

# 취업여성의 우울증상 예측요인: 한국의 미혼, 기혼 취업여성 비교

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## Factors Predicting Depressive Symptoms in Employed Women: Comparison between Single and Married Employed Women in Korea

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**Purpose:** This study was done to compare factors predicting depressive symptoms in single and married employed women. **Methods:** A comparative study using a cross-sectional survey design was used. The participants were 373 single and 355 married women. Measurements used for this study were demographic and work-related characteristics, physical conditions, self-efficacy, stressful life events, and depression. The SAS 9.1 program was used for descriptive statistics,  $\chi^2$  test, t-test, ANOVA, Pearson correlation analysis, and stepwise- multiple regression. **Results:** Single employed women (SEW) had higher scores for stressful life events than married employed women (MEW), but there was no difference in depression between the groups. In examining the factors predicting depression, stressful life events and self-efficacy explained a portion of the variance in depression for both groups. Family monthly income and working hours were significant variables for SEW, while satisfaction with marriage and role as wife was significant for MEW. **Conclusion:** These results suggest that the mental health of MEW is not worse than it is for SEW, and they do not suffer from multi-role strain. Although different variables explained depression for these women, family-related factors are especially important to MEW.

**Key Words:** Depression, Working women

### INTRODUCTION

Depression constitutes an important public health problem because of its high prevalence and associated disability (Bromberger, 2004). Women are two or three times more likely than men to be depressed, regardless of race, income, or education (Hughe-Hammer, Martsolf, & Zeller, 1998) and the predominance of women among those diagnosed with depression is also observed in period prevalence rates for every age group after puberty

(Bromberger, 2004). The World Health Organization has estimated that major depression is the leading cause of disease-related disability among women in the world today (Kessler, 2003).

As a study of Sandanger, Nygård, Sørensen, and Moun (2004) showed, being a woman and having high stress are related to significant increase in depression symptoms. Given that women are more vulnerable to stress or to combinations of stress from different arenas, the associations between stress and symptoms of depression

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should be stronger in women than in men. Therefore performing multiple roles puts women at high risk for mental health problems.

Sex roles may aggravate stress among women with multiple roles, thus influencing depression in women. The sex-role theory of mental illness suggests that traditional female roles have low social status and are inherently stressful, restrictive, and unsatisfying, whereas male involvement in both work and family roles provides more status and opportunities for satisfaction (Gove, 1973, cited in Bromberger, 2004). This theory may be somewhat outdated in Western society, but traditional sex roles based on Confucian philosophy still strongly influence Korean family life. Even though about 40% of married Korean women are employed outside the home (Korean Statistical Information Service, 2005), married women have the principal responsibility in family matters, such as bearing and rearing children, serving as the communication hub for family members as well as for relatives, and managing family health (Kim, Cho, Lee, Marion, & Kim, 2005). Furthermore, similar to the results of a study by Bromberger (2004), women in Korea usually experienced more organizational stress, such as being excluded from promotions, being related to assistant or secretarial roles, or being treated as sexual objects by male workers, regardless of marital status.

There have been studies investigating the relationship among women, employment, and general health conditions. Kim et al. (2005) reported that work stress and family stress were both negatively associated with the health status of working women. However, Kasen, Cohen, Berenson, Chen, and Dufur (2005) reported that married women were healthier than divorced women. In the study by Mori, Nakashima, Yamazaki, and Kurita (2002), the best predicting factor of poor mental health was consciousness of being a woman for unmarried women, and stress outside the job for married women. Recently, there have been increasing numbers of empirical studies on the beneficial effects of employment on health behaviors. Employed as compared to non-employed women reported lower levels of psychological distress (Tang, Lee, Tang, Cheung, & Chan, 2002). Positive experiences in the work role have been found to reduce psychological distress in women by acting as a buffer against the stressors often associated with other roles (Barnett, Marshall, Raudenbush, & Brennan, 1993). Work roles also provide opportunities for intellectual and personal growth and can serve as sources of self-esteem and well-being (Kasen et al., 2005). In a study by Kim, Oh, and Ha (1999), level of stress, coping style, perceived social support, and self-

efficacy were significant in explaining the variance of depressive symptoms in Korean married women.

There is little published literature on the phenomenon of depression among employed women living in Korea or the factors that contribute to depression for these women. Also, the relationship between employment status and depression is inconsistent, and a main effect for employment status is not convincing (Bromberger, 2004). Possible explanations for these results can be related to a lack of consideration of the diverse dimensions of employment rather than a woman's having or not having a job or the various stressors, which can be different among cultural subgroups or other socio-demographic factors. For example, when women are employed due to financial necessity and neither the wives nor husbands favor the wife's employment, employed women are more likely to experience depression (Ross & Mirowsky, 1988). Education and health were significantly correlated among working women (Kasen et al., 2005). The results of previous studies show that there is a need to investigate the meaning of employment, marriage, or other factors related to these characteristics in order to understand depression in women in community-based populations. Therefore, in the present study we investigated depression in women, including not only work-related variables, such as satisfaction with working role, working time, or income, but also multidimensional variables that can lead to depression, that is, physical condition, self-efficacy, and stressful life events. We also compared predicting factors of depressive symptoms between single and married employed women to provide advanced knowledge in the understanding of depression among Korean women.

## METHODS

### 1. Research design

This comparative study, in which a cross-sectional survey design was used, was conducted to identify the predicting factors of depression in single and married employed women.

### 2. Participants and data collection

The study population consisted of single or married employed women who lived in Seoul or Kyunggi Province, Korea. A convenience sample of volunteers who agreed to participate in this study was recruited from various places such as factories, markets, schools, hospitals, businesses, and off the street. The volunteers were

373 single and 355 married women, and 39 women who were separated, divorced, or widowed. In this study, we analyzed only the data of currently single or married women.

Research approval was obtained from the Research Institute of Yonsei University. Prior to collecting the data, the interviewers were trained by the principle investigator regarding the research purpose, method, content of questionnaire, and ethical guidelines for performing research. Using a standardized questionnaire, a trained interviewer held face-to-face interviews with participants who had given written consent. There was no need for official permission from any organization because the main method of interview was by personal contact.

### 3. Measurements

The standardized questionnaire developed particularly for this study by the researcher gathered information on demographics and life-style, including work-related characteristics. Demographic characteristics were age, education level, and marital status; life-style included daily hours of sleep and rest, patterns of meals, frequency of exercise, and the extent of feelings of fatigue. Work characteristics included occupation, monthly income, and employment condition. In addition, role satisfaction and closeness with others were measured using a 1~100 bar scale, which had equal distances per every 10 points to assess the quality of the participants' social lives.

We investigated self-efficacy, stressful life events, and depressive symptoms as the psychological qualities of the participants. Self-efficacy was measured by an instrument that Oh (1993) translated into Koreans, the General Self-efficacy Scale (Sherer et al., 1982), which consists of 17 items rated on a five-point Likert scale (1=strongly disagree, 5=strongly agree). The possible overall scores range from 17 to 85. The higher the total score, the more self-efficacious the participants are. In this study, the Cronbach's coefficient  $\alpha$  was 0.83. Stressful life events were reported retrospectively for the six months preceding the interview. The Stressful Life Events Scale (Lin, Dean, & Ensel, 1986) consists of 101 specific life events of either acute or chronic strain with respect to work, education, finance, health, bereavement, migration, courtship, cohabitation, legal matters, and family and social relationships. The Stressful Life Events (SLE) scale used in this study was translated into Korean in the study of Kim et al. (2006). The possible overall scores range from 0 to 101. Higher scores indicate that the individual experienced more stressful life events. Cronbach's coefficient  $\alpha$  was .82.

The Beck Depression Inventory (Beck, 1967) translated into Korean and validated by Lee and Song (1991) was used to assess the depressive symptoms of the participants. The Beck Depression Inventory (BDI) is the most widely used self-report instrument for measuring depressive symptom severity. The BDI comprises 21 items, rated on a four-point Likert scale. The scores range from 0 to 63, and higher scores represent higher levels of depressive symptoms. The cutoff scores are as follows: no depression or minimal depression (0~13), mild depression (14~19), moderate depression (20~28), and severe depression (29~63). Cronbach's  $\alpha$  for this study was .88.

### 4. Data analysis

The statistical program SAS 9.1 version was used to analyze the data. Descriptive statistics were computed for the analysis of demographic and life-style characteristics. We also used  $\chi^2$  test, t-test, and one-way ANOVA to analyze the differences in depression according to demographic and life-style characteristics among employed single and married Korean women. To analyze the predicting factors of depression in employed women, we used correlation analysis and stepwise multiple regression analysis for each group. The internal consistency reliability was evaluated by Cronbach's coefficient  $\alpha$ .

## RESULTS

### 1. Demographic and lifestyle characteristics

The sample consisted of 373 single and 355 married working women. Single working women were compared to married women on demographic and life-style variables. There were statistically significant differences in most of the demographic variables (Table 1). Single women had higher education levels than married women. On the other hand, there were more self-employed women and women earning higher incomes among the married women. The closest person (s) for single women were their parents and for married women, their husbands, but the intimacy level with people they were close to was higher for single women. For life-style characteristics, statistically significant differences between single and married women were found for regular diet ( $\chi^2=8.77$ ,  $p=.003$ ), hours of daily housework ( $t=-19.03$ ,  $p<.001$ ), daily hours of sleep ( $t=-3.23$ ,  $p=0.001$ ), satisfaction with sleep ( $\chi^2=7.23$ ,  $p<.001$ ) (Table 2). Married women spent more time keeping house, their diet was more regular, and they had more hours of sleep and higher satisfaction

**Table 1.** Comparison of Demographic Characteristics for Single and Married Working Women

Variables	Categories	Single (n=373)	Married (n=355)	$\chi^2$ or t ( <i>p</i> )
		n (%) or M±SD	n (%) or M±SD	
Age (year)		26.9±4.53	39.2±8.29	-24.77 (<.001)
Education	Middle school/lower	3 (0.8)	12 (3.4)	71.54 (<.001)
	High school	55 (14.8)	144 (40.8)	
	College/higher	314 (84.4)	197 (55.8)	
Occupation	Services/production work	134 (39.5)	95 (28.6)	79.63 (<.001)
	Office work	76 (22.4)	121 (36.5)	
	Professional job	120 (35.4)	55 (16.6)	
	Self-employed	9 (2.7)	61 (18.4)	
Monthly income (\$)	< 1,000	55 (14.9)	51 (14.4)	45.87 (<.001)
	1,000~2,000	192 (52.0)	134 (37.9)	
	2,000~3,000	110 (29.8)	105 (29.7)	
	≥ 3,000	12 (3.3)	64 (18.1)	
Monthly family income (\$)	< 3,000	110 (32.5)	105 (29.9)	7.44 (.024)
	3,000~5,000	106 (31.4)	144 (41.0)	
	≥ 5,000	122 (36.1)	102 (29.1)	
Employment condition	Regular job	219 (59.8)	151 (43.3)	78.23 (<.001)
	Contract employee	117 (32.0)	82 (23.5)	
	Temporary/daily employee	18 (4.9)	28 (8.0)	
	Self-employed	12 (3.3)	88 (25.5)	
Closest person	Husband (male friend)	67 (19.0)	197 (57.9)	120.97 (<.001)
	Parents	138 (39.2)	53 (15.6)	
	Sibling	61 (17.3)	52 (15.3)	
	Female friend	86 (24.4)	38 (11.2)	
Intimacy with the closest person (%)		88.0±10.63	81.4±15.88	6.38 (<.001)

† Exclusion of missing data.

with sleep.

## 2. Mental health-related characteristics

Self-efficacy, stressful life events, and depression were analyzed as mental health-related variables (Table 3). Self-efficacy and depression showed no statistically significant differences between the two groups, but the stressful life events score was significantly higher among single women ( $t=2.49$ ,  $p=.013$ ). The ranking of stressful life events was found to be different for the two groups. Life events related to work, such as "conflict with coworkers", "increased responsibility in business", "other conflict in workplace", "change in working time or condition" were ranked higher by single women, while life events related to family, such as "some aggravation in economic status", "quarrel with spouse", "conflict with relatives", "getting health care for health problems in the family" were ranked higher by married women.

## 3. Differences in depression according to other variables

Findings on differences in depression according to demographic and life-style variables were inconsistent for single and married women. There were differences in depression according to age, occupation, and employment condition for married women but not for single women (Table 4). Among married women, age was significantly correlated with depression ( $r=.17$ ,  $p=.001$ ), and there were differences in depression between the service/production group and office work group ( $F=4.66$ ,  $p=.003$ ). Depression scores were also significantly higher in the self-employed group than in the group with a regular job ( $F=3.50$ ,  $p=.016$ ). It is interesting that women with preschoolers were less depressed than those with no preschoolers ( $t=-3.95$ ,  $p<.001$ ), and the number of preschoolers correlated negatively with depression scores ( $r=-.19$ ,  $p=.001$ ). In life-style characteristics, there were significant differences in depression according to regular

**Table 2.** Comparison of Lifestyle Characteristics for Single and Married Working Women

Variables	Categories	Single (n=373)	Married (n=355)	$\chi^2$ or t (p)
		n (%) or M±SD	n (%) or M±SD	
Exercise	Never	223 (60.0)	195 (55.6)	2,80 (.246)
	Sometimes or once a week	104 (28.0)	99 (28.2)	
	2~3 times a week or more	45 (12.1)	57 (16.2)	
Regular diet	Yes	139 (37.3)	170 (48.4)	8,77 (.003)
	No	234 (62.7)	181 (51.6)	
Weekly working hours		50.0±11.36	49.1±13.70	0,95 (.345)
Working role satisfaction (%)		61.9±17.63	63.1±17.35	-0,88 (.378)
Hours of housework daily		0.9±0.92	2.6±1.37	-19,03 (<.001)
Daily hours of sleep		6.2±1.31	6.5±1.19	-3,23 (.001)
Satisfaction with sleep	Sufficient	148 (39.9)	176 (50.0)	7,23 (<.001)
	Insufficient	224 (60.2)	176 (50.0)	
Daily hours of rest		2.6±1.48	2.5±1.57	1,44 (.150)
Satisfaction with rest	Sufficient	131 (35.6)	108 (31.2)	1,35 (.246)
	Insufficient	237 (64.4)	238 (68.8)	
Feeling fatigued	Almost never	24 (6.5)	28 (8.0)	1,08 (.582)
	Sometimes fatigued	274 (73.7)	262 (74.4)	
	Always fatigued	74 (19.9)	62 (17.6)	

†Exclusion of missing data.

**Table 3.** Comparison of Single and Married Working Women for Self-efficacy, Depression, Stress

Variables	Single (n=373)	Married (n=355)	t	P
	M±SD	M±SD		
Self-efficacy	60.3±8.09	60.5±9.50	-0,26	.794
Stressful life events	2.6±3.01	2.1±2.71	2,49	.013
Depression	8.6±5.95	8.7±7.06	-0,17	.867

†Exclusion of missing data.

diet ( $t=-3.04$ ,  $p=.003$ ) and feeling fatigued ( $t=2.66$ ,  $p=.008$ ) among married women and weekly working hours among single women ( $r=.12$ ,  $p=.021$ ) (Table 4). Daily hours of sleep as well as satisfaction with sleep and rest were significant variables for depression for both. These findings indicate that working women satisfied with sleep and rest were less depressed.

#### 4. Predicting factors of depression in working women

Correlational analyses were used to investigate the relationship of depression with other variables according to marital status. Depression scores for single women were significantly correlated with work role satisfaction ( $r=-.27$ ), intimacy with closest person ( $r=-.18$ ), self-efficacy

( $r=-.26$ ), and stressful life events ( $r=.41$ ). On the other hand, there were correlations between depression score and work role satisfaction ( $r=-.23$ ), intimacy with closest person ( $r=-.11$ ), satisfaction with marriage ( $r=-.34$ ), satisfaction with husband ( $r=-.33$ ), wife role satisfaction ( $r=-.29$ ), mother role satisfaction ( $r=-.16$ ), self-efficacy ( $r=-.28$ ), and stressful life events ( $r=.26$ ) among married women. The variable having the highest correlation with depression was stressful life events (positive) among single women and satisfaction with marriage (negative) among married women.

Multiple regression analyses, including the stepwise method were performed to examine factors that influence depression. The purpose of these statistics was to investigate and compare explanatory predicting factors between

**Table 4.** Differences in Depression according to Demographic and Lifestyle Characteristics for Single and Married Working Women

Variables	Categories	Single (n=373)		Married (n=355)	
		Depression score	t or F or r	Depression score	t or F or r
		M±SD	(p)	M±SD	(p)
Age			0.02 (.751)		0.17 (.001)
Occupation	Services/ production work	9.0±7.01	0.41 (.743)	7.0±5.03	4.66 (.003) (Tukey: 1<2)
	Office work	8.8±5.83		10.2±7.49	
	Professional Job	8.4±4.85		7.6±6.30	
	Self-employed	10.1±5.01		9.9±9.15	
Employment condition	Regular Job	8.8±6.40	0.64 (.591)	7.8±6.49	3.50 (.016) (Tukey: 1<4)
	Contract employee	8.3±5.26		8.0±5.68	
	Temporary/daily employee	7.3±5.22		11.0±6.69	
	Self-employed	9.8±5.04		10.2±8.65	
Preschooler	Yes			6.6±5.85	-3.95 (<.001)
	No			9.8±7.67	
Regular diet	Yes	8.3±6.51	-0.79 (.432)	7.6±6.09	-3.04 (.003)
	No	8.8±5.60		9.8±7.72	
Weekly working hours			0.12 (.021)		0.01 (.807)
Daily hours of sleep			-0.14 (.009)		-0.15 (.005)
Daily hours of rest			-0.00 (.955)		0.07 (.252)
Satisfaction with rest	Sufficient	7.5±5.34	-2.53	7.2±6.60	-2.58 (.010)
	Insufficient	9.2±6.22		9.3±6.98	
Feeling fatigued	Fatigued	8.8±6.02	1.81	9.0±7.11	2.66 (.008)
	Not fatigued	6.5±4.44		5.4±5.49	

† Exclusion of missing data.

single and married women. Among single women, stressful life events ( $\beta=0.70$ ), self-efficacy ( $\beta=-0.18$ ), feeling fatigued ( $\beta=2.19$ ), work role satisfaction ( $\beta=-0.05$ ), monthly income ( $\beta=1.18$ ), weekly work hours ( $\beta=0.07$ ), and intimacy with closest person ( $\beta=-0.06$ ) were significant predicting factors of depression and explained 34% of the variance in the model (Table 5). That is, stressful life events, feeling fatigued, and number of hours worked weekly were found to contribute to depression, while self-efficacy, working role satisfaction, and intimacy with the closest person were found to prevent depression. On the other hand, in married women, satisfaction with marriage ( $\beta=-0.04$ ), self-efficacy ( $\beta=-0.13$ ), stressful life events ( $\beta=0.41$ ), age ( $\beta=0.16$ ), regular diet ( $\beta=-1.87$  compare to reference group), satisfaction with role as wife ( $\beta=-0.06$ ), and feeling fatigued ( $\beta=1.77$ ) were significant predicting factors of depression and explained 32% of variance in

the model (Table 5). Specifically, stressful life events, age, and feeling fatigued were found to contribute to depression while satisfaction with marriage, self-efficacy, regular diet, and satisfaction with role as wife were found to prevent depression. To compare, the only predicting factors of depression in single women were work role satisfaction, monthly income, working hours, and intimacy with closest person, while the only predicting factors in married women were satisfaction with marriage, age, regular diet, and satisfaction with their role as wives.

## DISCUSSION

The mean scores for depression were not significantly different between single employed women (SEW) and married employed women (MEW). These findings were not compatible with the idea that employed married

**Table 5.** Predicting Factors of Depression in Single and Married Working Women

Group	Independent variables	Model R <sup>2</sup>	$\beta$	F	p
Single (n=373)	Stressful life events	.18	0.70	61.19	<.001
	Self-efficacy	.24	-0.18	24.26	<.001
	Feeling fatigued	.29	2.19	18.24	<.001
	Working role satisfaction	.30	-0.05	5.73	.017
	Monthly income	.32	1.18	6.72	.010
	Weekly work time	.33	0.07	7.17	.008
	Intimacy with closest person	.34	-0.06	4.08	.044
Married (n=355)	Satisfaction with marriage	.17	-0.04	46.05	<.001
	Self-efficacy	.22	-0.13	12.88	<.001
	Stressful life events	.25	0.41	9.22	.003
	Age	.27	0.16	6.08	.014
	Regular diet (reference group: irregular diet)	.29	-1.87	7.44	.007
	Wife role satisfaction	.31	-0.06	4.68	.032
	Feeling fatigued	.32	1.77	3.99	.047

† Exclusion of missing data.

women suffer from multi-role strain and have poor mental health. This may be explained by the correlation between mental health and employment status, in other words, people who could maintain their job status were somewhat mentally healthy. Although the mean scores of both populations were lower than the cutoff point for mild depression, 149 (40%) in SEW, and 137 (39%) in MEW reported scores higher than the cutoff point for mild depression. These data have a higher frequency than the data from Kim et al. (1999), which reported 23% of married women suffered from clinical depression. We concluded that some employed women were still vulnerable to depression regardless of marital status although some researchers (Dionne & Chénard, 2004; Noorbala, Bagheri Yazdi, Yasamy, & Mohammad, 2004; Whooley et al., 2002) have reported that women's mental health benefits from employment.

We found that SEW had higher scores than MEW for stressful life events, but not for self-efficacy or depression. SEW reported they experienced stress more frequently in work-related situations, such as conflicts with co-workers or increasing responsibility at work while MEW reported more stress in personal relationships, such as quarrels with their husbands, or conflicts with relatives. This shows that MEW place a great deal of emphasis on family, while SEW emphasize occupational careers (Lee, Um, & Kim, 2004).

In the examination of factors predicting depression in SEW and MEW, stressful life events and self-efficacy were found to explain depression in both groups. In addition, monthly income and weekly work hours were significant variables explaining depression for SEW, but marital satisfaction and satisfaction with the role of wife were

more significant for MEW. It is suggested that family-related and relationship-focused factors are more important than physical factors for MEW (Kim, Nam, & Cheong, 2006). Over half (197, 57.9%) of MEW reported that they considered their husbands to be the most intimate person in their lives while most SEW responded that their parents the most intimate. According to these results, as we said earlier, MEW tended to regard relationships with family, especially with husband, as important. Therefore, we could infer that MEW were susceptible to occurrences of depression since women are vulnerable when breaking off close relationships with others (Song & Lee, 2002), and husband-related factors are important variables to quality of life for Korean married women, as shown in Han (1995). Unlike MEW, a great number of SEW tended to have close relationships with their parents, which meant the relationships were mostly discontinued with the death of the parents, and people usually regarded that as a natural separation compared to breaking off a relationship. This inference is partly supported by the result that age and depression were positively correlated while age and satisfaction with husband were negatively correlated for MEW in this study. Therefore, implementing nursing interventions for depression in married women should include marital counseling to foster healthy relationships between women and their husbands.

Unlike depression among SEW, there was a difference in depression according to occupational categories for MEW. MEW who worked as office workers reported more depression than those who worked in services positions or in manufacturing companies. This might be similar to a result from Lee, Um, and Kim (2004), who reported that women who were office workers had the

lowest scores in work satisfaction and quality of life of a group including technicians, workers in services and manufacturing industries, and professionals. Office workers may experience more depression than other workers because they have less autonomy, more restrictions, and more psychological stresses than other kinds of workers. We inferred that MEW as office workers might have a lot of difficulty playing multiple roles with time restrictions, thus they perceive themselves as incompetent, a core cognitive factor resulting in a depressed mood.

In this study, MEW with children under the age of 7 reported less depression than those whose children were all over 7 years old. Today most Korean parents living with an employed daughter or daughter-in-law take responsibility for caring for their grandchildren, especially preschoolers. We inferred several reasons that employed women with children younger than 7 years old were less depressed rather than the opposite. First, employed women might compensate for their role in nurturing children with economic productivity as the current social atmosphere is gradually moving away from the Korean Confucian tradition, which emphasized the responsibility of mothers in caring for their children. With the decrease in this tradition, economic capabilities are regarded as valuable. Second, MEW with children younger than 7 years old could lessen their multi-role strain with more help and support from their parents compared to MEW with children over 7 years old or without children. At 7 years of age, most children enter elementary school and that means the families' psychological and physical responsibilities in caring for the child are somewhat diminished; thus, the resources of nurturing from family members could decrease while mothers' nurturing role strain might increase.

SEW slept less and felt less satisfied with their sleep than MEW, and decreased sleep time for SEW was not due to their hours at work time or housework, as SEW spent significantly less time on housework than MEW did. We did not investigate leisure time in this study as we were not sure that SEW spent more time doing leisure or other activities than MEW. We only assumed that MEW may have thought that they did not have enough time to manage everything in the limited time allotted and, thus, they concentrated primarily on work and planned their time schedule more efficiently than SEW.

Unlike a report that women in their 20s or 30s were more depressed than those who were in their 40s (Kang, 1998), this study showed that age and depression were positively correlated for MEW. On the other hand, Noorbala et al. (2004) reported that there was a sig-

nificant correlation between age and the occurrence of mental disorders. Age was also a variable affecting depression of middle-aged women in a study by Park (2002). This may be explained by changes in physical status and decreased intimacy with their husbands.

One limitation in this study was that we did not include unemployed women. To investigate the effects of employment on women's health more accurately, repetitive studies including unemployed are needed. A second limitation is that this study investigated comprehensive qualities of employed women but the attributes were not specified. For example, we investigated the level of satisfaction with work, not the properties of work that bring about satisfaction or dissatisfaction. Finally, we performed multiple regression analysis without controlling for the level of depression and characteristics of each organization that participants belong to. More research is needed to identify predicting factors of depression in those who manifest clinical depression.

Despite several limitations, this study revealed that MEW were not more depressed than SEW and they did not suffer from as much multi-role strain as we thought earlier. Rather, SEW were found to have more stressful life events than MEW. This study also revealed that there are different variables explaining depression in SEW and MEW. Therefore, the study contributes basic data necessary to develop tailored mental health promotion interventions and to make policies for SEW and MEW respectively.

Based on this study, we present some of the implications that need to be considered in delivering nursing interventions for employed women. First, it is mandatory to employ at least one nurse who is trained as a community psychiatric and mental health care nurse in primary health care centers in Korea, as it is cost-effective to use these personnel and facilities. Also, we should consider specific strategies to deliver mental health services for employed women, who usually do not have sufficient time or locations to participate in interventions. Considering Hill, Weinert, and Cudney's (2006) report that web-based interventions are useful in improving psychological status in those who have limited access to health information and resources and cannot participate in interventions given in the evening, we suggest research on the effects of a web-based self-help group for depression.

## CONCLUSION

These results suggest that the mental health of MEW was not worse than it was for SEW, and they did not suffer from multi-role strain. Also, different variables explained

depression for these women; family-related and relationship-focused factors were especially important to MEW. These findings indicate a need to consider different factors in order to develop effective interventions for depression in single and married working women.

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