PARTICIPATION OF UNDERGRADUATE MEDICAL STUDENTS AS INVESTIGATORS IN A RHEUMATOLOGIC COHORT: IMPACT ON DEPRESSION, ANXIETY & STRESS SCALE

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BACKGROUND: Mental health was widely affected during the new coronavirus pandemic. In addition, some measures adopted by most countries in order to contain the virus spread, such as isolation and social distancing, leading to the interruption of routine activities, including partial or complete interruption of face-to-face classes may be associated with increased stress, depression and anxiety among undergraduate medical students. From March to September, 2020, the Brazilian Society of Rheumatology carried out the Mario Pinotti II Project (MPII), a prospective, multicenter, observational cohort study designed to monitor the COVID-19 in patients with rheumatic disease on hydroxychloroquine, using periodic telephone calls performed by undergraduate medical students.

OBJECTIVES: To compare the mental health status of medical students who were participating from the MPII with theirs colleagues not involved in this project.

METHODS: A web-based survey via google forms platform was developed by a panel composed of undergraduate medical students, rheumatologists, medical school professors, and a psychology professor. It included details on demographic and life habits data and domains regarding depression, anxiety and stress, using the DASS-21 (Depression, Anxiety & Stress Scale, Brazilian version).

RESULTS: A total of 684 undergraduate medical students were included in this study, of whom 228 as MPII volunteers (VG) and 456 as control group (CG). Median age was 23 years (IQ 21-24) and the CG was older than the VG (p<0.03). Most of the VG were white (68.8%) and women (63%). There were no significant differences regarding comorbidities, ethnicity, smoking status, alcohol intake and physical activity. Older age, male gender, participation of MPII study, absence of a worsening in sleep pattern during the pandemic and a lower number of prior comorbidities were associated with lower DASS21 scores, suggesting a better mental health.

CONCLUSION: Several aspects may be involved with mental health, including increased emotional maturity, gender and sleep pattern. Although with marginal independence, association, medical students with participation in the MPII study had better mental health than their student colleagues not engaged with this research. Our data pointed that voluntary participation in a research project which foresees interaction by telephone contact with rheumatic patients, professors, rheumatologists, and colleagues is associated with better mental health.

REFERENCES:

Table 1. Univariate and multivariate analysis of predictors associated to the DASS-21 in undergraduate medical students during the COVID-19 pandemic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multivariate analysis</th>
<th>Univariate analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt;0.01</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Female gender</td>
<td>0.03</td>
<td>0.01</td>
</tr>
<tr>
<td>Stable love relationship</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Number of previous comorbidities</td>
<td>&lt;0.01</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>MP-II volunteering</td>
<td>0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>Worsening in sleep pattern</td>
<td>0.04</td>
<td>0.01</td>
</tr>
</tbody>
</table>

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ONLINE EDUCATION YIELDS SIGNIFICANT GAINS IN RHEUMATOLOGISTS’ KNOWLEDGE OF PSORIATIC DISEASE

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BACKGROUND: Physicians face challenges staying up-to-date with the latest research and accessing the ever-growing field of knowledge is time-consuming. Online education can make these clinicians’ tasks more efficient and less time-consuming.

OBJECTIVES: As part of a larger curriculum, we developed an online CME activity titled: “Optimizing Treatment in Patients With Moderate to Severe Psoriasis.” The goal of this study was to assess whether this online CME accredited video discussion improves physicians’ understanding of the prevalence and impact of the various manifestations of psoriatic disease, and how these might impact the choice of treatment in patients with psoriasis and/or psoriatic arthritis.

METHODS: Rheumatologists participated in an online CME activity (https://www.medscape.org/viewarticle/931595) consisting of a 30-minute video discussion between 2 experts with synchronized slides. Educational effect was assessed using a 4-question repeated pairs, pre-/post-assessment. A chi-square test determined if a statistically significant improvement (P < 0.05 significance level) existed in the number of correct responses from the pretest and posttest scores. Cramer’s V was used to estimate the level of impact of the education.

RESULTS: A total of 1569 rheumatologists participated in this study, of whom 752 as the study group (SG) and 817 as the control group (CG). Median age was 49 years (IQ 46-52). For SG males were 66% and 35% for females. For CG males were 65% and 35% for females. There were no significant differences regarding age and gender. SG had better knowledge than the CG which was statistically significant (P < 0.05).

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Optimisation of treatment in psoriatic disease, with a Cramer’s V value of 0.210 indicating a considerable educational impact. The average percentage of correct responses rose from 67% pre-activity to 85% post-activity. A repeated pairs analysis showed that 21% of rheumatologists improved their knowledge and 64% reinforced their knowledge, respectively. The changes in percentage of correct responses from pre- to post-assessment for all questions are shown in Table 1. More than 60% of rheumatologists had a measurable improvement in confidence in their ability to identify patients with psoriatic disease who are candidates for first-line therapy with biologics.

Table 1 Impact of education on rheumatologists’ knowledge of psoriatic disease

<table>
<thead>
<tr>
<th>Question #</th>
<th>Question topic</th>
<th>Aggregated data</th>
<th>Linked Learner Resultsa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Average %</td>
<td>P-value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of correct</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>responses</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Prevalence of the various manifestations of psoriatic disease</td>
<td>46% vs 80%</td>
<td>.0002</td>
</tr>
<tr>
<td>2.</td>
<td>Clinical data with biologic therapies in psoriatic disease</td>
<td>69% vs 78%</td>
<td>NS</td>
</tr>
<tr>
<td>3.</td>
<td>Competence related to identification of patients who may benefit from biologic therapy</td>
<td>87% vs 98%</td>
<td>.027</td>
</tr>
</tbody>
</table>

aEach individual learner tracked pre and post-education. Incorrect answer pre-education, Correct answer post-education. Correct answer pre-education, Correct answer post-education

Conclusion: This online CME activity significantly improved rheumatologists’ knowledge and competence related to the optimization of treatment in psoriatic disease. However, there is room for further improving physicians’ knowledge of clinical trial outcomes with biologics in patients with PsA, since 22% of rheumatologists provided incorrect answers to question 3 post-education. This topic can be addressed in future educational programs.

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AB0580 DUTCH RHEUMATOLOGISTS’ PERSPECTIVE ON MRI EDUCATION: DO WE NEED TO CHANGE?

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Background: Studies have shown the value of magnetic resonance imaging (MRI) as an objective tool for diagnosis, follow up and detection of complications for a broad spectrum of rheumatology associated diseases [1]. With increasing (potential) clinical applications of MRI, rheumatologists need basic knowledge about the technique and interpretation of the images to get most out of MRI use in clinical practice. Although radiologists will remain the experts of MRI protocols and readings, lack of sufficient rheumatologists training will not yield in optimal interaction between the specialists and will negatively influence the benefit of the MRI contribution to patient care. Despite offered MRI courses within EULAR, in the Netherlands there is currently no structural MRI education for rheumatologists (in training). This while rheumatologists are intrinsically motivated to improve their MRI skills [2,3].

Objectives: By use of a developed questionnaire:

[1] To create an overview of the current communication methods between rheumatologists and radiologists regarding MRI and rheumatologists’ perspectives on the efficiency and effectiveness of the imaging requests and radiologists reports.

[2] To make an inventory of current knowledge and interpretation skills of rheumatologists concerning MRI.

[3] To assess the needs of rheumatologists for education to work with MRI requests, reading and reports in routine clinical care by development of a questionnaire to determine the current clinical situation.

Methods: A questionnaire was created.

Results: A total of 109 respondents (28% responders) have filled in the form with a 100% completion rate.

1. Communication: Communication regarding MRI in rheumatology is done largely per request of the rheumatologist with a high level of satisfaction concerning the quality of the discussion. Most medical centers have no multidisciplinary team meeting with the radiology department, discussions are mostly performed on demand.

2. Interpretation: Rheumatologist predominantly rely on the conclusion of the radiology report with little understanding of the technical and anatomical characteristics of the images. Only a small percentage (6%) of rheumatologists is able to interpret the images. Half of the responders do not feel competent to teach fellow colleagues about imaging.

3. Educational wishes: When asked to prioritize the subject of imaging education, most people prefer interpretation skills, followed by instructions on how to provide most optimal clinical information and question(s) on the request form as well as knowledge on anatomy. Least preferred is education concerning the MRI technique itself.

Conclusion: The preferred method of advanced imaging education is a combination of classroom teaching and e-learning.

Disclosure of Interests: None declared

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AB0851 CONDUCTING PATIENT SCHOOLS AS A WAY OF MANAGING RHEUMATOLOGIC DISEASES

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Background: 2020 year has become a landmark for the medical care system around the world. A huge number of patients and doctors were involved in the fight against an unknown and rapidly spreading infection, while many patients with chronic diseases or those who were just planning to see a doctor were left without this opportunity. The consequence was the active development of the online format of patient-doctor communication.

Objectives: To determine the value of conducting schools for patients with rheumatologic diseases or related complaints in a pandemic.

Methods: On the basis of the Clinical Rheumatology Center of the Medical Association ‘New Hospital’, online schools were organized for patients with rheumatological diseases and complaints. In just 3 months, 6 schools were held, in which 299 people took part. At the end of each session, patients were asked to answer questions about the level of satisfaction and the value of the information received. The survey was conducted in Google form.

Results: About 80% of the respondents lived in the region where the schools were held. 20% were from other regions of Russia or other countries. One third of patients (33.3%) were 31-40 years old, a quarter (25%) were 51-60