presented highly skewed (item 6 = -2.24; item 7 = -1.65) and kurtosis distributions (item 6 = 5.49; item 7 = 2.47). Because these problematic items were all reverse-scored items, it was possible that the reverse-scored items on this measure might not operate in the intended way with the sample of Korean young women. For example, the negatively worded items (e.g., "Attaining leadership status in my career is not that important to me.") might be influenced by a

tendency to avoid extremely negative responses among Korean women. Literature regarding cultural differences in response patterns also indicated that the tendency to avoid extremely negative responses among Asian participants can result in a restricted range of responses (Chen, 2008). This literature provided additional support for the exclusion of the five reverse-scored items, because they may not function similarly for Korean women as they do for American women.

Furthermore, an additional item was deleted from the K-CASR because two items were highly correlated. The bivariate correlation between item 22 ("Even if not required, I would take continuing education courses to become more knowledgeable.") and item 23 ("I would pursue an advanced education program to gain specialized knowledge in my field.") was r = .86. In Korean, there is no equivalent term for "continuing education courses," thus item 22 had been translated into a very similar expression as item 23 ("I would continue education or training to have more professional knowledge"). Given the similarity in wording, the lack of continuing education courses in Korea, and the high inter-item correlation, item 22 was deleted from the model. Therefore, six items for achievement motivation, five items for leadership aspirations, and seven items for educational aspirations were retained in the final K-CASR.

The three-factor structure of the 18-item K-CASR was examined and resulted in improved model fit indices (χ^2 (132, N=377) = 441.996, p < .01; CFI = .905; RMSEA = .079 [95% CI: .071 ~ .087]; SRMR = .052). All of the model fit indices met the criteria for an adequate model, with factor loading estimates ranging from .42 to .87 (Table 4).

Descriptive statistics and correlations among K-CASR, achievement motivation, career orientation, and career goal engagement

The means, standard deviations, ranges, and reliability estimates of the measures in this study can be found in Table 5. On average, the participants reported moderately high career aspirations across subscales: achievement aspirations, leadership aspirations, and educational aspirations. The Cronbach alpha for each subscale indicated strong internal consistency (achievement aspirations = .82; leadership aspirations = .86; educational aspirations = .90). Participants also, on average, endorsed moderately high levels of achievement motivation (work/mastery), achievement motivation (competitiveness), career orientation, and career goal engagement.

We tested whether the achievement aspirations, leadership aspirations, and educational aspiration subscales were associated with relevant variables in the hypothesized directions. The bivariate correlations indicated that all three subscales were correlated positively with achievement motivation (work/mastery), achievement motivation (competitiveness), career orientation, and career goal engagement as hypothesized (see Table 6). The correlations ranged from .14 to .58.

Test-retest reliability

We analyzed the data of 29 participants who completed the K-CASR twice (initially and three weeks later) to determine if the measure exhibited stability over time. The means, standard deviations, and bivariate correlations for the Time 1 and Time 2 measures are presented in Table 7. Correlation estimates between the administrations of the measures were as follows: .76 for achievement aspirations, .83

for leadership aspirations, and .78 for educational aspirations. The results suggested that the measures of achievement aspirations, leadership aspirations, and educational aspirations were stable over a short period of time.

Chapter 5: Discussion and Conclusion

Discussion

The purpose of this study was to translate and evaluate a measure of a salient career-related variable for Korean women, career aspirations. The translated measure exhibited good psychometric properties when used with a sample of 377 undergraduate Korean women. The three-factor structure was replicated, suggesting that this measure consists of items related to achievement, leadership, and education aspirations. The reliability was good (both internal consistency and test-retest), and support was found for the validity of the instrument.

A significant contribution of this study to the literature was the careful translation of the instrument. Several steps based on the translation committee approach (Harkness et al., 2003) were followed to ensure the accuracy of the measure for women in Korea and to ensure the appropriateness of each item for the Korean culture. The process of translation of this instrument was unique in that it involved the original author of the measure as well as a native Korean researcher working together in an ongoing process to ensure the very best translation. Moreover, several vocational psychologist experts in Korea participated in the process and served as translation adjudicators. Several different perspectives were collected and considered. In addition, the information gathered during the translation process informed decisions made at the time of the factor analyses regarding how to interpret the findings. For example, during the pilot study, our experts questioned the utility of the reverse-coded items given the tendency to not endorse strongly negatively worded statements in the Korean culture. These items later were found to be problematic and were removed. This

intensive process appears to have resulted in a psychometrically sound measure that can be used with confidence for Korean undergraduate women.

Relatedly, this study adds to the literature by replicating the three-factor solution found with the revised measure of career aspiration in samples of American graduate and undergraduate women (Grego & O'Brien, 2014). In the past, the original CAS included two subscales (leadership aspiration and educational aspirations). Not only did the two-factor original CAS show inconsistent results across samples (Gray & O'Brien, 2007), but it also did not capture women's aspirations to achieve accomplishments and recognition within their careers. Moreover, the translated version of the original CAS often was used as a single factor in Korea, so it was difficult to explore a comprehensive picture of the diverse components of career aspirations for Korean women. In that sense, this work improves our ability to assess the multidimensional construct of career aspirations instead of assuming a single factor.

The college women in this study exhibited moderately high aspirations in leadership, achievement and education, despite participant variance in terms of college majors, geographical location in Korea, and university rankings. This is consistent with the recent trend showing that since 2012, young Korean women's employment rates have begun to surpass men's employment rates (Statistic Korea, 2013). Also, previous studies reported that Korean college women had higher career aspirations (Lee, 2014) and devoted more energy in employment preparation activities (Sin, Min, Kwon, & Go, 2013) than male college students. Given that there are various cultural and environmental barriers for women's career accomplishments at workplace, it is notable that many young Korean women aspired to achieve recognition, leadership,

and continuing education in their careers. Therefore, it would be interesting to track the trend of women's career aspirations over their life stages to better understand the drop in employment among Korean women after having children.

It also is important to note that the three subscales were relatively highly correlated for Korean undergraduate women, suggesting that these three constructs share a strong common underlying construct. Despite the strong intercorrelations, a significant amount of variance is contributed to the understanding of the unique aspects of career aspirations for each subscale. Assessing the similar and unique aspects of the three types career aspirations can contribute to understanding the developmental process of career aspirations. For example, pursuing leadership aspirations can be more connected to internal and external career barriers for Korean women. According to the study about gender stereotypical ideas among middle school students and college students in Korea (Park, 1991), participants described women as "shy," "picky," "obedient" and "showing off," which may contradict the qualities of traditional leadership, while they illustrated men as "scientific," "reliable," "dominant," and "courageous". A young woman with high leadership aspirations may face implicit and explicit gender discriminations in school and at workplace and it may negatively influence on her attitudes toward female leadership. Given the fact that there is lack of female leaders in the Korean society, future research can particularly focus on how young women develop leadership aspirations and the possible barriers to pursue leadership aspirations.

Appropriate reliability was demonstrated though internal consistency and testretest reliability, suggesting that the K-CASR measured career aspirations in a consistent manner. Although the construct was relatively stable over short-term period, the correlation between Time 1 and Time 2 was only moderately high for achievement aspirations and educational aspirations. The means at Time 2 were slightly decreased, but the changes were not statistically significant. It is possible that the career aspirations of young women might change over a longer time period. For example, previous studies showed that Korean college women's career aspirations were associated with academic self-efficacy (Lee, 2014) and social support (Park & Lee, 2008), thus career aspirations might increase or decrease depending on different experience in college. It also is plausible that aspirations could change over time as women experience gender discrimination in school or in the workplace or as they become parents and have to manage multiple roles. These longitudinal changes in career aspirations should be examined in future studies.

In addition, the convergent validity of the K-CASR subscales was supported by relatively strong associations among the subscales and achievement motivation, career orientation, and career goal engagement. Women with high achievement/leadership/educational aspirations were more likely to have motivation to master a task and to outperform her peers. These findings implied that strong career aspirations relate to strong motivation to be successful in various tasks. In terms of career orientation, women with high achievement and educational aspirations were likely to prioritize career over family. Additionally, women with high career aspirations were likely to engage in activities to pursue their careers and to have positive perceptions regarding their ability to achieve their career goals. Exploration of factors that facilitate women's success in their careers can further the research in

vocational psychology, given that previous studies regarding Korean women's career development mostly focused on barriers and difficulties in their career choices (e.g., Lee & Yu, 2009; Park, Kim, & Lee, 2008; Son & Kim, 2002). It is important to develop a nomological network regarding how career aspirations are associated with Korean women's motivations, career choice, attitudes and behaviors as they pursue their career goals.

Limitations

Present results must be weighed against several limitations of the study. First, this study only examined the psychometric properties of the K-CASR with the sample of four-year college women, so the external validity of the study is limited to college women enrolled in four-year universities. The participants showed moderately high career aspirations which may reflect that the women in this study might have positive attitudes toward their achievements and may have enough resources to achieve their career goals. Contemporary career theories highlight the importance of societal-cultural factors regarding career development of women. Therefore, caution should be taken when these research findings are generalized to other types of Korean women such as married women, women with children, women in different age groups, or women with less privileged background.

Second, because the majority of the participants in current study majored in traditional fields for women, it may be difficult to generalize these findings to college women in non-traditional fields such as science or engineering. Prior research has shown that women in non-traditional fields may have more challenges in their career development (e.g., lack of role-models); future research is necessary to examine the

underlying factor structure and validity evidence of the K-CASR with college women in non-traditional fields.

Last, it is necessary to explore the function of the reverse-scored items in Korean culture. Although we excluded reverse items based on multiple criteria, it was not clear whether the items were problematic due to being reverse-scored or for other reasons. Hong, Moon, and Jo (2011) also reported that the function of positively worded items and negatively items were different in the Korean version of the Brief Fear of Negative Evaluation Scale, but there were not many studies that examined the equivalent function of positively and negatively worded items. Therefore, the function of reverse items in the K-CASR should be carefully investigated in future research.

Future Research and Possible Interventions

The K-CASR can be used when developing a comprehensive model to explain women's career development. In particular, it will be useful to design a longitudinal study to examine how women's career aspirations change over time and are associated with diverse career outcomes (e.g., wages, promotions, job satisfaction, or termination/resigning employment). Women with high career aspirations may strive to achieve their career goals and are likely to have many accomplishments in their careers. Career aspirations may influence the career choices that women make when they face conflict between work and family in their careers. For example, a working mother with high career aspirations may want to continue her work instead of compromising her goals to become a future leader in her field. On the other hand, if there is a curvilinear relationship between career aspirations and positive career outcomes, women with extremely high career aspirations might be more depressed

when their high career aspirations cannot be fully achieved due to career barriers or family responsibilities. The K-CASR will enable further exploration on the dynamic process of women's career development.

Additionally, the K-CASR can be used in international research to explore women's career aspirations across countries. Cross-cultural studies can provide a rich explanation of how cultural values and societal structures shape women's career development. Because the K-CASR was developed based on an existing measure in the U.S., the measure can be used to compare the hypothesized model of career development in Korea and the U.S. For example, it would be interesting to examine longitudinal trends regarding how career aspirations of young women change over time in the U.S. and Korea and to discuss possible cultural influence on such trends.

Career counselors also can utilize the K-CASR in various ways to facilitate young women's career exploration in psycho-educational interventions and counseling. In particular, the K-CASR could enable counseling psychologists to explore college women's attitudes toward future career achievement. For example, counselors can assess the career aspirations of academically talented women and can explore perceived external and/or internal barriers to leadership positions if clients show relatively low leadership aspirations compared to their potential. Additionally, the three dimensions of career aspirations can be used to develop short-term and long-term plans in leadership, achievement, and education domains for clients to achieve their career goals. However, the effective utilization of the K-CASR in career counseling should be supported by continuous empirical studies to investigate its psychometric properties and efficacy in clinical interventions.

Conclusion

Antoine de Saint-Exupery said "If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea." It is important for vocational psychologists to assist young Korean women to perform well in school, be equipped with various skill sets, strategically plan their careers, and make the best choices regarding their vocational development. However, we should not overlook the importance of inspiring young women to long for leadership, achievement and advanced education in a culture that has not always supported women in powerful roles. Then, young women likely will build their ships to reach beyond traditional societal expectations and make salient contributions to Korean society.

Table 1 Translation Ratings from Korean Psychologists

Item	Rating
1: I want to be among the very best in my field.	5.00
2: I want my work to have a lasting impact on my field.	4.33
3: I aspire to have my contributions at work recognized by my employer.	3.67
4: Being outstanding at what I do at work is very important to me.	4.67
5: I know that I will be recognized for my accomplishments in my field.	4.67
6: Achieving in my career is not at all important to me.	3.00
7: Being one of the best in my field is not important to me.	3.67
8: I plan to obtain many promotions in my organization or business.	4.00
9: I hope to become a leader in my career field.	5.00
10: I do not plan to devote energy to getting promoted to a leadership position in the organization or business in which I am working.	3.67
11: Becoming a leader in my job is not at all important to me.	3.67
12: When I am established in my career, I would like to manage other employees.	4.00
13: I want to have responsibility for the future direction of my organization or business.	4.33
14: Attaining leadership status in my career is not that important to me.	3.33
15: I hope to move up to a leadership position in my organization or business.	5.00
16: I plan to rise to the top leadership position of my organization or business.	4.33
17: I plan to reach the highest level of education in my field.	4.67
18: I will pursue additional training in my occupational area of interest.	5.00
19: I will always be knowledgeable about recent advances in my field.	4.33
20: I know I will work to remain current regarding knowledge in my field.	4.67
21: I will attend conferences annually to advance my knowledge.	4.00
22: Even if not required, I would take continuing education courses to become more knowledgeable.	4.67
23: I would pursue an advanced education program to gain specialized knowledge in my field.	4.67
24: Every year, I will prioritize involvement in continuing education to advance my career.	4.67

Table 2
Means, Standard deviations, Skewness and Kurtosis Statistics of the K-CASR items

	M	SD	Skewness	Kurtosis
Achievement Asp	oirations			
K-CASR1	3.15	0.96	-1.08	0.59
K-CASR2	2.98	0.95	-0.87	0.46
K-CASR3	3.24	0.72	-0.70	0.21
K-CASR4	2.78	0.90	-0.52	-0.10
K-CASR5	2.63	0.96	-0.45	-0.15
K-CASR6*	3.72	0.57	-2.24	5.49
K-CASR7*	3.42	0.88	-1.65	2.47
K-CASR8	2.18	1.12	-0.07	-0.74
Leadership Aspir	ations			
K-CASR9	2.65	1.12	-0.57	-0.54
K-CASR10*	3.32	0.93	-1.42	1.65
K-CASR11*	3.29	0.98	-1.45	1.60
K-CASR12	2.11	1.16	-0.15	-0.87
K-CASR13	2.18	1.13	-0.16	-0.80
K-CASR14*	2.53	1.26	-0.44	-0.92
K-CASR15	2.47	1.14	-0.35	-0.73
K-CASR16	2.05	1.21	-0.05	-0.92
Educational Aspi	rations			
K-CASR17	2.40	1.29	-0.32	-1.05
K-CASR18	3.04	0.91	-0.83	0.33
K-CASR19	2.53	0.97	-0.26	-0.42
K-CASR20	2.71	1.01	-0.57	-0.29
K-CASR21	2.31	1.04	-0.15	-0.72
K-CASR22	2.79	0.96	-0.60	-0.16
K-CASR23	2.73	0.96	-0.47	-0.33
K-CASR24	2.55	0.98	-0.36	-0.45

Note: * Indicates reverse coded item

Table 3
Inter-item Correlations of the K-CASR Items

	1	2	3	4	5	6	7	8	9	10	11	12
KCASR1	1.00											
KCASR2	.56	1.00										
KCASR3	.29	.38	1.00									
KCASR4	.48	.55	.46	1.00								
KCASR5	.42	.49	.25	.46	1.00							
KCASR6	.12	.19	.09	.25	.21	1.00						
KCASR7	.31	.29	.13	.32	.24	.42	1.00					
KCASR8	.40	.42	.36	.53	.48	.20	.22	1.00				
KCASR9	.54	.49	.26	.43	.38	.04	.25	.44	1.00			
KCASR10	.23	.23	.16	.22	.30	.24	.32	.35	.36	1.00		
KCASR11	.28	.29	.24	.36	.32	.31	.46	.39	.45	.60	1.00	
KCASR12	.27	.35	.22	.32	.37	.18	.18	.50	.34	.34	.33	1.00
KCASR13	.45	.58	.28	.48	.47	.20	.28	.53	.54	.41	.41	.46
KCASR14	.01	.01	.06	.11	.05	.15	.21	.16	.10	.28	.33	.11
KCASR15	.48	.50	.31	.52	.49	.17	.32	.66	.65	.48	.54	.53
KCASR16	.43	.49	.28	.54	.54	.16	.25	.72	.58	.41	.48	.50
KCASR17	.52	.47	.14	.33	.38	.08	.16	.32	.34	.10	.15	.21
KCASR18	.47	.62	.33	.46	.48	.13	.26	.37	.33	.16	.22	.26
KCASR19	.42	.51	.25	.42	.48	.14	.19	.37	.35	.20	.21	.33
KCASR20	.48	.54	.22	.52	.56	.18	.29	.41	.33	.13	.23	.35
KCASR21	.44	.51	.19	.47	.47	.12	.25	.40	.37	.16	.20	.29
KCASR22	.50	.54	.26	.45	.55	.15	.22	.32	.34	.13	.17	.22
KCASR23	.50	.55	.27	.46	.57	.20	.24	.37	.34	.13	.17	.25
KCASR24	.43	.54	.22	.51	.52	.20	.18	.53	.38	.19	.20	.36

Table 3
Inter-item Correlations of the KCASR Items (Continued)

	13	14	15	16	17	18	19	20	21	22	23	24
KCASR1												
KCASR2												
KCASR3												
KCASR4												
KCASR5												
KCASR6												
KCASR7												
KCASR8												
KCASR9												
KCASR10												
KCASR11												
KCASR12												
KCASR13	1.00											
KCASR14	.10	1.00										
KCASR15	.60	.12	1.00									
KCASR16	.59	.11	.76	1.00								
KCASR17	.40	.03	.37	.40	1.00							
KCASR18	.43	05	.37	.36	.48	1.00						
KCASR19	.49	05	.41	.43	.42	.50	1.00					
KCASR20	.44	03	.45	.46	.45	.62	.62	1.00				
KCASR21	.41	05	.48	.45	.44	.58	.48	.63	1.00			
KCASR22	.42	03	.35	.38	.56	.68	.50	.65	.59	1.00		
KCASR23	.41	02	.40	.44	.60	.69	.50	.67	.60	.86	1.00	
KCASR24	.44	04	.52	.55	.45	.58	.51	.64	.66	.66	.68	1.00

Note r > .10 indicates p < .05; r > .20 indicates p < .01

Table 4
Final 18 Items of the K-CASR

Item	Factor loadings
Achievement aspirations (6 items)	
2: I want my work to have a lasting impact on my field.	.74
4: Being outstanding at what I do at work is very important to me.	.71
8: I plan to obtain many promotions in my organization or business.	.71
5: I know that I will be recognized for my accomplishments in my field.	.69
1: I want to be among the very best in my field.	.66
3: I aspire to have my contributions at work recognized by my employer.	.42
Leadership aspirations (5 items)	
15: I hope to move up to a leadership position in my organization or business.	.87
16: I plan to rise to the top leadership position of my organization or business.	.85
13: I want to have responsibility for the future direction of my organization or business.	.73
9: I hope to become a leader in my career field.	.72
12: When I am established in my career, I would like to manage other employees.	.58
Educational aspirations (7 items)	
23: I would pursue an advanced education program to gain specialized knowledge in my field.	.83
20: I know I will work to remain current regarding knowledge in my field.	.81
24: Every year, I will prioritize involvement in continuing education to advance my career.	.80
18: I will pursue additional training in my occupational area of interest.	.78
21: I will attend conferences annually to advance my knowledge.	.76
19: I will always be knowledgeable about recent advances in my field.	.67
17: I plan to reach the highest level of education in my field.	.62

Table 5 Means, Standard Deviations, Possible and Actual Ranges of Subscales in Main Study (N = 377)

	M	SD	Possible range	Actual range	Cronbach α
Achievement Aspirations	16.98	4.10	0-24	3-24	.82
Leadership Aspirations	11.47	4.63	0-20	0-20	.86
Educational Aspirations	18.29	5.65	0-28	0-28	.90
Achievement Motivation: Work/Mastery	50.05	6.47	14-70	29-67	.79
Achievement Motivation: Competitiveness	16.18	4.00	5-25	5-25	.82
Career Orientation	55.74	7.84	16-80	16-77	.80
Career Goal Engagement	29.93	5.52	8-40	10-40	.90

Table 6
Correlations among Subscales of the K-CASR and Achievement Motivation, Career
Orientation and Career Goal Engagement

	1	2	3	4	5	6	7
1. Achievement Aspirations	1						
2. Leadership Aspirations	.77**	1					
3. Educational Aspirations	.75**	.61**	1				
4. Achievement Motivation: Work/Mastery	.55**	.46**	.57**	1			
5. Achievement Motivation: Competitiveness	.41**	.41**	.22**	.29**	1		
6. Career Orientation	.29**	.18**	.27**	.24**	.14*	1	
7. Career Goal Engagement	.51**	.45**	.58**	.57**	.31**	.23**	1

Note ** indicates p < .01,* indicates p < .05

Table 7 Means, Standard Deviations, and Correlations of Time 1 and Time 2 Test (N = 29)

	Achievement aspirations	Leadership aspirations	Educational aspirations
Correlation between Time 1 and 2	.76**	.83**	.78**
Time 1 Mean	16.59	11.62	17.83
Time 1 Standard Deviation	3.97	4.40	4.58
Time 2 Mean	15.97	11.52	16.90
Time 2 Standard Deviation	3.98	4.60	5.36

Note ** *indicates* p < .01

Figure 1
Measurement Model of CASR (Gregor & O'Brien, 2013)

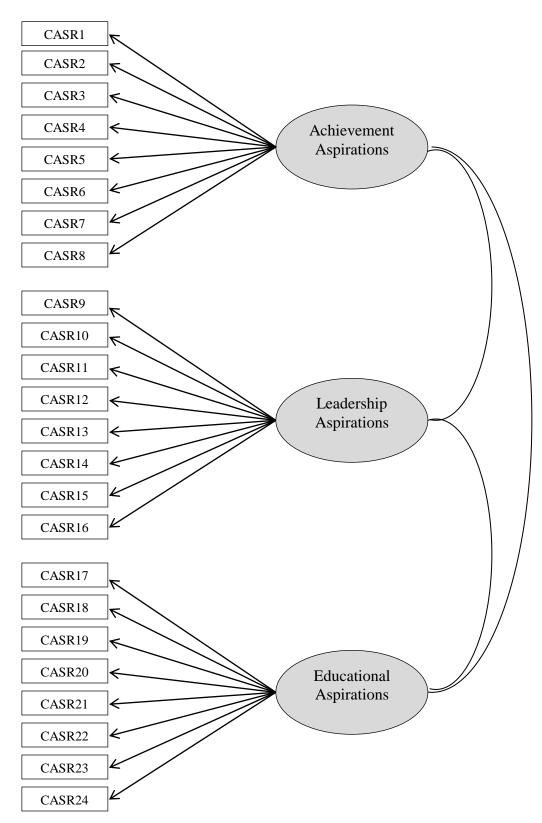
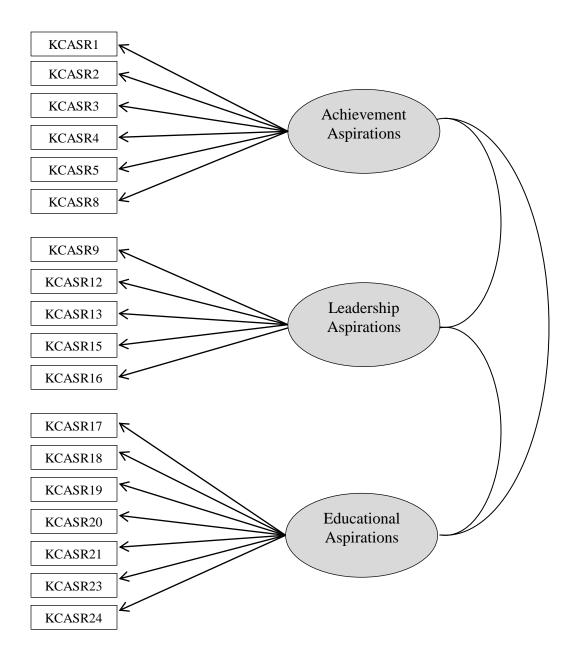


Figure 2
Final Factor Structure of the K-CASR with 18 Items



4

Appendices

A. Korean version of Career Aspirations Scale (24 items) 진로포부척도

다음 문항을 읽고 자신에게 해당하는 번호에 "0"(전혀 그렇지 않다)에서 "4"(매우 그렇다) 중 하나에 표시해주세요. 여러분의 응답은 비밀 보장이 되므로 최대한 솔직하게 답변해주시기 바랍니다. 응답이 자신을 정확하게 나타낼 경우에만 의미있게 사용될 수 있을 것 입니다.

1

2

	<u> </u>		_			_			
	전혀 그렇지 않다	약간 그렇다	다소 그렇다	제법 그렇다	미	H우 =	1렇다		
성취여	세 대한 포부								
1: 나는	되고 싶다.	0	1	2	3	4			
2: 나는 내 일이 내 분야에 지속적인 영향력을 미치기를 원한다.							2	3	4
	= 내가 직장에 사/고용주가 인	•		H	0	1	2	3	4
	당에서 뛰어난 이다.	성과를 내는 :	건 나에게 매우	? 중요한	0	1	2	3	4
-	- - 내 분야에서 신한다.	성과를 내어	인정받을 것이	라고	0	1	2	3	4
6*: 진	로와 관련된 성	성취는 나에게	중요하지 않다	라 .	0	1	2	3	4
7*: 내 분야에서 최고 전문가 중 한 사람이 되는 것은 나에게 중요하지 않다.						1	2	3	4
	가 일하는 조직 려고 계획하고		세서 최대한 승	·진을 많이	0	1	2	3	4
리더십	실에 대한 포부				0	1	2	3	4
9: 나는	는 내가 일하는	분야의 리더.	가 되고 싶다.		0	1	2	3	4
	나는 내가 일 <mark>ㅎ</mark> 진하기 위해 힘		• • • • • • •	더로	0	1	2	3	4
	배 분야에서 리 다.	더가 되는 것	은 나에게 중요	2하지	0	1	2	3	4
	분야에서 자리 리하고 싶다.	믜잡은 후에는	, 다른 직원들	을	0	1	2	3	4
	는 나는 내가 일하는 한 책무를 맡고		나업체의 미래	방향에	0	1	2	3	4
14*: Լ	ㄴ	더의 위치에	오르는 것은 니	-ト에게	0	1	2	3	4

15: 나는 내가 일하는 조직이나 사업체에서 리더의 위치까지 오르고 싶다.	0	1	2	3	4
16: 내가 일하는 조직이나 사업체에서 최고의 리더 위치에 오르고자 계획하고 있다.	0	1	2	3	4
교육에 대한 포부					
17: 나는 내 분야에서 가장 높은 수준의 교육/학위를 이수할 계획이 있다.	0	1	2	3	4
18: 나는 내가 관심 있는 직업 분야에서 추가적인 훈련을 계속 받고자 노력할 것이다.	0	1	2	3	4
19: 나는 내 분야의 최신 발전사항 대해 항상 해박할 것이다.	0	1	2	3	4
20: 나는 내 분야의 최신 지식을 유지하기 위해 노력할 것이라고 확신한다.	0	1	2	3	4
21: 나는 지식을 늘리기 위해 매년 컨퍼런스에 참가할 것이다.	0	1	2	3	4
22: 의무 사항이 아니더라도, 나는 더 전문적인 지식을 갖추기 위해 교육이나 훈련을 계속할 것이다.	0	1	2	3	4
23: 나는 내 분야의 전문적인 지식을 얻기 위해 상급수준의 훈련을 계속할 것이다.	0	1	2	3	4
24: 매년 내 커리어를 발전시키기 위해 지속적인 연수나 훈련에 우선적으로 참여할 것이다.	0	1	2	3	4

Note: *역채점문항

* 실제 문항은 무작위순으로 실시되었음.

B. Career Aspiration Scale-R

In the space next to the statements below please circle a number from "0" (not at all true of me) to "4" (very true of me). If the statement does not apply, circle "0". Please be completely honest. Your answers are entirely confidential and will be useful only if they accurately describe you.

0 = Not at all true of me 1 = Slightly true of me 2 = Moderately true of me 3 = Quite a bit true of me 4 = Very true of me

Achievement Aspirations					
1: I want to be among the very best in my field.	0	1	2	3	4
2: I want my work to have a lasting impact on my field.	0	1	2	3	4
3: I aspire to have my contributions at work recognized by my employer.	0	1	2	3	4
4: Being outstanding at what I do at work is very important to me.	0	1	2	3	4
5: I know that I will be recognized for my accomplishments in my field.	0	1	2	3	4
6*: Achieving in my career is not at all important to me.	0	1	2	3	4
7*: Being one of the best in my field is not important to me.	0	1	2	3	4
8: I plan to obtain many promotions in my organization or business.	0	1	2	3	4
Leadership Aspirations	0	1	2	3	4
9: I hope to become a leader in my career field.	0	1	2	3	4
10*: I do not plan to devote energy to getting promoted to a leadership position in the organization or business in which I am working.	0	1	2	3	4
11*: Becoming a leader in my job is not at all important to me.	0	1	2	3	4
12: When I am established in my career, I would like to manage other employees.	0	1	2	3	4
13: I want to have responsibility for the future direction of my organization or business.	0	1	2	3	4
14*: Attaining leadership status in my career is not that important to me.	0	1	2	3	4
15: I hope to move up to a leadership position in my organization or business.	0	1	2	3	4
16: I plan to rise to the top leadership position of my organization or business.	0	1	2	3	4

Educational Aspirations					
17: I plan to reach the highest level of education in my field.	0	1	2	3	4
18: I will pursue additional training in my occupational area of interest.	0	1	2	3	4
19: I will always be knowledgeable about recent advances in my field.	0	1	2	3	4
20: I know I will work to remain current regarding knowledge in my field.	0	1	2	3	4
21: I will attend conferences annually to advance my knowledge.	0	1	2	3	4
22: Even if not required, I would take continuing education courses to become more knowledgeable.	0	1	2	3	4
23: I would pursue an advanced education program to gain specialized knowledge in my field.	0	1	2	3	4
24: Every year, I will prioritize involvement in continuing education to advance my career.	0	1	2	3	4

Note: *indicates reverse coded item

C. Korean version of Work and Family Orientation Questionnaire 성취동기척도

* 다음 척도를 사용하여 각 문항에 대해 여러분이 생각하는 바를 나타내주십시오.

1 = 전혀 그렇지 않다 2= 그렇지 않다 3 = 그저 그렇다 4 = 그렇다 5 = 매우 그렇다

- 1. 비록 동료들은 그렇지 않더라도내가 맡은 일을 최대한 잘해내는 것이 중요하다.
- 2. 나는 내가 할 수 있는 한 최상으로 일하는데 만족감을 찾는다.
- 3. 나는 일이 훌륭하게 수행될 때 만족감을 찾는다.
- 4. 나는 다른 사람을 능가하지는 못했더라도 이전에 내가 했던 것보다 더 잘해내는 것에 만족감을 찾는다.
- 5. 나는 열심히 일하는 것을 좋아한다.
- 6. 내가 즐거움을 느끼는 것 중의 하나는 이전에 내가 했던 것보다 더 잘해내는 것이다.
- 7. 나는 힘들고 까다로운 것보다는 자신있고 편안한 것을 하는 편이다.
- 8. 내가 속한 집단에서 어떤 활동을 계획할 때, 나는 단지 옆에서 보조를 하거나 다른 사람에게 시키는 것보다는 내 스스로 앞장서는 편이다.
- 9. 나는 까다로운 생각을 요하는 게임보다는 쉽고 재미있는 게임을 즐기는 편이다.
- 10. 뭔가 서투른 것이 있으면 내가 잘 할 수 있는 다른 것으로 건너 뛰기 보다는 서투른 것을 통달할 때까지 계속 노력한다.
- 11.나는 일단 하나의 일을 맡게 되면 끈기있게 매달린다.
- 12.나는 높은 수준의 기술이 요구되는 상황에서 일하는 것을 선호한다.
- 13.나는 내가 잘 할 수 있을 것이라고 믿는 일보다는 잘 할 수 있을지 확신이 없는 일을 종종 시도하고 한다.
- 14.나는 내내 바쁜 것을 좋아한다.
- 15.나는 다른 사람들과 경쟁하는 상황에서 일하는 것을 즐긴다.
- 16. 다른 사람보다 일을 더 잘 해내는 것이 중요하다.
- 17. 나는 업무에서나 게임에서나 이기는 것이 중요하다.
- 18. 다른 사람이 나보다 일을 더 잘 하는 경우에는 마음이 편치 않다.
- 19. 나는 다른 사람과 경쟁하게 되면 다른 때보다 더 열심히 일한다.

D. Work and Family Orientation Questionnaire (Spence & Helmreich, 1983)

Instructions: Rate yourself on each item below, using the following scale.

1 = strongly disagree 2 = somewhat disagree 3 = neither agree nor disagree 4 = somewhat agree 5 = strongly agree

Work-Mastery

Work-Mastery 1. It is important for me to do my work as well as I can even if it isn't popular with my co-workers.	12345
2. I find satisfaction in working as well as I can.	12345
3. There is satisfaction in a job well done.	12345
4. I find satisfaction in exceeding my previous performance even if I don't outperform others.	1 2 3 4 5
5. I like to work hard.	12345
6. Part of my enjoyment in doing things is improving my past performance.	12345
7. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult.	12345
8. When a group I belong to plans an activity, I would rather direct it myself than just help out and have someone else organize it.	12345
9. I would rather learn easy fun games than difficult thought games.	12345
10. If I am not good at something, I would rather keep struggling to master it than move on to something I may be good at.	12345
11. Once I undertake a task, I persist.	12345
12. I prefer to work in situations that require a high level of skill.	12345
13. I more often attempt tasks that I am not sure I can do than tasks that I believe I can do.	12345
14. I like to be busy all the time.	12345

Competitiveness 15. I enjoy working in situations involving competition with others. 1 2 3 4 5 16. It is important to me to perform better than others on a task. 1 2 3 4 5 17. I feel that winning is important in both work and games. 1 2 3 4 5 18. It annoys me when other people perform better than I do. 1 2 3 4 5 19. I try harder when I'm in competition with other people. 1 2 3 4 5

E. Career Orientation Scale (Battle & Wigfield, 2003)

Each of the following questions was answered on a scale of 1–5, with 1 meaning "strongly disagree," 2 meaning "somewhat disagree," 3 meaning "not sure," 4 meaning "somewhat agree," and 5 meaning "strongly agree."

1. I believe that women can manage the combining of a career outside the home with the responsibility of taking care of a family.	12345
2. I plan to continue working outside the home when I have kids.	12345
3. I think women should have a career whether they have children or not.	12345
4. I think women who have a career make better mothers.	1 2 3 4 5
5. I feel that having children stay with a caring person other than their mother for part or most of the day (day-care) is a good experience for them.	12345
6. I think that fathers should spend just as much time raising children as mothers.	1 2 3 4 5
7. I think that a working mother sets a good example for children.	1 2 3 4 5
8. I think that women should earn money, and contribute to the family income, even after they have children.	1 2 3 4 5
9. I believe that spending shorter periods of "quality time" with your kids is better than spending all of your time with them.	1 2 3 4 5
10. I believe that women who try to work outside the home and care for a family have too much to handle.	1 2 3 4 5
11. I think women should put their careers "on hold" when they begin to have a family.	1 2 3 4 5
12. I think that families are better off when mothers stay at home.	12345
13. I think a woman should decide to be either a career-person or a homemaker, but not both at the same time.	1 2 3 4 5
14. I think mothers need to be there when their children get home from school.	12345

15	Lthink	families	suffer who	n the mothe	r works outsi	de the home	12345
15	. i inink	crammes	surrer whe	en ine moine	r works outsi	ae the nome.	12343

16. I believe there is too much stress in a marriage when both husband 1 2 3 4 5 and wife have careers.

F. Korean version of the Career Orientation Scale

진로지향성척도

* 다음은 여러분의 진로지향정도를 알아보는 질문입니다. 문장을 잘 읽고 자신에게 해당하는 정도를 1-5 중에서 골라 표시해 주시기 바랍니다.

1 = 강하게 반대함

2= 반대함

3 = 보통

4 = 어느정도 동의함

5 = 강하게 동의함

- 1. 나는 여성들이 집밖에서의 일과 가족을 돌보는 책임을 병행하여 해낼 수 있다고 믿는다.
- 2. 아이들이 있어도 집 밖에서의 일을(사회생활을) 계속 할 계획이다.
- 3. 아이들이 있든지 없든지 간에 여성들이 직업을 가져야만 한다고 생각한다.
- 4. 일하는 여성이 더 좋은 엄마가 될 수 있다고 생각한다.
- 5. 낮 시간 동안 부분적으로 혹은 대부분의 시간을 엄마 외의 돌봐주는 사람과 함께 지내는 것은 아이들에게 좋은 경험이 된다고 느낀다.
- 6. 나는 아빠들도 엄마처럼 아이들을 기르는데 많은 시간을 똑같이 보내야 한다고 생각한다.
- 7. 나는 일하는 엄마는 아이들에게 일련의 좋은 예가 된다고 생각한다.
- 8. 나는 여성들이 아이를 가진 후에라도 돈을 벌고 가정의 수입에 기여해야만 한다고 생각한다.
- 9. 나는 하루 종일 아이들과 함께 지내는 것보다 짧은 기간을 "귀중한 시간"으로 보내는 것이 더 낫다고 믿는다.
- 10.나는 바깥일을 하면서 가족을 돌보려고 애쓰는 여성들은 너무 많은 일을 처리해야 한다고 생각한다.
- 11.나는 여성들이 가족을 가지기 시작하면 직업은 "보류" 해야만 한다고 생각한다.
- 12.나는 엄마가 집에 머무는 가정이 더 낫다고 생각한다.
- 13.나는 직업을 가지든지 아니면 주부가 되든지를 선택해야만하고 동시에 둘 다를 할 수는 없다고 생각한다.
- 14.나는 아이들이 학교에서 집에 돌아왔을 때 엄마가 집에 있어야 한다고 생각한다.
- 15.나는 엄마가 바깥일을 하면 가족들이 고통 받는다고 생각한다.
- 16. 남편과 아내가 둘 다 직업이 있으면 결혼생활에서 스트레스가 훨씬 크다고 생각한다.

G. Career Goal Engagement in Korean (Boo, 2012)

진로목표몰입척도

* 다음은 진로 목표에 관한 몰입 정도를 알아보는 질문입니다. 문장을 잘 읽고 자신에게 해당하는 정도를 1-5 중에서 골라 표시해 주시기 바랍니다.

1 = 전혀 그렇지 않다

2= 그렇지 않다

3 = 그저 그렇다

4 = 그렇다

5 = 매우 그렇다

- 1. 나의 진로목표를 이루기 위해 많은 시간을 보낸다.
- 2. 내가 원하는 진로목표를 달성하기 위해 노력하는 시간이 즐겁게 느껴진다.
- 3. 내가 원하는 진로와 관련된 공부나 일을 할 때는 시간가는 줄 모를 정도로 몰두한다.
- 4. 내가 원하는 진로목표를 달성하기 위해서 평소에 많은 노력을 기울인다.
- 5. 나는 내가 원하는 진로목표를 잘 달성할 수 있다.
- 6. 나는 내가 원하는 직업적 목표를 성취할 수 있는 능력이 있다.
- 7. 나는 나의 직업적 목표를 스스로 수행해 나갈 능력이 있다.
- 8. 나의 직업적 목표는 성공적으로 달성될 것이다.

H. Career Goal Engagement (Boo, 2012)

The career goal engagement scale was translated into English for understanding for readers.

- 1. I spend a great deal of time to achieve my career goal.
- 2. I enjoy time to work hard to achieve my career goal.
- 3. I am absorbed when I study or work for my career.
- 4. I work hard to achieve my career goal.
- 5. I am able to reach my career goal well.
- 6. I am capable to achieve my vocational goal.
- 7. I have ability to perform by myself to achieve my career goal.
- 8. My career goal will be successfully fulfilled.

I. Demographics Form

AGE:		
MAJOR:Social ScienceHuman ArtsEducationEngineeringNatural ScienceBusinessLawArtsOther	YEAR IN COLLEGE:First yearSophomoreJuniorSeniorOther	GENDER:FemaleMaleOther
AVERAGE GRADE (of 4.3 / 4.5)		
HAVE YOU DECIDED ON	YOUR FUTURE CAREER? IF S	SO, PLEASE LIST.
IF YOU HAVE NOT DECID TOP THREE CAREERS BEILD 1 2 3.		ER, PLEASE LIST THE
WHICH LEVEL OF EDUCA	TION DO YOU PLAN TO COM	MPLETE?
Bachelor degreeMaster degreeDoctoral degreeOther professional of	legree (e.g., law school)	
Yes No _ ARE YOU PLANNING ON	Single GETTING MARRIED IN THE I I don't know yet HAVING A CHILD IN THE FU'	
Yes No HIGHEST LEVEL OF EDUCATION COMPLETED OF MOTHER/1ST	HIGHEST LEVEL OF EDUCATION COMPLETED OF FATHER/2nd	

GUARDIAN	Ī		(GUARD	IAN				
Eler	nentary				_Eleme	ntary			
School				School					
Mid	dle Scho	ool			_Middl	e Schoo	1		
High	h Schoo	1			_High S	School			
2-ye	ar Colle	ege			_2-year	College	e		
4-ye	ear				4-year				
University				Univers	sity				
Mas	ter level	1			_Maste	r level			
Doc	toral lev	/el			_Docto	ral level			
N/A					_N/A				
EMPLOYM									
	t-time	/1 St	_ Full-	time _	S	tay-at-h	ome		
Please list yo	our moth	ner/1 s gu	uardiai	n's care	er if she	is emp	loyed.		
EMPLOYM	ENT ST	TATUS (OF FA	THER					
Please list yo		r's care				tay-at-h	ome		
i icase iist yo	our raure	i s care	CI II III	c is cimp	noyeu.				
Think of this scale as a ladder representing where people stand in your community. People define community in different ways; please define it in whatever way is most meaningful to you. Imagine everyone in your community is standing somewhere on this ladder. At the top (Score = 10) of the ladder are the people who have the highest standing in your community. At the bottom (Score = 1) are the people who have the lowest standing in your community. Where would you place yourself from 1-10 on this ladder, compared to others in your community?									
1	2	3	4	5	6	7	8	9	10
Think of this scale as a ladder representing where the people stand in Korea. At the top (Score = 10) of the ladder are the people who are the best off—those who have the most money, the most education, and the most respected jobs. At the bottom (Score = 1) are the people who are the worst off—who have the least money, least education, and the least respected jobs or no job. Please select the number where you think you stand. Where would you place yourself from 1-10 on this ladder, compared to all the other people in Korea?									
1	2	3	4	5	6	7	8	9	10

J. Korean version of the Demographics 인적사항 질문지

나이:	반 서	1		
전공:		학년:	성별:	
	_ 사회과학대학	· 1 =	·년	여성
	_ 인문대학	2 =	¦년	남성
	_ 교육대학	3 =	박년 <u></u>	기타
	_ 공과대학	4 =		
	_ 자연대학	기		
	_ 경영대학			
	_ 법과대학			
	_ 예체능대학			
평점: _	(4.3	3 기준/ 4.5 기	[준)	
장래에	희망하는 진로	를 결정하셨습니까	? 그렇다면 (아래에 기입해주십시오
-	아직 희망 진로를 주십시오. 	· 결정하지 않았다! 	면 현재 고려 	중인 3가지 진로를
장래 딜	_{날성하고자 하는}	학력 수준을 나타!	내주십시오.	
	_ 학사 학위			
	_ 석사 학위			
	_ 박사 학위			
	_ 기타 전문 학	위 (예시. 로스쿨)		
현재 길	결혼/미혼 여부를	를 나타내주십시오.		
	결혼	미혼		
		하는 계획이 있으		
	_ 네	아니오 이	직 잘 모르겠	은
		자 하는 계획이 있		
	_ 네	아니오	아직 잘 모르	겠음

어머니 또는 여성 보호자의 최종학력:	아버지 또는 남성 보호자의 최종학력:
① 초등학교	① 초등학교
② 중학교	② 중학교
③ 고등학교	③ 고등학교
④ 전문대학교	④ 전문대학교
⑤ 4년제 대학교	⑤ 4년제 대학교
⑥ 석사학위	⑥ 석사학위
① 박사학위	① 박사학위
⑧ 해당없음	⑧ 해당없음
어머니의 취업 상태	
취업 중 (파트타임)	취업 중 (풀타임) 전업주부
만약 어머니께서 직장 생활 중이라면 어때	l한 직업에 종사하고 계신지 나타내주십시오.
아버지의 취업 상태 취업 중 (파트타임)	취업 중 (풀타임) 가사
만약 아버지께서 직장 생활 중이라면 어때 	한 직업에 종사하고 계신지 나타내주십시오.
아래의 척도를 여러분이 속한 공동체의 시 있다고 생각해보십시오. 공동체란 여러 병 방식이든 여러분에게 가장 의미 있는 공동 속한 공동체의 모든 사람이 이 사다리 어떤 위(10)는 가장 높은 지위에 있는 사람을, 사람을 나타낸다고 가정해봅시다. 여러분 비교하여 1 에서 10 사이 중 어느 곳에 자 1 2 3 4 5 6 7 8	상식으로 정의가 될 수 있으나 어떠한 생체를 떠올려주시기 바랍니다. 여러분이 단가에 위치하고 있다고 상상하고, 가장 가장 낮은 곳(1)에는 가장 낮은 지위에 있는 은 여러분 공동체의 다른 사람들과 신을 위치시키겠습니까?
	2 지위에 있는 사람을, 가장 낮은 곳(1)에는 2 가정해봅시다. 여러분은 우리나라의 전체 곳에 자신을 위치시키겠습니까?

K. Final Korean version of Career Aspirations Scale with 18 items in a random order

진로포부척도 (김영화, O'Brien, 2014)

0 = 전혀 그렇지 않다 1 = 약간 그렇다

다음 문항을 읽고 자신에게 해당하는 번호에 "0"(전혀 그렇지 않다)에서 "4"(매우그렇다) 중 하나에 표시해주세요. 여러분의 응답은 비밀 보장이 되므로 최대한 솔직하게 답변해주시기 바랍니다. 응답이 자신을 정확하게 나타낼 경우에만 의미있게 사용될 수 있을 것 입니다.

2 = 다소 그렇다 3 = 제법 그렇다 4 = 매우 그렇다 1. 나는 내가 일하는 분야의 리더가 되고 싶다. 0 1 2 3 4 2. 나는 내 분야에서 최고 전문가 중 한 사람이 되고 싶다. 0 1 2 3 4 3. 내 분야에서 자리잡은 후에는, 다른 직원들을 관리하고 0 1 2 3 4 싶다. 4. 나는 내 분야에서 가장 높은 수준의 교육/학위를 이수할 0 1 2 3 4 계획이 있다. 5. 나는 내가 일하는 조직이나 사업체의 미래 방향에 대한 0 1 2 3 4 책무를 맡고 싶다. 6. 나는 내 일이 내 분야에 지속적인 영향력을 미치기를 0 1 2 3 4 원한다. 7. 나는 내가 직장에서 기여하는 부분에 대해 내 상사/고용주가 0 1 2 3 4 인정해주기를 바란다. 8. 나는 내가 관심 있는 직업 분야에서 추가적인 훈련을 계속 0 1 2 3 4 받고자 노력할 것이다. 9. 나는 내 분야의 최신 발전사항 대해 항상 해박할 것이다. 0 1 2 3 10. 직장에서 뛰어난 성과를 내는 건 나에게 매우 중요한 0 1 2 3 4 일이다. 0 1 2 3 4 11. 나는 내 분야의 최신 지식을 유지하기 위해 노력할 것이라고 확신한다.

12. 나는 내가 일하는 조직이나 사업체에서 리더의 위치까지 오르고 싶다.	0	1	2	3	4
13. 나는 지식을 늘리기 위해 매년 컨퍼런스에 참가할 것이다.	0	1	2	3	4
14. 나는 내 분야에서 성과를 내어 인정받을 것이라고 확신한다.	0	1	2	3	4
15. 의무 사항이 아니더라도, 나는 더 전문적인 지식을 갖추기 위해 교육이나 훈련을 계속할 것이다.	0	1	2	3	4
16. 나는 내 분야의 전문적인 지식을 얻기 위해 상급수준의 훈련을 계속할 것이다.	0	1	2	3	4
17. 내가 일하는 조직이나 사업체에서 최대한 승진을 많이 하려고 계획하고 있다.	0	1	2	3	4
18. 내가 일하는 조직이나 사업체에서 최고의 리더 위치에 오르고자 계획하고 있다.	0	1	2	3	4

Note:

성취 포부: 6, 7, 10, 14, 17 (5 문항)

리더십 포부: 1, 2, 3, 12, 17, 18 (6 문항) 교육 포부: 4, 8, 9, 11, 13, 15, 16 (7 문항)

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