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# SELF-EDUCATION OF EMPLOYEES IN MEDICAL INSTITUTIONS

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**Abstract:** *When it comes to self-education, it usually refers to either the self-activity that defines it or the social context in which the individual and self-education coexist. According to Šefika Alibabić's definition, self-education is "socially and personally conditioned activity of an individual with the aim of acquiring and expanding and enriching knowledge, skills and developing abilities, with the possibility to do it completely independently or with instructive assistance". In this paper the author deals with the self-education of medical professionals. The paper is divided into two parts: theoretical and empirical. The theoretical part is about self-education. The empirical study included 8 medical organizations with a total of 60 respondents employed in them. Concluding considerations are provided at the end of the paper.*

**Keywords:** *self-education, right to education, individual training, web 2.0. in self-learning.*

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## 1. INTRODUCTION

Life long learning is an integral part of international declarations and charters. It is important to single out the 1997 Hamburg Declaration on Adult Learning. This declaration was made under the auspices of UNESCO. Following are the Lisbon Continuing Education Memorandum 2000, the Dakar Framework for Education for All from the same year, the European Lifelong Learning Area, a document adopted a year later and many others. (Kamenarac, 2011:101-116)

The development of employees' self-educational competence is crucial in the modern way of doing business. Therefore, it is very important for employees to be trained in self-education so that it does not occur at random and at the individual's discretion.

Self-education should become a lifelong learning strategy because “it provides balance between rapid change and the knowledge necessary to understand it.”

‘Self-education comes in two forms:

1. fully independent educational activity, independent education and
2. segment of multimedia education, distance education.’

When it comes to self-education, it usually refers to either the self-activity that defines it or the social context in which the individual and self-education coexist.

According to Šefika Alibabić’s definition, self-education is “socially and personally conditioned activity of an individual with the aim of acquiring and expanding and enriching knowledge, skills and developing abilities, with the possibility to do it completely independently or with instructive assistance”. (Alibabić, 2011:5-16)

When it comes to self-education, of course, personal interest is a key factor in both the choice of content and the form of training, but it must be borne in mind that it is necessary to functionally link this type of education with other forms of education and training. This system must exist as a whole.

A constructivist approach to learning is the best approach for self-education (individual learning). The creators of this approach are Dewey, Bruner and Piaget. Why is a constructivist approach best when it comes to self-improvement? If we know that, according to this approach, “development is a real constructive process, the construction of structures, not mere accumulation of knowledge,” the answer is more than obvious. Every healthcare professional who genuinely wants to promote and develop himself, should independently construct the knowledge he needs, as well as to change both himself and his knowledge in accordance with new knowledge. It is also significant that this type of learning is based on a high degree of autonomy in designing, monitoring and controlling one’s own activities during self-education. (Kamenarac, 2011:101-116)

When we speak about individual training of health workers, and especially physicians, it is important to note that they are among the most significant contributors to society’s progress. Therefore, it is imperative that they be motivated for individual lifelong learning and that they constantly work on self-achieving and developing their own professional competences. Apart from postgraduate studies, specializations, scientific and professional conferences, forums, congresses, etc. it is imperative that there are other forms of learning and development that can be an impetus for future lifelong learning planning and a development factor for internal learning motivators.

A health care professional can always be more qualified than at any given time, as the training process cannot be completed once and for all.

## 2. INDIVIDUAL IMPROVEMENT - SELF-EDUCATION

There are numerous definitions of self-education. Authors Kulić and Despotović define self-education as “a form of learning with an emphasis on adult self-activity” (Kulic, Despotovic, 2004: 87-96), and Vasiljevic states that “these self-activities are largely subordinated to individual needs and desires”. (Vasiljevic, 2012: 255-276) “It is a conscious self-initiative, self-regulatory, systematized, comprehensive, dynamic, continuous, developing activity over oneself with a high degree of self-autonomy in planning, intentionality, organization,

realization and evaluation of professional development in order to improve individual professional competences (knowledge, skills and habits)". (Kulić, Despotović, 2004:87-96)

There are two types of self-education:

1. independent education and
2. directed education.

Independent education is a form of self-education in which the individual is encouraged to become a subject of personal professional development (pull learning).

Directed education is a form of self-education which is initiated from outside (push learning). (Arsenijević, 2017)

What most often appears as a form of self-education are: study of professional and scientific material, study of domestic and foreign professional and scientific periodicals, research, work on projects, work in world-renowned health institutions, etc. It is important to note that in this type of self-education it is necessary to take into account the level of self-educational abilities of the individual. It is very important that the effectiveness of individual learning be at a high level, which can be achieved by raising skills through the development and work with andragogical consultants, but it is very important that they receive better basic self-education and research work in basic studies. (Kulić, 2000:2228-232)

## **2.1 WEB 2.0 in self-learning**

Web 2.0 is the name for a trend of different ways of creating, displaying and searching content on the Internet. These are mostly user-created content, interactive content, social networks, applications and tools for communicating over the internet and web sites for sharing content. Examples of sites/services classified in Web 2.0. are: eBay, Wikipedia, Reddit, Flickr, Skype, etc.

The term Web 2.0 was for the first time used by O'Reilly media group in 2003. The term was used to refer to services and second-generation services on the Internet. The organization has launched a number of Web 2.0-related conferences and has thus become more widely used. Many researchers have reservations about the use of the term, because most of the technologies required for Web 2.0 to exist, at least conceptually, have existed since the beginnings of the modern Internet.

Radziwil and DuPlain see the use of the Web 2.0 concept in enhancing innovative learning and self-learning activities using the following types of applications: Hybrid applications (Web 2.0 mashups). (Radziwil, DuPlain, 2009)

This type of application, for its key component, has an information integration module in which two or more ideas are combined into a synergetic concept. (Radziwil, DuPlain, 2009) This creates additional value in relation to its constituent parts. For example, www.HousingMaps.com crosses Google Mapping with a list of properties for sale on www.craigslist.com. (Jhingran, 2006)

Another illustrative example is the www.chicagocrime.org portal that matches local crime statistics databases with the Google Maps app. That way, end users can see what crimes have been committed recently in a particular Chicago neighborhood. (Jhingran, 2006)

Social bookmarking is an online practice of organizing and storing links, that is, tagging them with keywords so that such content can be easily accessed and easily accessible to all Internet users. (According to: [http://hr.wikipedia.org/wiki/Social\\_bookmarking](http://hr.wikipedia.org/wiki/Social_bookmarking))

Unlike file sharing, resources themselves are not shared, only tags - references that point to them.

This type of tagging creates the conditions for recombining existing ones and generating new learning and self-learning innovations by providing mechanisms for more effective tagging of content on the Internet using keywords, and the ability to make connections between multiple different ideas. The first appearance of the concept of on-line sharing of personal links with other Internet users goes back to 1996 and the start of [www.itlist.com](http://www.itlist.com).

When posting, most of the services require registration. Simple review of bookmarks that others have posted is available without registration.

In addition to this basic function, services may have additional features such as:

- Bookmarking and commenting,
- Possibility of creating interest groups,
- E-mail,
- - Blog,
- Notifications on new content from specific pages
- Import and export from other, related services.

Today, social networks have as their primary objective the building and maintenance of social relationships among people who may or may not share common interests and / or activities.

Social networks are becoming the primary means of communication via the Internet, and are slowly gaining ground over services such as email and instant messaging. (Aleman, Martinez, Lynk, 2009)

Social networking services allow users to seamlessly share ideas, activities, event information, and share interests within individual social networks. According to Radziwil et al., the positive impact of social networks on the learning, self-learning, innovation and diffusion of innovation can be expected. (Radzwil, DuPlain, 2009)

Blogs and wikis are platforms to support the recombination of known solutions into new thought structures and processes of self-learning and innovation, which represent the basis of constructivist learning. These services provide their users with the ability to capture and post their thoughts, expand ideas that others have posted, or oppose/dissent. The greatest value is keeping a record of thoughts/discussions. (<http://web.duke.edu/eng169s2/group1/lex3/firstpage.htm>)

## 2.2 The importance of media literacy for self-education

It is very important for self-education to develop awareness of the importance of media literacy. This is significant because of the formation of a critical attitude towards the information we obtain, especially through the Internet.

“According to Bulatović media literacy, as an integral part of self-teaching, is based on several different needs:

- acquiring basic knowledge of mass communications, global media and media culture,
- acquisition of knowledge in the field of media languages and production of media messages,
- acquiring knowledge about media convergence and its characteristics,

- acquiring knowledge about the nature of traditional and new media,
- acquiring knowledge about the coding and decoding of media content viewed in a particular social context,
- close observation of media content, outside the media context, in the context of the process of upbringing and education, and
- Acquiring knowledge of the four basic components of media literacy: access, analysis, evaluation and creation of media content.” (Bulatovic, 2013; Bulatovic, 2012)

### 3. EMPIRICAL RESEARCH

H1: There exists a statistically significant relation between the sociobiological characteristics of employees in healthcare institutions and their willingness to improve (self-education)

#### 3.1. Results of the research

##### Characteristics of the sub-sample of employees in healthcare institutions

This survey involved 60 respondents employed in eight health institutions (clinics) from the territory of Novi Sad.

**Table: Frequencies of the variable of the office where he/she is employed**

|                               | No of respondents | Percentage |
|-------------------------------|-------------------|------------|
| Institution 1, state sector   | 7                 | 11.7       |
| Institution 2, state sector   | 9                 | 15.0       |
| Institution 3, private sector | 10                | 16.7       |
| Institution 4, state sector   | 10                | 16.7       |
| Institution 5, private sector | 11                | 18.3       |
| Institution 6, private sector | 3                 | 5.0        |
| Institution 7, private sector | 6                 | 10.0       |
| Institution 8, private sector | 4                 | 6.7        |
| Total                         | 60                | 100.0      |

The largest percentage of respondents who participated in the research were employed in a private Institution 5, 11 of them. There are 10 doctors each in from the Institutional 3

private practice and from the Institution 10. The fewest employees were from the Institution 6.

**Table: Frequencies of the Gender variable**

|  |        | No of respondents | Percentage |
|--|--------|-------------------|------------|
|  | Male   | 20                | 33.3       |
|  | Female | 40                | 66.7       |
|  | Total  | 60                | 100.0      |

According to the gender structure, the sample is uneven, ie women make up about 67% of the sample and men about 33%.

**Table: Frequencies of the Age variable**

|  |                       | No of respondents | Percentage |
|--|-----------------------|-------------------|------------|
|  | Up to 25 years of age | 7                 | 11.7       |
|  | from 26 to 35         | 21                | 35.0       |
|  | from 36 to 45         | 11                | 18.3       |
|  | from 46 to 55         | 13                | 21.7       |
|  | over 56               | 8                 | 13.3       |
|  | Total                 | 60                | 100.0      |

The highest percentage of respondents is between 26 and 35 years old, there are 35% of them, followed by 46-55 years old, about 22% of the sample. The fewest are the youngest respondents around 12% and the oldest ones are around 13%.

**Table: Frequency education degree variable**

|  |                    | No of respondents | Percentage |
|--|--------------------|-------------------|------------|
|  | Preliminary school | 1                 | 1.7        |
|  | High school        | 18                | 30.0       |
|  | Higher school      | 16                | 26.7       |
|  | Faculty            | 17                | 28.3       |

|  |               |    |       |
|--|---------------|----|-------|
|  | Master of PhD | 8  | 13.3  |
|  | Total         | 60 | 100.0 |

The majority consists of secondary school graduates, 30% of the sample, followed by the group of university graduates with about 28%,. There are about 27% of respondents with higher education. Only one respondent is with elementary school.

**Table: Frequency of the health care institution variable**

|  |                          | No of respondents | Percentage |
|--|--------------------------|-------------------|------------|
|  | Private sector           | 30                | 50.0       |
|  | State sector             | 18                | 30.0       |
|  | Private and state sector | 12                | 20.0       |
|  | Total                    | 60                | 100.0      |

Half of the sample consists of employees in the private sector, 30% of them are employed in the state sector, and 20% work in both sectors.

**Table: Frequency of the length of employment variable**

|  |                    | No of respondents | Percentage |
|--|--------------------|-------------------|------------|
|  | Up to 5 years      | 12                | 20.0       |
|  | from 6 to 10       | 17                | 28.3       |
|  | from 11 to 20      | 12                | 20.0       |
|  | From 21 to 30      | 11                | 18.3       |
|  | More than 30 years | 8                 | 13.3       |
|  | Total              | 60                | 100.0      |

Most respondents have work experience of 6 to 10 years, about 28% of them, with the least experience there are 20% of respondents, as well as 11 to 20 years. There are fewest respondents with the longest internship, about 13%.

### 3.2. Respondents' results on self-assessment questionnaire

The average results for answering the questions from the questionnaire for assessment of expressiveness of self-education among employees in health care institutions were calculated by the Arithmetic mean. Respondents expressed their agreement with the stated statements on a continuum from 1 to 5. The table below shows the average results for each item.

**Table: Minimum and maximum results, Arithmetic means and Standard deviations of responses to the items in the questionnaire**

|  | Minimum     | Maximum     | Arithmetic mean | Std. Deviation |
|--|-------------|-------------|-----------------|----------------|
| In the workplace, I have been given opportunities to use knowledge and skills when doing my job.     | 1.00        | 5.00        | 3.6833          | 1.17158        |
| I have the same time available for work and education.   | 1.00        | 5.00        | 2.7667          | 1.15519        |
| I have the support of my superiors in my desire to improve myself.                                   | 1.00        | 5.00        | 3.4667          | 1.09648        |
| I am satisfied with the conditions for continuing education.   | 1.00        | 5.00        | 3.4667          | .98233         |
| I am pleased with the professional development opportunities that my current job provides.           | 1.00        | 5.00        | 3.4167          | 1.12433        |
| I select offers from the qualification fields, in which I have had gaps so far.                      | 1.00        | 5.00        | 3.4000          | 1.13794        |
| <b>I regularly follow and read professional literature.</b>  | <b>1.00</b> | <b>5.00</b> | <b>4.0167</b>   | <b>1.15702</b> |
| <b>Self-education is very important for career advancement.</b>                                      | <b>2.00</b> | <b>5.00</b> | <b>4.5333</b>   | <b>.74712</b>  |
| I would like someone to advise me on what kind of training is useful to me.                          | 1.00        | 5.00        | 3.7167          | 1.32884        |
| <b>I do not want to listen only to lectures, but also to work with colleagues in working groups.</b> | <b>1.00</b> | <b>5.00</b> | <b>4.0333</b>   | <b>1.22082</b> |

|   |      |      |        |         |
|---|------|------|--------|---------|
| I prefer individual training and counseling directly in the workplace.  | 1.00 | 5.00 | 3.7333 | 1.23325 |
| I am satisfied with the knowledge transfer within the organization (formal meetings, memos, reports, studies ..)  | 1.00 | 5.00 | 2.9833 | 1.12734 |
| Scientific conferences and symposia provide good opportunities for formal and informal contacts with colleagues who have experience, ideas and knowledge. | 1.00 | 5.00 | 3.3500 | 1.13234 |
| The organization where I am employed with its structure and culture enables and encourages the transfer of knowledge.                                     | 1.00 | 5.00 | 3.7333 | 1.02290 |
| I am satisfied with my personal improvement.  | 1.00 | 5.00 | 3.4833 | 1.24181 |

Based on the Arithmetic mean values obtained, we can see that the respondents most strongly agree with the following statements: Self-education is very important for career progression, I do not want to listen only to lectures, but also to work with colleagues in working groups, and with the statement I regularly follow and read professional literature. They show the least agreement with the claims I have equal time available for work and education and I am satisfied with the transfer of knowledge within the organization (formal meetings, letters, reports, studies ..)

The average score on the questionnaire for assessment of readiness for training, ie self-education of employees in health care institutions, was calculated by the Arithmetic mean, on the summation scale for all claims. The maximum possible score on the questionnaire is 75 points.

**Table: Minimum and maximum score, Arithmetic mean and Standard deviation of total score on the questionnaire**

|                | Minimum | Maximum | Arithmetic mean | Std. Deviation |
|----------------|---------|---------|-----------------|----------------|
| Self-education | 20.00   | 72.00   | 53.7833         | 10.48177       |

Based on the results obtained, we can see that the lowest score obtained is 20 points and the highest score is 72 points, while in average the respondents have about 54 points. This result illustrates the above-average level of self-education among health care employees.

### 3.3. Relationship between self-education and sociobiological characteristics of respondents

In line with the established hypothesis H1: There is a statistically significant correlation between sociobiological characteristics of employees in health care institutions and their willingness to improve, we made a number of correlations between the items of the questionnaire and the total score and independent variables: age, education and years of service. We checked the correlation by Pearson's linear correlation coefficient. We then examined gender differences in readiness for self-education, as well as the impact of the sector in which respondents were employed (private or state).

**Table: Pearson correlation coefficient between variables age, education, years of service and score on the questionnaire and all claims individually**

|  |   | Age   | Education degree | Years of service |
|--|---|-------|------------------|------------------|
| In the workplace, I have been given opportunities to use knowledge and skills when doing my job. | r | .231  | <b>.365(**)</b>  | <b>.256(*)</b>   |
|  | p | .076  | <b>.004</b>      | <b>.048</b>      |
| I have the same time available for work and education.   | r | .042  | <b>.273(*)</b>   | .074             |
|  | p | .750  | <b>.035</b>      | .573             |
| I have the support of my superiors in my desire to improve myself.                               | r | .096  | <b>.330(*)</b>   | .157             |
|  | p | .466  | <b>.010</b>      | .231             |
| I am satisfied with the conditions for continuing training.                                      | r | .107  | .159             | .111             |
|  | p | .416  | .224             | .401             |
| I am pleased with the professional development opportunities that my current job provides.       | r | .234  | <b>.359(**)</b>  | <b>.292(*)</b>   |
|  | p | .072  | <b>.005</b>      | <b>.023</b>      |
| I select offers from the qualification fields, in which I have had gaps so far.                  | r | -.054 | .011             | -.060            |
|  | p | .679  | .933             | .647             |
| I regularly follow and read professional literature.   | r | .071  | <b>.419(**)</b>  | .058             |
|  | p | .590  | <b>.001</b>      | .662             |
| Self-education is very important for career advancement.   | r | .130  | <b>.466(**)</b>  | .059             |
|  | p | .323  | <b>.000</b>      | .654             |
| I would like someone to advise me on what kind of training is helpful for me.                    | r | -.108 | .056             | -.124            |
|  | p | .409  | .673             | .345             |
| I do not want only to listen to lectures, but also to work with colleagues in working groups.    | r | -.152 | .072             | -.141            |
|  | p | .245  | .585             | .282             |

|   |   |       |                 |       |
|---|---|-------|-----------------|-------|
| I prefer individual training and counseling directly in the workplace.  | r | -.138 | .172            | -.100 |
|   | p | .294  | .188            | .445  |
| I am satisfied with the knowledge transfer within the organization (formal meetings, memos, reports, studies ..)  | r | -.192 | .101            | -.172 |
|   | p | .141  | .443            | .189  |
| Scientific conferences and symposia provide good opportunities for formal and informal contacts with colleagues who have experience, ideas and knowledge. | r | -.011 | <b>.424(**)</b> | -.136 |
|   | p | .935  | <b>.001</b>     | .300  |
| The organization where I am employed with its structure and culture enables and encourages the transfer of knowledge.                                     | r | -.008 | <b>.269(*)</b>  | .041  |
|   | p | .952  | <b>.038</b>     | .758  |
| I am satisfied with my personal improvement.  | r | .031  | <b>.327(*)</b>  | .080  |
|   | p | .811  | <b>.011</b>     | .546  |
| SELF-EDUCATION - total score  | r | .020  | <b>.397(**)</b> | .035  |
|   | p | .878  | <b>.002</b>     | .790  |

**r**- Pearson correlation coefficient

**p**-level of significance: \*\* Correlations significant at the level 0.01

\* Correlations significant at the level 0.05

Based on the results obtained, we can see that the educational level of the respondents is most related to self-education. There are statistically significant correlation coefficients with the qualification variable, both with the total score and with the following questions: In the workplace, I was given the opportunity to use knowledge and skills in the job, I have the same time available for work and education, I am satisfied with the professional development opportunities offered by my current job, I regularly follow and read professional literature, Self-education is very important for career advancement, Scientific conferences and symposia provide good opportunities for formal and informal contacts with colleagues who have experience, ideas and Knowledge, The organization in which I work with my structure and culture enables and encourages the transfer of knowledge and I am satisfied with my personal development. All correlations are of lower to moderate intensity and positive sign, which means that the more educated a person is, the more they agree with the statements made and the higher the score on the whole questionnaire.

The age of the respondents did not prove to be significant for self-education, and the length of the employment statistically significantly correlated with the statements: In the workplace, I was given the opportunity to use knowledge and skills in the job and I am satisfied with the professional development opportunities that my current job provides.

### 3.4. Differences in self-education among those employed in private and state sectors

Differences in personal improvement of employees depending on the type of health care institution they work in (we took the private and state sector) were checked by a series of T-tests for independent samples, on all items of the questionnaire and on the total score.

**Table: Arithmetic means, standard deviations and standard error of arithmetic means for both groups of respondents on all statements in the questionnaire and total score**

|  | Type of health care institution where they are employed | N  | Arithmetic mean | Std. Deviation | Std. error AS |
|--|---|----|-----------------|----------------|---------------|
| In the workplace, I have been given opportunities to use knowledge and skills when doing my job.                     | <b>Private sector</b>                                   | 30 | 4.1333          | .86037         | .15708        |
|  | State sector  | 18 | 3.1111          | 1.23140        | .29024        |
| I have equal time available for work and education.  | <b>Private sector</b>                                   | 30 | 3.1000          | 1.09387        | .19971        |
|  | State sector  | 18 | 2.5556          | 1.14903        | .27083        |
| I have the support of my superiors in my desire to improve myself.   | <b>Private sector</b>                                   | 30 | 3.9000          | .92289         | .16850        |
|  | State sector  | 18 | 2.8889          | .90025         | .21219        |
| I am satisfied with the conditions for continuing education.   | <b>Private sector</b>                                   | 30 | 3.9333          | .73968         | .13505        |
|  | State sector  | 18 | 2.8889          | .75840         | .17876        |
| I am pleased with the professional development opportunities that my current job provides.                           | <b>Private sector</b>                                   | 30 | 3.6333          | 1.06620        | .19466        |
|  | State sector  | 18 | 2.8889          | .96338         | .22707        |
| I select offers from the qualification fields, in which I have had gaps so far.                                      | <b>Private sector</b>                                   | 30 | 3.7000          | 1.11880        | .20426        |
|  | State sector  | 18 | 3.1667          | 1.04319        | .24588        |
| I regularly follow and read professional literature.   | <b>Private sector</b>                                   | 30 | 4.3000          | .91539         | .16713        |
|  | State sector  | 18 | 3.3889          | 1.24328        | .29304        |
| Self-education is very important for career advancement.   | <b>Private sector</b>                                   | 30 | 4.6667          | .66089         | .12066        |
|  | State sector  | 18 | 4.2222          | .73208         | .17255        |
| I would like someone to advise me on what kind of training is helpful for me.  | <b>Private sector</b>                                   | 30 | 3.8667          | 1.38298        | .25250        |
|  | State sector  | 18 | 3.4444          | 1.09664        | .25848        |
| I do not want only to listen to lectures, but also to work with colleagues in working groups.                        | <b>Private sector</b>                                   | 30 | 4.2333          | 1.16511        | .21272        |
|  | State sector  | 18 | 3.7778          | 1.00326        | .23647        |
| I prefer individual training and counseling directly in the workplace.   | <b>Private sector</b>                                   | 30 | 3.9000          | 1.24152        | .22667        |
|  | State sector  | 18 | 3.2778          | 1.12749        | .26575        |
| I am satisfied with the knowledge transfer within the organization (formal meetings, memos, reports, elaborations .. | <b>Private sector</b>                                   | 30 | 3.3333          | .95893         | .17508        |
|  | State sector  | 18 | 2.3333          | 1.13759        | .26813        |

|   |                       |    |         |         |         |
|---|-----------------------|----|---------|---------|---------|
| Scientific conferences and symposia provide good opportunities for formal and informal contacts with colleagues who have experience, ideas and knowledge. | <b>Private sector</b> | 30 | 3.3667  | .96431  | .17606  |
|   | State sector          | 18 | 3.2222  | 1.16597 | .27482  |
| The organization where I am employed with its structure and culture enables and encourages the transfer of knowledge.                                     | <b>Private sector</b> | 30 | 4.1333  | .68145  | .12441  |
|   | State sector          | 18 | 3.1667  | 1.04319 | .24588  |
| I am satisfied with my personal improvement.  | <b>Private sector</b> | 30 | 3.8667  | 1.00801 | .18404  |
|   | State sector          | 18 | 2.7778  | 1.21537 | .28647  |
| SELF-EDUCATION - total score  | <b>Private sector</b> | 30 | 58.0667 | 8.03841 | 1.46761 |
|   | State sector          | 18 | 47.1111 | 8.56730 | 2.01933 |

Based on the value of arithmetic means, we can see that employees in the private sector show greater agreement with all the statements made than their counterparts in the state sector, so that their overall score is on average higher. We checked the statistical significance of these differences by T-tests.

**Table: Results and statistical significance of T-tests**

|   | T-test | df-<br>degrees of<br>freedom | p-level<br>of sig-<br>nificance | Differ-<br>ence | Standard<br>difference<br>error |
|---|--------|------------------------------|---------------------------------|-----------------|---------------------------------|
| <b>In the workplace, I have been given opportunities to use knowledge and skills when doing my job.</b> | 3.383  | 46                           | .001                            | 1.0222          | .30215                          |
| I have equal time available for work and education.   | 1.638  | 46                           | .108                            | .5444           | .33230                          |
| <b>I have the support of my superiors in my desire to improve myself.</b>                               | 3.708  | 46                           | .001                            | 1.0111          | .27268                          |
| <b>I am satisfied with the conditions for continuing education.</b>                                     | 4.692  | 46                           | .000                            | 1.0444          | .22261                          |
| <b>I am pleased with the professional development opportunities that my current job provides.</b>       | 2.426  | 46                           | .019                            | .7444           | .30691                          |
| I select offers from the qualification fields, in which I have had gaps so far.                         | 1.639  | 46                           | .108                            | .5333           | .32541                          |
| <b>I regularly follow and read professional literature.</b>   | 2.914  | 46                           | .005                            | .9111           | .31263                          |
| <b>Self-education is very important for career advancement.</b>   | 2.167  | 46                           | .035                            | .4444           | .20514                          |
| I would like someone to advise me on what kind of training is helpful for me.                           | 1.102  | 46                           | .276                            | .4222           | .38300                          |

|   |              |           |             |                |                |
|---|--------------|-----------|-------------|----------------|----------------|
| I do not want only to listen to lectures, but also to work with colleagues in working groups.   | 1.379        | 46        | .175        | .4556          | .33036         |
| I prefer individual training and counseling directly in the workplace.  | 1.738        | 46        | .089        | .6222          | .35796         |
| <b>I am satisfied with the knowledge transfer within the organization (formal meetings, memos, reports, studies ..)</b>                                   | <b>3.261</b> | <b>46</b> | <b>.002</b> | <b>1.0000</b>  | <b>.30666</b>  |
| Scientific conferences and symposia provide good opportunities for formal and informal contacts with colleagues who have experience, ideas and knowledge. | .464         | 46        | .645        | .1444          | .31108         |
| <b>The organization where I am employed with its structure and culture enables and encourages the transfer of knowledge.</b>                              | <b>3.889</b> | <b>46</b> | <b>.000</b> | <b>.9667</b>   | <b>.24854</b>  |
| <b>I am satisfied with my personal improvement.</b>   | <b>3.353</b> | <b>46</b> | <b>.002</b> | <b>1.0889</b>  | <b>.32475</b>  |
| <b>SELF-EDUCATION - total score</b>   | <b>4.461</b> | <b>46</b> | <b>.000</b> | <b>10.9556</b> | <b>2.45605</b> |

The obtained values of the t-tests show that the employees in the private sector statistically significantly show greater agreement than the employees in the public sector on the total score of the questionnaire and on the following statements: In the workplace I have been given opportunities to use the knowledge and skills in the job, their desire for improvement. I am satisfied with the conditions for continuing education, I am satisfied with the professional development opportunities that my current job provides, I regularly follow and read professional literature, Self-education is very important for career advancement, I am satisfied with the transfer of knowledge within the organization (formal meetings, letters, reports, reports) ..), The organization where I work with my structure and culture enables and encourages the transfer of knowledge and I am satisfied with my personal development.

Based on the results obtained on the employee sub-sample, we can say that hypothesis H1 is accepted.

#### 4. CONCLUSION

1. The obtained results show above average level of self-education among employees in health care institutions

2. Based on the results obtained, we can see that the educational level of the respondents is most related to self-education, the more educated a person is, the more they agree with the statements made and have a higher score on the whole questionnaire.

3. The age of the respondents did not prove to be significant for self-education, and the length of the internship statistically significantly correlated with the statements: In the workplace, I was given the opportunity to use knowledge and skills in the job and I am satisfied with the professional development opportunities that my current job provides.

4. Based on the results obtained on the employee sub-sample, we can say that hypothesis H1 is accepted.

Based on theoretical and empirical research into the problems of employee self-education and its impact on customer satisfaction, we can conclude that self-education is one of the most current educational tendencies. Thus it can be said that the self-education of employees in health care institutions is a very important factor in continuing education.

Self-education is imposed by rapid changes in society and business, but it is very important that it is planned and that people are trained for it.

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