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A STUDY ON THE FINANCIAL COSTS OF THE U.E. POPULATION ACCORDING TO THE "COST PER MINUTE" RATIO OF A MASSAGE SESSION

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Abstract

Objective. The cost/total duration ratio of a massage session could be a reference in classifying the most expensive types of massage in the countries of the European Union

Methods. The Comparative Analysis has been based on studying 405 web addresses (27 member countries x 15 web addresses) of some companies which have as their object of activity both recovery and rehabilitation therapies by means of massage. Among these, we finally selected 162 companies (27 member countries x 6 companies for each member of the European Union). Our research focused on the analysis of 20 types of massage retrieved from all the offers carefully viewed and observed from 2012 to 2013. We analysed 540 average values (in euro) of the price of massage in the countries under investigation (27 European countries x 1 average value x 20 types of massage).

Results. The data highlighted by the statistical analysis reveal different ratios regarding the charts for the most expensive massage sessions within EU. What at first sight may seem a high cost for a certain type of massage; in the end it would seem possible for EU citizens to pay less, as compared with a different type of massage which, at first sight, would seem cheaper.

Conclusions Reporting the costs corresponding to massage services according to the cost/total duration per session criterion could be one of the necessary references for classifying the most expensive types of massages which citizens of the European Union would have access to.

Key words: massage, European Union, cost/minute session ratio

Introduction

Our personal experience as well as the observations carried out in time have allowed us to notice the importance of the existence of an optimal ratio between the quality services offered by a kinesi-therapist and their price so that both people could have access more often to the positive effects of the kinesis-therapeutic techniques and procedures, and the specialist who provides them could be considered for effort, his/her activity being recognized and respected.

Massage has been and will always be, in our opinion, a maintenance service or for recovering the health status, to which the population would not give up, taking into account its multiple positive effects.

Access of the UE population to the services of a masseur, as well as the ability to access a masseur for different categories of the population (potential customers, patients or employers) is a topic more than present and of interest, especially for the specialists in the newly-entered member countries (Romania and Bulgaria) within this geopolitical and economic structure.

We support this by the simple fact that the access to a much larger and diversified market, but at the same time, to a greater competition, can only be helpful and useful for those specialists who wish to consolidate and further develop their profession continuously.

The norms of the European Union (European Commission Directive 2005/36/EC), as geo-political and administrative structure which we referred to, are

clear both regarding the mobility on the job market for masseur or kinesi-therapist, and the criteria for its recognition on the labour market.

According to Leeuwen, (1995), national regulations in the field of the occupational competences and those regarding the access and performance of the professional activities have a highly varied application domain. In most member countries, the activities in the specific field are practised, de jure or defacto, by people who have got either only the official qualification title, or this title accompanied by another name, without benefiting from control on exercising these activities, except the cases in which there are legal provisions otherwise specified.

Although, the founding members of the European Union are those which have delimited a large part of the European legislation regarding the job qualification, they are not necessarily those which have established clear rules regarding the masseur profession, compared with other member countries or in the process of accession.

The data highlighted by Wiesener, S. &all. (2012) in the case of massage, as the subject and object of this research, indicated more than visibly that the EU founding countries have not got any specific rules for the masseur profession yet. The analysis carried out on each country by the above-mentioned specialist shows us a smaller percentage of the member states which have got regulations and recognize the masseur job as a stand-alone profession (16 European countries) compared with those member states which have not got

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any specific rules for the profession subject to discussion (19 countries);

Knowledge of the costs for massage services, of the national economic characteristic, of the principles governing the recovery - rehabilitation - relaxation activities in every EU country can reveal real and positive evidences for the professional career orientation, but also regarding the massage service appreciation within such a large market, as the European Union's (Alexe, Deleu, 2013).

Research hypothesis

Could the reporting the costs of the massage services to the cost/total duration per session criterion be a reference for classifying the most expensive types of massage in the countries of the European Union?

Methods

The comparative analysis has been based on studying 405 web addresses (27 member countries x 15 web addresses) of some companies which have as their object of activity both recovery and rehabilitation therapies by means of massage. Among these, we finally selected 162 companies (27 member countries x 6 companies for each member of the European Union). We have collected from these 162 companies the data regarding the price for the types of massage covered by our research (data collection has been carried out mainly through the online access on the World Wide

Web, but also through our direct access to the premises of companies from Romania, Germany, France, Spain, Austria and Hungary).

We can mention that, reported to the 27 countries of the European Union, the types of massage we have determined have been much more. Due to the fact that some types of massage, practised in some countries and highlighted in the offer in question, have not been found on the offer list of the companies in other European countries, we have focused attention on those types of massage found in all the European countries and to which we have had access for determining their prices (price necessary to our comparative analysis).

Therefore, our research focused on the analysis of 20 types of massage (table no.1) found in all the visited and carefully observed offers. For a more strict analysis, we especially chose an average length, due to the fact that the same type of massage was found even for 8-10 different length values of the corresponding session, from 20 minutes to 120 minutes and even 150 minutes).

We analysed 540 average values (in Euros) for the massage prices in the investigated countries (27 European countries X 1 average value X 20 types of massage).

Table no.1 - Investigated types of massage

| Crt. No. | Type of massage investigated | Crt. No. | Type of massage investigated |
|----------|--|----------|-----------------------------------|
| 1 | Classical general relaxation massage 120 min | 11 | Anti-cellulite massage 60 min |
| 2 | Classical general relaxation massage 90 min | 12 | Therapeutic massage 60 min |
| 3 | Classical general relaxation massage 60 min | 13 | Reflexology massage en 50 min |
| 4 | Classical general relaxation massage 30 min | 14 | Oriental Thai massage 60 min |
| 5 | Facial massage 30 min | 15 | Oriental Shiatsu massage 60 min |
| 6 | Californian massage 60 min | 16 | Abhyanga Ayurveda massage 60 min |
| 7 | Tandem massage (4 hands) 60 min | 17 | Volcanic rock massage 60 min |
| 8 | Honey massage 60 min | 18 | Lymphatic drainage massage 60 min |
| 9 | Special oil massage 60 min | 19 | Anti-stress massage 30 min |
| 10 | Special butter massage (Shea, 60min) | 20 | Anti-stress massage 60 min |

In order to perform the comparative analysis, we focused especially on the locations intended for massage services provided to the population for relaxation, anti-stress, tension release, recovery and energising effects. In addition to these, we included also the types of massage with reflexology, therapeutic and anti-cellulite effects (found in all the offers from the specific locations of the 27 European countries).

The prices for the 20 types of massage investigated varied very much within the same country. In order to follow a certain calculation pattern and have a general picture, as objective as possible, we analysed 15 offers from every country. For statistics, we chose the smallest 6 offers and calculated the mean.

To facilitate data interpretation and visualise the aspects for this comparison, we divided the 27 European countries into 4 groups:

- Northern European area (including 6 countries with the average values processed: Sweden, Finland, Denmark, Estonia, Latvia, Lithuania);
- Central European area (including 7 countries with the average values processed: Germany, Poland, Czech Republic, Slovakia, Slovenia, Austria and Hungary);
- Western European area (including 8 countries with the average values processed: United Kingdom, France, Spain, Ireland, Portugal, Netherlands, Belgium and Luxemburg);
- Southern and Sothern-Eastern area (including 6 countries with the average values processed: Romania, Greece, Cyprus, Italy, Bulgaria, Malta);



Results

The processing of the data for the 4 areas subject to our analysis has highlighted the following:

- for the **northern European area**, the cost of the massage services range from 27.78 € (the smallest average value, corresponding to the 30-minute classical relaxation massage) to 72.54 € (the highest average value, corresponding to the 120-minute classical relaxation massage). The massage services with the highest price are the following: the 120-minute classical relaxation, the tandem massage (4 hands) and the 60-minute Abhyanga Ayurveda massage, and, the lowest price are for the following: the 30-minute anti-stress massage, the 30-minute classical relaxation massage and the 30-minute facial massage. The analysis of the standard deviation and the coefficient of variability show us, with a few exceptions, an increased value of heterogeneity (a low uniformity of the average values). The most homogeneous values, by translation, the most constant – in terms of price, the massage services in the 6 countries related to the northern European area, are determined for the 60-minute Oriental shiatsu massage, and the most heterogeneous average values are shown in table no. 3 for the 60-minute volcanic rock massage. This aspect shows us that the prices for the Oriental shiatsu massage are similar in value in the 6 countries in the region, and for the volcanic rock massage, the costs incurred fluctuating more, from one country to another;

- for the Central European area, the cost of massage services range from 26.09€ (the smallest average value, corresponding to the 30-minute facial massage) to 77.29 € (the highest average value, corresponding to the 120-minute classical relaxation massage). The massage services with the highest price are, as in the case of the northern European area, the following: the 120-minute classical relaxation massage, the tandem massage (4 hands, 60min) and the 60-minute Abhyanga Ayurveda massage, and, the lowest price are for the following: the 30-minute facial massage, the 30-minute anti-stress massage and the 30-minute special oil massage. The analysis of the standard deviation and the coefficient of variability show us an increased value of heterogeneity Analysis standard deviation and the coefficient of variability for 7 of the 20 types of massage ($10\% \leq Cv \leq 20\%$) and increased values of heterogeneity ($20\% \leq Cv$), a low homogeneity of the average values, for the other types. The most homogeneous values, by translation, the most constant – in terms of the price, the massage services in the 7 countries related to the central European area, are determined for the 90-minute classical relaxation massage, and the most heterogeneous average values are shown in table no. 4 for the 30-minute facial massage. This aspect shows us that the price for the 90-minute classical relaxation massage are similar in value in the 7 countries in the region, and for the facial massage the costs incurred

fluctuating more, from one country to another (CV-44.63 %);

- for the Western European area, the cost of massage services range from 30.34 € (the smallest average value, corresponding to the 30-minute facial massage) to 82.84 € (the highest average value, corresponding to the 120-minute classical relaxation massage). The massage services with the highest price are, as is the other cases, the following: the 120-minute classical relaxation massage, the tandem massage (4 hands, 60min) and the 60-minute Abhyanga Ayurveda massage, and, the lowest price are for the following: the 30-minute facial massage, the 30-minute classical relaxation massage and the 30-minute anti-stress massage. Determining the statistical parameters (standard deviation and the coefficient of variability) shows us the values with very high homogeneity for 2 types of relaxation massage (120 min and 90 min, with $Cv \leq 10\%$) and values with good homogeneity ($10\% \leq Cv \leq 20\%$) for the other 10 types of massage. Almost 50% of the analysed massages in the western European area have got small oscillation of the costs from one country to another, and for the two types of massage with high homogeneity, the price fluctuations are very low. The most homogeneous values, by translation, the most constant – in terms of the price, the massage services in the 8 countries related to the western European area, are determined for the 90-minute classical relaxation massage (where Cv is below 10%, more exactly 8.42%), and for the 120-minute classical relaxation massage ($Cv = 9.39\%$). The most heterogeneous average values are shown in table no. 5 for the 30-minute facial massage and for the anti-cellulite massage, which indicates a greater cost oscillation, from a recovery centre to another.

- The values processed for the southern and south-eastern area are the lowest of all the average values, indicating lower costs reported on the 20 types of massage covered by our research. Thus, the cost of the massage services are between 13.02 € (the smallest average value, corresponding to the 30-minute facial massage) and 56.25 € (the highest average value, corresponding to the 120-minute classical relaxation massage). The massage services with the highest price are: the 120-minute classical relaxation massage (on average 56.25 €), tandem massage (4 hands, 56.03 €) and 60-minute anti-stress massage (42.18 €). The lowest price is determined for the 30-minute facial massage, 30-minutes classical relaxation massage, and 30-minute anti-stress massage. Determining the statistical parameters (standard deviation and the coefficient of variability) shows values with very low homogeneity, therefore a low heterogeneity. Only a single value indicates a CV less than 10% - for lymphatic drainage, while for the other types of massage the costs vary considerably from one country to another (CV exceeds the 19 types of massage with a value of 20 %). The most homogeneous values and by translation, the most constant – in terms of price, for



the massage services in the 6 countries in the southern and south-eastern European area, are determined for lymphatic drainage (where Cv is less than 10 %, more exactly 7.15 %, the best coefficient of homogeneity of the 20 massages for the 4 zones).

In order to continue the analysis and interpretation of our data, we would like to highlight once more the

average values according to areas (Table 2), but emphasising on a comparative analysis within the same areas investigated. In this way, we underline with **green** the highest 3 costs for each zone (table no. 2), and with **orange** the lowest 3 costs for each area.

Table no.2 – The highest/lowest average cost values for the analysed areas

| Type of massage investigated | Northern area | Central area | Western area | Southern, South-Eastern area |
|--------------------------------------|---------------|--------------|--------------|------------------------------|
| Classical relaxation massage 120 min | 72.54 | 77.29 | 82.84 | 56.25 |
| Classical relaxation massage 90 min | 50.61 | 58.57 | 63.84 | 37.54 |
| Classical relaxation massage 60 min | 41.85 | 47.25 | 48.83 | 26.40 |
| Classical relaxation massage 30 min | 27.78 | 37.42 | 33.07 | 17.49 |
| Anti-stress massage 30 min | 29.74 | 32.73 | 35.71 | 21.72 |
| Anti-stress massage 60 min | 60.93 | 56.43 | 63.00 | 42.18 |
| Anti-cellulite massage 60 min | 42.46 | 42.77 | 49.79 | 25.97 |
| Therapeutic massage 60 min | 48.39 | 44.45 | 49.07 | 31.54 |
| Reflexology 50 min | 40.64 | 40.38 | 42.34 | 27.70 |
| Oriental Thai massage 60 min | 52.15 | 45.68 | 61.04 | 34.09 |
| Oriental Shiatsu massage 60 min | 55.64 | 54.60 | 59.00 | 27.65 |
| Abhyanga Ayurveda massage 60 min | 59.54 | 61.81 | 67.76 | 39.21 |
| Facial massage 30 min | 31.21 | 26.09 | 30.34 | 13.02 |
| Volcanic rock massage 60 min | 42.66 | 46.51 | 52.68 | 31.85 |
| Lymphatic drainage 60 min | 51.61 | 54.55 | 52.88 | 36.09 |
| Honey massage 60 min | 49.33 | 46.61 | 54.17 | 31.43 |
| Californian massage 60 min | 37.83 | 41.18 | 44.91 | 25.89 |
| Tandem massage (4 hands) 60 min | 71.52 | 74.23 | 81.75 | 56.03 |
| Special oil massage 60 min | 43.74 | 32.74 | 34.99 | 24.69 |
| Special butter massage (Shea 60 min) | 39.06 | 34.35 | 41.61 | 27.15 |

Table no.3 – Average values calculated for the 20 types of massage in the 27 EU countries

| Type of massage investigated | average | max | min | stdev | Cv % |
|--------------------------------------|---------|-------|-------|-------|-------|
| Classical relaxation massage 120 min | 73.20 | 96.25 | 36.50 | 15.41 | 21.05 |
| Classical relaxation massage 90 min | 53.69 | 73.33 | 18.18 | 14.68 | 27.34 |
| Classical relaxation massage 60 min | 41.88 | 60.33 | 15.00 | 12.62 | 30.12 |
| Classical relaxation massage 30 min | 29.56 | 48.80 | 7.50 | 10.35 | 35.00 |
| Anti-stress massage 30 min | 30.50 | 45.50 | 10.50 | 9.24 | 30.30 |
| Anti-stress massage 60 min | 56.21 | 88.60 | 22.72 | 17.06 | 30.35 |
| Anti-cellulite massage 60 min | 41.05 | 69.15 | 13.63 | 14.33 | 34.90 |
| Therapeutic massage 60 min | 43.83 | 60.00 | 15.00 | 10.29 | 23.48 |
| Reflexology 50 min | 38.20 | 55.25 | 11.36 | 10.91 | 28.56 |
| Oriental Thai massage 60 min | 49.09 | 78.25 | 20.66 | 16.17 | 32.94 |
| Oriental Shiatsu massage 60 min | 49.79 | 77.82 | 12.83 | 16.59 | 33.31 |
| Abhyanga Ayurveda massage 60 min | 58.04 | 91.00 | 24.33 | 18.72 | 32.24 |
| Facial massage 30 min | 25.58 | 44.25 | 4.54 | 11.96 | 46.74 |
| Volcanic rock massage 60 min | 44.22 | 70.00 | 17.50 | 15.03 | 33.98 |
| Lymphatic drainage 60 min | 49.30 | 75.50 | 33.40 | 13.83 | 28.05 |
| Honey massage 60 min | 46.08 | 72.17 | 18.75 | 13.80 | 29.95 |
| Californian massage 60 min | 38.14 | 66.60 | 13.64 | 12.95 | 33.96 |
| Tandem massage (4 hands) 60 min | 71.81 | 98.58 | 40.00 | 16.24 | 22.61 |
| Special oil massage 60 min | 34.06 | 58.50 | 16.50 | 10.62 | 31.18 |
| Special butter massage (Shea 60 min) | 35.95 | 57.00 | 17.85 | 12.07 | 33.59 |



In table no. 3, we highlight the analysis and processing of the data for average costs for the 20 types of massage covered by our research. It is observed in the **green column**, the final average value of the 27 costs (27 European countries) for each type of massage of the 20 analysed.

As it can be observed, the trend highlighted in the other summarizing tables is maintained:

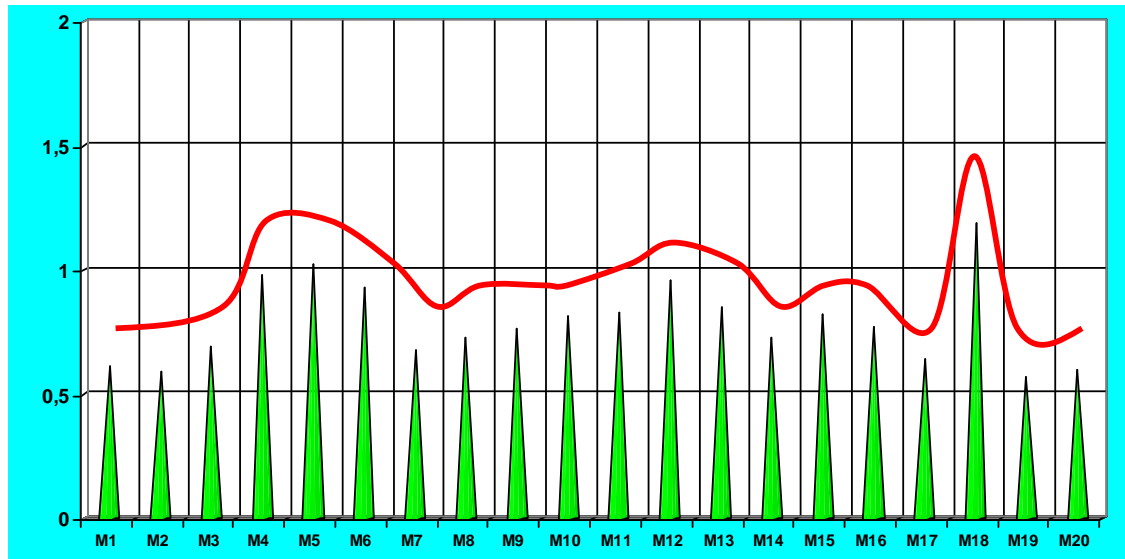
- the highest massage costs are those recorded for the *120-minute relaxation massage* (final mean 73.20 €), *tandem massage* (4 hands – 71.81 €) and *60-minute Abhyanga Ayurveda massage* (58.04 €);
- the lowest massage costs are those recorded for the *30-minute anti-stress massage* (final

mean 30.50 €), *30-minute classical relaxation massage* (29.56 €) and *30-minute facial massage* (25.58 €);

Due to the statistics available in the above tables (the average values for our variables: type of massage, duration, cost), we decided to process and analyse also the average value of a minute of massage during a massage session within a certain length of time. This analysis has revealed some interesting results, which change somehow the impression created by previous analyses. For this purpose, we divided each average cost value in the table no. 3 by the length of the session of the corresponding type of massage. As a result, we presented in table no. 4, the graph no. 1.

Table no.4 – Summarizing table for the average value in euros per 1 massage minute

| Type of massage investigated | Graphic | Mean per session | Average value €/ 1 minute massage /session |
|--------------------------------------|---------|------------------|--|
| Classical relaxation massage 120 min | M1 | 73.20 | 0.61 €/ 1 massage minute |
| Classical relaxation massage 90 min | M2 | 53.69 | 0.59 €/ 1 massage minute |
| Classical relaxation massage 60 min | M3 | 41.88 | 0.69 €/ 1 massage minute |
| Classical relaxation massage 30 min | M4 | 29.56 | 0.98 €/ 1 massage minute |
| Anti-stress massage 30 min | M5 | 30.50 | 1.02 €/ 1 massage minute |
| Anti-stress massage 60 min | M6 | 56.21 | 0.93 €/ 1 massage minute |
| Anti-cellulite massage 60 min | M7 | 41.05 | 0.68 €/ 1 massage minute |
| Therapeutic massage 60 min | M8 | 43.83 | 0.73 €/ 1 massage minute |
| Reflexology 50 min | M9 | 38.20 | 0.76 €/ 1 massage minute |
| Oriental Thai massage 60 min | M10 | 49.09 | 0.81 €/ 1 massage minute |
| Oriental Shiatsu massage 60 min | M11 | 49.79 | 0.83 €/ 1 massage minute |
| Abhyanga Ayurveda massage 60 min | M12 | 58.04 | 0.96 €/ 1 massage minute |
| Facial massage 30 min | M13 | 25.58 | 0.85 €/ 1 massage minute |
| Volcanic rock massage 60 min | M14 | 44.22 | 0.73 €/ 1 massage minute |
| Lymphatic drainage 60 min | M15 | 49.30 | 0.82 €/ 1 massage minute |
| Honey massage 60 min | M16 | 46.08 | 0.77 €/ 1 massage minute |
| Californian massage 60 min | M17 | 38.14 | 0.64 €/ 1 massage minute |
| Tandem massage (4 hands) 60 min | M18 | 71.81 | 1.19 €/ 1 massage minute |
| Special oil massage 60 min | M19 | 34.06 | 0.57 €/ 1 massage minute |
| Special butter massage (Shea 60 min) | M20 | 35.95 | 0.60 €/ 1 massage minute |



Graph nr.1 – Average euro / minute massage costs for the 20 types of massage

The presented data change the order of the best well-paid massages, if we take into account the price in euro per minute / session. Thus, the highest massage cost would be for the tandem massage (4 hands - 1.19 € /1 massage minute), followed by the 30-minute anti-stress massage (1.02 € /1 massage minute) and the 30-minute relaxation massage (0.98 € /1 massage minute). At the other end, the lowest costs are recorded as follows: the 90-minute relaxation massage (0.59 € /1 massage minute), the special oil massage (0.57 € /1 massage minute) and the special butter massage (0.60 € /1 massage minute).

Discussion

The analysis of the above-mentioned data highlights the clear price difference existing on the so-called European common market, the different costs of the 20 types of massage being confirmed by the values determined for the coefficient of variability (CV% - tables no. 2 and no. 3). According to the values shown in the table and taking into account the statistical limits for this item, the measured values are characterized by an increased heterogeneity (CV% > 20 %), resulting in a very low homogeneity.

The data highlighted by the statistical analysis reveal different ratios regarding the charts for the most expensive massage sessions within EU. What may seem at first sight a high cost for a certain type of massage, in the end, it could seem possible for the EU citizens to pay less, as compared with a different type of massage which at first sight would seem more expensive.

The high difference in costs at micro level (depending on the country and on the investigated geographical area) and the different ratios between cost and minute per massage session are useful in analyzing the feasibility of the complementary medical therapies within EU when regulating the cross-border

therapeutic services (Stargardt, 2008), moreover, whenever there are scientific evidences (Reilly, 2001), which certify the fact that, in terms of cost, more and more Europeans are increasingly looking for complementary and alternative medical therapies (CAM) to avoid the classical therapies, which are more costly.

Conclusions

Reporting the costs corresponding to the massage services according to the cost/total duration per session criterion could be a reference for classifying the most expensive types of massage in the countries of the European Union, our hypothesis being confirmed.

It can be noticed that when we report the massage costs € / 1 minute massage criterion, the highest costs are recorded in some types of massage that, at first sight, appear to be cheaper, if we take into account the general criterion - the amount as a whole, the final amount paid.

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