

**Original Article****Entrepreneurial Feelings and Potentials with Opinions on Innovation in Nursing Education of Nursing Students****Filiz Ekin, MSc****Department of Public Health Nursing, Faculty of Health Sciences, Gaziantep University, Gaziantep, Turkey****Zeynep Gungormus, PhD****Assoc. Prof. Department of Public Health Nursing, Faculty of Health Sciences, Gaziantep University, Gaziantep, Turkey**

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**Abstract**

The study is a cross-sectional research with the aim to identify entrepreneurial feelings and potentials with opinions on innovation in nursing education of nursing students. 554 students who agreed to participate in the study and filled the questionnaires seamlessly were included in the survey. Data were collected with a questionnaire including socio-demographic characteristics, education and innovation correlation form and scale of entrepreneurial sense and potentials. When entrepreneurial potential and feelings and ideas related to innovation in nursing education are assessed; the mean scores of entrepreneurial potentials of those who state that issues related to nursing are discussed in their education, internal control feelings and entrepreneurial potential of those who follow the innovations occurring in the nursing field from nursing journals, risk-taking propensity of those who follow the innovations occurring in the nursing field from domestic and foreign resources, desire for independence of those who follow the innovations occurring in the nursing field from their teachers, conferences and seminars are significantly higher. Risk-taking propensity of those who think that the education they have partly includes the innovations occurring in the nursing field, desire for independence of those who think that their education doesn't include the innovations occurring in the nursing field, risk-taking propensity of those who state that their teachers teach the courses in a way that opens to innovations, internal control feelings and risk-taking propensity of those who state that they have education informed about innovations, risk-taking propensity of those thinking that having a traditional education in their nursing training, internal control feelings and desire for independence of those stating that their lessons don't include current issues, risk-taking propensity of those stating that modern approaches aren't discussed, risk-taking propensity of those thinking that practising nursing lessons in nursing education are effective in contributing to their growing as individuals capable of generating ideas, risk-taking propensity of students who have not reached the level of thinking new things about nursing, entrepreneurial potentials of those being able to produce alternative ideas are significantly higher ( $p<0.05$ ).

**Keywords:** Entrepreneurial feelings, Entrepreneurship potentials, Innovation, Nursing.

**Introduction**

Innovation and entrepreneurship are two concepts that are intertwined with each other. Both concepts are focused on innovation. However, while innovation is related to product, process or managerial innovation, entrepreneurship is related to the unusual activities and trends in the organization (Sarioglu, 2014, Johannessen et al, 2001).

Entrepreneurship triggers innovation. Innovation can not happen without entrepreneurial activities but every entrepreneurship may not result in innovation (Sarioglu, 2014, Antoncic, 2007, Zaho 2005). If profitability, growth or continuity are ensured at the end of the entrepreneurial process, it means that entrepreneurship is resulted in innovation.

Innovation and progress in the health sector directly affect human life and its quality. Along with the increasing and aging population, the provision, dissemination and financing of health services have important positions in government spending and make it difficult for the sustainability of health and social security systems. In line with these developments, countries aim to expand health insurance system and to cover gradually the entire society. Along with demand, rising health expenditures, lead to the cost control and quest for productivity in the sector (Okem, 2011). ICN states that professional advancement is enabled by the expansion of the concept of "care" which constitutes the essence of the nursing profession and making it effective. Hence, ICN emphasizes that instead of repeating the applications that have been implemented for many years, it should be given place to new scientific knowledge-based applications and they should be made routine. In this process, defined as the innovation, it is required to provide the new service, to establish the necessary organizational structure and to educate of nurses with innovative ideas (Sarioglu, 2014, ICN, 2009). Another development to support innovation in the field of nursing is that ICN determined the theme of 2009 as Delivering Quality, Serving Communities: Nurses Leading Care Innovations. ICN decided to give the National Nurses Association Innovation Award to the nurses with creative features since 2010 (Sarioglu, 2014, ICN, 2012). Nurses are required to have the entrepreneurial feelings, entrepreneurial potentialsto fulfill this responsibility, and they are required to initiate and to sustain innovation. Nursing educational institutions all over the world are expanding the training capacities by applying innovative and entrepreneurial strategies, and trying to raise entrepreneurial and innovative nurses to meet the future need for qualified manpower (Sarioglu, 2014, ICN, 2009). Therefore, the American Nurses Association (ANA), has started to work for the restructuring the curriculum of nursing education. In these studies, it is emphasized that nursing educators should pay more attention to innovative techniques in education (Sarioglu, 2014, Bradshaw, 2001).

Nursing undergraduate students' levels of being raised in terms of entrepreneurial potential and feelingsand how they see themselves in this regard is an important part of our work. On the other hand, another important aspect of the study

is to determine to what extend students are interested in innovations in terms of nursing and their levels of contribution to field. Considering the literature on the subject, it is seen that there are no studies on entrepreneurship and innovation in nursing education.

Therefore, our study was conducted in order to identify the opinions of nursing students about their entrepreneurial feelings, entrepreneurial potentials and innovation in nursing education.

## Methods

### Design and samples

The study was conducted as a cross-sectional research in order to identify the opinions of nursing students about their entrepreneurial feelings, entrepreneurial potentials and innovation in nursing education. Students who didn't agree to participate in the study, those who didn't follow the rules while filling the questionnaire, student who were absentee although they registered at the university and students of Faculty of Health Sciences who didn't study nursing were excluded from the study and dataof 554 students were evaluated.

### Data Collection Tools

#### The form of opinions on innovation in nursing education

In this form, the first section is composed of five questions and their sub-groups. 'Agree' or 'disagree' responses will be given to the sub-groups of these five questions. There are 5 sub items of first question, 7 sub items of second question, 6 sub items of third question, 5 sub items of fourth question, and 6 sub items of sixth question (Sahin et al, 2015).

#### Scale of EntrepreneurialFeelings and Potentials

Students' entrepreneurial feelings and potentials were determined with the scale developed by Hisrich and Peters (2002), and Turkish validity and reliability were conducted by Duran et al (2013). This scale consists of 36 questions and it has two sub dimensions; entrepreneurial feelingssub dimension consist of 'Internal Control Feeling', 'Independence Desire', and 'risk-taking propensity'; other sub dimension is 'entrepreneurial Potential'. Cronbach alpha coefficient of this scale was found 0,873 in our study. As the scores from scale increase, entrepreneurial feelings are also increase.

### Ethical consideration

Ethics committee approval (decision number: 2016/57 date: 22.02.2016) was granted by applying to Gaziantep University Clinical Research Ethics Committee for the conduct of the research.

### Results

Comparing entrepreneurial feelings and entrepreneurial potential with descriptive characteristics; sense of internal control; the majority of those living in the province ( $2.8 \pm 0.7$ ), Risk taking sub-dimension; in males ( $2.9 \pm 0.7$ ) and in super-high school graduates ( $5.0 \pm 0.0$ ), Entrepreneurship potential.

The majority of the patients in the province ( $2.9 \pm 0.6$ ) were found to be significantly higher (Table 1,  $p <0.05$ ). It was determined that entrepreneurial potential of those agreed with the statement 'nursing related issues which are need to be discussed are being discussed', those following the innovations in nursing from nursing journals have higher ( $2.9 \pm 0.6$ ), of sense of internal control and entrepreneurial potential; those following the innovations in nursing from domestic and foreign resources ( $2.8 \pm 0.7$ ) have higher of risk-taking propensity; those following the innovations in nursing from their teachers ( $3.3 \pm 0.7$ ) and from conferences and seminars ( $3.2 \pm 0.6$ ) have higher of desire for

independence, those stating that they get education unaware of the innovations occurring in nursing have higher ( $2.8 \pm 0.7$ ) in sense of internal control; those stating that the lessons don't contain the innovations occurring in nursing have higher ( $3.3 \pm 0.7$ ), in desire for independence; those who don't agree with the expression ( $2.8 \pm 0.6$ ), 'not totally but partially yes' ( $2.8 \pm 0.7$ ), those stating that the lessons aren't open to the innovations, and those stating that they get education unaware of the innovations occurring in nursing have higher ( $2.8 \pm 0.7$ ), in risk-taking propensity, those stating that the courses don't contain the current issues have higher ( $2.8 \pm 0.7$ ), mean score of sense of internal control; ; those stating that there is traditional education ( $2.8 \pm 0.7$ ), those stating that the courses don't contain the current issues ( $2.9 \pm 0.6$ ), and those stating that modern approaches are not discussed ( $2.8 \pm 0.7$ ) have higher mean score of risk-taking propensity, those stating that current issues from real life contribute and those stating that they started thinking about new things related to health have higher ( $2.9 \pm 0.7$ ) mean score of risk-taking propensity ( $2.8 \pm 0.7$ ); those stating that they can produce alternative ideas have higher ( $2.9 \pm 0.6$ ), mean score of entrepreneurial potential were found to be significantly higher ( $2.8 \pm 0.6$ ) (Table 2,  $p <0.05$ ).

**Table 1. Comparison of Descriptive Characteristics with his entrepreneurship and entrepreneurial potential.**

	IDENTIFYING FEATURES (%)	SCALE OF THE DIMENSIONS(X±SD)				
		E.F.	SIC	DI	RTP	E.P.
<b>Age</b>	20 or less (56)		$2.8 \pm 0.6$	$3.2 \pm 0.6$	$2.7 \pm 0.6$	$2.8 \pm 0.6$
	20 or above (44)		$2.7 \pm 0.7$	$3.2 \pm 0.6$	$2.7 \pm 0.7$	$2.8 \pm 0.6$
<b>Gender</b>	<b>Analysis(t-p)</b>		0.4-0.6	0.5-0.5	0.01-0.9	0.9-0.3
	Female(74.5)		$2.8 \pm 0.6$	$3.2 \pm 0.6$	$2.7 \pm 0.7$	$2.8 \pm 0.6$
<b>Class</b>	Male(25.5)		$2.7 \pm 0.7$	$3.1 \pm 0.6$	$2.9 \pm 0.7$	$2.8 \pm 0.6$
	<b>Analysis (t-p)</b>		1.1-0.2	1.2-0.1	<b>2.6-0.09</b>	0.3-0.7
<b>Mother's education</b>	1st class(37.9)		$2.7 \pm 0.6$	$3.2 \pm 0.6$	$2.7 \pm 0.7$	$2.8 \pm 0.6$
	2nd class(19.7)		$2.8 \pm 0.7$	$3.1 \pm 0.7$	$2.8 \pm 0.7$	$2.8 \pm 0.6$
	3rd class(32.7)		$2.8 \pm 0.7$	$3.3 \pm 0.6$	$2.7 \pm 0.7$	$2.7 \pm 0.6$
	4th class(9.7)		$2.7 \pm 0.7$	$3.3 \pm 0.6$	$2.8 \pm 0.6$	$2.9 \pm 0.6$
	<b>Analysis (f-p)</b>		0.8-0.4	1.3-0.2	0.9-0.4	1.5-0.1
	High School or Less (86.6)		$2.7 \pm 0.6$	$3.2 \pm 0.6$	$2.7 \pm 0.7$	$2.8 \pm 0.6$
	High School or Up (13.4)		$2.9 \pm 0.6$	$3.2 \pm 0.6$	$2.7 \pm 0.7$	$2.9 \pm 0.6$
	<b>Analysis (t-p)</b>		1.5-0.1	0.03-0.9	0.3-0.7	1.2-0.2

<b>Father's education</b>	High School or Less (67.5)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	High School or Up (32.5)	2.8±0.6	3.2±0.6	2.8±0.7	2.9±0.6
	<b>Analysis (t-p)</b>	0.5-0.5	0.2-0.8	1.0-0.2	1.5-0.1
<b>Mother's work</b>	Employed (8.5)	2.9±0.8	3.2±0.7	2.8±0.8	2.8±0.7
	Unemployed (91.5)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	1.0-0.3	0.4-0.6	0.3-0.7	0.09-0.9
<b>Father's work</b>	Employed (77.1)	2.8±0.7	3.2±0.6	2.7±0.7	2.8±0.6
	Unemployed (22.9)	2.7±0.6	3.2±0.6	2.8±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	0.7-0.4	0.4-0.6	0.5-0.5	0.5-0.5
<b>Growth location</b>	Province(60.1)	2.8±0.7	3.2±0.6	2.7±0.7	2.9±0.6
	County/village(39.9)	2.7±0.6	3.1±0.6	2.7±0.7	2.7±0.6
	<b>Analysis (t-p)</b>	<b>2.0-0.03</b>	1.6-0.09	0.4-0.6	<b>2.3-0.01</b>
<b>Place Of residence</b>	State of residence (46.5)	2.±0.7	3.2±0.6	2.7±0.7	2.8±0.6
	Private dorm/student house (28.2)	2.8±0.7	3.2±0.7	2.8±0.7	2.9±0.6
	With family (26.4)	2.8±0.6	3.2±0.6	2.7±0.7	2.7±0.5
	<b>Analysis (t-p)</b>	0.5-0.6	0.02-0.9	1.3-0.2	1.4-0.2
<b>Expense ratio of family income</b>	Income less (31.9)	2.7±0.7	3.2±0.6	2.8±0.7	2.8±0.6
	Incomes equal to expenses / Income more (68.1)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	0.3-0.7	1.0-0.3	0.8-0.3	1.1-0.2
<b>Monthly income</b>	400 TL.or/less(65.3)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	400 TL or/ up (34.7)	2.8±0.7	3.2±0.7	2.8±0.7	2.8±0.6
	<b>Statistical Analysis (t-p)</b>	0.5-0.5	0.4-0.6	1.3-0.1	0.5-0.5
<b>Student's working status</b>	Yes (11)	2.7±0.7	3.3±0.7	2.8±0.7	2.9±0.7
	No (89)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	0.2-0.8	1.4-0.1	0.8-0.4	1.7-0.08
<b>Graduated High School</b>	state school(96.9)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	private schools (3.1)	2.8±0.6	3.1±0.5	3.0±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	0.4-0.6	0.4-0.6	1.6-0.09	0.2-0.7
<b>The Name of The Graduated High School</b>	Science high school (5.2)	3.1±0.7	3.2±0.7	2.9±0.8	3.0±0.8
	Vocational high School (2)	2.5±0.8	3.3±0.6	3.3±1.2	2.7±0.6
	High school(24)	2.7±0.7	3.1±0.7	2.6±0.7	2.7±0.6
	Super high school(0.2)	2.8±0.0	3.6±0.0	5.0±0.0	2.5±0.0
	<b>Analysis (t-p)</b>	1.4-0.1	0.7-0.5	<b>5.3-0.0</b>	0.6-0.4
<b>Selecting nursing voluntarily</b>	Yes (28.9)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	No (42.1)	2.8±0.7	3.2±0.6	2.7±0.7	2.8±0.6
	Undecided (29.1)	2.7±0.7	3.2±0.6	2.8±0.7	2.8±0.6
	<b>Analysis (t-p)</b>	0.08-0.9	0.4-0.6	0.1-0.8	0.07-0.9
<b>Compliance with interests of nursing</b>	Yes (38.4)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	No (23.1)	2.8±0.7	3.3±0.7	2.9±0.7	2.8±0.6
	Undecided (38.4)	2.7±0.6	3.2±0.6	2.7±0.7	2.7±0.6
	<b>Analysis (t-p)</b>	0.8-0.4	1.0-0.3	2.4-0.08	0.9-0.1

SIC: Sense of internal control, DI: Desire for independence, RTP:Risk-taking propensity, E.P: Entrepreneurial potential, E.F: Entrepreneurial feelings

**Table 2.**Comparing with the Entrepreneurship Innovation and Entrepreneurship His Potential Related Features.

INNOVATION RELATED PROPERTIES %	SUB SCALE DIMENSIONS (X±SD)			
	SIC	DI	RTP	E.P
<b>Opinions about what the innovations in nursing are</b>				
<b>New methods and techniques are used</b>	I agree(58.3)	2.7±0.6	3.2±0.6	2.7±0.7
	I disagree(41.7)	2.8±0.7	3.2±0.6	2.7±0.7
<b>Besides theoretical subjects are offered the possibility of application</b>	<b>Analysis (t-p)</b>	1.2-0.1	1.1-0.2	0.3-0.7
		I agree(56.7)	2.7±0.6	2.7±0.7
<b>Nursing related issues which are need to be discussed are being discussed</b>	<b>Analysis (t-p)</b>	2.8±0.7	3.2±0.7	2.8±0.7
		I agree(55.6)	2.8±0.6	2.7±0.7
<b>Nursing Information systems offered</b>	<b>Analysis (t-p)</b>	2.8±0.6	3.3±0.7	2.8±0.7
		I agree (65.5)	2.7±0.6	2.7±0.7
<b>There is nothing new in Nursing</b>	<b>Analysis (t-p)</b>	0.8-0.4	1.1-0.2	1.5-0.1
		I agree (28.3)	2.8±0.7	2.8±0.6
<b>Journal of nursing</b>	<b>Analysis (t-p)</b>	2.7±0.6	3.2±0.6	2.7±0.7
		I disagree (71.7)	0.8-0.1	0.06-0.9
<b>Opinions about the state of following the innovations occurring in the nursing field</b>				
<b>I do not follow</b>	<b>Analysis (t-p)</b>	I agree (25.5)	2.7±0.7	3.2±0.6
		I disagree (74.5)	2.8±0.6	3.2±0.6
<b>And read the article in the Course</b>	<b>Analysis (t-p)</b>	0.8-0.4	0.5-0.5	1.0-0.3
		I agree (42.6)	2.9±0.6	3.2±0.6
<b>Courses will be offered at the university</b>	<b>Analysis (t-p)</b>	I disagree (57.4)	2.7±0.6	3.2±0.6
		I agree (53.4)	3.0-0.002	0.3-0.7
<b>Domestic and foreign resources</b>	<b>Analysis (t-p)</b>	I disagree (46.6)	2.8±0.7	3.2±0.6
		I agree (31.2)	2.7±0.6	3.2±0.6
<b>To take advantage of teacher</b>	<b>Analysis (t-p)</b>	I disagree (68.8)	2.8±0.7	3.2±0.6
		I agree (73.6)	2.7±0.6	3.3±0.7
<b>Conference and the seminar</b>	<b>Analysis (t-p)</b>	I disagree (26.4)	2.8±0.7	3.2±0.6
		I agree (31.8)	1.0-0.2	2.7±0.7
<b>Contains innovations in nursing</b>	<b>Analysis (t-p)</b>	I disagree (68.2)	2.8±0.7	3.2±0.6
		I agree (52.2)	1.0-0.2	2.1-0.03
<b>Not totally, partially yes</b>	<b>Analysis (t-p)</b>	I disagree (34.4)	2.7±0.6	3.2±0.6
		I agree (66.6)	2.8±0.7	3.2±0.6
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	0.1-0.8	0.2-0.7	0.9-0.3
		I agree (52.2)	1.3-0.1	0.6-0.5
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	I disagree (47.8)	2.7±0.6	2.7±0.7
		I disagree (34.4)	2.8±0.7	3.2±0.6
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	I agree (66.6)	1.3-0.1	2.0-0.04
		I disagree (34.4)	2.8±0.7	3.2±0.6
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	I agree (52.2)	1.6-0.09	1.8-0.05
		I disagree (47.8)	2.7±0.6	3.2±0.6
<b>Opinions about whether students' education includes the innovations occurring in the nursing field</b>				
<b>The lack of technological infrastructure of classroom</b>	<b>Analysis (t-p)</b>	I agree (83.9)	2.8±0.7	3.2±0.6
		I disagree (16.1)	2.7±0.6	3.2±0.6
<b>Not totally, partially yes</b>	<b>Analysis (t-p)</b>	I agree (66.6)	2.7±0.6	2.7±0.7
		I disagree (34.4)	2.8±0.7	3.2±0.6
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	0.1-0.8	0.2-0.7	0.9-0.3
		I agree (52.2)	1.3-0.1	0.6-0.5
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	I disagree (47.8)	2.7±0.6	2.7±0.7
		I agree (66.6)	2.8±0.7	3.2±0.6
<b>Analysis (t-p)</b>	<b>Analysis (t-p)</b>	I agree (52.2)	1.6-0.09	1.8-0.05
		I disagree (47.8)	2.7±0.6	3.2±0.6

<b>Courses are taught as open to innovation</b>	I agree (53.6)	2.7±0.6	3.2±0.6	2.7±0.6	2.8±0.6
	I disagree (46.4)	2.8±0.7	3.2±0.7	2.8±0.7	2.8±0.6
<b>Analysis (t-p)</b>		1.4-0.1	0.4-0.6	<b>1.9-0.05</b>	0.2-0.7
<b>Education unaware of the Innovation</b>	I agree (34.1)	2.8±0.7	3.2±0.7	2.8±0.7	2.8±0.6
	I disagree (65.9)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
<b>Analysis (t-p)</b>		<b>2.0-0.03</b>	0.3-0.7	<b>2.3-0.02</b>	0.09-0.9
<b>Opinions about whether the nursing education increases awareness of the innovations</b>					
<b>No, there are traditional training</b>	I agree (48.7)	2.8±0.7	3.2±0.7	2.8±0.7	2.8±0.6
	I disagree (51.3)	2.7±0.6	3.2±0.6	2.6±0.6	2.8±0.6
<b>Analysis (t-p)</b>		0.7-0.4	0.4-0.6	<b>3.5-0.0</b>	0.2-0.7
<b>Nursing is no longer with us</b>	I agree(67.9)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
<b>I'm interested</b>	I disagree (32.1)	2.8±0.7	3.2±0.7	2.8±0.6	2.8±0.6
<b>Analysis (t-p)</b>		0.3-0.7	0.1-0.8	0.5-0.5	0.2-0.7
<b>Nursing related news engaging</b>	I agree (69.3)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	I disagree (30.7)	2.8±0.7	3.2±0.7	2.9±0.6	2.8±0.6
<b>Analysis (t-p)</b>		<b>2.0-0.03</b>	0.8-0.4	<b>2.5-0.01</b>	0.5-0.5
<b>Modern approaches discussed</b>	I agree (58.3)	2.7±0.6	3.2±0.6	2.7±0.6	2.8±0.6
	I disagree (41.7)	2.8±0.7	3.3±0.7	2.8±0.7	2.8±0.6
<b>Analysis (t-p)</b>		1.0-0.3	1.3-0.1	<b>2.5-0.01</b>	0.7-0.4
<b>Sense of curiosity being with incentives</b>	I agree (59.7)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	I disagree (40.3)	2.7±0.7	3.2±0.7	2.7±0.7	2.8±0.6
<b>Analysis (t-p)</b>		0.4-0.6	0.4-0.6	0.1-0.8	1.3-0.1
<b>Opinions about whether the nursing education contributes to the training of students as individuals capable of producing ideas</b>					
<b>Those stating that current issues from real life</b>	I agree (81.6)	2.8±0.6	3.2±0.6	2.9±0.7	2.8±0.6
	I disagree (18.4)	2.8±0.7	3.2±0.7	2.7±0.7	2.8±0.6
<b>Analysis (t-p)</b>		0.09-0.9	0.1-0.8	<b>1.9-0.04</b>	0.7-0.4
<b>Partially, but not enough</b>	I agree (70.4)	2.8±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	I disagree (29.6)	2.7±0.7	3.2±0.7	2.7±0.7	2.8±0.6
<b>Analysis (t-p)</b>		0.2-0.8	0.1-0.8	0.1-0.8	0.4-0.6
<b>Rote and old resources used</b>	I agree (46.6)	2.8±0.6	3.2±0.6	2.8±0.7	2.8±0.6
	I disagree (53.4)	2.7±0.6	3.2±0.6	2.7±0.6	2.8±0.6
<b>Analysis (t-p)</b>		0.9-0.3	0.6-0.5	1.2-0.2	1.6-0.09
<b>I began to think differently</b>	I agree (57.6)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	I disagree (42.4)	2.8±0.7	3.2±0.7	2.8±0.7	2.8±0.6
<b>Analysis (t-p)</b>		0.7-0.4	0.2-0.8	1.6-0.1	1.1-0.2
<b>I began to think of new things about health</b>	I agree (69.9)	2.7±0.6	3.2±0.6	2.7±0.7	2.8±0.6
	I disagree (30.1)	2.8±0.7	3.2±0.7	2.8±0.7	2.7±0.6
<b>Analysis (t-p)</b>		0.8-0.4	0.04-0.9	<b>1.9-0.04</b>	1.1-0.2
<b>Alternatively, you can generate ideas</b>	I agree (62.8)	2.8±0.6	3.2±0.6	2.7±0.7	2.9±0.6
	I disagree (37.2)	2.7±0.7	3.2±0.7	2.8±0.7	2.7±0.6
<b>Analysis (t-p)</b>		0.7-0.4	0.4-0.6	0.6-0.5	<b>2.9-0.003</b>

## Discussion

In the section of opinions about what the innovations in nursing are; our findings indicate that innovative practices related to nursing are mainly used in the courses in various ways. This indicates that more than half of the students are satisfied in terms of innovative education. Moreover, from the innovative perspective, that the innovations in nursing focus on different

issues and concepts from other health disciplines, that due to the nursing profession - trying to adapt to technology developing and changing in a constant speed- opens to innovative approaches, and that there is more focus on new information systems in nursing are important element in terms of students' benefiting from the technology and being innovative. This situation is important because it shows that education in the nursing

field is not uniform and started to expand its field. For example, innovations in the field of Nursing Information Systems (NIS) have brought about significant changes in the contents of university courses. Today, that nursing services can be planned, saved, and reflected in the electronic media has started to be seen as a necessity (Abazaoglu, 2014). In this aspect, It has been possible for students having NIS education to update their former knowledge and to evaluate knowledge with a new formation and innovative sense.

**In the section of the state of following the innovations occurring in the nursing field;** 74.5% of students stated that they followed the innovations in various ways, and among these; the rate of those stated that they follow the innovations through 'courses at university and their teachers' was found out to be the highest level. Universities are the most important elements to change a public into information society. In this aspect, teaching staff, who undertake the task of transferring the education they have at universities to a new generation, are the second prominent element in building a conscious information society. In this regard, that the undergraduate students are proficient in both their education and in their field will have a function to meet the community's health care needs by following domestic and international nursing journals.

**In the section of opinions about whether students' education includes the innovations occurring in the nursing field;** Those agree with the expressions of 'technological infrastructure is inadequate in the classroom'(83.9%), 'lessons contain the innovations occurring in nursing' (52.2%), 'lessons open to the innovations'(53.6%) and those don't agree with the expression 'getting education unaware of the innovations occurring in nursing'(65.9%) constituted the majority. As indicated, findings are not in desirable level. Developments such as, that the practices are evidence-based in recent years, that students are educated to convert the knowledge into skills by simulation techniques, trying to ensure the standardization in patient care, and the increase in accreditation activities and etc. Can be indicated as examples of innovative efforts in nursing field (Sarioglu,2014, Sahin et al,2015). To develop skills obtained by innovation, it is needed to reach the advanced levels in nursing

education and technological infrastructure, and to update programs accordingly.

**In the section of that the nursing education increases the awareness of the innovations;** In our study, while 48.7% of students agreed with the statement 'there is traditional education', 51.3% of them didn't agree. In the other statements that are positive, the percentage of students stating that they agree is much higher than those stating that they don't agree. In our findings; nursing students experience with nursing issues and innovation in the field of nursing education at university in various ways, and they think that their education is sufficient for innovative experience.

**In the section of that the nursing education contributes to the training of students as individuals who are capable of producing ideas;** 70.4% of students stated that they agreed with the statement 'nursing education partially contributes to the training students as individuals who are capable of producing ideas, and 46.6% of students stated that they agreed with the statement 'rote learning system and outdated resources are used'. This, unfortunately, is not a rate to be underestimated but it was observed that students had more expressions of 'I agree' in other positive items. Practices and observations are indispensable techniques for the development of creativity in nursing. Therefore, it is impossible for students, whose nursing knowledge is insufficient, and who aren't supported enough in practise, who don't make observations, to use their innovative side completely.

In the modern countries, one of the most fundamental criticism of the compulsory education and the education system is related to its preventing the development of creativity. However, students must be educated in accordance with the requirements of the changing world (Abazaoglu,2014). Because, both knowledge and analysis are used simultaneously for innovation. Therefore, it is necessary for the students to identify, formulate and find alternative solutions in case of having a problem. In this aspect, students should be given opportunities and resources to develop their creativity, and knowledge to improve their innovative sides. Students shouldn't be contented with what they have and they should be in search of new things, and create innovations based on what they have. Based on what students learnt, they should be

directed to research new information and should develop new ideas. The acquired content must provide the opportunities to search for scientific answers and to evaluate the data in a scientific context. Furthermore, this acquired content can provide transfer into other scientific facts, and can reshape between the different cases. In this regard, a student with innovative ideas must have skills such as synthesis, analytical thinking and presenting what they obtained in the practice field by reshaping them. These students should have qualifications to produce new ideas as a result of their education, to separate events in their environment into parts and to be able to rebuild in different forms (Sahin et al,2015). As in each systematic education, one of the main features of nursing education is its being scientific. Students having nursing education must have developed thinking skills must look at the events with an innovative level of perception.

## References

- Abazaoglu I.(2014). Applications for Professional Development and Teacher Training Programs Teacher in the world. Turkish Studies - International Periodical for the Languages, Literature and History of Turkish. Ankara-TURKEY.
- Antonicic B.(2007). Intrapreneurship: a comparative structtural quation modeling study. *Industrial Management and Data Systems*; (107),309-325.
- Bradshaw MJ. (2001). Fuszard's Innovative Teaching Strategies In Nursing. In: Effective Learning: What Teachers Need To Know, 3rd ed. USA, Aspen Publishers, 17-26.
- Duran C,Buber H, Gumustekin G. (2013). Contribution of Education to the Feelings of Entrepreneurship: The Case of Kütahya Vocational High School Machine Program. *Journal of Entrepreneurship and Development*; 8(2); 7-32.
- Hirsch RD, Peters MP. (1980). Entrepreneurship, McGraw-Hill Higher Pervin, L. A. , Personality: Theory, Assesmentand Research, John Wiley&Sons, New York.
- International Council of Nurses (ICN). (2012). Closing the gap: from evidence to action. December 22, 2013.
- International Council of Nurses (ICN). (2009). Delivering quality, serving communities: nurses leading care innovations. April 29, 2013.
- Johannessen J, Olsen B, Lumpkin GT.(2001). Innovation as newness: what is new, how new, and newtow hom.? *European Journal of Innovation Management*; (4), 20-31.
- Okem G.(2011), Innovation in health in Turkey's accession process to the European Union, Turkish Industrialists' and Businessmen's Association Istanbul-Turkey.
- Sahin V,Bilgili M,Kocalar A.(2015). Geography undergraduate students' views of innovation in education, , International Periodical for the Languages, Literature and History of Turkish or Turkic, Ankara -Turkey.
- Sarioglu A.(2014).Validity and Reliability of the Individual Innovation Scale in Nursing, Ataturk University, Faculty of Health Sciences, *Master's Thesis*, Erzurum.
- Zaho F.(2005). Exploring the synergy between entrepreneurship and innovation. *International Journalof Entrepreneurial Behaviour and Research*; (11), 25-41.