The correlation of communication skills and emotional expressions among nursing students in Turkey: A public university sample

Serap Yıldırım1*, Nihan Durgu2, Adile Büşra Özdeş3, Nurgül Özdemir4

1 Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, Ege University, İzmir, Turkey
2 Department of Mental Health and Psychiatric Nursing, Faculty of Health Sciences, Manisa Celal Bayar University, Manisa, Turkey
3 Department of Organ Transplantation, Akdeniz University, Antalya, Turkey
4 Department of Cardiovascular Surgical, Istanbul Mehmet Akif Ersoy Thoracic and Cardiovascular Surgery Training and Research Hospital, Istanbul, Turkey

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Background & Aim: Expressing emotions is very important both in interpersonal relationships and in the protection and maintenance of the individual's mental health. However, the individual must have certain skills to express his feelings healthily. The most important of these is communication skills. This research aimed to examine the correlation between communication skills and emotional expressions of nursing students.

Methods & Materials: This correlational study was conducted among nursing students at a public university faculty of nursing in Turkey between 2016 and 2017. Of the total of 1423 students, 632 nursing students were selected using the convenience sampling method. The Introductory Information Form, the Berkeley Expressivity Questionnaire, and the Communication Skills Scale were used to collect data. The Mann-Whitney U, Kruskal-Wallis H, and Pearson correlation tests were used for the analysis of the data.

Results: The mean total Berkeley Expressivity Questionnaire score of the students was found to be 79.45±10.11, and the mean total score of the Communication Skills Scale was 97.67±11.20.

Emotional expressions are affected by gender, marital status, class, income level, family structure, the residence where they have lived the longest, place of residence, and working status (p<0.05, p<0.01). It was found that there was a positive-directed correlation between students' emotional expressions and communication skills (p<0.01).

Conclusion: It was concluded that communication skills and some sociodemographic characteristics of nursing students are correlated with their emotional expressions.

Key words: students; nurses; emotional expressions; communication skills

Introduction

Emotional expression is one of the predictors of individuals, especially in adolescents, who have a higher risk of developing mental disorders, both in terms of their mental health and seeking help in this regard. Different approaches to emotional expression are found in the literature. While Gross et al. describe emotional expression as behavioral changes such as smiling accompanied by emotion, frowning or slamming the door (1), Kennedy-Moore and Watson describe emotional expression as the expression or symbolization of emotional experience with observable verbal and nonverbal behaviors (2). It has been determined that emotional expression is important in terms of the physical and psychological health, and harmony of the individual (3-7); on the other hand, suppression of emotions can damage the physical and psychological health of the individuals and cause emotions to re-appear later in life in a distorted manner (4). In a study by Ciarrochi and Scott analyzing the relationship between emotional competence and well-being in university students, they found that the inability to identify and express emotions increased the students’ level of anxiety, and decreased their sense of well-being (8). Similarly, in Kaya's study about the relationship between social well-being and emotional expression in university
students, a positive relationship between social well-being and emotional expression was found (5).

Emotional expression is influenced both by the individual and by the cultural factors of the society in which the individual is living. For the individual to express his feelings in a healthy manner, a set of skills (3,5,9). The most important of these are communication skills. Communication skills include effective response and listening skills that lead to the correct encoding and sending of messages, and the correct understanding of the messages that one receives (10,11). Emotional expressions of individuals who do not have communication skills are also limited. Therefore, the feeling of not being understood, loneliness and/or failure in school/professional life are the expected outcomes. However, in these studies, in which the emotional expression of adolescents and affecting factors are examined, the relationship between emotional expression and communication skills are not examined. In nursing students in particular, who are expected to acquire communication skills during the education process, it is especially important to examine their current situation. It is important to examine the influence of their emotional expressions in connection with their own physical and psychological health and to determine if early precautions are to be taken in this regard. For this reason, the purpose of this study was to examine the correlation between communication skills and emotional expressions of nursing students.

Methods

Design and Participants

This correlational study was conducted among nursing students at Ege University Faculty of Nursing between 2016 and 2017. Of the total of 1423 students, 632 nursing students were selected using the convenience sampling method. Ege University Nursing Faculty was established in 1955, was the first nursing school that provided graduate-level education in Turkey, provides education at national and international levels; it is a faculty that has been accredited by the Association for Evaluation and Accreditation of Nursing Programs.

Data collection and Procedure

Three forms were used as data collection tools. These are the Introductory Information Form, the Berkeley Expressivity Questionnaire (BEQ), and the Communication Skills Scale (CSS). The data of the study was obtained by using face to face interview techniques by researchers.

The Introductory Information Form

was developed by the researchers and consists of 10 questions to determine the socio-demographic characteristics (age, gender, marital status, class, high school graduate, income status, family structure, live for the longest, place of residence, working status) of the nursing students.

The Berkeley Expressivity Questionnaire

(BEQ) consists of 16 items rated on a 7-point scale (1- strongly disagree, 7- strongly agree), was developed by Gross and John (1995) to examine the emotional expression characteristics of individuals and was later adapted to Turkish by Akin (2011) (4,12). The scale consists of three sub-dimensions: Positive Expressivity (PE), Negative Expressivity (NE) and Impulse Strength (IS). The scores of the scale range from 16-112. A high score in the sub-dimension indicates a high level of the relevant features, and the higher the total score, the higher the level of emotional expression (4).

This study determined Cronbach’s Alpha internal consistency coefficient of the PE, NE, IS subscales of the BEQ to be 0.66, 0.45, 0.73 respectively, while the Cronbach’s Alpha internal consistency coefficient of the whole BEQ was 0.76.
The Communication Skills Scale

(CSS) developed by Korkut and Bugay (2014), consists of 25 items, the five Likert type, to understand how individuals evaluate communication skills. The scale consists of four sub-dimensions: Communication Principles and Basic Skills (CPBS), Effective Listening and Nonverbal Communication (ELNVC), Willingness to Communicate (WC) and Self-Expression (SE) (13). The scale scored 0-4 in the first studies (14) and then scored 1-5 in the last studies (11). The scale score ranges between 25 and 125 and a high score indicates that individuals evaluate their communication skills positively (13).

This study determined Cronbach’s Alpha internal consistency coefficient of the CPBS, ELNVC, WC, SE subscales of the CSS to be 0.80, 0.77, 0.68, 0.71 respectively, while the Cronbach’s Alpha internal consistency coefficient of the whole CSS was 0.91. The Cronbach’s alpha values are sufficient for the reliability of the scale.

Data Analysis

Statistical Package of Social Sciences (SPSS 20.0) software was used in the statistical analysis. Kolmogorov–Smirnov test, histograms, and QQ plots were used to test the normality of the variables. As the variables were non-normally distributed, non-parametric tests were used in the analysis. Descriptive statistics included numbers, percentages, mean and standard deviation. Mann–Whitney U test (U) and Kruskal–Wallis H (KW) analysis of variance were used for evaluating the relationship between BEQ scores and independent variables. Pearson correlation test was used for evaluating the relationship between BEQ and CSS.

Ethical Considerations

Before the start of the study, the institution in which the study was conducted was asked for an opinion on the study. The study permission to conduct the study was obtained from the faculty in 12.05.2017. During the study, ethics procedures (institutional permission, permission to use the scales, informed consent from students, the confidentiality of information and principles of the Declaration of Helsinki) were taken into consideration.

Results

The average age of the participants was 21.28±1.56, 83.4% were female, 98.4% were single, 33.2% had completed three years at a university, 72.8% had graduated from Anatolian High School, 73.6% had a moderate income level, 82.0% had a nuclear family structure, 36.2% had lived in a district for the longest time, 49.5% lived in a dormitory and 91.9% were not working. The Berkeley Expressivity Questionnaire- subscale and the total mean score of the students are given in Table 1.

The Communication Skills Scale subscale and the total mean score of the students are given in Table 2.

Women's PE, NE and IS subscale and BEQ total scale score average was higher than men's (p<0.01), the NE subscale scores of single students were found to be significantly higher than those of married students (p<0.05) and the PE subscale score average of second-year students was significantly higher than in the other groups (p≤0.05). It was determined that the PE, IS subscale and the BEQ total scale score averages of students who perceive their income level as high and that the NE subscale of students, who perceive their income level as moderate, are higher than in the other groups (p<0.05). The NE subscale and the BEQ total scale score average of students with a fragmented family structure were significantly higher than in the other
groups (p<0.05) (p<0.01). The PE subscale and total scale score average of students who spent most of their life in an urban center was higher than in the other groups (p<0.05), the IS subscale score average of the students staying with their relatives was higher than in the other groups (p<0.05) and the total scale point average of students who did not work was found to be higher than in the ones working, and the difference in scores between the groups was found to be significant (Table 3).

A Pearson correlation analysis was conducted to investigate the relationship between BEQ and CSS in the study. Accordingly, there was a weak positive correlation between PE subscale score average and CPBS, ELNVC, WC, and SE subscale score averages, and a moderate positive relation was found between the PE subscale and the total scale score averages (p<0.01). There was a very weak positive correlation between the students' subscale scores and WC, SE subscale and total scale scores (p<0.01, p<0.05). There were a weak positive correlation between the IS subscale score average and CPS, ELNVC, WC, SE subscale and total scale score averages of the students (p<0.01). There was a weak positive correlation between the BEW total scale score average and CPS, ELNVC, WC, SE subscale and total scale score averages of the students (p<0.01) (Table 4).

Table 1. The Berkeley Expressivity Questionnaire- subscale and the total mean score of the students

| Category                | Mean Score | SD  | Min-Max | Scale Min-Max |
|-------------------------|------------|-----|---------|---------------|
| Positive expressivity   | 22.03      | 3.31| 7-28    | 4-28          |
| Negative expressivity   | 25.30      | 4.58| 7-41    | 6-42          |
| Impulse strength        | 32.12      | 5.18| 13-42   | 6-42          |
| Total                   | 79.45      | 10.11| 35-111 | 16-112        |

Table 2. The communication skills scale-subscale and the total mean score of the students

| Category                              | Mean Score | SD  | Min-Max | Scale Min-Max |
|---------------------------------------|------------|-----|---------|---------------|
| Communication principles and basic skills | 39.40      | 4.61| 20-50   | 10-50         |
| Effective listening and nonverbal communication | 23.64      | 3.23| 11-30   | 6-30          |
| Willingness to communicate            | 19.06      | 2.83| 10-25   | 5-25          |
| Self-expression                       | 15.56      | 2.38| 8-20    | 4-20          |
| Total                                 | 97.67      | 11.20| 55-125 | 25-125        |
**Communication skill and emotional expression**

Table 3. The distribution of the students’ Berkeley Expressivity Questionnaire subscale and total scale score averages according to socio-demographic characteristics

| Descriptive characteristics | Positive expressivity $\bar{x}$±SD | Negative expressivity $\bar{x}$±SD | Impulse strength $\bar{x}$±SD | Total $\bar{x}$±SD |
|-----------------------------|----------------------------------|----------------------------------|-------------------------------|-------------------|
| **Age (year)**              |                                  |                                  |                               |                   |
| 18-24 (n=342)               | 22.04±3.15                      | 25.40±4.24                      | 32.11±4.91                    | 79.54±9.30        |
| 25-31 (n=286)               | 22.02±3.52                      | 25.21±4.97                      | 32.19±5.50                    | 79.42±11.05       |
| 32 and older (n=4)          | 22.00±1.63                      | 23.50±6.65                      | 28.25±2.75                    | 73.45±6.45        |
| P value*                    | 0.75                             | 0.84                             | 0.17                          | 0.32              |

| **Gender**                  |                                  |                                  |                               |                   |
| Female (n=527)              | 22.34±3.21                      | 25.61±4.53                      | 32.90±4.81                    | 80.85±9.52        |
| Male (n=105)                | 20.45±3.36                      | 23.77±4.53                      | 28.22±5.25                    | 72.44±10.12       |
| P-value**                   | <0.01                           | <0.01                            | <0.01                         | <0.01             |

| **Marital status**          |                                  |                                  |                               |                   |
| Single (n=622)              | 22.03±3.30                      | 25.35±4.60                      | 32.15±5.16                    | 79.53±10.11       |
| Married (n=10)              | 21.90±4.09                      | 22.60±1.51                      | 30.20±6.53                    | 74.70±9.97        |
| P-value**                   | 0.84                            | <0.05                            | 0.25                          | 0.09              |

| **Class**                   |                                  |                                  |                               |                   |
| 1st year (n=138)            | 21.51±3.17                      | 25.17±4.25                      | 32.29±4.81                    | 78.97±9.38        |
| 2nd year (n=137)            | 22.41±3.00                      | 25.06±4.01                      | 32.04±5.61                    | 79.51±10.42       |
| 3rd year (n=210)            | 22.08±3.91                      | 25.33±4.94                      | 32.18±5.38                    | 79.58±10.56       |
| 4th year (n=147)            | 22.08±3.91                      | 25.63±4.88                      | 31.95±5.74                    | 79.65±11.55       |
| P-value*                    | <0.05                           | 0.78                             | 0.96                          | 0.68              |

| **High school graduate**    |                                  |                                  |                               |                   |
| High school (n=100)         | 21.93±3.44                      | 24.97±4.71                      | 31.96±5.61                    | 78.86±10.51       |
| Anatolian high school (n=460)| 22.12±3.25                      | 25.34±4.58                      | 32.30±5.10                    | 79.75±10.07       |
| Vocational school of health (n=26) | 20.73±3.28 | 25.38±3.66                      | 30.23±4.50                    | 76.54±9.14        |
| Other (n=46)                | 22.11±3.55                      | 25.50±4.89                      | 31.76±5.36                    | 79.37±12.22       |
| P-value*                    | 0.23                            | 0.69                             | 0.22                          | 0.43              |

| **Income status**           |                                  |                                  |                               |                   |
| Low (n=110)                 | 21.50±2.97                      | 24.44±4.90                      | 31.76±4.74                    | 77.70±8.55        |
| Middle (n=465)              | 22.08±3.36                      | 25.62±4.51                      | 32.10±5.29                    | 79.80±10.36       |
| High (n=57)                 | 22.66±3.43                      | 24.35±4.29                      | 32.98±5.11                    | 80.00±8.86        |
| P-value*                    | <0.05                           | <0.05                            | <0.05                         | <0.05             |

| **Family structure**        |                                  |                                  |                               |                   |
| Nuclear family (n=518)      | 22.10±3.32                      | 25.59±4.56                      | 32.27±5.16                    | 79.97±10.19       |
| Extended family (n=77)      | 21.43±3.53                      | 24.10±4.54                      | 30.81±5.36                    | 76.34±9.78        |
| Separated family (n=37)     | 22.21±2.47                      | 23.73±4.39                      | 32.70±4.74                    | 78.65±8.55        |
| P-value*                    | 0.22                            | <0.01                            | <0.05                         | <0.01             |

| **Live for the longest**    |                                  |                                  |                               |                   |
| Metropolitan(n=203)         | 22.49±3.26                      | 25.79±4.64                      | 32.19±5.46                    | 79.47±10.54       |
| Province (n=137)            | 21.50±3.34                      | 24.37±4.64                      | 31.94±5.24                    | 77.81±10.25       |
| District (n=229)            | 21.96±3.25                      | 25.34±4.47                      | 32.01±5.02                    | 79.31±9.65        |
| Other (n=63)                | 21.95±3.47                      | 25.62±4.48                      | 32.67±4.79                    | 80.24±9.81        |
| P-value*                    | <0.05                           | 0.06                             | 0.73                          | <0.05             |

| **Place of residence**      |                                  |                                  |                               |                   |
| University dorm (n=313)      | 22.02±3.25                      | 25.51±4.67                      | 32.69±5.03                    | 79.22±9.84        |
| With family (n=147)         | 22.37±3.05                      | 25.75±4.26                      | 32.33±4.66                    | 80.46±9.22        |
| With relative (n=30)        | 21.53±2.87                      | 24.47±3.25                      | 32.73±3.33                    | 78.73±6.77        |
| With friends (n=134)        | 21.87±3.74                      | 24.63±4.76                      | 30.69±5.89                    | 77.19±11.37       |
| Other (n=8)                 | 20.38±3.89                      | 23.50±6.87                      | 27.50±7.27                    | 71.38±16.36       |
| P-value*                    | 0.37                            | 0.07                             | <0.05                         | 0.07              |

| **Working status**          |                                  |                                  |                               |                   |
| Working (n=51)              | 21.76±3.05                      | 24.20±5.53                      | 31.04±5.73                    | 77.00±11.06       |
| Not working (n=581)         | 22.05±3.33                      | 25.40±4.48                      | 32.21±5.12                    | 79.66±10.00       |
| P-value**                   | 0.38                            | 0.13                             | 0.08                          | <0.05             |

*Kruskal Wallis H test **Mann Whitney U test
Table 4. Student’s Pearson Correlation Values between the Berkeley Expressivity Questionnaire and the Communication Skills Scale

| Berkeley Expressivity Questionnaire | Communication Skills Scale |
|------------------------------------|---------------------------|
| CPBS* | ELNVC* | WC* | SE* | Total |
| Positive Expressivity | .419 | .466 | .431 | .479 | .518 |
| P value | .000 | .000 | .000 | .000 | .000 |
| Negative Expressivity | .050 | .070 | .102 | .114 | .090 |
| P value | .207 | .079 | .010 | .004 | .023 |
| Impulse Strength | .361 | .361 | .280 | .275 | .382 |
| P value | .000 | .000 | .000 | .000 | .000 |
| Total | .345 | .369 | .331 | .349 | .406 |
| P value | .000 | .000 | .000 | .000 | .000 |

*CPBS; Communication Principles and Basic Skills, ELNVC; Effective Listening and Nonverbal Communication, WC; Willingness to Communicate, SE; Self-Expression

Discussion

The results of this study showed that the positive emotional expressions, the negative emotional expressions and the impulse strength of the students were moderate. The moderate level of emotional expressions of the nursing students is very important both physical and psychological well-being. Akın (2011) stated that emotional expression is beneficial and plays an essential role in the maintenance of psychological and physical well-being, whereas bottled up emotion is detrimental to an individual’s well-being (4).

The CSS total mean score was 97.67±11.20. A high score on the scale means that individuals evaluate their communication skills positively (13). When the CSS subscale and total scale score averages of the students were evaluated, it was determined that the communication skills were in the positive direction and above average. In the study by Tutuk et al. (2002) with nursing students, and in the study by Arifoğlu and Sala (2011) with first-year nursing students, they determined that students perceive their communication skills to be above average, and Bingöl and Demir (2011) determined in their study with midwifery and nursing students that they perceive their communication skills to be on a high level (15-17). It is during nursing school that nursing students in Turkey develop the communication skills that are a great asset in both their personal and professional lives. It is a priority for Turkey to help nursing students develop traits such as communication skills, personal development, critical thinking and problem solving. For this reason, the study findings were expected.

In the study, the mean BEQ subscale and total scale scores of female students were significantly higher than in male students. In studies on gender differences in emotional expression, it is often the case that emotions such as sadness, fear, and anxiety, which are generally expressed by women, are seen as "feelings that do not befit a man," and men who exhibit these emotions are evaluated more negatively than women who express the emotions at the same time. Also, it has been determined that they are less consoled (5,18). However, emotions such as anger and aggression are acceptable for men and to be inappropriate for women (19). Emotional expression can also be a function of culturally desired gender roles (20). The phrase "men do not cry" found in our culture is the perception that men should stand strong and not express their feelings. In their study with five separate samples of university students, Gross and John (2003) found that men suppressed their emotions more than women (21). Similarly, in the study of Çelik (2013, 2015) with high school students and the study of Kaya (2013) with university students, they found that women had a higher level of emotional expression than men (5, 22, 23). The study results are parallel to both the knowledge in the literature and the findings of this study.

In the study, it was found that some of the BEQ subscales and total scale scores of the students were affected by the marital status of the students, their income level
perceptions, their family structure, where they had lived the longest and where they were living now. In the currently available national and international literature, there is no information on the relationship between emotional expression and variables other than gender and income status perception variables. The result that the students with higher income levels, those with a core family structure and the students who lived in an urban center for the longest time, generally had a higher mean emotional expression score than the other groups is thought to stem from the fact that these individuals have easier access to quantitative and qualitative variables that can enhance their emotional expressions.

In the study, it was found that there was a positive relationship between the students’ BEQ subscale and total scale score averages and CSS subscale and total scale score averages. Emotions are the first communication systems of individuals, and it is very important that individuals, as social entities, express their emotions appropriately (7). Communication skills are important when expressing feelings appropriately and it is very important for individuals to clearly express their feelings in the development and maintenance of healthy interpersonal relationships (4, 24). Study results support the information in the literature.

Limitation

The data obtained from the study are limited to the nursing students studying at university located in a province of Turkey. Therefore, these research findings can only be generalized to this school.

Conclusion

The emotional expressions and communication skills of the students were found to be moderate in the study. While the emotional expressions of the students were affected by their gender, marital status, year of study, income status perceptions, family structure, where they lived the longest and where they were living at the time of the study, it was not affected by their age or the high school from which they graduated. In the study, it was determined that students had a positive relationship between their emotional expressions and their communication skills, and as the level of their communication skills increased, their positive emotional expressions also increased.

In light of these results, attempts to improve the communication skills of the students are important to increase their ability to express emotions healthily. This can also lead to an improvement in the general health status of the students.

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Conflict of Interest

The authors declare that there are no conflicts of interest in the publication of this study.

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