The evaluation of attitudes of international students in Lithuanian University of Health Sciences regarding the importance of leadership in clinical practice

Master thesis

Supervisor
Prof. Mindaugas Stankunas

Kaunas, 2017
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**Summary:**

**Author Name:** Hermon Rezene Zegay

**The aim of the study:**
To evaluate the attitudes of international students at Lithuanian University of Health Sciences regarding the importance of leadership in clinical practice.

**The objectives of research:**
1. to evaluate the opinion of international medical students regarding the need of leadership in clinical practice.
2. to evaluate the opinion of international medical students regarding the importance of specific competencies for successful leadership in clinical practice.
3. to evaluate the opinion of international medical students regarding more intensive teaching in leadership in the study program.

**Methods:**
This was a cross-sectional survey conducted in LSMU, that was carried out during September and October 2016, among the international students. The size of the study population consisted of 215 distributed questionnaires (since there are currently 215 international medical students), but only 90 students gave the questionnaires back. The response rate was therefore 41.8%.

**Results:**
First of all, both males and females considered leadership to be important in equal percentages (88.9 %). The age played a determining factor, since 87.2 % of students under the age of 24 years considered leadership to be important, whereas for students above the age of 24 years that number was 90.6 %. Therefore, another conclusion that could be suggested is that, the higher the students had reached in their study year, the more likely were they interested in studying it as a subject. As for the most important attributes of a leader in a clinical setting, “Managing yourself”, was chosen by 76 %
of the students. The second attribute that most students chose was “Developing self-awareness”, which was picked by 72.5 % of all participating students. As for the students whom thought that clinical leadership was is not important (11.1 %), they considered “acting with integrity” and “working within teams” to be most important since these both characteristics were both equally picked by the students (both 30 %).

Conclusion:
As for the first objective “to evaluate the opinion of international medical students regarding the need of leadership in clinical practice” as well as the third objective “to evaluate the opinion of international medical students regarding more intensive teaching in leadership in the study program” we can conclude that the majority of the students whom participated in this research clearly considered that such subject where students are taught how to be good clinical leaders is needed in their medical studies.

Finally, the second objective “competencies for successful leadership in clinical practice”, we can conclude that the students in their 4th considered the idea of encouraging contribution and working in teams to be the most important competencies, students in 5th year considered managing oneself, acting with integrity and building relationships with their fellow workers to be the cornerstone of a good clinical leader. And students in the final year thought that “facilitating transformation” is the most significant competency for a great clinical leader.

Acknowledgement:
It has been privilege to work alongside my supervisor Mindaugas Stankunas, and I am extremely appreciative of the help and support that he has given me throughout this journey. I would also like to thank my family and friends in Eritrea, Sweden and Lithuania, for all the encouragement. Special thanks to Edita Sakyte for helping me with all the statistical analysis.

Conflict of Interest:
The author reports no conflict of interest.
Ethics Committee Clearance:

Title of thesis: The evaluation of attitudes of international students in LSMU regarding the importance of leadership in clinical practice.

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Abbreviations list

NO ABBREVIATIONS
INTRODUCTION

Leadership in general is a trait or characteristic that is essential in all occupations, not least of which in the health care system, as it manifests the individual’s ability to work in a team. To be able to properly function in a team setting is as crucial as being able to work alone, because it reduces the number of medical errors and increases patient safety. Besides increasing the patient safety, teamwork also favours the physician, as it also reduces issues that lead to burnout. [1] A leader must be able to detect if any member of their team is on the verge of burnout, and properly instruct that individual to lessen their workload. However, when discussing clinical leadership, we must not only refer to the advantages but also address the challenges that can be faced.

There are many challenges in today’s health care system that are related to teamwork, with patient quality and finance playing the major roles. [2] A growing challenge for a leader in a clinical setting is financial viability, as it continues to be a significant concern for healthcare CEOs, and physicians are feeling how the rising cost are affecting the regulations for patient care. As a leader, one must be efficient in deciding how to cope with such challenges related to the financial aspects of the health care facility. A good leader must be able to decide what sacrifice’s must be made when a health care facility is faced with a financial difficulty, and simultaneously explain this to his/her subordinates, while concurrently make them feel involved in the decision-making process.

Moreover, the clinical care is becoming more complex and specialized, forcing medical staff to attempt complicated health services and quickly learn new methods. [3] As a leader of an institution, it is their duty to properly introduce the new methods, and make sure that all the subordinates and employees are appropriately acquainted to such new techniques. With other words, the clinical leader must not only introduce the new technologies, but also make sure that the staff are all suitably educated and equipped to utilize them.

Hence in this dissertation I will try to get to the root of what makes a great clinical leader, and more importantly, why it is essential to be a great leader while working in a clinical setting.
AIM AND OBJECTIVE OF THE THESIS

The aim of the study:
To evaluate the attitudes of international students at Lithuanian University of Health Sciences regarding the importance of leadership in clinical practice.

The objectives of research:
1. to evaluate the opinion of international medical students regarding the need of leadership in clinical practice.
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LITERATURE REVIEW

1. Concept of leadership

It has been previously suggested that a leader is a “...group member whose influence on group attitudes, performance, or decision making greatly exceeds that of the average member of the group.” [4]

It has been stated in the book Living into Leadership: A Journey in Ethics that leadership is not something that is being passed within the family, meaning that it is not a so-called “genetic gift” that is inherited. Instead the author claims that it is more a “process of growth that needs experience, and constant self-evaluation”, in order to be achieved. This process continues throughout life, and strong leaders continue to improve in their leadership skills as time passes on. [5]

Up until today there is no unanimous definition of what leadership truly entails amongst scholars. There are many different definitions, in which some may focus on abilities, personality traits, and self or collective interest, and others focus on influential relationships and orientation [6].

One integrated definition, posted by Winston and Patterson from Regent University in the International Journal of Leadership studies, follows:

“A leader is one or more people who selects, equips, trains, and influences one or more follower who have diverse gifts, abilities, and skills and focuses the follower to the organization’s mission and objectives causing the follower to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organizational mission and objectives. [7]

According to The Josephson Institute’s published book (1999) Six Pillars of Character, [6] the main traits in a leader which are most valued by subordinates are:

- Trustworthiness - honesty, integrity, reliability and loyalty
- Respect – using the Golden Rule or treating others as you wish to be treated
- Responsibility – accountability, self-control, the pursuit of excellence, and considering consequences of our actions prior to making them
• Fairness – playing by the rules, not taking advantage of others, making informed judgments without favouritism or prejudice
• Caring - kindness, compassion, and altruism
• Citizenship – improving the community

Modernization also has an effect on the preferences that are set for leaders today, for example, there is an expected basis of merit for a leader to succeed, in the industrial countries, and they tend to focus more on issues of merit, orderliness, punctuality, intended rationality, and progress. [8]

2. Theories of leadership

There exist today numerous theories that try to explain what makes an efficient leader, and all the features that such a person is believed to possess. Among these theories is one referred to as the "Trait theory", which is based on the presumption that a great leader is born with certain abilities or "traits" that marks that person to be more fit to advocate the role of a leader. [9]

In other words, this concept is based on the idea that there are specific personality traits that distinguish leaders from non-leaders, and that leaders are “born, not made”. This theory is believed to be derived from Thomas Carlyle’s “Great Man” theory where he concluded that "The history of the world is but the biography of great men.”[9] This idea was later explained further by Francis Galton, whom in 1869 published a book called Hereditary Genius, where he also concluded that leadership was a distinctive feature of extraordinary individuals, and that such individuals possessed traits that were in his words “immutable and could not be developed”.

The particular traits that are believed to make a great leader include; initiative, tenacity, energy, knowledge of the business, flexibility, charisma, emotional intelligence, confidence, and drive to succeed. [9]

Another theory is the so-called “skill-based” leadership approach, which was published in 1955 by Robert Katz, in his paper "Skills of an Effective Administrator" in the Harvard Business Review. [10] This approach emerged based on the obvious flaw of the “trait theory”; that traits are relatively fixed during the individual’s life.
This approach is *leader-centric*, and is focused on determining what characteristics in the leaders make them effective. The 2 principal theories to develop from a skills approach were Katz’s three-skill approach and Mumford’s skills model of leadership. Starting from the three-skill approach, it argued that effective leadership necessitated 3 main skills: *technical*, *human* and *conceptual* skills. Technical skill denotes to proficiency in a particular activity or work. Human skill refers to being able to work with people, and finally, conceptual skill insinuates the capability to work with broad concepts and ideas. This approach emphasized that, even though all skills were essential for leaders, their level of importance varies depending on the organizational level of leaders. As leaders move through the levels of the organization (from lower to upper), skill importance moves from technical to human to conceptual.

Mumford’s skills model of leadership on the other hand, outlines 5 components of effective leadership; competencies, leadership outcomes, individual attributes, career experiences and environmental influences. [11] Thus, effective leadership is dependent on how leader competencies are affected by the leader’s attributes, experiences and the environment. In contrast to the “Trait theory”, this approach hold the benefit that that anyone can become a leader, and that individuals only must work hard to acquire the skills of an effective leader.

The Behavioral Theory of Leadership was established in response to the early criticisms of the *trait* approach. In this approach, the theorists did not look for any inborn traits, features or capabilities, and instead began to research leadership as a set of behaviors. In other words, they evaluated what successful leaders did and how they behaved. In other words; since success can be defined in terms of *describable actions*, then it should be fairly easy for other people to act in a similar manner. This behavior-centered approach provides real marketing-potential, as behaviors can be conditioned in a manner that one can have a specific response to specific stimuli.

So far, we have gone from the assumption that great leaders are born (“Great Man” Theory), through to the possibility that we can quantify the leadership potential (Trait Theory), and then to the point that anyone can be made a leader (Behavioral Theories) by training them the most suitable behavioral responses for any given situation.

The 4th theory of leadership is the one referred to as *Transactional leadership* (also managerial leadership), which spotlights 3 aspects; supervision, organization, and group performance. [12, 13] In this style of leadership, the leaders encourage compliance through both rewards and punishments. Leaders using transactional
leadership as a model pay attention to followers' work in order to find faults and deviations.

To simplify the meaning of this theory, we can say that this leadership style is more concerned with maintaining the normal operation flow, and can also be described as "keeping the ship afloat."

Another leadership theory is the Transformational leadership theory, in which the leader goes beyond handling the day-to-day operations, and instead constructs strategies for taking his work team to the next level of performance and success. [13]

Therefore, this style of leadership focuses on motivation, building effective teams, and teamwork between employees at different levels of an organization to achieve change for the better. Transformational leaders establish goals and inspirations to drive their subordinates to higher performance levels, while simultaneously providing opportunities for professional (as well as personal) development for each employee.

Finally, the last theory that I will reflect upon is the “Servant theory” of leadership, in which the leader shares power, puts the needs of others first and helps people develop and perform as highly as possible. The “servant leadership” was created by Robert K. [14]

The major idea behind Robert Greenleaf’s theory of leadership, is that the most efficient leaders are servants of their people. Such leaders will acquire results for their corporation/organization through whole-hearted attentiveness to their followers, as well as their follower’s needs. Unlike multiple different approaches to leadership, which mostly offer recommendations on how the highest-level leaders can inspire and motivate those further down in the hierarchy, these servant leaders rather put the emphasis on trust, empathy, collaboration, and not to mention ethics. Thus, the leader should be a servant initially, and his/her leadership-methods should come from a desire to better serve others and not to attain more power.

3. Leadership in clinical area

As for the leadership in clinical area, there are certain features that must be focused on thoroughly. In order to evaluate what features that make an effective clinical leader, we must initially look at different ideas from different clinics.
According to Michael J. Cook, in his book called “Nursing Management”, the definition of a clinical leader is “an expert clinician, involved in providing direct clinical care, who influences others to improve the care they provide continuously”. [15]

In another article that he (the same author, M.J. Cook) published in October 2007 called “Learning for clinical leadership”, he stated that clinical leadership is the most significant factor that influences the quality of the patient care. [16,17] He further mentions that the idea of clinical leadership is too seldom addressed in leadership literature, meaning that these literatures focus too much on the other types of leadership, and too little on the clinical leadership. Moreover, he identifies 5 attributes that he perceives as the most significant in clinical leaders, which include creativity, respecting, supporting, highlighting and influencing. These attributes emerged with similar prevalence, meaning that they are equally essential.

It is of immense significance to understand the meaning of these 5 attributes, as they may have a different meaning in a clinical point of view in contrast to the general understanding of the words. With creativity, it is meant the ability to “generate new ways of working”, respecting refers to “having a regard for the signals that emanate from individuals”, supporting refers to the “ability to support others through change, whether at an individual level, including changes to self, or involving groups or wider organizational levels”, highlighting is characterized by “an ability to point out new ways of care delivery, based on engaging actively with the care environment” and finally influencing refers to “being able to help others to see and understand situations from various perspectives”.

Michael J. Cook further claims that, in order for a clinical leader to be effective, that individual must not only possess these 5 aforementioned attributes, but he/she must also work in an environment that supports aspiring leaders. From my point of view, the environment of the clinic is the most important aspect that determines the effectiveness of a clinical leader. This is due to that even if a clinician possesses the 5 attributes (creativity, respecting, supporting, highlighting and influencing), but that individual does not work in an environment that supports or even agrees with his/her decisions, then that individual cannot be a successful leader. Nonetheless, I agree with the 5 attributes and I think that their importance is fundamental for a good clinical leader.
Another article that I utilized is called “In search for a public health leadership competency framework to support leadership curriculum—a consensus study” and was published in 2013 in the European Journal of Public Health. [17,18,19] First of all, the article states that education that is based (or focused) on different competencies is being more and more employed, and therefore there are numerous competency frameworks that have been established. This article concluded that, based on the systematic review process results, the leadership competency framework that was established consisted of 52 competencies. These 52 competencies were systematized into 8 domains:

1) Leadership and Communication
2) Leadership, Organizational Learning and Development
3) Leading Change;
4) Political Leadership;
5) Collaborative Leadership: Building and Leading Interdisciplinary Teams;
6) Systems Thinking;
7) Emotional Intelligence and Leadership in Team-based Organizations;
8) Ethics and Professionalism

It is important to reflect upon what is meant by each domain, since it can easily be misunderstood what each domain refers to. I will not go into detail about each domain since I would rather discuss my own points of view regarding this framework, but I can write a few words about certain domains for the sake of simplification and understanding. [20,21] As for the 1st domain (Leadership and Communication) it mainly refers to the types of communication that must be demonstrated (verbal and non-verbal) as well as the importance of effectively sharing responsibilities and information at different organizational levels. In my point of view, this is undoubtedly the most fundamental domain in this classification, since it lies on the foundation of the remaining domains. If this domain is properly applied in any situation, then the remaining domains (as well as separate competencies) can be applied much easier. [22,23]

Another competency that is categorized into another domain that I considered to be of major significance is “Understand current public health issues and engage in systemic
change to address them”, since this competency is related to all health care facilities, and thus even refers to clinical leadership. By comprehending the contemporary health-related issues, an individual who has a position of a “clinical leader”, can better be in charge of their subordinates. The last competency that I will reflect upon is the ability to “Demonstrate personal responsibility and accountability for the achievement of a given task”, since it is also related to clinical leadership. Now this competency must not only be applied by the leaders, but also by all the subordinates, and it shows the personal maturity of the individual and allows the people in the surroundings of that person to trust him/her more sincerely.

Finally, as I have reflected upon which competencies that I perceive to be the most significant, I wish to conclude by stating that even though there are numerous different frameworks of competencies that exist, and each of these frameworks is composed of different competencies given in different orders, I think that the most fundamentally essential domain is communication. The competencies of this domain include verbal and non-verbal communication, how to effectively use the negotiation skills to mediate disputes and find appropriate and workable solutions, and lastly how to share different views in a non-judgmental as well as respectful manner. If all of these competencies are taken into consideration, and applied by the so-called “leader”, then I highly deduce that he/she will be a good leader.

According to an article published by a MD in 2013 under the title “Physician Leadership Skills – 3 Reasons Doctors Make Poor Leaders and What You Can Do About It”, it stated that for residents whom have just started their specialty, one of the biggest challenges in their day-to-day practice is working with a team, while they lack the proper leadership skills to be in charge. [18]

The author of that article suggests that it is rather self-explanatory that physicians face challenges when trying to maintain the role of a leader in the clinical environment, predominantly due to that their education was primarily (and almost solitarily) based on diagnosing and treating patients. He states that only remembering and applying all the medical information (signs, symptoms, diagnostic procedures, treatment regimens etc.) can be overwhelming for physicians.
Although, diagnosing and treating patients is the central aim of their profession, it is nonetheless almost equally essential that properly communicate with the team that is involved, and make sure that there everything is clear.

**RESEARCH METHODOLOGY AND METHODS**

1. *Study design and data collection*

The study is a cross-sectional survey conducted in Lithuanian University of Health Science. The study was carried out during September and October 2016, among the international students of LUHS. Before handing out the questionnaires, full consent was given by the participants. Majority of last year’s undergraduate students where living outside the dormitory and therefore they were handed the questionnaire during breaks of respective classes. In LUHS there is uneven quantity of students in each year in LUHS, with higher amount of student from fourth year and fifth medicine faculty and lower amount of students in sixth year international students, therefore not all international students could get participated in the research and the main aim was trying to keep some kind of proportionality during the process.

It was explained to the student that participating in the study was optional and that if any questions arose regarding interpreting the questions in the questionnaire the distributor was present and available to offer assistance. The students were given all the time needed to answer the questionnaires.

The size of the study population consisted of 215 distributed questionnaires (since there are currently 215 international medical students), but only 90 students gave the questionnaires back. Response rate – 41.8%

Since students replied anonymously, it was clear that they would not face any repercussions if they decided not to participate.

2. *Questionnaire*

The data for this research project was collected using an anonymous questionnaire. The questions in the questionnaire can be divided in few groups:
a) Sociodemographic questions. This part consisted of general questions regarding the student’s background. The sociodemographic questionnaire was written in a form that would get the main information from the international students of LUHS, without violating his/her privacy.

b) The Clinical Leadership Competency Framework. The second part consisted of a Likert-scale questionnaire, which focused on 20 factors that perceive competencies needed for effective clinical leadership. These 20 factors were taken from The Clinical Leadership Competency Framework which is published on behalf of the NHS Leadership Academy. This part of the questionnaire was used to assess important leadership factors, which consisted of 20 statements regarding leadership importance. Grade scale was from 1-4 with (1 = not important) (2= somewhat important) (3= important) (4=very important).

c) Need for training in leadership. The last set of questions focused on student’s opinion regarding the need of more studies on leadership.

3. Statistical analysis

Afterwards the answers are summed up and the result will assess important factors in leadership by a Likert-scale. [9] Likert-Scale is the sum of responses on several Likert items. A Likert item is simply a statement that the respondent is asked to evaluate by giving it a quantitative value with level of agreement/disagreement being the dimension most commonly used. Statistical analysis was showing the mean statistic values and its correlation with the sociodemographic findings. Statistical analyses were conducted with the SPSS version 19,1 for Windows (SPSS Inc., Chicago, IL, USA). Correlation, regression analyses, t tests and variance analyses were performed to compare differences in questionnaire scores between different student groups. Statistically significant differences were established when p-value was <0.05
After all the data was collected, a table depicting the basic demographic data of the participants was made (Table 1). As can be seen, we have a diversity of students in terms of gender (equally distributed between both sexes), age and study year. This means that the results of this survey is rather reliable, since they show what different students of different demographics consider to be essential.

Starting from the main question of the survey, which was whether the participants considered leadership to be important, we can see their answers clearly in table 2 below.

Table 2. Percentage of students indicated that leadership is important

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>88.9</td>
<td>79.3</td>
<td>98.4</td>
</tr>
<tr>
<td>Females</td>
<td>88.9</td>
<td>79.3</td>
<td>98.4</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;24</td>
<td>87.2</td>
<td>77.3</td>
<td>97.1</td>
</tr>
<tr>
<td>25+</td>
<td>90.6</td>
<td>81.7</td>
<td>99.7</td>
</tr>
<tr>
<td>Study year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>82.8</td>
<td>68.1</td>
<td>97.4</td>
</tr>
<tr>
<td>5</td>
<td>90.6</td>
<td>79.9</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>93.1</td>
<td>83.3</td>
<td>100</td>
</tr>
<tr>
<td>All students</td>
<td>88.9</td>
<td>82.3</td>
<td>95.5</td>
</tr>
</tbody>
</table>
This table depicts the quantity of students that considered leadership to be important based on the three aforementioned demographic groups (i.e. gender, age & study year). As can be vividly seen, the genders do not play a dividing role in the opinion of whether leadership is important or not, since both males and females considered leadership to be important in equal percentages (88.9 %). This means that the genders should not be taken into consideration when deciding what the students perceive about the significance of leadership, since the result based on the gender does not differ. As for the age division in this table, the numbers slightly differ, but not to a major degree. This is based on the fact that 87.2 % of students under the age of 24 years considered leadership to be important, whereas for students above the age of 24 years that number was 90.6 %. This could be related to a sense of maturity, since the older the students are, the more mature (most likely) they are, and the more do they consider the essence of leadership in a clinical setting. This could also be explained by the last results of the last subgroups; the study year of the students. By taking all the aforementioned data and figures into consideration, it can be concluded that the higher the students had reached in their study year, the more did they consider leadership to be important. This is based on the findings of 2 of the 3 demographic divisions (age and study year).

| Table 3. Percentage of students interested in studying leadership as a subject |
|-------------------------------|---|---|---|
|                              | %  | 95% CI    | p  |
| **Gender**                   |    |           |    |
| Males                        | 88.9 | 79.3 | 98.4 | 1  |
| Females                      | 88.9 | 79.3 | 98.4 |    |
| **Age**                      |    |           |    |
| ≤24                           | 87.2 | 77.3 | 97.1 | 0.601 |
| >24                           | 90.7 | 91.7 | 99.7 |    |
| **Study year**               |    |           |    |
| 4                             | 82.8 | 68.1 | 97.4 | 0.423 |
| 5                             | 90.6 | 79.9 | 100  |
| 6                             | 93.1 | 83.3 | 100  |
| Not important                | 0   | 0   | 0    |
| **All students**             | 88.9 | 82.3 | 95.5 |    |
Table 3 is directly related to the previous table, since it shows that first of all, most of the participants considered that leadership should be taught as a subject (88.9% of the participants). Secondly, as we can see, these percentages are equal to the percentages of the aforementioned table, since the students whom thought that leadership is important, all of them thought that it should be taught as a subject. Therefore, another conclusion that could be suggested is that, the higher the students had reached in their study year, the more likely were they interested in studying it as a subject.

Table 4. Percentage (95% CI) of students whom indicated that leadership is very important by their attitude towards importance of leadership as a physician

<table>
<thead>
<tr>
<th></th>
<th>Leadership is important</th>
<th>Leadership is not important</th>
<th>All students</th>
<th>p value (χ² test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% 95% CI</td>
<td>% 95% CI</td>
<td>% 95% CI</td>
<td></td>
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<tr>
<td>Developing self awareness</td>
<td>72.5 62. 82.</td>
<td>10.0 0.0 29.6</td>
<td>65.6 55.7 4</td>
<td>&lt;0.000 1</td>
</tr>
<tr>
<td>Developing networks</td>
<td>76.3 66. 85.</td>
<td>10.0 0.0 29.6</td>
<td>68.9 59.3 5</td>
<td>&lt;0.000 1</td>
</tr>
<tr>
<td>Continuing personal</td>
<td>70.0 59. 80.</td>
<td>0.0 0.0 0.0</td>
<td>62.2 52.1 3</td>
<td>&lt;0.000 1</td>
</tr>
<tr>
<td>development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acting with integrity</td>
<td>70.0 59. 80.</td>
<td>30.0 0.1 59.9</td>
<td>65.6 55.7 4</td>
<td>0.012 1</td>
</tr>
<tr>
<td>Developing networks</td>
<td>70.0 59. 80.</td>
<td>10.0 0.0 29.6</td>
<td>63.3 53.3 3</td>
<td>&lt;0.000 1</td>
</tr>
<tr>
<td>Building and maintaining</td>
<td>70.9 60. 81.</td>
<td>20.0 0.0 46.1</td>
<td>65.2 55.2 1</td>
<td>0.001 1</td>
</tr>
<tr>
<td>relationships</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouraging contribution</td>
<td>70.0 59. 80.</td>
<td>20.0 0.0 46.1</td>
<td>64.4 54.5 4</td>
<td>0.002 1</td>
</tr>
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<td>64.0 54.0 1</td>
<td>0.02 1</td>
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<td>56.7 46.4 0</td>
<td>&lt;0.000 1</td>
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<td>&lt;0.000 1</td>
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<td>53.9</td>
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</tr>
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<td>58.7</td>
<td>79.5</td>
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<td>55.8</td>
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<td>0.0</td>
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<td>55.8</td>
<td>76.0</td>
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<td>53.9</td>
<td>75.2</td>
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<td>Making decisions</td>
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<td>0.056</td>
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Based on the results, 9 out of the 90 participants considered clinical leadership not to be essential, whereas the remaining 81 participants considered it to be essential. By putting into a percentage, we can conclude that 10% of the students whom participated in this survey considered clinical leadership to carry a significance in a clinical atmosphere. The next step was to construct a table and basing it on the individual characteristics or attributes that a clinical leader is expected to possess (Table 4).
For the sake of simplification, only the attributes that were picked by most students will be commented and discussed, and those that were of less significance will not be discussed. Furthermore, the patients were divided into 2 groups; those whom considered leadership to be important and those whom did not, and based on that grouping, was the most popular attributes analyzed. With other words, the mostly chosen attributes will be presented based on whether the students were of the group whom thought that “Leadership is important” or if they were from the group whom thought that “Leadership is not important”.

Starting from the most popular attribute that the students considered, which was “Managing yourself”, since it was chosen by 76 % of the students whom considered leadership to be important. This is somewhat self-explanatory since it not only entails the attitude of the clinical physician toward his/her colleagues, but also his/her attitude toward themselves, and toward the work that they do themselves. The second attribute that most students chose was “Developing self-awareness”, which was picked by 72,5 % of all participating students. This result is also rather understandable, considering that this attribute is closely related to the aforementioned (“managing yourself”), and therefore it is the second most picked attribute in the list. With other words, even though the first and second attributes were picked with different percentages, they are rather related with one another. The 3rd most significant attribute according to this survey was “Building and maintaining relationships” which was picked by 70,9 % of the participants whom considered leadership to be important in a clinical environment. Now this attribute is to a lesser extent related to the first 2 attributes, but it carries its own significance, since the participants considered that it was essential for a clinician to be acquainted to people in his/her surrounding, since this characteristic favors a better communication between that clinician and other staff.

Finally, fourth on the list of the most popular attributes according to the students whom thought that clinical leadership was important, came 4 equally important attributes (since they were picked by equal amount of students): “continuing personal development”, “acting with integrity”, “developing networks” and “encouraging contribution”. All these 4 attributes came on the 4th place as the most significant
attributes, since they all were picked by 70% of the students that participated in this survey.

Moving swiftly on to the main attributes chosen by the students whom considered “Clinical leadership is not important”, the most picked were “acting with integrity” and “working within teams” since these both characteristics were both equally picked by the students (both 30%). I can understand that these students whom did not view leadership as an important part of a clinical physician to pick “acting with integrity” as their most essential attribute, but choosing “working within teams” is rather peculiar. I say this due to that it is very logical/rational to know that in order to work properly in a team, you must be able to lead the team if that opportunity was to arise. So these students did not consider leadership to carry a major significance, but they considered working within teams to be essential (I do not think that you can be a good team-member if you have no leadership skills). Although, I suppose that they only referred to working within the teams, and not actually being in charge, in which I understand their point.

On the second place we also have a tie between 2 attributes; “Building and maintaining relationships” and “Encouraging contribution”, since they both were picked by 20% of the participants. These two attributes do not require any major explanation, since they are reasonable in any working setting, least of which a clinical setting. It is of course important to build and maintain relationship if you want to thrive in your clinical setting, and by having a broader contact-list, you can thrive much quicker and more efficiently. And in order to be a good clinical leader, you must possess the ability to encourage contribution from your team (or clinic for that matter), since by doing so the participants feel more involved, and perceive you more as an efficient leader.

Last but not least, it is worth looking into what “All students” thought, and that is what was done in the aforementioned table as well (Table 4). Looking into the 3 main attributes based on their percentages in which they were picked, on the first place was “Managing yourself” which was picked by 68.9% of students. This is, as I mentioned earlier, moderately comprehendedible considering that this attribute is fundamental not only in a clinical setting, but also in any occupational environment. Also, it manifests
the person’s (physician’s in this case) ability to cope with his/her workload and to handle different situations that may be presented to them, including stressful situations. On the second place, there were 2 attributes that were equally chosen; “Developing self-awareness” and “Acting with integrity” which were picked by 65.6% of all students. They are understandably entangled (which is why they were chosen with equal proportion by the participants), since a person cannot act with integrity if that person does not fully know, or is not fully aware, of themselves and their tasks and what is expected of them. This meaning that a person is ought to develop rather comprehensive self-awareness in order to act with integrity, and the more self-aware a person is, the more does that person understand what they can/must do, and finally, the more can the person act with truthfulness in their clinic. The final attribute that I will comment is the next most picked one, which is “Building and maintaining relationships” since it was chosen by 65.2% of all students. This attribute is not only essential for a “leader” of a clinic, but equally important for any employee of that occupation. This is due to that the more people a person knows (the more contacts he/she has), the easier is it for that person to ask for assistance, ask for advice, and as a clinical leader also give instructions/orders. A person whom works in a clinical setting and that is not acquainted to many of their colleagues, as well as other staff that may not necessarily be colleagues, that person will most likely face difficulties in working in a team since they may consider themselves distant from the participants of that team, and they will also face even greater difficulties in managing a team, since if they do not know the capabilities of their team members, they may overload them with tasks.

As mentioned before, the patients were divided into two age groups; equal to or below 24 years of age, and above 25 years of age. This grouping was utilized when analyzing each individual attribute (Table 5). As for the students whom were under the age of 24 years old, they considered “Managing yourself”, “Acting with integrity” and “Working within teams” to be the most significant attributes, and as for the students whom were 25 and older they considered “Managing yourself” to be the main attribute. The pattern that has presented itself is that most students consider the ability to manage oneself to be of the major importance. On the second place “Building and maintaining relationships” was the most picked attribute in students younger than 24 years of age, and this attribute has already been vividly explained
previously, therefore it will not be further discussed. As for students older than 25 years of age “Developing self-awareness” lies on the second place, and again, this attribute is analyzed above.

By looking into the major attributes chosen in relation to the genders of the participants (Table 6), most females considered that the main attributes to be; “Acting with integrity”, “Working within teams”, “Managing performance” and “Critically evaluating”, all of which were picked by 65,1% of the participating females. As for the participating males, they thought that “Developing self-awareness” and “Managing yourself” to be the most significant attributes, since 74,4 % of them chose it. This means that, in contrast to whether they considered leadership to be important as in table 2, the gender plays a major role in trying to identify what most students thought to be the most significant attributes, since the males and females had none of the attributes in common for their most picked. Thus the gender played no role in deciding whether leadership was important or not (Table 2), but it played a major role in deciding which attributes a leader should have (Table 6).

Table 5. Percentage (95% CI) of students indicated that leadership is important by age

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<th>25+</th>
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<td></td>
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<td>95% CI</td>
<td>%</td>
<td>95% CI</td>
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<td>49.9 79.0</td>
<td>65.8</td>
<td>50.7 91.0</td>
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<td>53.4 83.1</td>
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<td>47.5 63.6</td>
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</tr>
<tr>
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<td>68.9</td>
<td>54.8 83.0</td>
<td>58.5</td>
<td>42.8 74.3</td>
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<tr>
<td>Developing networks</td>
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<td>47.5 77.0</td>
<td>61.0</td>
<td>45.4 76.6</td>
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<tr>
<td>Building and maintaining relationships</td>
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<td>52.3 81.0</td>
<td>61.0</td>
<td>45.4 76.6</td>
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<td>47.5 77.0</td>
<td>63.4</td>
<td>48.0 78.8</td>
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<tr>
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<td>56.1</td>
<td>40.2 72.0</td>
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<td>35.2 67.2</td>
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<td>42.8 72.8</td>
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<td>49.9 79.0</td>
<td>58.5</td>
<td>42.8 74.3</td>
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</table>
Ensuring patient safety

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<th>Males</th>
<th>p-value (χ² test)</th>
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<td>Facilitating transformation</td>
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Table 6. Percentage (95% CI) of students indicated that leadership is very important by gender

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Table 7. Percentage (95% CI) of students indicated that leadership is very important by study years

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<td>%</td>
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Table 7. Percentage (95% CI) of students indicated that leadership is very important by study years.
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</tbody>
</table>

Finally, all the attributes were inserted into a table, and the results were divided based on the study years of the participants (Table 7). Looking into what the students considered to be the most essential attributes based on their study year, we can see that students that are currently studying in the 4th year thought that “Encouraging contribution” and “Working within teams” were the most significant, both picked by 69% of the students. As I previously explained, these two attributes are closely related, as it is rather self-explanatory that it is important to be able to encourage contribution from all the participants in order to efficiently work in a team. A person whom does not have the ability to encourage the team members to perform what is expected of them, cannot efficiently work within their team.
Students in their 5th year considered “Managing yourself”, “Acting with integrity” and “Building and maintaining relationships” to be the most important attributes, having been picked by 75% of students respectively. Again, these attributes have been explained previously, and no further clarification is necessary. And students in the final (6th) year of studies considered “Facilitating transformation” to be the most significant attribute manifested by a leader in a clinical setting.

**CONCLUSION**

For the conclusion I will answer the three questions that are mentioned in the objectives of my research. As for the first objective “to evaluate the opinion of international medical students regarding the need of leadership in clinical practice” as well as the third objective “to evaluate the opinion of international medical students regarding more intensive teaching in leadership in the study program” we can conclude that the majority of the students whom participated in this research clearly considered that such subject where students are taught how to be good clinical leaders is needed in their medical studies. This was depicted in the percentages since 88.9% of students considered it to be important and felt the need to study it in their medical programme. This finding is not depending on the genders, since both sexes had equal percentages of their opinions, although the age and study year play a minor role. This is due to that the older the participants were, and the higher up they were in their medical year of study (4th, 5th and 6th), the more did they consider leadership to be needed in their study programme. Finally, the second objective “competencies for successful leadership in clinical practice”, we can conclude that the students in their 4th considered the idea of encouraging contribution and working in teams to be the most important competencies, students in 5th year considered managing oneself, acting with integrity and building relationships with their fellow workers to be the cornerstone of a good clinical leader. And students in the final year thought that facilitating transformation is the most significant competency for a great clinical leader.

As for my personal opinion, I think that leadership lies on the basis of an effective physician, since a physician is dependent on other people and cannot perform all their
tasks by themselves. And in order to make sure that all the team members perform what is asked from them, one must possess the ability to be firm in explaining what is expected of the co-workers. Therefore, my personal recommendation would be that leadership should be studied as an elective course for medical students. Furthermore, based on the aforementioned data, this leadership course should cover the most chosen attributes, and since the student in their sixth year considered it to be most essential, I think that this course should be studied in the 6th year.
REFERENCES


2. S. Williams, M. Jacob, Center for servant leadership, 2016 December 21, https://www.greenleaf.org/what-is-servant-leadership


23. R. Kalediene, Importance of the modern health management for the success of health reform in Lithuania. Medicina (Kaunas), 2004
Hello I am a 5th year medical student in LSMU conducting my thesis in the department of Health Management. My thesis is about evaluating international students thoughts regarding the importance of leadership in clinical practice. It would be of great help to my research if you would fill out this questionnaire. These answers are confidential and will only be used for the purpose of research, therefore please answer as honestly possible. Thank you for your time.

Please write your answer

What is your gender:

What is your age:

Which is your current study year:

What is your nationality:

Do you think that leadership is important to you as a physician?

Yes

No
Please evaluate these 5 factors statements importance’s in leadership by grading them.
Grade from 1-4, Write the number next to the question
(1 = not important)(2 = somewhat important)
(3 = important) (4 = very important)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Developing Self Awareness</td>
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<td>Managing Yourself</td>
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<td>Continuing Personal Development</td>
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<td>Acting with Integrity</td>
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<td>Developing Networks</td>
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<td>Building and Maintaining Relationships</td>
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<td>Encouraging Contribution</td>
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<td>Working within Teams</td>
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<td>Ensuring Patient Safety</td>
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<td>Encouraging Improvement and Innovation</td>
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<td>Facilitating Transformation</td>
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<td>Identifying the Contexts for Change</td>
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<td>Applying Knowledge and Evidence</td>
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<td>Making Decisions</td>
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<td>Evaluating Impact</td>
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Would it be interesting for you to study leadership as a subject?

Yes
No