

Assertiveness and problem solving in midwives

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ABSTRACT

Background: Midwifery profession is required to bring solutions to problems and a midwife is expected to be an assertive person and to develop midwifery care. This study was planned to examine the relationship between assertiveness and problem-solving skills of midwives.

Materials and Methods: This cross-sectional study was conducted with 201 midwives between July 2008 and February 2009 in the city center of Sivas. The Rathus Assertiveness Schedule (RAS) and Problem Solving Inventory (PSI) were used to determine the level of assertiveness and problem-solving skills of midwives. Statistical methods were used as mean, standard deviation, percentage, Student's T, ANOVA and Tukey HSD, Kruskal Wallis, Fisher Exact, Pearson Correlation and Chi-square tests and $P < 0.05$.

Results: The RAS mean scores and the PSI mean scores showed statistically significant differences in terms of a midwife's considering herself as a member of the health team, expressing herself within the health care team, being able to say "no" when necessary, cooperating with her colleagues, taking part in problem-solving skills training. A statistically significant negative correlation was found between the RAS and PSI scores. The RAS scores decreased while the problem-solving scores increased ($r: -0.451$, $P < 0.01$).

Conclusions: There were significant statistical differences between assertiveness levels and problem solving skills of midwives, and midwives who were assertive solved their problems better than did others. Assertiveness and problem-solving skills training will contribute to the success of the midwifery profession. Midwives able to solve problems, and display assertive behaviors will contribute to the development of midwifery profession.

Key words: Assertiveness, midwifery, midwives, problem solving inventory, problem solving, rathus assertiveness schedule

INTRODUCTION

As a social being, a human being is in constant contact with others to meet his/her physiological, social and emotional needs.^[1] Communication skills are one of the most important elements used to successfully solve problems encountered in occupational fields where interpersonal relationships are intense. Communication skills are gaining importance increasingly in problem solving.^[2]

Assertiveness is the ability to formulate and communicate one's own thoughts, opinions and wishes in a clear, direct and non-aggressive way. Assertiveness is an important behavior for today's professional nurse. As nurses move away from traditional subservient roles and perceived stereotypes, it is increasingly being recognized that a nurse

needs to behave in an assertive manner. Assertiveness is necessary for effective nurse/patient communication, and it is suggested that its development may also aid the confidence of the profession as it develops.^[3]

Problem solving is natural and common part of daily life. We try hard to solve all the problems of our lives. Problem solving is defined as a response given to solving in an important and difficult situation, where critical thinking is required for a solution. Problem solving skills determine a person's ability to relation with productively.^[4] According to Potter and Perry, problem solving is defined as a life skill. Problem-solving skills strengthen interpersonal relationships and provide new ways of thinking for the development of skills and learning.^[5]

In a workplace, midwives could use problem solving and decision-making skills with an assertive behavior which

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could strengthen their communication with people to whom they give service, colleagues and other members of the healthcare team.^[6] The purpose of the midwifery profession is to establish communication both with patients and with healthy people either directly or indirectly to better serve them, and to ensure their comfort, health, happiness and safety. Therefore, one of the main objectives of midwifery education is to teach midwives how to solve problems better and how to act assertively.^[7]

Midwives able to solve problems, participating in decision-making processes actively, expressing themselves effectively and displaying assertive behaviors will contribute to the development of midwifery profession. This work was planned in order to examine the relationship between assertiveness and problem-solving skills of midwives and to emphasize the importance of assertiveness and problem-solving skills.

MATERIALS AND METHODS

This cross-sectional study was conducted between July 2008 and February 2009 in the city center of Sivas, a province in Turkey. The target population of the study included 286 midwives employed in health facilities in the city center of Sivas according to the Sivas Provincial Health Directorate's records. Of these 286 midwives, 201 (70.3%) were accessed. Necessary permission was obtained from the institution where the research to be conducted. Midwives who agreed to participate in the study and gave their informed consents after being informed about the purpose of the research were included in the study. They were ensured that their credentials would be kept confidential. This research was financially supported by the Scientific Research Committee of Cumhuriyet University, Turkey (CUBAP).

A questionnaire consisting of 3 parts was used to collect data. The questionnaires were filled in by the researcher using face-to-face interviews. In the first part, prepared in accordance with literature, occupational and demographic characteristics of midwives were questioned.

In the second part, the Rathus Assertiveness Schedule (RAS) was used to determine the assertiveness levels of the midwives. The RAS was developed by Rathus (1973). The scale consists of 30 items and it is used to assess the level of assertiveness.^[8] The validity and reliability studies of the Turkish version of the tool were conducted by Voltan.^[4] The test's reliability coefficient was found to be $r = 0.92$. The tool can be administered to both adolescents and adults. The possible scores to be obtained from the scale range from -90 to +90. The choices vary between -3 and +3. If items 1, 2, 4, 5, 9, 11, 12, 13, 14, 15, 16, 17, 19, 23, 24, 26

and 30 are marked "-3" or "+3", the value of these items are reversed in scoring. The negative and positive scores are summed up separately and the difference between these two sums gives the total score. Those who receive below a total of +10 points from the tool are considered non-assertive and those with a score above +10 points are considered assertive.

In the last part, the Problem Solving Inventory (PSI) was used to determine the level of problem-solving skills of the midwives. The PSI was developed by Heppner and Petersen in 1982. It is used to determine the stages of problem-solving process and people's opinions about their own problem-solving approaches and behaviors.^[9] The reliability and validity studies of the Turkish version of the inventory were performed by Şahin *et al.*^[10] The PSI aims to measure self-confidence, and self-control and individual approaches in problem solving. The inventory can be used to determine how an individual approaches or copes with a problem and consists of 35 items that are assessed on a Likert scale of 1-6 by the participants. Whereas "1" denotes "totally agree", "6" denotes "totally disagree". The items contain positive and negative judgments about problem solving, and the negative judgments are later reversed while the scores are assessed. Low scores indicate effectiveness, and behaviors and attitudes in solving problems successfully. High scores indicate an inability to reach a successful solution when faced with a problem.

SPSS for Windows 14.0 statistical package program was used for the analysis of the research data. While descriptive statistical methods were used to assess mean, standard deviation and percentages, the Student's T, ANOVA, TukeyHSD, Kruskal Wallis, Fisher Exact, Pearson Correlation and Chi-Square tests were used to compare the data.

Ethical considerations

Necessary permission was obtained from the institution where the research to be conducted. Midwives who agreed to participate in the study and gave their informed consents after being informed about the purpose of the research were included in the study. They were ensured that their credentials would be kept confidential.

RESULTS

201 midwives were included in the study. In terms of their demographic characteristics, the assertiveness status of the midwives is given in Table 1. While the frequency of assertiveness was 46.2% in the 30-39 age group, it was 62.5% in the 20-29 age group ($P = 0.108$). The frequencies

Table 1: The assertiveness status of midwives according to sociodemographic characteristics

	Non-assertive		Assertive		Total
	n	%	n	%	n
Age Groups ($X^2=4.45$, $P=0.108$)					
20-29 years	24	37.5	40	62.5	64
30-39 years	63	53.8	54	46.2	117
≥40 years	10	50.0	10	50.0	20
Marital status ($X^2=5.82$, $P=0.016$)					
Single	10	29.4	24	70.6	34
Married	87	52.1	80	47.9	167
Family type ($X^2=1.89$, $P=0.388$)					
Nuclear family	89	48.6	94	51.4	183
Wide family	8	50.0	8	50.0	16
Family shattered	0	0	2	100.0	2
Children owner status ($X^2=5.22$, $P=0.022$)					
Yes	79	53.0	70	47.0	149
No	18	34.6	34	65.4	52
Individual monthly income ($X^2=6.64$, $P=0.036$)					
Low	8	27.6	21	72.4	29
Middle	87	52.4	79	47.6	166
Upper	2	33.3	4	66.7	6
Monthly income of family ($X^2=9.43$, $P=0.009$)					
Low	8	33.3	16	66.7	24
Middle	3	18.8	13	81.3	16
Upper	86	53.4	75	46.6	161
Education ($X^2=10.31$, $P=0.016$)					
Health vocational school	41	60.3	27	39.7	68
Associate degree	49	45.8	58	54.2	107
Undergraduate	7	31.8	15	68.2	22
Graduate	0	0	4	100.0	4

of assertiveness in single and married women were identified as 70.6% and 47.9% respectively ($P = 0.016$). Forty-seven percent of those who had at least one child, and 65.4% of those who had no children were found to be assertive ($P = 0.022$). Thirty-nine point seven percent of Health Vocational School graduates and 68.2% of college graduates were identified as assertive ($P = 0.016$).

A statistically significant relationship was detected between assertiveness, and marital status, income, having children and education [Table 1].

The assertiveness status of the midwives, in terms of their profession-related characteristics, is given in Table 2. Of the midwives, 55.7% who considered themselves as members

of the healthcare team were assertive, and 25.9% who did not consider themselves so were assertive ($P = 0.004$). While 24.2% of the midwives who had difficulty expressing themselves within the health care team were assertive, 65.2% of the midwives who did not have difficulty expressing themselves within the health care team were assertive ($P = 0.000$). While 45.1% of the midwives who had difficulty saying “no” when necessary were assertive, 60.2% of the midwives who did not have difficulty saying “no” when necessary were assertive ($P = 0.034$). Twenty-five percent of the midwives who could not cooperate with their colleagues and 59.2% of the midwives who could were assertive ($P = 0.000$).

Statistically significant relationships were identified between assertiveness and the following: Supporting educational and scientific activities of the institution where she works, considering herself as a member of the health team, expressing herself within the health care team, being able to say “no” when necessary, cooperating with her colleagues, demanding assertiveness training and problem-solving skills training [Table 2].

The mean RAS and PSI scores in terms of the demographic characteristics of the midwives are given in Table 3. The mean assertiveness scores received by the midwives revealed that of the midwives, those who were single, had no children, and had a master degree were found to have higher assertiveness mean scores ($P < 0.05$). When the mean scores midwives obtained from the problem solving skills subscale were analyzed, those who were in the 20-29 age group, were single, had a nuclear family, had no children, and/or had a graduate or master degree were found to have lower scores ($P < 0.05$), which indicates that midwives with lower scores had better problem solving skills [Table 3].

The mean scores of RAS and PSI according to occupational characteristics of midwives are given in Table 4. The RAS mean scores showed statistically significant differences in terms of marital status, having children, income, education, career choice, supporting educational and scientific activities of the institution where she works, length of employment, weekly working hours, accepting herself as a member in the health team, expressing themselves within the health care team, saying “no” when necessary, cooperating with her colleagues and taking part in problem-solving skills.

PSI mean scores showed statistically significant differences in terms of age groups, marital status, having children, education, career choice, supporting educational and scientific activities of the institution where she works, length of employment, the number of appointments to new positions, weekly working hours, considering herself

Table 2: The assertiveness status of midwives according to profession-related features

	Non-assertive		Assertive		Total n
	n	%	n	%	
	Work locations ($X^2=2.64, P=0.450$)				
Obstetrics and gynecology	40	50.0	40	50.0	80
Neonatal clinic	3	30.0	7	70.0	10
Health house	52	50.0	52	50.0	104
How many years have you been working in the profession? ($X^2=2.89, P=0.235$)					
0-10 years	36	42.9	48	57.1	84
11-20 years	57	53.8	49	46.2	106
≥21 years	4	36.4	7	63.6	11
How many years have you been working in the institution? ($X^2=9.16, P=0.010$)					
0-10 years	71	44.1	90	55.9	161
11-20 years	26	68.4	12	31.6	38
≥21 years	0	0	2	100.0	2
Working period ($X^2=1.48, P=0.476$)					
Daytime	52	46.0	61	54.0	113
Night	1	100.0	0	0	1
Guarding all day	44	50.6	43	49.4	87
Weekly working time ($X^2=6.01, P=0.049$)					
0-40 hours	50	48.1	54	51.9	104
41-50 hours	47	51.6	44	48.4	91
≥51 hours	0	0	6	100.0	6
Does your institution support in educational and scientific activities participation? ($X^2=9.99, P=0.002$)					
Yes	51	39.8	77	60.2	128
No	46	63.0	27	37.0	73
Do you define yourself as a member of the health team? ($X^2=8.32, P=0.004$)					
Yes	77	44.3	97	55.7	174
No	20	74.1	7	25.9	27
Do you have difficulties in expression yourself as a member within health team? ($X^2=29.75, P=0.000$)					
Yes	50	75.8	16	24.2	66
No	47	34.8	88	65.2	135
Do you say "No" when necessary ($X^2=4.51, P=0.034$)					
Yes	62	54.9	51	45.1	113
No	35	39.8	53	60.2	88
Do you make co-operation with colleagues? ($X^2=16.13, P=0.000$)					
Yes	64	40.8	93	59.2	157
No	33	75.0	11	25.0	44

Contd...

Table 2: Contd...

	Non-assertive		Assertive		Total n
	n	%	n	%	
	How would you define yourself? ($X^2=2.85, P=0.240$)				
Shy	18	58.1	13	41.9	31
Assertive	78	47.3	87	52.7	165
Aggressive	1	20.0	4	80.0	5
How would you define yourself in problem solving? ($X^2=16.61, P=0.000$)					
Partially successful	77	58.3	55	41.7	132
Successful	19	31.1	42	68.9	61
Very Successful	1	12.5	7	87.5	8
Did you participate in assertiveness training before? ($X^2=0.69, P=0.404$)					
*Yes	7	38.9	11	61.1	18
No	90	49.2	93	50.8	183
Do you want to participate in assertiveness training? ($X^2=7.43, P=0.006$)					
*Yes	76	54.7	63	45.3	139
No	21	33.9	41	66.1	62
Have you participated in problem solving skills training previously? ($X^2=3.53, P=0.060$)					
*Yes	3	23.1	10	76.9	13
No	94	50.0	94	50.0	188

*They participated in undergraduate education

as a member of the health team, expressing herself within the health care team, being able to say "no" when necessary, cooperating with her colleagues and taking part in problem-solving skills [Table 4].

A statistically significant negative correlation was found between the RAS and PSI scores. The RAS scores decreased while the problem-solving scores increased ($r: -0.451, P < 0.01$).

DISCUSSION

The relationship between being assertive and age was evaluated in different studies. In her thesis, Kaplanoğlu reported that those in the 20-29 age group were more assertive than those in the other age groups. These differences between the age groups were not statistically significant.^[11] These results are consistent with those of our study. Bal (2003) reported that the average assertiveness score increased up to the age of 40, but decreased after the age of 40.^[12] In our study, mean scores of assertiveness under age 29 were found to be higher. We detected that the assertiveness score decreased with age. Assertiveness

Table 3: The mean scores of RAS and PSI according to sociodemographic characteristics of midwives

	n	Mean (sd)	
		RAS	PSI
Age groups			
20-29	64	19.83 (24.55)	90.17 (16.51)
30-39	117	13.42 (21.64)	96.74 (15.71)
≥40 year	20	12.20 (17.12)	03.85 (17.98)
		(P=0.106)	(P=0.002)
Marital status			
Single	34	23.68 (27.16)	87.38 (16.12)
Married	167	13.65 (20.92)	96.98 (16.31)
		(P=0.017)	(P=0.002)
Family type			
Nuclear family	183	15.26 (22.00)	95.67 (16.82)
Wide family	16	15.75 (27.83)	91.69 (15.16)
Family shattered	2	19.50 (0.71)	96.50 (13.44)
		(P=0.803)	(P=0.574)
Children owner			
Yes	149	13.01 (20.72)	98.05 (16.04)
No	52	22.0 (25.50)	87.65 (16.04)
		(P=0.025)	(P=0.00)
Individual monthly income			
Low	29	21.79 (23.93)	90.72 (16.80)
Middle	166	13.82 (21.40)	96.22 (16.61)
Upper	6	26.17 (34.31)	94.00 (15.31)
		(P=0.124)	(P=0.197)
Monthly income of the family			
Low	24	17.79 (23.97)	
Middle	16	24.38 (21.15)	
Upper	161	14.07 (22.10)	
		(P=0.86)	
Education			
Health vocational school	68	8.57 (19.61)	100.82 (17.20)
Associate degree	107	16.60 (22.48)	94.13 (14.79)
Undergraduate	22	25.95 (24.26)	87.59 (18.59)
Graduate	4	38.25 (9.50)	78.00 (10.92)
		(P=0.004)	(P=0.002)

RAS: Rathus Assertiveness Schedule, PSI: Problem Solving Inventory, sd: Standard deviation

levels of those under age 29 were higher than were those of the midwives older than 29, which may be due to the fact that the midwives in the former group had a university education. One of the most important purposes of midwifery education is to equip students with assertiveness skills by the time they graduate from university.

In Kaplanoğlu's study, the single midwives were reported as more assertive than the married ones.^[11] In the studies

conducted by Ayaz^[13] with nurses, and by Kaplanoglu^[11] and Timuçin with nurse managers, no significant relationship was determined between assertiveness and marital status. In our study, mean assertiveness scores were higher in single midwives.^[14] Single midwives may be more assertive than married ones because a single person is alone when establishing relationship and communication with others in the workplace or community, which might bring about assertiveness.

The relationship was evaluated between assertiveness and family type in many studies. As in our study, in Kaplanoğlu^[11] and Yıldız's^[15] study, assertiveness scores were found to be higher in midwives with no children. However, the differences detected in their study were not statistically significant.

In Begley and Glacken's,^[16] Kilkus's,^[17] Begley and Brady's^[18] studies, nurses with higher educational level were detected to be more assertive, which supports our findings. Kaplanoglu^[11] determined that the assertiveness frequency and mean scores were higher in midwives who chose the profession by their own preference. In our study, the midwives who chose the profession by their own preference were found to be more assertive. Midwifery profession is very challenging when one works in a hospital or other health clinics. Midwives who willingly perform their tasks in the health care system can be more assertive than those who do not.

Kaplanoğlu^[11] and Ayaz^[13] (2002) did not find a statistically significant relationship between the length of employment and assertiveness frequency in their studies. Our findings are compatible with the findings of these researches.

In Kaplanoğlu's study, no statistical relationship was reported between the number of appointments to new positions and mean RAS scores.^[11] However, nurses who were assigned to new positions four times had higher mean RAS scores than did nurses in the other groups. Similar to this result, in our study too, as the number of appointments to new positions increased, so did the mean RAS scores. Making an effort to adapt to a new workplace and to solve new problems may have caused this result. In Kaplanoğlu's study, the frequency of assertiveness was reported to be higher in midwives working in institutions that did not support scientific activities. Our findings related to this issue are different. Institutional support encourages midwives to attend scientific activities such as assertiveness training programs. The point here is that this sort of program improves assertiveness effectively and the one of the focuses is to develop midwifery profession with particularly assertive midwives all over the world.

Table 4: The mean scores of RAS and PSI according to occupational features of midwives

	n	Mean (sd)	
		RAS	PSI
Did you make your own choice of profession			
Yes	86	17.08 (23.71)	92.33 (16.02)
No	115	14.03 (21.27)	97.63 (16.79)
		(P=0.340)	(P=0.025)
How many years have you been working in the profession?			
0-10 years	161	17.25 (23.07)	93.60 (16.66)
11-20 years	38	6.29 (6.67)	102.79 (14.88)
≥21 years	2	33.50 (4.95)	96.00 (11.31)
		(P=0.011)	(P=0.014)
How many times have changed your place of work			
1-3 times	157	14.58 (21.75)	96.62 (16.92)
4-6 times	41	17.68 (23.32)	89.68 (14.74)
7 and more	3	23.00 (43.31)	106.67 (4.04)
		(P=0.575)	(P=0.017)
Weekly working time			
0-40 hours	104	14.38 (21.88)	96.67 (16.74)
41-50 hours	91	15.15 (23.01)	94.82 (16.44)
≥51 hours	6	34.67 (9.95)	80.67 (11.47)
		(P=0.048)	(P=0.043)
Does your institution support in educational and scientific activities participation?			
Yes	128	18.99 (22.79)	92.40 (15.99)
No	73	8.93 (20.11)	100.55 (16.57)
		(P=0.002)	(P=0.001)
Do you define yourself as a member of the medical team?			
Yes	174	16.36 (22.26)	93.78 (16.22)
No	27	8.74 (22.13)	105.52 (15.92)
		(P=0.099)	(P=0.001)
Within a health team yourself living expression difficulties do?			
Yes	66	2.62 (14.38)	103.53 (14.59)
No	135	21.56 (22.93)	91.36 (16.15)
		(P=0.000)	(P=0.000)
Do you say "No" when necessary			
Yes	113	8.85 (16.78)	97.67 (15.68)
No	88	23.67 (25.68)	92.39 (17.43)
		(P=0.000)	(P=0.025)
Do you make co-operation with colleagues?			
Yes	157	18.32 (22.73)	92.47 (16.02)

Contd...

Table 4: Contd...

	n	Mean (sd)	
		RAS	PSI
No	44	4.70 (17.29)	105.68 (14.72)
		(P=0.000)	(P=0.000)
How would you define yourself?			
Shy	31	6.52 (15.84)	97.45 (12.49)
Assertive	165	16.71 (22.94)	94.98 (17.29)
Aggressive	5	24.80 (26.41)	95.00 (19.38)
		(P<0.051)	(P>0.742)
How would you define yourself in problem solving?			
Partially successful	132	10.45 (19.91)	98.70 (15.92)
Successful	61	22.80 (23.32)	88.49 (16.26)
Very Successful	8	39.00 (24.58)	92.63 (16.30)
		(P=0.000)	(P=0.000)
Did you participate in assertiveness training before?			
Yes	18	24.17 (27.70)	92.94 (17.43)
No	183	14.47 (21.64)	95.60 (16.59)
		(P=0.077)	(P=0.487)
Did you participate in problem solving skills training before?			
Yes	13	27.46 (25.15)	86.85 (15.80)
No	188	14.50 (21.96)	95.95 (16.57)
		(P=0.056)	(P=0.055)

RAS: Rathus Assertiveness Schedule, PSI: Problem Solving Inventory, sd: Standard deviation

In her study of manager nurses, Kaplanoğlu did not find any statistically significant relationship between the mean RAS score and considering themselves as a member of the health team.^[11] The RAS means were detected to be higher in nurses who expressed themselves as not a member of the team in Kaplanoğlu's study. Our findings related to this issue are different. Yıldız reported that 69.2% of the health personnel stated that they did not have any difficulty expressing themselves within the health care team.^[15] The frequency of assertiveness was found to be lower in persons who had difficulty in expressing themselves in the medical team.^[15] Our findings are compatible with this result. Yıldız reported that 52.5% of the health personnel had difficulty saying "no" when necessary. The frequency of assertiveness was identified as lower in those having difficulty in saying "no" when necessary.^[15] This is compatible with our findings. The RAS mean score was reported to be higher in nurses having no collaboration with colleagues in Kaplanoğlu's study. Our findings related to this issue are different. In a study by Timuçin, 70.4% of the participants identified themselves as assertive.^[14] In Bal's study, 76.4% of the nurses identified themselves as assertive.^[12] The rate of those who identified themselves as assertive in Ayaz's^[13]

and Yıldız's^[15] studies was reported to be as 97.2% and 43.7% respectively. Our findings are similar to theirs. In Batmaz's study, the RAS mean score in nurses who identified themselves as assertive was found to be higher.^[19]

Similar to our findings, in Yıldız's study, it was reported that 93.3% of the midwives did not participate in any assertiveness training previously.^[15] In studies of Kaplanoglu,^[11] Yıldız^[15] and Timuçin,^[14] the RAS means were found to be higher in midwives who participated in assertiveness training previously, which supports our findings. In studies conducted by Burnard, it was reported that midwives needed to be assertive, and thus assertiveness training programs could be helpful.^[20]

In a study conducted with nurses (2004), the mean PSI scores were found to be higher in groups aged 31 years and over.^[21] In Erdem's study, a significant relationship was reported between the mean PSI score and age,^[22] which is similar to our study results. A person's problem solving skill may improve with her ages and thus she can solve problems which are even more challenging.

Nurses' marital status was examined in terms of the mean PSI scores by Kelleci and Gölbaşı.^[21] The presence of high PSI scores in the married nurses' group supports our findings. Ulupınar reported in his study that married nurses were more successful in problem solving. Unlike our results, in a study by Altıntoprak, no statistically significant relationship was determined between problem-solving skills and marital status.^[23] Marriage may contribute to the solution of problems between partners and family relationship by affecting problem-solving skills positively.

Similar to our results, in Bahar's study, the nurses who had a graduate degree were detected to be more effective in problem solving than those who graduated from high school.^[24] In a study conducted by Erdem, no significant relationship was found between problem-solving skills and education level.^[22] Problem solving skills could be learned at university, which enables midwives to solve problems encountered in the workplace and thus contributes to the development of midwifery care and midwifery profession.

Nurses who had 1-7 years of professional experience were found to be most effective in solving problems in Bahar's study.^[24] Botti reported that academic ability affects decision-making in low complexity tasks, but as case complexity increases, domain-specific knowledge and experience determine decision-making skills.^[25] In Altıntoprak's (2004) study, no significant relationship was detected between the length of employment and problem-solving skills.^[23]

Unlike our results; no significant relationship was detected between working hours and problem-solving skills in Terzioğlu's study.^[26] This may be due to the fact that more solutions had to be produced since more problems were encountered with the increased length of employment.

In Bahar's study, the PSI scores were reported to be higher in nurses who participated in the problem solving skills training before.^[24] In a study conducted by Stevenson, it was reported that problem-solving skills increased in persons who participated in problem solving skills training previously.^[27]

In line with our results, a significant relationship was reported between participating in problem-solving skills training previously and PSI scores in Altıntoprak and Bahar's studies.^[23,24] In a study conducted by Gunes and *et al.*, it was found that the assertiveness training had positive effect on the experimental group students' assertiveness and problem solving. Assertiveness education applied to students has a positive effect on assertiveness and interpersonal problem solving.^[24,28]

In our study, a significant negative correlation was found between the PSI and RAS scores. Analysis of the scores demonstrated that the higher the scores obtained from the RAS were, the higher the assertiveness levels were. On the other hand, the lower the scores obtained from the PSI were, the better the problem-solving skills were. Therefore, this negative correlation indicates that midwives who had higher assertiveness levels also had better problem solving skills. We could not find any data about the relationship between problem-solving skills and assertiveness of midwives in literature in our country. The problems were defined by Town end as opportunity for developing assertive behavior in human and forming a more honest relationship between them as well as managing problems assertively.^[29]

CONCLUSION

In line with the results obtained from this study our suggestions can be listed as below;

- Group meetings should be planned for midwives who do not consider themselves as a member of the health-care team and who do not cooperate with their colleagues
- Assertiveness training program should be scheduled for midwives having difficulties in expressing themselves as a member of a health team and saying "no" when necessary within the health team
- Assertiveness and problem-solving skills training should be provided for all midwives
- Intervention studies should be planned to improve assertiveness and problem-solving skills of midwives.

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