Self-confidence, communication skills, and a solution-focused approach in organ transplantation coordinators: Descriptive study

Dilek Soylu

Department of Nursing, Kahramanmaraş Sütçü İmam University Faculty of Medicine, Afşin School of Health, Kahramanmaraş, Türkiye

ABSTRACT

Objective: The acquisition of communication skills, which form the basis of solution-focused thinking, also develops self-confidence in organ transplantation coordinators, enabling them to plan appropriate care in the organ donation process. The aim of this study was to determine the levels of self-confidence, communication skills, and solution-focused approaches in organ transplantation coordinators.

Material and Methods: A descriptive and correlational study. The study was conducted with 203 organ transplantation coordinators in Türkiye between August and September 2023. The data were collected using a personal information form, the self-confidence scale, the communication skills scale, and the solution-focused inventory.

Results: A positive, weak correlation was determined between the solution-focused inventory and communication skills (r=0.261, p<0.001) and self-confidence (r=0.269, p<0.001), and a positive high-level correlation was determined between communication skills and self-confidence (r=0.811, p<0.001). Self-confidence (β=0.614) and the solution-focused approach inventory (β=0.076) explained 65.6% of the communication skills (corrected R^2=0.656).

Conclusion: The solution-focused approach and self-confidence were found to increase the communication skills of the organ transplantation coordinator.

Keywords: Organ transplantation coordinator, self-confidence, communication skills, solution-focused approach

INTRODUCTION

Organ donation is an extremely complex and specific process requiring multidisciplinary communication in which nurse transplantation coordinators (NTC) have an important role (1). The donation process starts with the identification of a potential donor during mechanical ventilation, and includes various components such as the diagnosis of brain death, obtaining informed consent, organ transplantation coordination, the harvesting operation, and providing support to the family throughout the process (2).

The NTC makes daily visits to the intensive care unit to follow-up on patients who may be potential cadaver organ donors meeting the brain death criteria (1,3). In addition, the NTC manages the clinical planning of cadaver donors, coordinates laboratory tests, organizes the health records, evaluates the needs of patients for organ transplantation, and establishes communication with many doctors and members of the multidisciplinary team associated with care of the patients. The NTC functions as a bridge between the surgical team and the organ donor (or family members) and communicates with the patient and hospital for the planning of the operating theatres (4). In addition, it is the NTC who communicates with the families of patients in whom brain death has occurred to persuade them to agree to organ donation (1,3).

The organ donation process includes crisis management. In a family experiencing shock after trauma, it can be extremely difficult for the NTC to communicate with the family and request organ donation (5). In the interviews with the family for organ donation, it is emphasized that brain death is actual death and that organ donation is important (6). NTCs are working in a fast-paced environment in the

donation process, and are often exposed to work stress factors. All these stress factors, and the effort of coping with pressure, can be overwhelming for NTCs (7). In this process, NTCs must be extremely patient, decisive, and calm when providing coordination (5).

Solution-focused thinking is a strategy that develops communication skills and thereby supports the problem-solving skills of nurses. Solution-focused thinking is a communication strategy that focuses on the strengths of both the nurse and the patient despite the problems, and trains nurses to be future and goal-oriented by developing optimism. Nurses who have developed solution-focused thinking and problem-solving skills can motivate themselves as well as those to whom they are providing care, and can help them to be aware of their strengths and overcome problems (8). Moreover, a solution-focused approach allows the person to be aware of their strengths and the available resources in exceptional circumstances. It has been emphasized that when a person reaches a solution to a problem using their own abilities, it has a positive effect on the self-confidence of that individual (9).

By developing solution-focused communication skills, NTCs can increase their self-confidence and maintain better patient care in the difficult and complex process of organ donation. However, no study could be found in the literature that has investigated the levels of self-confidence, communication skills and solution-focused approaches together in organ transplantation co-ordinators. Therefore, the aim of this study was to determine the levels of self-confidence, communication skills, and solution-focused approaches in organ transplantation co-ordinators. To meet this aim, the answers were sought to the following questions:

1. What are the levels of communication skills, solution-focused approach and self-confidence of organ transplantation co-ordinators?

2. Do the levels of communication skills, solution-focused approach and self-confidence of organ transplantation coordinators change according to socio-demographic characteristics?

3. Are there correlations between the levels of communication skills, solution-focused approach and self-confidence of organ transplantation co-ordinators?

4. Does the level of communication skills predict the levels of solution-focused approach and self-confidence of organ transplantation co-ordinators?

MATERIAL and METHODS

Research Design

This research was designed as a descriptive study to evaluate the levels of communication skills, solution-focused approach, and self-confidence of organ transplantation co-ordinators. The sampling method used was chain referral sampling/snowball sampling. In this method, the first participants included identify other potential participants who meet the study inclusion criteria, and as this process is repeated, the sample is expanded. The use of this sampling method has been shown to be appropriate when it is difficult to reach potential participants (10). It was considered that a homogeneous sample group would be formed with respect to its characteristics, and that the other characteristics of the sample would have no specific effect on the subject examined.

The study inclusion criteria were defined as age ≥18 years, completion of all the questions on the data collection form, and agreement to participate in the study.

Location and Time of the Study

The study was conducted with organ transplantation coordinators in Türkiye between August and September 2023. It was conducted as a descriptive, cross-sectional, and correlation-seeking study.

Data Collection

The study sample was obtained using the snowball sampling method. The starting point was a researcher working as an organ transplantation coordinator in a university hospital. The participants were requested to complete the data collection forms and then send them on to other organ transplantation coordinators known to them. The researchers invited the organ transplantation coordinators to participate in the study through a mobile phone message containing information about the study and the data collection tools.

The questionnaire was created on Google forms. After the participants provided informed consent for participation and confirmed that they met the study inclusion criteria, they completed the questionnaire. All the questions were defined as mandatory. Thus, informed consent was provided, the appropriateness of the age criteria was evaluated, and the questionnaire was fully completed.

Study Universe and Sample

Power analysis was performed based on the mean scores derived from the solution-focused approach concerning gender,

obtained from the results of a study by Karasu et al. (11). The sample size calculated with G*power analysis was determined to be 114 subjects with effect size d=0.7081244, α err prob=0.05, and power (1-β err prob)=0.95. This study included 203 subjects.

Data Collection

Personal Information Form

This form included questions to obtain information about age, gender, profession, marital status, education level, years of working in the profession, and years of working as a co-ordinator.

Self-confidence Scale (SCS)

The SCS, developed by Akın (12), is a 5-point Likert-type scale consisting of a total of 33 items. The scale has two subscales: Internal and external self-confidence. Items 4-25-32-17-10-30-12-3-19-5-21-27-9-23-1-7-15 are in the internal self-confidence subscale and items 6-31-20-29-16-14-22-11-18-33-2-28-26-13-8-24 refer to external self-confidence. There are no negative items on the scale. The points scored range from a minimum of 33 to a maximum of 165, with higher points indicating a higher level of self-confidence. In the original study, the Cronbach alpha coefficient was 0.94 in general, 0.97 for the internal self-confidence subscale, and 0.87 for the external self-confidence subscale (12). In the current study, the Cronbach alpha coefficient was calculated as 0.953.

Communication Skills Scale-adult Form (CSS-AF)

The CSS-AF was developed by Korkut Owen and Bugay (13) to measure communication skills. Adaptation studies were conducted by Korkut Owen and Bugay (13) to use the scale for adults. The scale includes 25 items with 5-point Likert-type responses graded from "always" to "never". There are no reverse-scored items. The total score obtained ranges from a minimum of 25 to a maximum of 125, with higher scores indicating a higher level of communication skills. The scale has a five-factor structure. The first factor consists of 9 items and is named basic skills and self-expression. The second factor consists of 5 items and refers to the importance given to communication, the third factor, consisting of 3 items, is the willingness to establish relationships, and the fourth factor, consisting of 5 items, is named effective listening and non-verbal communication. The fifth factor consists of three items and represents compliance with communication principles. The Cronbach alpha coefficient was found to be 0.94 (13,14). The Cronbach's alpha coefficient in this study was calculated as 0.939.

Solution-focused Inventory (SFI)

The SFI was developed by Grant et al. (15) and adapted to Turkish by Şanal Karahan and Hamarta (14). It is a 12-item inventory based on short-term solution-focused therapy, which measures solution-focused thinking. The SFI is composed of 3 subscales. Correlations between the Turkish and the original form were examined: and the problem disengagement subscale was found to be 0.92, the goal orientation subscale was 0.94, and the resource activation subscale was 0.91.

The responses to the items on the SFI are scored as 6-point Likert-type responses from 1=I definitely disagree to 6=I definitely agree. Items 1, 2, 4, and 5 are reverse-scored. Higher points obtained from the scale are interpreted as a sign of a high level of solution-focused thinking. The internal consistency coefficients were found to be 0.77 for problem disengagement, 0.84 for goal orientation, and 0.70 for resource activation.

Items 1, 2, 4, and 5 correspond to problem disengagement; 9, 10, 11, and 12 correspond to goal orientation; 3, 6, 7, and 8 correspond to resource activation. The subscales are scored separately, and a total score is also obtained, from a minimum of 12 points to a maximum of 72. Higher points show a greater change towards solution-focused thinking (14). In this study, the Cronbach alpha coefficient was calculated as 0.650.

Statistical Analysis

Data obtained in the study were analyzed statistically using SPSS vn.20.0 software (IBM Corpn., Armonk, NY, USA). In the evaluation of the conformity of the data to normal distribution, skewness and kurtosis coefficients were used [(-2, +2)] (10). In the comparisons between two groups, the Independent Samples t-test was used for quantitative variables, and for 3 or more groups, One-Way ANOVA and the Kruskal-Wallis test were used. Bonferroni-corrected multiple comparison tests were applied to the "a, b, c" columns. Relationships between quantitative variables were examined with Pearson correlation analysis. Multivariate linear regression analysis was performed to determine the level of communication skills. In calculating the reliability coefficients of the scale, the Cronbach alpha coefficient was used. Values of $p < 0.01$ and $p < 0.05$ were accepted as statistically significant.

Ethics Committee Approval

The necessary permission conduct the study was obtained from the Medical Research Ethics Committee of the Kahramanmaraş Sütçü İmam University (decision no: 06, session no: 2022/23, dated: 06.09.2022). Written informed consent was provided by all the study participants.

RESULTS

The Mean Scale Points

The mean points of the participants obtained from the scales were analyzed. The mean points of the SCS (142.94±14.77), CSS-AF (107.91±11.37), and SFI (50.95±6.97) were considered high.

Relationships Between the Socio-demographic Characteristics and Experience of Working in the Coordination System

The socio-demographic characteristics of the study participants are shown in Table 1. The participants comprised 73.4% females and 26.6% males with a mean age of 42.14±7.50 years; 59.1% were aged ≥42 years. 77.3% were nurses, 83.3% were married, and 53.7% had a university degree. Fifty-four percent stated that their duration of working in the profession was ≥21 years, and 50.2% had been working as an organ transplantation coordinator for ≥8 years. The mean duration of working in the profession was 20.64±7.58 years, and the mean time as organ transplantation coordinator was 8.41±5.98 years. Of the total participants, 58.6% reported that they held an organ transplantation coordinator certificate, and 32% worked in a transplantation centre. Additionally, 44.8% had made a declaration of brain death, 44.8% had obtained family consent for organ donation, 50.2% had participated in the preparation for organ transplantation from a living donor, and 39.4% had participated in the preparation for organ transplantation from a cadaver.

Findings Related to the Comparisons of the Socio-demographic Characteristics and the Scale Mean Points

The comparisons of the mean scale points across the participant socio-demographic characteristics are shown in Table 2. In the comparison of age and scale points, a statistically significant difference was found in the mean SCS points according to age (p=0.001) but not in the other scale points (p>0.05). No significant difference was seen in the mean scale points according to marital status (p>0.05). When examined according to education level, statistically significant differences were determined in the SCS mean points (p=0.023) and the CSS-AF mean points (p<0.001). The difference between the groups was determined to be due to university degree level education status. The mean scale points were compared according to the professional group of the participants, and the differences in the CSS-AF and SFI mean points were statistically significant (p=0.009, p=0.001). The difference was determined to be due to the midwife group. The participants who had been working for ≥21 years were determined to have statistically significant higher SCS (p=0.001) and CSS-AF (p=0.039) mean points compared to those with shorter work experience. When the scale points were compared based on years of work experience, statistically significant differences were identified in the SCS (p=0.034) and CSS-AF (p=0.039) mean points.

Findings Related to the Comparisons of the Experience of Working in the Coordination System and the Scale Mean Points

Comparisons of the mean scale points based on participants' experience in the coordination system are shown in Table 3.

Table 1. Socio-demographic and the experience of the participants working in the co-ordination system

Characteristics		Number	%
Age (years)	≤41	83	40.9
	≥42	120	59.1
Gender	Female	149	73.4
	Male	54	26.6
Profession	Nurse	157	77.3
	Doctor	20	9.9
	Midwife	12	5.9
	Health technician	14	6.9
Marital status	Married	169	83.3
	Single	34	16.7
Education level	Associate degree	24	11.8
	University degree	109	53.7
	Postgraduate	70	34.5
Years of working in the profession	≤20 years	93	45.8
	≥21 years	110	54.2
Years of working as coordinator	≤7 years	101	49.8
	≥8 years	102	50.2
Do you have an organ transplantation co-ordinator certificate?	Yes	119	58.6
	No	84	41.4
In which area of coordination do you work?	Transplant centre	65	32.0
	Intensive care	44	21.7
	Donor hospital	60	29.6
	Regional coordination centre	30	14.8
	National coordination centre	4	2.0
Have you ever made a brain death declaration?	Never	44	21.7
	A few times	91	44.8
	Many times	68	33.5
Have you received consent from the family for organ donation?	Never	44	21.7
	A few times	91	44.8
	Many times	68	33.5
Have you participated in the preparation of organ transplantation from a living donor?	Never	102	50.2
	A few times	36	17.7
	Many times	65	32.0
Have you participated in the preparation of organ transplantation from a cadaver?	Never	62	30.5
	A few times	61	30.0
	Many times	80	39.4

The SCS mean points were high for the participants with an organ transplantation co-ordinator certificate, and this was determined to create a statistically significant difference between the groups. No significant difference was determined between the CSS-AF and SFI mean points of the groups (p>0.05). In the participants working as a co-ordinator in a donor hospital, the SCS (p<0.001), CSS-AF (p=0.002), and SFI (p=0.003) mean points were determined to be statistically significantly higher than those of the other groups. The SCS mean points were low for the participants who reported having made a declaration of brain death only a few times, creating a statistically significant difference between the groups (p=0.048). No significant difference was determined in the CSS-AF and SFI mean points according to the frequency of brain death declarations (p>0.05). The mean SFI points were low for the participants who reported having

obtained family consent for organ donation only a few times, creating a statistically significant difference between the groups (p=0.029). The SCS (p<0.001), CSS-AF (p=0.21), and SFI (p=0.032) mean points were determined to be low for the respondents who had participated in the preparation of organ transplantion from a cadaver many times. Those who had participated many times in the preparation of organ transplantion from a living donor were also determined to have lower mean SCS (p<0.001), CSS-AF (p<0.001), and SFI (p=0.019) points.

Correlation Analyses of the Scales

The results of the correlation analyses between the scales are given in Table 4. There was determined to be a positive weak correlation between the CSS-AF (r=0.261, p<0.001) and the SCS (r=0.269, p<0.001), and a positive strong correlation between the CSS-AF and SCS (r=0.811, p<0.001).

Table 2. Comparisons of the socio-demographic characteristics of the participants according to the mean scale points		SCS Mean/SD Mean Rank (Min-max)	CSS-AF Mean/SD Mean Rank (Min-max)	SFI Mean/SD Mean Rank (Min-max)
Characteristics				
Age (years)	≤41	138.69±17.04	50.83±5.86	50.83±0.64
	≥42	145.88±12.21	51.03±7.67	51.03±0.70
Test/p		-3.498/0.**001***	-0.202/0.832*	-0.212/0.832*
Gender	Female	144.02±12.09	109.82±10.70	51.18±7.54
	Male	139.96±12.09	102.62±11.59	50.29±5.11
Test/p		1.386/0.170*	4.140/0.**000***	0.958/0.340*
Marital status	Married	143.53±15.29	108.43±10.85	50.85±6.87
	Single	140.00±11.64	105.29±13.55	51.41±7.56
Test/p		1.526/0.132*	1.273/0.210*	-0.395/0.695*
Education level	Associate degree	138.00±13.53[b]	71.25 (86-125)[b]	49.83±7.06
	University degree	145.46±13.31[a]	120.71 (85-123)[a]	51.29±7.61
	Postgraduate-doctorate	140.71±16.65[b]	83.41 (83-125)[b]	50.80±5.88
Test/p		3.833/0.**023****	24.708/0.**000*****	0.453/0.636**
Profession	Nurse	100.96 (111-165)	100.30 (85-125)[b]	106.94 (37-66)
	Doctor	89.70 (93-157)	93.80 (83-117)[b]	103.40 (44-61)[b]
	Midwife	127.50 (137-159)	155.83 (112-123)[a]	33.67 (30-49)[a]
	Health technician	109.36 (133-153)	86.64 (96-112)[a,b]	103.14 (49-57)[b]
Test/p		3.413/0.332***	11.589/0.**009*****	17.483/0.**001****
Years of working in the profession	≤20 years	139.18±16.55	104.64±11.76	51.02±5.98
	≥21 years	146.12±12.30	110.67±10.29	50.89±7.74
Test/p		-3.423/0.**001***	-3.849/0.**000***	0.135/0.892*
Years of working as a coordinator	≤7 years	140.73±15.67	106.25±10.80	50.22±6.228
	≥8 years	145.13±13.55	109.54±11.73	51.66±7.61
Test/p		-2.140/0.**034***	-2.080/0.**039***	-1.475/0.142*

*: Independent Samples t-test, **: One-Way ANOVA test, ***: Kruskal-Wallis test. p<0.05, [a, b]: The difference between the groups expressed by the letters is statistically significant at p<0.05 after Bonferroni correction, SD: Standard deviation, SFI: Solution-focused inventory, SCS: Self-confidence scale, CSS-AF: Communication skills scale-adult form

Multiple Linear Regression Analysis

The regression analysis results are given in Table 5. According to the results, the model explains 65% of the variance in the regression analysis and is statistically significant (F=193.771, p<0.001). It was determined that the change in SFI has no effect (β=0.076, p>0.05); that a one-unit change in SCS has a positive effect (β=0.614, p<0.001) and significantly affects CSS-AF.

DISCUSSION

In this study, the self-confidence, communication skills, and solution-focused approach levels of organ transplantation coordinators were investigated. As no other study could be found in the literature evaluating these factors together, the current study findings were discussed with those of similar studies.

When the SCS mean points of the current study participants were examined, the level of self-confiidence was determined to be high. In a study of nursing students, Yalnızoğlu Çaka et al. (16) determined that the students' self-confidence levels were high. Another study of nursing students also reported high levels of self-confidence (17). The current study results showed that the communication skills of the participants were assessed to be high. In a study by Alan et al. (18), the emotional intelligence and communication skills levels of organ transplantation coordinatorswere seen to be above the average expected. Tiryaki Şen et al. (19) investigated the communication skills of nurses in in-service training and determined that the communnication skills of the nurses were at a high level. In a study that examined the effect of communication skills on the resilience of nursing degree students in Türkiye, Yıldırım et al. (20) reported high

Table 3. Comparisons of the characteristics of the experience of the participants working in the co-ordination system according to the mean scale points

Characteristics			SCS Mean/SD Mean Rank (Min-max)	CSS-AF Mean/SD Mean Rank (Min-max)	SFI Mean/SD Mean Rank (Min-max)
Do you have an organ transplantation coordinator certificate?		Yes	144.77±12.08	108.28±11.15	51.21±6.25
		No	140.35±17.67	107.38±11.71	50.57±7.91
Test/p			1.986/0.**049***	0.557/0.578*	0.650/0.517*
In which area of coordination do you work?		Transplant centre	84.45 (117-159)[b]	80.95 (86-123)[b]	89.23 (38-61)[b]
		Intensive care	100.86 (93-164)[b]	102.39 (83-125)[a]	87.75 (30-60)[b]
		Donor hospital	129.17 (132-165)[a]	121.43 (93-125)[b]	122.83 (44-66)[a]
		BKM	89.09 (111-152)[b]	107.44 (85-115)[b]	108.09 (37-59)[a,b]
Test/p			20.333/0.**000***	15.247/0.**002***	13.664/0.**003***
Have you ever made a brain death declaration?		Never	110.56 (122-164)[b]	115.78 (96-125)	52.44±5.95
		A few times	85.84 (93-161)[a]	89.91 (83-123)	49.45±8.45
		Many times	107.57 (117-165)[b]	103.75 (86-125)	51.23±6.33
Test/p			6.077/0.**048***	4.505/0.105**	2.252/0.108***
Have you received consent from the family for organ donation?		Never	120.64 (133-161)	120.64 (96-123)	53.27±6.54[a]
		A few times	96.18 (93-165)	96.18 (83-125)	49.87±7.38[b]
		Many times	97.74 (111-159)	97.74 (85-123)	50.88±6.39[a,b]
Test/p			5.692/0.058**	5.948/0.051**	3.603/0.**029***
Have you participated in the preparation of organ transplantation from a cadaver?		Never	112.92 (93-164)[b]	112.02 (83-125)[b]	52.54±7.79[b]
		A few times	118.48 (121-165)[b]	110.41 (92-125)[a,b]	51.22±7.27[a,b]
		Many times	80.98 (11-157)[a]	87.83 (85-123)[a]	49.50±5.758[a]
Test/p			17.220/0.**000***	7.733/0.**021***	3.487/0.**032***
Have you participated in the preparation of organ transplantation from a living donor?		Never	145.62±15.09[a]	118.68[a]	51.0196±7.55[a]
		A few times	147.44±13.54[a]	102.86[a]	53.50±6.67[a]
		Many times	136.24±12.68[b]	75.35[b]	49.43±5.77[b]
Test/p			11.019/0.**000***	21.665/0.**000***	4.070/0.**019***

*: Independent t-test, **: Kruskal-Wallis test, ***: One-Way ANOVA test, p<0.05, [a,b]: The difference between the groups expressed by the letters is statistically significant at p<0.05 after Bonferroni correction

Table 4. Comparison of cadaveric organ donation and some characteristics of organ transplantation coordinators

| | | Years of working in the profession | | Years of working as a coordinator | | In which area of coordination do you work? | | | | Profession | | | | Do you have an organ transplantation coordinator certificate? | |
		≤20 years n (%)	≥21 years n (%)	≤7 years n (%)	≥8 years n (%)	Transplant centre n (%)	Intensive care n (%)	Donor hospital n (%)	RCC n (%)	Nurse n (%)	Doctor n (%)	Midwife n (%)	Health technician n (%)	Yes n (%)	No n (%)
Have you ever made a brain death declaration?	Never	20 (55.6)	16 (44.4)	30 (83.3)	6 (16.7)	8 (22.2)	14 (38.9)	0 (0.0)	14 (38.9)	34 (77.3)	4 (9.1)	4 (9.1)	2 (4.5)	10 (27.8)	26 (72.2)
	A few times	35 (61.4)	22 (38.6)	37 (64.9)	20 (35.1)	19 (33.3)	26 (45.6)	8 (14.0)	4 (7.0)	73 (80.2)	6 (6.6)	4 (4.4)	8 (8.8)	19 (33.3)	38 (66.7)
	Many times	38 (34.5)	72 (65.5)	34 (30.9)	76 (69.1)	38 (34.5)	4 (3.6)	52 (47.3)	16 (14.5)	50 (73.5)	10 (14.7)	4 (5.9)	4 (5.9)	90 (81.8)	20 (18.2)
Have you received consent from the family for organ donation?	Never	28 (63.6)	16 (36.4)	34 (77.3)	10 (22.7)	12 (27.3)	18 (40.9)	4 (9.1)	10 (22.7)	34 (77.3)	4 (9.1)	4 (9.1)	2 (4.5)	12 (27.3)	32 (72.7)
	A few times	45 (49.5)	46 (50.5)	59 (64.8)	32 (35.2)	31 (34.1)	26 (28.6)	26 (28.6)	8 (8.8)	73 (80.2)	6 (6.6)	4 (4.4)	8 (8.8)	39 (42.9)	52 (57.1)
	Many times	20 (29.4)	48 (70.6)	8 (11.8)	60 (88.2)	22 (32.4)	0 (0.0)	30 (44.1)	16 (23.5)	50 (73.5)	10 (14.7)	4 (5.9)	4 (5.9)	68 (100)	0 (0.0)
Have you participated in the preparation of organ transplantation from a cadaver?	Never	38 (61.3)	24 (38.7)	42 (67.7)	20 (32.3)	8 (12.9)	34 (54.8)	10 (16.1)	10 (16.1)	48 (77.4)	6 (9.7)	4 (6.5)	4 (6.5)	6 (9.7)	56 (90.3)
	A few times	29 (47.5)	32 (52.5)	41 (67.2)	20 (32.8)	19 (31.1)	10 (16.4)	28 (45.9)	4 (6.6)	53 (86.9)	2 (3.3)	0 (0.0)	6 (9.8)	39 (63.9)	22 (36.1)
	Many times	26 (32.5)	54 (67.5)	18 (22.5)	62 (77.5)	38 (47.5)	0 (0.0)	22 (27.5)	20 (25.0)	56 (70.0)	12 (15.0)	8 (10.0)	4 (5.0)	74 (92.5)	6 (7.5)

levels of communication skills of the students. As the SFI mean points were high in the current study, it indicates that the participants had a high tendency to solution-focused thinking. Selçuk Tosun et al. (21) conducted a study with midwives and nurses and determined high levels of solution-focused approaches. In another study of nursing students in Türkiye, the points obtained on the SFI were determined to be above average (8). The findings previously reported in the literature support the results of the current study.

In the current study, a significant difference was determined in the mean points of the SCS according to age, of the CSS-AF according to gender, and of the SCS and CSS-AF according to education level. Significant differences were determined in the mean points of the CSS-AF and SFI according to profession, the SCS and CSS-AF according to the duration of working in the profession, and the SCS and CSS-AF according to the duration of working as a coordinator (Table 2). In a previous study that examined self-confidence, gender, and academic success in nursing degree students, the female students were determined to have lower levels of self-confidence than the male students (22). Abu Sharour et al. (23) examined the self-efficacy, self-confidence, and interaction with Coronavirus disease-2019 patients in nurses, and reported that self-confidence was high in nurses with a high level of education and longer professional experience. Hendekci (24) determined that female nursing students had higher levels of communication skills than male students. However, another study reported that socio-demographic characteristics had no effect on communication skills (19). In another study, a solution-focused approach and anxiety levels were investigated in nurses and midwives, and it was determined that socio-demographic characteristics (gender, marital status, education level,

Table 5. Determinants of CSS-AF

Model	β_0 (95% CI)	S. error	β_1	t	p	VIF
(Constant)	16.220 (6.154-26.287)	5.105		3.177	**0.002**	
SFI	0.076 (-0.062-0.214)	0.070	0.047	1.089	0.278	1.078
SCS	0.614 (0.549-0.679)	0.033	0.798	18.641	**0.000**	1.078

CSS-AF, F=193.771, *: p<0.001, Adjusted R²=0.656, multivariate linear regression analysis, SFI: Solution-focused inventory, SCS: Self-confidence scale, CSS-AF: Communication skills scale-adult form, CI: Confidence interval

profession) did not have an effect on the SFI total mean points (21). In contrast, Akgül-Gündoğdu and Selçuk-Tosun (8) reported a difference between the SFI and gender, whereas Kaya and Guler (25) found no statistically significant difference in mean SFI points according to the demographic characteristics of midwifery students. These differences in results can be attributed to different sample sizes and/or the data collected from groups.

In the current study, there were seen to be differences in the mean points of the SCS according to the status of having an organ transplantation co-ordinator certificate, of the SCS, CSS-AF and SFI according to the area of working in the coordination system, of the SCS according to declaration of brain death, of the SFI according to the status of having obtained family consent for organ donation, and of the SCS, CSS-AF, and SFI according to participation in the preparation of organ transplantation from a cadaver or from a living donor (Table 3). Fernández-Alonso et al. (5) examined the factors facilitating and obstructing NTC in the organ donation process, and the participants in that study reported that transplantation coordinator was not a job for an inexperienced nurse. In a study by Chuang et al. (26), it was determined that coordinators who had attended organ donation courses and were experienced in obtaining organ donation showed better performance on the subject of requesting organ donation. Simonsson et al. (2) investigated the care-giving experiences of nurses with little intensive care experience during the organ donation process. As a result of the study, it was reported that the care of an organ donor is complex, and nurses experienced difficulties especially on the subject of informing relatives of the loss of a loved one and providing support for them (2). Karabilgin et al. (27) evaluated the effect of a course on simulated donor family interviews on the organ donation process and reported that the course had a positive effect on the communication skills of organ transplantation coordinators. Coordinators being experienced in the organ donation process can affect communication skills, self-confidence, and solution-focused approach skills.

Self-confidence is a strong factor affecting the effective nursing interventions in emergency conditions and in the care of critical patients. Nurses with high self-confidence show greater competence in correct decision-making, developing appropriate and safe interventions, and providing better quality care for patients (23). Solution-focused thinking can help nurses to more easily manage concerns, and can aid patient recovery. This is because an individual's strengths, along with the discovery and development of resources, enable them to be motivated, optimistic, and focused on the future (21). This perspective encourages the nurse, whose aim is to manage the crisis well, to use communication skills in dealing with the problems of her patients (28).

However, there is no other study in literature that has examined self-confidence, communication skills, and solution-focused thinking skills together of organ transplantation co-ordinators. Therefore, the relationship between these variables has been discussed based on the results of the current study. A positive correlation was found between the mean points of the SCS, CSS-AF, and SFI. This finding suggests that communication skills in organ transplantation coordinatorscan be affecteed by self-confidence and solution-focused thinking skills. Moreover, it also shows that nurse organ transplantation coordinatorsneed solution-focused thinking skills to integrate professional knowledge into patient care and to activate external resources.

Study Limitations

From the starting point of an organ transplantation co-ordinator in a public hospital, organ transplantation coordinators in private and public hospitals were contacted. The organ transplantation coordinators in all the hospitals in Türkiye could not be reached. Therefore, the study results cannot be generalised to all the organ transplantation coordinators in Türkiye. The research data were collected on the basis of self-reporting, which could have led to response bias or social desirability bias as the respondents might have wished to show themselves in a good light. These points constitute limitations to this study.

CONCLUSION

The study's results indicated that a solution-focused approach and self-confidence enhanced the communication abilities of organ transplantation coordinators. Organ transplantation coordinators can increase their confidence and provide better patient care during the difficult and complex organ donation procedure by enhancing their solution-focused communication skills.

Ethics

Ethics Committee Approval: The necessary permission conduct the study was obtained from the Medical Research Ethics Committee of the Kahramanmaraş Sütçü İmam University (decision no: 06, session no: 2022/23, dated: 06.09.2022).

Informed Consent: Written informed consent was provided by all the study participants.

Footnotes

REFERENCES

1. Silva e Silva V, Hornby L, Lotherington K, Rochon A, Regina Silva A, Pearson H, et al. Burnout, compassion fatigue and work-related stressors among organ donation and transplantation coordinators: A qualitative study. Intensive Crit Care Nurs. 2022;68:103125.

2. Simonsson J, Keijzer K, Södereld T, Forsberg A. Intensive critical care nurses' with limited experience: Experiences of caring for an organ donor during the donation process. J Clin Nurs. 2020;29:1614-1622.

3. Luo AJ, Xu ZH, Cai PP, He HY, Mao P, Xie WZ. Qualitative study on the influencing factors and countermeasures against job burnout among organ donation coordinators. Front Public Health. 2020;8:571514.

4. Altınışık HB, Alan H. Compassion fatigue, professional quality of life, and psychological endurance among organ transplant coordinators. Transplant Proc. 2019;51:1038-1043.

5. Fernández-Alonso V, Palacios-Ceña D, Silva-Martín C, García-Pozo A. Facilitators and barriers in the organ donation process: A qualitative study among nurse transplant coordinators. Int J Environ Res Public Health. 2020;17:7996.

6. Atik B, Kılınç G, Atsal AÖ, Çöken F, Yarar V. Our brain death and organ donation experience: Over 12 years. Transplant Proc. 2019;51:2183-2185.

7. Silva E Silva V, Hornby L, Almost J, Lotherington K, Appleby A, Silva AR, et al. Burnout and compassion fatigue among organ and tissue donation coordinators: A scoping review. BMJ Open. 2020;10:e040783.

8. Akgül-Gündoğdu N, Selçuk-Tosun A. Examining the relationship between solution-focused thinking skills and self-efficacy levels of nursing students in Turkey. J Prof Nurs. 2021;37:1180-1186.

9. Gündoğdu N, Zincir H, Güler N. Solution focused approach and usage of nursing. JCBPR. 2016;3:145-152.

10. Holloway I, Wheeler S. Qualitative research in nursing and healthcare. 3rd ed. Holloway I, Wheeler S, editors. Willey-Blackwell; 2013. pp. 368.

11. Karasu F, Ayar D, Çopur EÖ. The effect of solution focused level on marital disaffection and sexual satisfaction in married individuals. Contemp Fam Ther. 2021;45:75-84.

12. Akın A. Öz-güven ölçeğinin geliştirilmesi ve psikometrik özellikleri. Abant İzzet Baysal Üniversistesi Eğitim Fakültesi Dergisi. 2007;7:165-175.

13. Korkut Owen F, Bugay A. Developing a communication skills scale: Validity and reliability studies. Mersin University Journal of the Faculty of Education. 2014;10:51-64. Turkish.

14. Şanal Karahan F, Hamarta E. The solution focused inventory: Reliability and validity study. Elementary Education Online. 2015;14:757-769. Turkish.

15. Grant AM, Cavanagh MJ, Kleitman S, Spence G, Lakota M, Yu N. Development and validation of the solution-focused inventory. The Journal of Positive Psychology. 2012;7:334-348.

16. Yalnızoğlu Çaka S, Topal S, Karakaya Suzan Ö, Çınar N, Altınkaynak. The relationship between nursing students' health perception and self-confidence. J hum rhythm. 2017;3:198-203.

17. Çınar Fİ, Özen N, Yüksel Ç, Karadağ FS, Taştan Ö, Karali E, et al. Assessment of relationship between senior nursing students' perception of role transition from student to nurse and self-confidence. University of Health Sciences Journal of Nursing. 2019;1:17-26. Turkish.

18. Alan H, Bacaksiz FE, Harmancı Seren AK, Kurt HA. Evaluating the relationship between burnout levels and compassion fatigue, emotional intelligence, and communication skills of organ transplant coordinators. Transplantat Proc. 2021;53:590-595.

19. Tiryaki Şen H, Taşkın Yılmaz F, Pekşen Ünüvar Ö. Levels of comminaciation skills of service education nurses. Journal of Psychiatric Nursing. 2013;4:13-20. Turkish.

20. Yıldırım S, Kazandı E, Cirit K, Yağız H. The effects of communication skills on resilience in undergraduate nursing students in Turkey. Perspect Psychiatr Care. 2021;57:1120-1125.

21. Selçuk Tosun A, Akgül Gündoğdu N, Taş F. Anxiety levels and solution-focused thinking skills of nurses and midwives working in primary care during the COVID-19 pandemic: A descriptive correlational study. J Nurs Manag. 2021;29:1946-1455.

22. Kukulu K, Korukcu O, Ozdemir Y, Bezci A, Calik C. Self-confidence, gender and academic achievement of undergraduate nursing students. J Psychiatr Ment Health Nurs. 2013;20:330-335.

23. Abu Sharour L, Bani Salameh A, Suleiman K, Subih M, El-Hneiti M, Al-Husaami M, et al. Nurses' self-efficacy, confidence and interaction with patients with COVID-19: A cross-sectional study. Disaster Med Public Health Prep. 2022;16:1393-1397. Erratum in: Disaster Med Public Health Prep. 2022;16:169.

24. Hendekci A. Communication skills of nursing students and some related variables. Samsun Sağ Bil Der. 2020;5:36-41. Turkish.

25. Kaya N, Guler H. Examining the solution-focused thinking and hope levels of turkish midwifery students during distance education: A Cross-sectional study. Modern Care Journal. 2023;20.

26. Chuang YM, Yeh SS, Tseng CF, Tseng CC. Soliciting organ donations by medical personnel and organ donation coordinators: A factor analysis. PLoS One. 2021;16:e0250249.

27. Karabilgin ÖS, Altuğ N, Çalışkan SA, Bozoklar CA, Durak HI, Demiral Yılmaz N. Simulated donor family encounters at organ transplantation coordinators in-service training course: Process and impact evaluation. Transplant Proc. 2015;47:1249-1256.

28. Franklin C, Zhang A, Froerer A, Johnson S. Solution focused brief therapy: A systematic review and meta-summary of process research. J Marital Fam Ther. 2017;43:16-30.