INTRODUCTION

Unprecedented, dramatic decline in children being born around the world is a critical global issue. Young adults putting off marriage and having less children may have become recent trends in many modern societies. Particularly, South Korea has recently become one of the countries reporting some of the lowest marriage and fertility rates in the world. In 2018, the marriage rate, the number of marriages per 1,000 people, was 5.0, and fertility rate, the number of babies born per woman of reproductive age, was 0.96. Increasing number of young people are deciding not to get married and have children in South Korea. In Korea, only 1.9% of births occur out of a formal marriage, so marriage rate and fertility rate are very closely related.

Many social factors have been postulated as reasons why young generation postpone or hesitate marriage and childbirth: changes in individual social values, improvement in social lives of women, gender equity values, recent labor market insecurity, higher unemployment of young adults, increased cost of living, and more. Many governmental policies, which mostly focus on providing financial and social support for those who get married and have children, have been implemented to stimulate marriage and birth rate. However, it seems that these measures have not yielded significant results as the marriage and birth rates continue to decline. Less is known about the psychological factors underlying the drastic decline in marriage and fertility rate. Identifying various fundamental psychological factors related to one’s desire to get married and have children may help formulate a better, effective demographic policy.

ORIGINAL ARTICLE

Childhood Emotional Abuse Is Associated With the Desire to Get Married and Have Children in Korean Young Adults

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Objective
Young adults putting off marriage and having less children have become recent trends in many modern societies. Yet less is known about the psychological factors underlying the drastically low marriage and fertility rates. We hypothesized that childhood maltreatment experience may have a negative association with one’s marriage and childbearing intention.

Methods
A total of 1,004 college students (mean age of 20.8±2.3 years, 56.1% female) completed self-questionnaires including sociodemographic information, marriage and childbearing intention, Patient Health Questionnaire 9 (PHQ-9), and Childhood Trauma Questionnaire (CTQ). Multivariable logistic regression analyses were conducted to evaluate the effect of childhood trauma on marriage and childbearing intentions after controlling for sociodemographic variables and depression.

Results
29.7% had no intention to get married and 40.4% had no intention to have children in the future. The prevalence of physical, sexual, and emotional abuse was 33.1%, 18.5%, and 22.3%, respectively. Multivariable logistic regression analyses revealed that female (p<0.001), poor health status (p=0.001), and childhood emotional abuse (p=0.01) were independent predictors of no desire to get married. Female (p<0.001), poor health status (p<0.001), and childhood emotional abuse (p=0.038) were also predictors of no desire to have children.

Conclusion
Childhood emotional abuse may be the most damaging form among other types of childhood maltreatment because it can occur more pervasively and persist for a longer period, causing extensive damage to a child’s emotional, social and cognitive development. Raising awareness regarding the life-long consequences of childhood emotional abuse and the need to prevent and detect childhood emotional abuse should be emphasized.

Keywords
Childhood emotional abuse; Childhood maltreatment; Childhood trauma; Fertility rate; Marriage rate.
Childhood is a formative period for the development of personality traits. Traumatic experiences during childhood can have long-lasting effects across the lifespan. Children who experience childhood maltreatment by a caregiver can suffer from disrupted developmental processes and negative conceptualizations of self and others, perceiving the world as unsafe. Consequently, childhood maltreatment is associated with symptom sequelae regarding impairment in diverse functional domains and psychopathology in adulthood such as posttraumatic stress, depression, substance abuse and suicidal ideation. Also, it has been widely recognized that problems with interpersonal relationships are significant consequences of childhood maltreatment. Difficulties in emotional regulation, low self-esteem, and negative perception of the world are also associated with childhood maltreatment. The willingness to form interpersonal connections and to establish intimacy should be a prerequisite for one to have the desire to get married and have children. Yet the long-lasting negative effects of childhood maltreatment can limit one's capacity and devotion to build an intimate relationship.

In addition, the desire to get married and have children in the future could reflect a high regard for family life. Previous study showed that women's perceptions about the value of marriage and children positively affected the decision to have childbirth. However, childhood maltreatment often occurs in the context of dysfunctional family, including parental alcohol and drug abuse, domestic violence, and parental marital discord. Therefore, individuals carrying the burdens of childhood maltreatment could rarely have a positive internal representation of family relationships.

The purpose of the present study was 1) to evaluate the marriage and childbearing intention, 2) to identity the prevalence of childhood maltreatment, and 3) to examine the associations between childhood maltreatment experience and the desire to get married and have children in Korean young adults. We hypothesized that childhood maltreatment experience may have a negative association with one's marriage and childbearing intention.

METHODS

Subjects
This cross-sectional study was a community-based survey conducted by Bucheon Mental Health Welfare Center and Soonchunhyang University Bucheon Hospital. As the target population for this study was young adults, three community colleges located in Bucheon were contacted and two of them gave consent for the study to take place in the campus. A total of 1,004 college students were recruited and provided written informed consents after receiving explanations on the purpose of the study and assurance of confidentiality. The study was conducted in accordance with the Declaration of Helsinki and the International Conference on Harmonisation-Good Clinical Practice (ICHGCP) guidelines. The study was approved by the Institutional Review Board (IRB) of Soonchunhyang University Hospital Bucheon (SCHBC 2018-09-027).

Measurements
Participants were asked to complete self-report questionnaires including sociodemographic information including age, gender, marital status, self-perceived economic and health status, alcohol, and smoking history. Psychiatric history and family structure in which they were raised were also included in the questionnaires. Marriage and childbearing intentions were asked as yes or no questions (“Do you desire to get married in the future?” “Do you desire to have children in the future?”). Patient Health Questionnaire (PHQ-9), a 9-item self-report depression screening tool, was included to assess symptoms of depression. In this study, we used the standardized Korean version of the PHQ-9 which was validated for the screening of major depressive disorder. Cut-off score of 10 was used for the presence of depression.

Childhood Trauma Questionnaire (CTQ), a 28-item self-report inventory assessing 5 types of maltreatment experienced as a child. The standardized Korean version of CTQ has been validated with high test-retest reliability (r=0.87) and good internal consistency (Cronbach’s α=0.88). The CTQ is comprised of 5 subscales: sexual abuse, physical abuse, emotional abuse, physical neglect, and emotional neglect. The items are measured on a 5-point Likert-type scale, with higher scores indicative of greater severity of trauma. Cut off scores for emotional abuse are: None=5–8, Mild=9–12, Moderate=13–15, Severe≥16. Cut off scores for physical abuse are: None=5–7, Mild=8–9, Moderate=10–12, Severe≥13. Cut off scores for sexual abuse are: None=5, Mild=6–7, Moderate=8–12, Severe≥13. Cut off scores for emotional neglect are: None=5–9, Mild=10–14, Moderate=15–17, Severe≥18. Cut off scores for physical neglect are: None=5–7, Mild=8–9, Moderate=10–12, Severe≥13. In this study, cut-off score for mild severity was used for categorizing subjects with the presence of each type of trauma.

Statistical analysis
Descriptive analyses were conducted to explore the sociodemographic characteristics, prevalence of childhood traumas, and marriage and childbearing intentions. Differences between those with or without marriage and childbearing intentions were analyzed using independent t-tests or Mann-Whitney U test for continuous variables and chi-square tests or Fisher exact tests for categorical variables. Data are presented as mean± standard deviation for continuous variables and frequencies.
with percentages for categorical variables. Univariable and multivariable logistic regression analyses were conducted to evaluate the effect of childhood trauma on marriage and childbearing intentions after controlling for sociodemographic variables (age, gender, economical and health status) and presence of depression. Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated. The data analyses were performed using SPSS version 22.0 (IBM Corp., Armonk, NY, USA), and p<0.05 was considered statistically significant.

RESULTS

The mean age of the participants was 20.8±2.3 years and 563 (56.1%) were comprised of female (Table 1). All the participants were unmarried and had no children. 141 (14.0%) had higher scores than 9 on the PHQ-9 and had depression. The prevalence of physical, sexual, and emotional abuse was 33.1%, 18.5%, and 22.3%, respectively. The prevalence of physical and emotional neglect was 45.1% and 97.3%, respectively.

Marriage intention

298 (29.7%) reported they do not desire to get married in the future (Table 2). Among 441 male participants, 93 (21.09%) had no intention to get married. Among 563 female participants, 205 (36.41%) had no intention to get married. Difference between participants with or without marriage intentions are shown in Table 2. The group with no desire to get married were more comprised of females and those with poor economic and health status, as well as those with psychiatric history, depression, and childhood emotion abuse than the group with the desire to get married.

Results of the logistic regression analyses with desire to get married as dependent variable are shown in Table 3. Multivariable logistic regression analyses revealed that female (adjusted OR=1.98, CI=1.48–2.66, p<0.001), poor health status (adjusted OR=1.81, CI=1.26–2.59, p=0.001), and presence of childhood emotional abuse (adjusted OR=1.54, CI=1.11–2.13, p=0.01) were independent predictors of no desire to get married.

Childbearing intention

406 (40.4%) reported they do not desire to have children in the future (Table 3). Among 441 male participants, 122 (27.66%) had no intention to have children. Among 563 female participants, 284 (50.44%) had no intention to have children. Difference between participants with or without childbearing intention are shown in Table 4. The group which did not have the desire to have children were more comprised of females, those with poor health status, frequent alcohol intake, depression, and childhood emotional abuse.

Results of the logistic regression analyses with desire to have

Table 1. Sociodemographic characteristics and prevalence of childhood abuse in the participants (N=1,004)

| Variables                      | Mean±SD or N (%) |
|--------------------------------|-----------------|
| Age, years                     | 20.8±2.3        |
| Female                         | 563 (56.1)      |
| Economic status                |                 |
| Good                           | 716 (71.3)      |
| Poor                           | 288 (28.7)      |
| Health status                  |                 |
| Good                           | 835 (83.2)      |
| Poor                           | 169 (16.8)      |
| Psychiatry history             |                 |
| Yes                            | 80 (8.0)        |
| No                             | 924 (92.0)      |
| Smoking                        |                 |
| Yes                            | 178 (17.7)      |
| No                             | 826 (82.3)      |
| Alcohol intake                 |                 |
| ≥3 times a week                | 135 (13.4)      |
| <3 times a week                | 869 (86.0)      |
| Childhood family structure     |                 |
| Two parents                    | 890 (88.6)      |
| Single parent                  | 103 (10.3)      |
| Parentless                     | 11 (1.1)        |
| Depression                     |                 |
| Yes                            | 141 (14.0)      |
| No                             | 863 (86.0)      |
| Physical abuse                 |                 |
| Yes                            | 332 (33.1)      |
| No                             | 672 (66.9)      |
| Sexual abuse                   |                 |
| Yes                            | 186 (18.5)      |
| No                             | 818 (81.5)      |
| Emotional abuse                |                 |
| Yes                            | 224 (22.3)      |
| No                             | 780 (77.7)      |
| Physical neglect               |                 |
| Yes                            | 453 (45.1)      |
| No                             | 551 (54.9)      |
| Emotional neglect              |                 |
| Yes                            | 977 (97.3)      |
| No                             | 27 (2.7)        |
| Desire to get married          |                 |
| Yes                            | 706 (70.3)      |
| No                             | 298 (29.7)      |
| Desire to have children        |                 |
| Yes                            | 598 (59.6)      |
| No                             | 406 (40.4)      |

Depression was measured by Patient Health Questionnaire-9 (PHQ-9). Childhood abuse and neglect were measured by Childhood Trauma Questionnaire (CTQ)
Childhood Abuse, Marriage, and Childbearing

Table 2. Characteristics of the participants according to their desire to get married

| Variable                  | No desire to get married (N=298) | Desire to get married (N=706) | p-value |
|---------------------------|----------------------------------|-------------------------------|---------|
| Age, years                | 20.6±2.3                         | 20.8±2.2                      | 0.137   |
| Female                    | 205 (68.8)                       | 358 (50.7)                    | <0.001***|
| Economic status           |                                  |                               |         |
| Good                      | 197 (66.1)                       | 519 (73.5)                    | 0.022*  |
| Poor                      | 101 (33.9)                       | 187 (26.5)                    |         |
| Health status             |                                  |                               | <0.001***|
| Good                      | 223 (74.8)                       | 612 (86.7)                    |         |
| Poor                      | 75 (25.2)                        | 94 (13.3)                     |         |
| Psychiatric history       |                                  |                               | 0.013*  |
| Yes                       | 34 (11.4)                        | 46 (6.5)                      |         |
| No                        | 264 (88.6)                       | 660 (93.5)                    |         |
| Smoking                   |                                  |                               | 0.999   |
| Yes                       | 53 (17.8)                        | 125 (17.7)                    |         |
| No                        | 245 (82.2)                       | 581 (82.3)                    |         |
| Alcohol intake            |                                  |                               | 0.259   |
| ≥3 times/week             | 34 (11.4)                        | 101 (14.3)                    |         |
| <3 times/week             | 264 (88.6)                       | 605 (85.7)                    |         |
| Family structure          |                                  |                               | 0.099   |
| Two parents               | 255 (85.6)                       | 635 (89.9)                    |         |
| Single parent             | 40 (13.4)                        | 63 (8.9)                      |         |
| Parentless                | 3 (1.0)                          | 8 (1.1)                       |         |
| PHQ-9                     |                                  |                               |         |
| Total score               | 6.3±5.9                          | 4.3±4.1                       | <0.001***|
| Depression                |                                  |                               |         |
| Yes                       | 60 (20.1)                        | 81 (11.5)                     | <0.001***|
| No                        | 238 (79.9)                       | 625 (88.5)                    |         |
| CTQ                       |                                  |                               |         |
| Total score               | 48.9±14.8                        | 44.1±12.4                     | <0.001***|
| Physical abuse            |                                  |                               | 0.108   |
| Yes                       | 110 (36.9)                       | 222 (31.4)                    |         |
| No                        | 188 (63.1)                       | 484 (68.6)                    |         |
| Sexual abuse              |                                  |                               | 0.63    |
| Yes                       | 52 (17.4)                        | 134 (19.0)                    |         |
| No                        | 246 (82.6)                       | 572 (81.0)                    |         |
| Emotional abuse           |                                  |                               | <0.001***|
| Yes                       | 91 (30.5)                        | 133 (18.8)                    |         |
| No                        | 207 (69.5)                       | 573 (81.2)                    |         |
| Physical neglect          |                                  |                               | 0.264   |
| Yes                       | 143 (48.0)                       | 310 (43.9)                    |         |
| No                        | 155 (52.0)                       | 396 (56.1)                    |         |

Table 2. Characteristics of the participants according to their desire to get married (continued)

| Variable                  | No desire to get married (N=298) | Desire to get married (N=706) | p-value |
|---------------------------|----------------------------------|-------------------------------|---------|
| Emotional neglect         |                                  |                               | 0.518   |
| Yes                       | 292 (98.0)                       | 685 (97.0)                    |         |
| No                        | 6 (2.0)                          | 21 (3.0)                      |         |

Values are presented as mean±SD or N (%). p-values are computed by chi-square test or Fisher exact test for categorical variables and Student t-test or Mann-Whitney U test for continuous variables as appropriate. Depression was measured by Patient Health Questionnaire-9 (PHQ-9). Childhood abuse and neglect were measured by Childhood Trauma Questionnaire (CTQ). *p<0.05; ***p<0.001

children as dependent variable are shown in Table 5. Multivariable logistic regression analyses revealed that female (adjusted OR=2.52, CI=1.93–3.31, p<0.001), poor health status (adjusted OR=1.95, CI=1.38–2.76, p<0.001), and presence of childhood emotional abuse (adjusted OR=1.39, CI=1.02–1.9, p=0.038) were independent predictors of no desire to have children.

DISCUSSION

The present study showed that, among the 1,004 young adults, 29.7% of the young adults (21.09% of male participants, 36.41% of female participants) had no intention to get married and 40.4% (27.66% of male participants, and 50.44% of female participants) had no intention to have children in the future. The results are consistent with the National survey conducted by the Korean Institute of Health and Social Affairs in 2,018 on 2,464 unmarried adults aged 20–44 years, which showed that 28.9% of men and 48.0% of women reported that it is not mandatory to have children.21 The negative marriage intention rates of the National survey were higher than that of the results of this study (49.5% of men, 71.2% of women showed reluctant to get married), which could be attributed to the relatively higher age of the participants in the national survey.

A world-wide meta-analysis estimated rates of 22.6% for physical abuse, 12.7% for sexual abuse, 36.3% for emotional abuse, 16.3% for physical neglect, and 18.4% for emotional neglect.22 It is significant to note that the prevalence of physical neglect and emotional neglect in this study (45.1% and 97.3%, respectively) were much higher than that of the world-wide estimated rates. This could be attributed to the relatively young age of the participants of this study. Because all the participants were in their early 20’s, they could have been better at recalling childhood maltreatment than older adults who were asked to report on childhood experiences that could have happened decades ago. Especially, physical and emotional neglect are acts
of omission, while physical, sexual, and emotional abuse are acts of commission.\textsuperscript{13} Due to their relatively subtle nature compared to other forms of abuse, physical and emotional neglect may be more dependent on memory.

Childhood emotional abuse was an independent predictor of both no desire to get married and have children in this study. Childhood emotional maltreatment can be defined as "repeated pattern of caregiver behavior or extreme incident(s) that convey to children that they are flawed, unloved, unwanted, endangered, or of value only in meeting another's needs."\textsuperscript{23} Behaviors of emotional abuse include constant criticism, contempt, disapproval, threat, and rejection.\textsuperscript{13} Childhood emotional abuse can interfere with the development of a secure attachment with the caregiver, which, in turn, contributes to maladaptive interpersonal functioning in adulthood, such as mistrust, hostility, dissatisfaction, sense of inadequacy, and alienation in interpersonal relationships.\textsuperscript{24} Such problems could cause difficulties in building intimate relationship with others.\textsuperscript{25} Especially, detrimental effects of childhood emotional abuse for adulthood romantic relationship well-being, such as struggle with fear of rejection or abandonment, and difficulty in trusting others have been identified.\textsuperscript{26,27} Thus, the social and psychological maladjustment, especially the limited capacity to form intimate relationships, correlated with childhood emotional abuse, could contribute to the negative desire to get married and have children.

In this study, unlike childhood emotional abuse, physical and sexual abuse were not determinants of one's intention to get married and have children. Emotional abuse has been suggested as the core component of all forms of childhood maltreatment.\textsuperscript{28} While childhood physical and sexual abuse rarely occur in the absence of emotional abuse, emotional abuse can occur independent of other forms of childhood abuse.\textsuperscript{29} In this study, we categorized the participants with or without the presence of physical, sexual, or emotional abuse. Therefore, there could be participants who experienced low incidence of physical and sexual abuse. However, emotional abuse usually occurs more pervasively and persists for a longer period, causing extensive damage to a child's emotional, social and cognitive development.\textsuperscript{29} Consequently, there could have been less participants who experienced low incidence of emotional abuse compared to physical and sexual abuse. Previous studies have suggested that childhood emotional abuse had a greater impact on interpersonal problems in adult patients than childhood physical abuse.\textsuperscript{30} Emotional abuse is also reported to be the strongest predictor of emotion dysregulation and adulthood PTSD symptoms, among all the types of childhood abuse.\textsuperscript{32,33} Furthermore, emotional abuse was associated mostly with attempted suicide and depressive disorders.\textsuperscript{34,35} Emotional abuse may be the most damaging form among other types of childhood maltreatment.

Female gender was also an independent predictor of both no desire to get married and have children in this study. The more drastic decline in fertility rates in East Asia, including Singapore, Hong Kong, Japan, Taiwan, and South Korea, may attribute to the existing gender inequality and gender-role stereotypes compared to other similarly developed western countries.\textsuperscript{36} In Korea, between married couples, women tend to be more responsible for taking care of the children and housekeeping, regardless of their employment status.\textsuperscript{37} Previous study showed that women's gender role attitudes, husbands' housework, and women's responsibility for children's education influence the desire for

### Table 3. Logistic regression analyses of demographics and childhood abuse on desire to get married

| Variable                  | Univariable OR (95% CI) | p-value | Multivariable Adjusted OR (95% CI) | p-value |
|---------------------------|-------------------------|---------|-----------------------------------|---------|
| Age                       | 0.96 (0.9–1.02)         | 0.230   |                                   |         |
| Female                    | 2.14 (1.61–2.86)        | <0.001***| 1.98 (1.48–2.66)                   | <0.001***|
| Poor economic status      | 1.42 (1.06–1.9)         | 0.018*  |                                   |         |
| Poor health status        | 2.19 (1.56–3.07)        | <0.001***| 1.81 (1.26–2.59)                   | 0.001** |
| Psychiatric history       | 1.85 (1.15–2.94)        | 0.010*  |                                   |         |
| Alcohol intake            |                        |         |                                   |         |
| Physical abuse            | 1.28 (0.96–1.69)        | 0.093   |                                   |         |
| Sexual abuse              | 0.9 (0.63–1.28)         | 0.569   |                                   |         |
| Emotional abuse           | 1.89 (1.39–2.58)        | <0.001***| 1.54 (1.11–2.13)                   | 0.010*  |
| Physical neglect          | 1.18 (0.9–1.55)         | 0.236   |                                   |         |
| Emotional neglect         | 1.49 (0.63–4.1)         | 0.393   |                                   |         |
| Depression                | 1.95 (1.35–2.8)         | <0.001***| 1.44 (0.96–2.13)                   | 0.072   |

Multivariable logistic regression model using stepwise backward selection. Depression was measured by Patient Health Questionnaire-9 (PHQ-9). Childhood abuse and neglect were measured by Childhood Trauma Questionnare (CTQ). *p<0.05; **p<0.01; ***p<0.001. OR, odds ratio; CI, confidence interval.

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Children could be the one who feel more burden when deciding to get married and have children. Also, previous studies showed that higher education levels of women were negatively related to women’s decision to have children. With this consideration, many governmental policies have been focused on providing support for working parents, including extended leave periods after childbirth, better access to childcare, and improvement in work-family balance. Yet more creative and effective policies considering actual needs of women, as well as promoting gender role attitudes and gender equity should be implemented.

Notably, poor economic status was not an independent predictor of both no desire to get married and have children in this study. Developed countries with better financial situation tend to have lower rates of fertility rate compared to undeveloped countries. Previous study showed that government policies that focused on financial assistance of childbirth and childrearing encourage women’s decision to have two or more childbirths, but did not significantly influence one’s childbirth decision itself. Financial concerns over marriage and childbearing may not be a crucial factor determining one’s intention to marry and have children, as one might assume. Interestingly, Li et al. suggested that materialism, specifically, the pursuit of happiness and success based on social status and other tangible goods, may play an important role in the recent trend of decline of marriage and fertility rate. However, conversely, it may be speculated that those who have lower self-worth and maladaptive interpersonal and emotional functioning could give more emphasis on social and economic status and materialistic values.

There are several limitations in this study. First, identification of childhood maltreatment was based on participants’ retrospective recall of events. Second, this was a cross-sectional study, so causal relationships cannot be confirmed. Third, the participants were comprised of young college students attend-

### Table 4. Characteristics of the participants according to their desire to have children

| Variable                  | No desire to have children (N=298) | Desire to have children (N=706) | p-value |
|---------------------------|------------------------------------|---------------------------------|---------|
| Age, years                | 20.5±2.3                           | 20.9±2.2                        | 0.001** |
| Female                    | 284 (70.0)                         | 279 (46.7)                      | <0.001*** |
| Economic status           |                                     |                                 | 0.253   |
| Good                      | 281 (69.2)                         | 435 (72.7)                      |         |
| Poor                      | 125 (30.8)                         | 163 (27.3)                      |         |
| Health status             |                                     |                                 | <0.001*** |
| Good                      | 311 (76.6)                         | 524 (87.6)                      |         |
| Poor                      | 95 (23.4)                          | 74 (12.4)                       |         |
| Psychiatric history       |                                     |                                 | 0.016*   |
| Yes                       | 43 (10.6)                          | 37 (6.2)                        |         |
| No                        | 363 (89.4)                         | 561 (93.8)                      |         |
| Smoking                   |                                     |                                 | 0.676   |
| Yes                       | 69 (17.0)                          | 109 (18.2)                      |         |
| No                        | 337 (83.0)                         | 489 (81.8)                      |         |
| Alcohol intake            |                                     |                                 | 0.023*   |
| ≥3 times/week             | 42 (10.3)                          | 93 (15.6)                       |         |
| <3 times/week             | 364 (89.7)                         | 505 (84.4)                      |         |
| Family structure          |                                     |                                 | 0.375   |
| Two parents               | 353 (86.9)                         | 537 (89.8)                      |         |
| Single parent             | 48 (11.8)                          | 55 (9.2)                        |         |
| Parentless                | 5 (1.2)                            | 6 (1.0)                         |         |
| PHQ-9                     |                                     |                                 |         |
| Total score               | 6.3±5.9                            | 4.3±4.1                         | <0.001*** |
| Depression                |                                     |                                 | <0.001*** |
| Yes                       | 60 (20.1)                          | 81 (11.5)                       |         |
| No                        | 238 (79.9)                         | 625 (88.5)                      |         |
| CTQ                       |                                     |                                 |         |
| Total score               | 47.3±14.1                          | 44.3±12.6                       | <0.001*** |
| Physical abuse            |                                     |                                 | 0.657   |
| Yes                       | 138 (34.0)                         | 194 (32.4)                      |         |
| No                        | 268 (66.0)                         | 404 (67.6)                      |         |
| Sexual abuse              |                                     |                                 | 0.653   |
| Yes                       | 72 (17.7)                          | 114 (19.1)                      |         |
| No                        | 334 (82.3)                         | 484 (80.9)                      |         |
| Emotional abuse           |                                     |                                 | 0.001**   |
| Yes                       | 112 (27.6)                         | 112 (18.7)                      |         |
| No                        | 294 (72.4)                         | 486 (81.3)                      |         |
| Physical neglect          |                                     |                                 | 0.492   |
| Yes                       | 189 (46.6)                         | 264 (44.1)                      |         |
| No                        | 217 (53.4)                         | 334 (55.9)                      |         |

Values are presented as mean±SD or N (%). p-values are computed by chi-square test or Fisher exact test for categorical variables and Student t-test or Mann-Whitney U test for continuous variables as appropriate. Depression was measured by Patient Health Questionnaire-9 (PHQ-9). Childhood abuse and neglect were measured by Childhood Trauma Questionnaire (CTQ). *p<0.05; **p<0.01; ***p<0.001
ing two specific colleges, which limits the generalizability of the results.

To our knowledge, we present the first results showing the association between childhood emotional abuse and the desire to get married and have children in young adults. Our findings contribute additional knowledge on the negative mental health consequences of childhood emotional abuse. Also, our findings provide novel insights for governmental policies for the promotion of marriage and fertility rate. Long-term governmental policies helping children grow up without being emotionally abused could be more helpful for elevating marriage and fertility rate in the future. In other words, investing in making a happier, more secure environment for the children to be raised in could be what we need to do for more people to want to get married and have children in this society. Moreover, our findings highlight that the negative consequences of childhood emotional abuse may not be confined to individual psychological well-being but may have an extensive impact on the society. Future prospective long-term studies are needed to increase the causal relationship between childhood maltreatment and psychological factors contributing to the marriage and childbearing intention.

In South Korea, child emotional abuse within the household is considered a family matter and is less likely to come to the attention within the child welfare system. Particularly, emotional abuse rarely has definite proof and noticeable wound, compared to physical and sexual abuse. Thus, cases of emotional abuse tend to be less visible, less prioritized, and less subject to intervention. Therefore, raising awareness regarding the life-long consequences of childhood emotional abuse and the need to prevent and detect childhood emotional abuse should be emphasized. Furthermore, mental health assessment and intervention of psychiatric trauma related to childhood emotional abuse are also important.

Availability of Data and Material
The datasets generated or analyzed during the study are available from the corresponding author on reasonable request.

Conflicts of Interest
The authors have no potential conflicts of interest to disclose.

Author Contributions
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Funding Statement
This research was supported by Bucheon Mental Health Welfare Center and Soonchunhyang University Research Fund.

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