

## INVESTIGATION OF LIFELONG LEARNING AWARENESS AND SELF-CONSCIOUSNESS OF UNDERGRADUATES OF HEALTH SCIENCES

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### ABSTRACT

At the heart of the concept of lifelong learning (LLL) is the continual development of an individual's competences. A post-graduate education (PGE) is a process that contributes to an individual's LLL. The high self-consciousness (SC) of an individual is also important to succeed in PGE. The aim of this study is to examine the awareness of Health Sciences (HS) undergraduate students towards LLL and its relationship with the SC. A total of 184 individuals, 90 female and 94 male, were included in the study. Individuals' awareness of LLL, and SC, was assessed by LLL tendency scale, and SC scale, respectively. Their awareness of PGE, however, was evaluated using a questionnaire developed by the researchers. There was no statistically significant correlation between the total score of the LLL scale ( $p = 0.199$ ) and the total score of the SC scale ( $p = 0.215$ ) with the students' grades. There was no statistically significant relationship between level of knowledge about PGE and the questionnaire ( $p = 0.532$ ). It was found that the percentage of individuals responding correctly to the questions in the questionnaire developed by the researchers and the participation rate in the examinations required for the PGE did not increase with the participants' grades. This percentage was higher in 2<sup>nd</sup> grade compared to the 3<sup>rd</sup>, 2<sup>nd</sup> compared to the 4<sup>th</sup>, and 4<sup>th</sup> compared to the 1<sup>st</sup> grade. According to the results of this study, higher grades of HS undergraduate students is not related to their awareness of LLL, SC and the level of their knowledge about PGE.

**Keywords:** Lifelong learning; self-consciousness; postgraduate education.

**INTRODUCTION**

The concept of lifelong learning (LLL) has come to the fore for the last twenty-five years, and has begun to be widely spoken in Turkey from the beginning of the 2000s (Güleç et al., 2013). Due to the fact that scientific, technological and cultural changes take place very quickly nowadays, and the existence and speed of continuous change in the information has left today's people in an urgent need for constant learning (Coşkun and Demirel, 2012). Accurate information can be proven wrong very quickly, or it may become outdated. In this case, it is inevitable for the individuals to be open to innovations, to constantly train, develop and change themselves (Ersoy and Yılmaz, 2009). LLL is defined as all the activities that aim to improve the individual's knowledge, skills, and competences individually, socially or professionally throughout his or her life (Tuschling and Engemann, 2006).

Studies on LLL have gained importance in the 1970s. At the beginning of the 1970s, LLL was defined as "permanent education" (PE) by the Council of Europe and "repetitive education" (RE) by the Organization for Economic Development and Cooperation. These two concepts should be considered separately. While the PE concept expresses the LLL affected by social and cultural changes in particular, the concept of RE expresses the LLL influenced by economic and technological changes (Field and Leicester, 2003). The concept of LLL can be expressed in individual, social and professional contexts. In the individual context, LLL aims to provide personal development in the field where the individual is mainly concerned. In the social context, LLL aims to share knowledge for a specific purpose by a community and to promote mutual exchange of ideas and knowledge. In the professional context, however, it is aimed to develop functional knowledge so that the individuals perform better in their profession (Günüç et al., 2012).

As in all areas, the rapid change of knowledge and development in the health sciences (HS) is also inevitable. Hence, the importance of the LLL concept for HS professionals is prominent. According to the results of the work carried out by the health professionals in order to set a vision for the LLL in the HS, the need for multidisciplinary, team-focused, and innovative methods has been emphasized (Mantas et al., 2010). The cooperation of the HS departments of universities, hospitals, and accreditation units has been emphasized in searching and reaching accurate information (Mantas et al., 2010). In a study investigating LLL in Nursing, it has been stated that nurses dealing with human health need to seek accurate and updated knowledge and only in this way they can be beneficial for the patients (Kroning, 2016). Shaughnessy AF et al, emphasized that the changes in the medical sector will be experienced simultaneously with the technology that develops every day and that the health professionals should be provided with the necessary environment and facilities to enable them to adapt to these changes and to constantly improve themselves (Shaughnessy et al., 1999).

One of the ways to contribute to LLL in health sciences is postgraduate education (PGE). It has an active role in educating scientists and in carrying out national science policy. Its main objective is to educate the human power to produce and use knowledge, and to solve problems with a critical way of thinking (Alhas, 2006). In their work on PGE in the HS by Pullon S. et al., participants stated that following PGE, they made easier clinical

decisions, better understood their professional roles and the duties and responsibilities of occupational groups in HS (Pullon and Fry, 2005). PGE not only provides the HS professionals with knowledge and skills related to the research and development process in accordance with academic criteria, but also allows the individual to observe the shortcomings by objectively making self-assessment (SA) (Meighan and Harber, 2007). It is crucial that the self-consciousness (SC) of the HS professional is high in the implementation of the SA (Deniz and Yilmaz, 2006).

Self-consciousness (SC) is a qualification that involves understanding one's own internal state, preferences, resources and intuitions (Yeşilyaprak, 2001). Several researches have shown that SC is related to many psychological and psychopathological situations. It has been stated that high levels of SC in an individual results in a clearer self-image and more accurate self-knowledge (Lindwall, 2004). Thus, it is suggested that the ability of these individuals to behave in accordance with their personal characteristics is increased (Baumeister and Trice, 1988; Carver and Scheier, 1978).

HS professionals with higher levels of SC will recognize their potential with their personal assessment. They will see their shortcomings and will put up effort to improve themselves in this regard. On the other hand, having the right information about their capabilities will help them be able to trust their strengths (Deniz and Yilmaz, 2006). As can be understood from the studies described above, there is a limited number of comprehensive studies evaluating the knowledge and awareness about the concept of LLL, PGE and SC in the HS departments of our country. The aim of this study is to examine the awareness of the undergraduate students who will be HS professionals with the main objective of the LLL and its relation to SC.

## MATERIAL AND METHOD

This study was a observational study included 184 individuals studying health sciences between the ages of 18 and 25 years. Inclusion criteria were as follows: volunteering to participate in the study, being an undergraduate student of physiotherapy and rehabilitation, ergotherapy, nursing, child development, nutrition and dietetics, audiology, midwifery, social services, and having mental competence to answer the questions directed to them. Individuals with physical and neurological comorbidities (neurosyphilis, vision problems, neuropathy, long-term use of alcohol) were excluded from the study.

The study was initiated after taking written and verbal approvals from the participants. This study was approved by the Ahi Evran University Medical School Ethics Committee for Non-Interventional Studies (18/04/2017- GO 2017-08/72) and was conducted in accordance with the Helsinki Declaration of the World Medical Association.

The following evaluations and methods have been used for individuals:

- 1. Socio-demographic evaluation:** Gender, age and departments of the individuals were recorded using the questionnaire prepared by the researchers.
- 2. LLL setting scale:** The total average scores and standard deviations of the HS undergraduate students in determining their LLL tendencies and the minimum, medium and maximum scores that can be taken from the scale were taken as criteria. When the medium scale score was determined, it was assumed that the results obtained from the scale showed a homogeneous distribution. Sub-headings of LLL scale were defined as motivation (6 items), perseverance (6 items), lack of regulating learning (6 items) and lack of curiosity (9 items). There are a total of 27 items on the scale. In the general average of the scale, the minimum possible score is 27 (27x1) and the maximum possible score is 162 (27x6) (Coşkun and Demirel, 2009).
- 3. SC scale:** The Turkish version of the SC scale contains 19 items. This likert type scale is scored on a 0 to 4 range where "0" stands for "not at all suitable" and "4" represents "completely appropriate". Hence, the highest score that can be taken from this scale is 76 and the lowest score is 0. The high score from each subscale of the scale with no reverse item indicates that the individual has the SC for the respective subscale. This scale is composed of "private SC", "public SC" and "social anxiety". While private SC is consisted of the sub-headings of self-reflection and inner self-awareness, public SC is constituted of the sub-headings of style consciousness and appearance consciousness. The validity and reliability of SC scale for university students is already carried out (Akin et al., 2007).
- 4. PGE awareness questionnaire:** Firstly, a questionnaire of 100 questions was prepared by 3 faculty members who give lectures to master and doctoral students. This 100-question questionnaire was reduced to 20 questions by the faculty members. As a pilot study, this questionnaire was applied to 32 students. As 6 questions were not clearly understood by the students, the faculty members prepared the final version of the questionnaire by omitting those 6 questions (Table 1).

### Statistical Analysis

"SPSS 22.0 for Windows" program was used for the statistical evaluations. Descriptive statistics are expressed as mean  $\pm$  standard deviation for numerical variables with normal distribution. Shapiro-Wilk test was used for normality evaluation. The percentage (%) value is calculated for the variables determined by the census. The Spearman Correlation Analysis was used to determine the LLL and PGE awareness of individuals and their SC in relation with their grade. The statistical significance was accepted as  $p < 0.05$ .

**Table 1.** Post-Graduate Education Awareness Questionnaire

Dear Participant,

This survey is prepared to learn about your knowledge and opinions about post-graduate education in health sciences. Please read all the questions carefully and mark the answer that best suits you.

**University:**                      **Department:**                      **Grade:**                      **Success average:**

**1.** Do you have enough knowledge about the content of post-graduate education?

0

10

I have no knowledge

I have enough knowledge

**2.** Do you have enough knowledge about the requirements for post-graduate education?

0

10

I have no knowledge

I have enough knowledge

**3.** Indicate which phases the post-graduate education programs cover.

**a.** Education courses **b.** Doctorate **c.** Master of Science **d.**a+b

**e.**a+c **f.**c+a **g.** c+b **h.** b+c **i.**a+b+c **j.**Bilmiyorum

**4.** In your opinion, how long does master of science program last?

**a.**.....year **b.** I don't know

**5.** Which periods of master of science program covers? Just mark a opinion by specifying the time (year).

**a.**.....year lesson period      **b.**.....year lesson+.....year thesis period      **c.**.....year thesis period      **d.** No knowledge

**6.** In your opinion, how long does doctorate program last?

**a.**.....year

**b.** I don't know

**7.** Which periods of doctorate program covers? Just mark a opinion by specifying the time (year).

**a.**.....year lesson period      **b.**.....year lesson+.....year thesis period      **c.**.....year thesis period      **d.** No knowledge

**9.** Do you have enough knowledge for applying to post-graduate education?

**a.** Yes      **b.** No

**9.** Have you ever participated to Academic Personnel and Post-Graduate Education Exam?

**a.** Yes **b.** No **c.** No knowledge

10. Have you ever participated to foreign language exam?

- a. Yes    b. No    c. No knowledge

11. Do you think that your foreign language level is enough for post-graduate education?



12. What is the title after master of science program?

- a. Master of Science    b. Doctor    c. Research Assistant    d. Lecturer    e. I have no knowledge

13. What is the title after doctorate program?

- a. Master of Science    b. Doctor    c. Research Assistant    d. Lecturer    e. I have no knowledge

14. Which program must be completed to be Assistant Professor?

- a. Bachelor    b. Master of Science    c. Doctorate    d.No knowledge

## RESULTS

There were a total of 184 participants in this study, 90 (48.9%) were women and 94 (51.0%) were men. 26.1% of the individuals were at the 1<sup>st</sup> grade, 33.7% at the 2<sup>nd</sup> grade, 22.8% at the 3<sup>rd</sup>, and 17.4% at the 4<sup>th</sup> grade of undergraduate programs and their average age was  $21.25 \pm 2.26$  years.

There were no statistically significant relation between grades and LLL scale motivation (questions 1 to 6) ( $r = 0.062$ ,  $p = 0.4$ ), between grades and LLL scale perseverance (questions 7 to 12) ( $r = 0.077$ ,  $p = 0.296$ ), between grades and LLL scale of lack of regulating learning (questions 13 to 18) ( $r = -0.048$ ;  $p = 0.522$ ), between the grades and the LLL scale of lack of curiosity (questions 19 to 27) ( $r = 0.057$ ,  $p = 0.442$ ), between the grades and the total score of the LLL scale ( $r = 0.095$ ;  $p = 0.199$ ), between the grades and the private SC of SC scale (questions 1,2,6,7,11,12,16, and 17) ( $r = 0.032$ ,  $p = 0.666$ ), between the grades and the public SC of SC scale (questions 3,4,8,9,13,14, and 18) ( $r = -0.081$ ,  $p = 0.274$ ), between the grades and the social anxiety of SC scale (questions 5,10,15, and 19) ( $r = -0.136$ ,  $p = 0.066$ ), and between the grades and the total score of the SC scale ( $r = -0.092$ ;  $p = 0.215$ ) (Table 2). There was no significant relationship between the grades of the individuals and questions number 1, 2, and 11 of the PGE questionnaire ( $r = 0.026$ ;  $p = 0.532$ ). It was found that higher grades did not cause any increase in the percentage of the respondents who answered correctly to the questions number 3, 4, 5, 6, 7, 12, 13 and 14; neither caused any increase in the percentage of the "yes" answers to the questions 8, 9 and 10 (Table 3).

**Table 2.** Sociodemographic Characteristics, Lifelong Learning and Self-Consciousness Datas of Participants

	n (%)
Physiotherapy and Rehabilitation	57(30,9)
Occupational Therapy	28(15,2)
Nursing	30(16,3)
Child Development	18(9,7)
Nutrition and Dietetic	9(4,8)
Audiology	21(11,4)
Midwifery	15(8,1)
Social Services	6(3,2)
<b>Scales</b>	<b>X±SD</b>
<b>LLL</b>	
1-6 Motivation	12,28±5,92
7-12 Perseverance	15,67±6,36
13-18 Lack of Regulating Learning	27,96±7,19
19-27 Lack of Curiosity	38,96±10,22
LLL Total Score	94,73±14,42
<b>SC</b>	
1,2,6,7,11,12,16,17 Private SC	21,45±4,14
3,4,8,9,13,14,18 Public SC	16,79±3,87
5,10,15,19 Social Anxiety	9,12±3,39
SC Total Score	47,53±8,67

Table 3. Post-Graduate Education Awareness Questionnaire Results

Q	Grade 1	Grade 2	Grade 3	Grade 4	p							
1	4,13	5,33	6,11	5,01	0,21							
2	4,67	5,13	5,01	4,78	0,38							
11	5,18	6,26	6,12	5,39	0,41							
Q	True Answer (%)											
3	23,2	31,8	21,4	23,6								
4	19,3	24,7	36,8	19,2								
5	24,9	21,1	29,2	24,8								
6	19,7	23,3	29,5	27,5								
7	21,1	20,2	25,5	33,2								
12	28,2	27,3	25,7	18,8								
13	30,1	22,8	22,7	24,4								
14	25,3	28,2	19,9	26,6								
		Yes (%)	No (%)		No knowledge (%)							
		Grade	Grade		Grade							
Q	1	2	3	4	1	2	3	4	1	2	3	4
8	51,1	55,3	54,6	54,2	48,9	44,7	45,4	45,8	-	-	-	-
9	10,2	18,3	17,6	19,4	74,6	66,9	79,5	74,2	15,2	14,8	2,9	6,4
10	2,5	6,1	5,9	6,2	90,3	85,2	79,9	78,7	7,2	8,7	14,2	15,1

Q: Question.

## DISCUSSION

According to the results of this study, there were no statistically significant relationship between the grades and LLL motivation, LLL perseverance, LLL lack of regulating learning, LLL lack of curiosity, LLL total score, private SC scale, public SC scale, SC social anxiety scale, and total SC score. Higher grades seemed to have no effect on answering the questions in the PGE questionnaire regarding content of PGE, its pre-requirements and the necessary foreign language level. Similarly, being in higher grades of undergraduate did not appear to have any effect on the answers to the other questions of the PGE questionnaire.

Günüş et al. emphasized the importance of distance training institutions and mainstream schools on LLL (Günüş et al., 2012). Likewise, Gediklioglu has expressed the important role that higher education institutions should undertake in the development and improvement of the country, and in the promotion of social well-being and life standards (Gediklioglu, 2005). In our study, it was revealed that higher grades of undergraduate



students did not lead to any increase in awareness of the LLL; therefore it is necessary to take precautions related to LLL to ensure that health professionals dealing with human health can adapt to technological and scientific changes and increase their knowledge of continuous learning.

The realization of learning in today's information societies is essential for the continuity of the information society, and our greatest aim of education should be to educate individuals who are continually learning (Breivik, 2000). PGE is a link that contributes to continuous learning and makes the integrity of education and research stronger (Tuzcu, 2003). In order for PGE to be beneficial for the society, students are expected to develop themselves and improve their skills by conducting original scientific research on their fields in this educational process (Karaman and Bakırcı, 2010). However, in our study, we found that the awareness of HS undergraduate students towards LE did not increase in proportion to their grades. This situation may pose a risk for our country in the sense that changes and developments that take place in the health sector and scientific studies carried out all over the world might not be followed by our health professionals. We believe that it is important to raise the awareness of HS undergraduates towards PGE.

It is stated that the SC should be high when the HS undergraduate students are trained as entrepreneurial professionals (Taşkıran and Köse, 2016). Individuals with higher levels of SC are looking for opportunities to improve themselves. With developing leadership qualities, these people are constantly pursuing their knowledge and are prominent in comparison to other individuals (Taşkıran and Köse, 2016). Meanwhile, they also have a positive awareness of emotional situations such as happiness or sadness, and therefore can make more objective decisions about themselves, compared to other individuals (Anderson et al., 1996). According to our results, we think that the low level of SC among HS students could result in the risk of becoming health professionals who are inadequate in improving themselves by staying away from LLL in their future lives.

The limitations of the current study are as follows: insufficient number of participants included in the study; the inclusion of the universities located in the inner Anatolian region instead of the HS students trained in different regions; and not examining the differences of LLL, SC and PGE questionnaire for different professions.

## SUGGESTIONS

According to the results of this study, health sciences undergraduates had low awareness of LLL and PGE, had low levels of SC, and had insufficient information about PGE. In order to prevent this situation, it is proposed to prepare appropriate environments to support LLL facilities in the HS faculties of the universities, and to provide presentation and/or leadership trainings for the students to improve their SC.

Conflict of interest: There is no conflict of interest between the authors.

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