

# The Scholar 7: The Development of the Regional Community Hospitals' Scholastic Environment

Brian P. Peppers, DO, PhD, Priya Varma, DO, Yoon Mi Kim, DO, Robert W. Hostoffer Jr., DO, PhD, Michael P. Rowane, DO

University Hospital, Cleveland Medical Center, Cleveland, Ohio

## Abstract

### Background:

In 2014 the American Osteopathic Association (AOA) along with the American Association of Colleges of Osteopathic Medicine (AACOM) and the Accreditation Council for Graduate Medical Education (ACGME) agreed to form a single accreditation system in the United States. The importance of increasing scholarly activity has been highlighted among AOA-focused residency programs to ensure a smooth transition to a single accreditation system. The Scholar 7 program was developed to enable AOA-focused training programs in need of increasing the scholarly work for their faculty members and residents in order to reach these requirements by 2020. The ultimate goal of this endeavor is to facilitate change in an entire community hospital system's environment by creating a self replicating scholarly culture in a timely and cost efficient manner.

### Materials and Methods:

A series of seven two-hour workshops were created to aid faculty and residents remove misconceptions/barriers and sharpen universal proficiencies needed in the pursuit of scholarly work. These skills were taught by means of preparation and submission of an institutional review board (IRB) manuscript along with grant proposals. Scholarly work, IRB submissions - approval/waivers and grants awarded to participants during the post-graduate year (PGY) 2015-2016 were tracked. The results were compared in a post-hoc fashion to previous PGY classes since 2007-2008 within the same hospitals system.

### Results:

All faculty involved earned their required pursuit of scholarly work in 8 months regardless if an IRB manuscript was submitted. All groups that completed the seven workshops submitted IRB manuscripts and were given approvals or granted waivers needed to start their original research projects. Grant funding in the community hospitals system doubled from previous years. The total number of presentations given during the University Hospitals Regional Hospitals annual research symposium increased by its greatest degree since it's first year.

### Conclusion:

The Scholar 7 program successfully aided faculty in achieving their required pursuit of scholarly work. Completing the seven work-shops ensured participants of a research project in only 8 month. If the Scholar 7 program is correctly implemented, then the current AOA-focused residency programs that are transitioning into a single graduate medical education accreditation system will readily meet all the ACGME requirements in the near future.

## Introduction

In February of 2014, the American Osteopathic Association (AOA) along with the American Association of Colleges of Osteopathic Medicine (AACOM) and the Accreditation Council for Graduate Medical Education (ACGME) agreed to form a single accreditation system in the United States. By 2020, AOA-focused residency programs are expected to achieve initial accreditation per the Memorandum of Understanding (MOU) between AOA, AACOM and ACGME committees. To ensure a smooth-transition, AOA-focused programs will be required to demonstrate scholarly activity as part of the Milestone program per ACGME committee. However, the difficulty of intensifying scholarly activity among AOA-focused residency programs has been ill defined and exaggerated by institutions on both sides of the chiasm.

In the 1990s, Boyer et al re-defined scholarly work into four components (discovery, integration, application and teaching) to better align with contemporary ideas.<sup>3,4</sup> These components were soon accepted by the Carnegie-Melon Foundation, which challenged the academia. This challenge was accepted by the ACGME by implementing the four components into its accredited residency programs. The AOA was less aggressive in implementation of the components within its residency programs. The fact that this particular challenge did not translate sufficiently into AOA's post-graduate environment has played a crucial role in the amount of scholarly activity produced yearly when compared to ACGME post-graduate environment.

Previous reports have identified the need to increase the quantity and impact of scholarly work produced within the osteopathic community. Clark and Blazyk proposed a series of actions needed to accomplish this goal. These actions placed a great deal of responsibility on faculty, faculty accountability for production of research, start up investments and changes in accreditation standards. The report pointed out the need to train faculty suggesting the use of mentors and collaborative processes. An identifiable education plan on how to train them to accomplish their newly mandated tasks however was not offered.

In light of the above findings, we believe a step-by-step process is needed to create a culture of scholarly work. To address that need, the Scholar 7 program was developed to be implemented among community hospitals utilizing a mentor to mentee (attending to fellows, residents and interns; herein called residents) approach. The entire program is distributed into seven separate interactive workshops over a period of 6-8 months. As will be shown this process has been in development since 2007 first starting as a series of lectures to incoming residents and has culminated in the program now called Scholar 7. The goal of this initiative is to enable the community hospitals' post-graduate training programs to increase their scholarly activities, grant funding, faculty development, and to reach the scholarly requirements in a timely and cost effective manner.

## Material and Methods

A series of seven two-hour workshops were created to aid faculty and residents on removing misconceptions/barriers and sharpen universal proficiencies needed in the pursuit of scholarly work (Figure 1). These skills were taught by means of preparation and submission of an institutional review board (IRB) manuscript along with grant proposals. The first six sessions were held in a multi-departmental group setting, the last session was held privately with individual groups.

### Figure 1: The Scholar 7 Outline

- Session 1: Demystifying of Scholarly Work Session
- 2: Development of a Hypothesis Session
- 3: Development of an Introduction Session
- 4: Development of Specific Aims Session
5. Development of Preliminary Data Session
- 6: Development of Materials, Methods and Conclusions Session
- 7: Individual Document Development

Scholarly work, IRB submissions, IRB approval/waivers and grants awarded to participants during the post-graduate year (PGY) 2015-2016 were compared to previous PGY classes since 2007-08 within the same hospitals system.

The process began with an email sent by the director of Graduate Medical Education (GME) notifying University Hospitals Regional Hospitals (UHRH) departments of medical education and their respective community-based residency programs to participate in a faculty development seminar. A central venue was chosen and contained all the necessary equipment to make this process flow smoothly (such as: adequate workspace, Wi-Fi for easy instant access to the internet, a projector and a white screen). Each session was performed after work hours in order to accommodate all the participants from multiple specialties. The specialties that participated included: Allergy and Immunology, Emergency Medicine, Family Medicine, Internal Medicine, Physical Medicine and Rehabilitation, Obstetrics and Gynecology, Orthopedic Surgery, Podiatry, Sports Medicine, and Traditional internship programs (here in referred to as groups). The participants included the directors of medical education, program directors, faculty members, and residents (45 total). Perceived barriers to engaging in research were accessed at the beginning of session 1. All participants were required to complete Collaborative Institutional Training Initiative prior to IRB submission.

## Results

Since the creation of the initial Scholar 7 process in 2007 at UHRH, there has been a significant increase in the number of scholarly projects presented at UHRH's Annual Research Symposium. The first UHRH Annual Research Symposium held in 2008 had 13 scholarly projects presented. Eight year later, in 2016, 73 scholarly projects were presented (Figure 2).

**Figure 2: UHRH Annual Research Symposium Presentations**

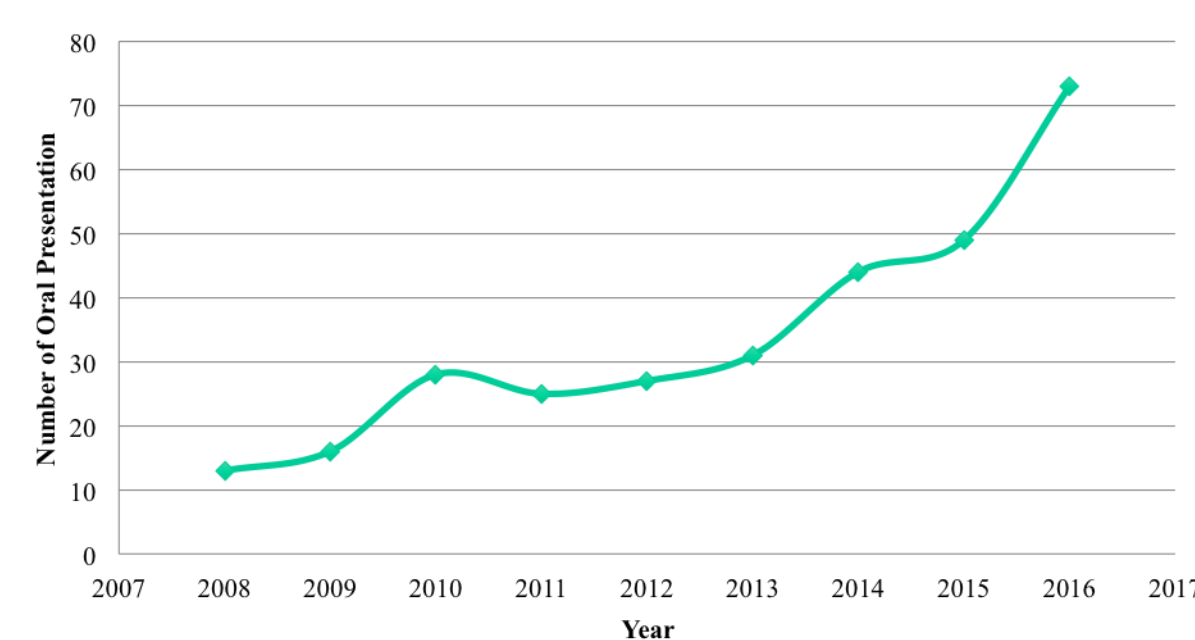
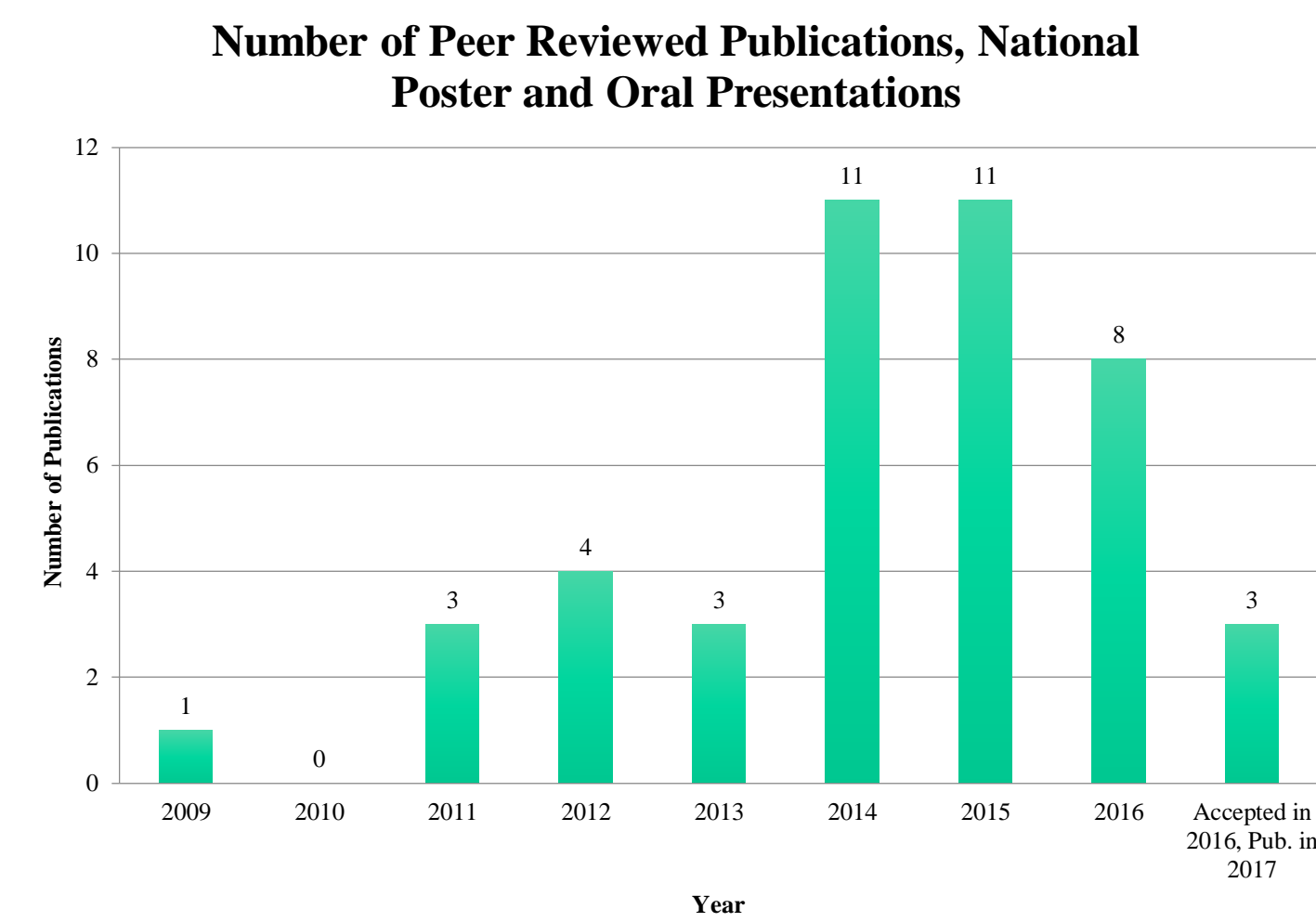


Figure 3 demonstrates a rising trend in number of peer-reviewed publications, national poster presentations and oral presentations in the Allergy and Immunology fellowship program since 2009 that utilized a form of the Scholar 7 program that the current model has been designed after.

**Figure 3: Number of Peer Review Scholarly Activity at UHRH Allergy and Immunology Fellowship Program**



Both Figure 2 and Figure 3 indicate an exceptional growth in the yearly production of scholarly activity between the UHRH residency and fellowship programs since the implementation of the Scholar 7 process.

The faculty members that took part in session 1 noted that they felt more comfortable in teaching their champion residents how to develop a hypothesis, and guide them through the overall process of creating a proposal manuscript. At the end of session two through six, the teams became familiar with the process of developing study protocols for IRB submission regardless of the type of study.

Five of the ten groups had IRB submissions, subsequent approvals or waivers and have begun data collection. One of these five groups originally stopped attending meetings and attempted their first IRB on their own. This group later contacted the program for example manuscripts and help with navigating the IRB's software for their final submission. The remaining five groups that have not yet submitted an IRB made a similar choice to finish on their own. To date their projects have not been started or submitted to the IRB. One of these groups has reported that they are close to submission. All of the faculty involved earned their pursuit of scholarly activity required in ACGME accredited programs in only eight months regardless of IRB submission or not.

Among the five groups that completed the Scholar 7 process a total of eight separate research projects were created ranging from questionnaires, a case report to retrospective and prospective studies. The overall grant funding for research projects at UHRH doubled from the postgraduate years 2015-2016 to 2016-2017. Results from three projects have already been submitted as abstracts to national conferences this coming year. Additionally one of the five groups that completed the Scholar 7 program in 2015-2016 recently submitted an NIH grant for 2017.

## Discussion

Scholarly work continues to be an important component of post graduate education. With the recent merger of the AOA OGME credentialing and with that of the ACGME, scholarly work has been singled out as a component requiring enhancement in the Osteopathic programs.

The definition of scholarly work creates the foundation on which a program may develop their work. Boyer qualifies scholarly work as having four components: discovery, integration, application and teaching. With the support of the Carnegie-Melon foundation this definition was proposed as a challenge to the ACGME to enhance medical education. It has since been a main stay for training positions throughout the country.

Training programs that have academic components, affiliation and resources have found it easier to develop scholarly venues. Although training programs in community based settings may have scholarly activities these have become more difficult to realize based on the clinical, high volume nature of the serves.

This high volume and the advent of electronic medical records, if used correctly, may produce an abundance of scholarly work in a retrospective and prospective manner. The reason for the lack of scholarly work in these venues is due to the lack of a simple skill set. The Scholar 7 aims to teach this skill set using a teaching down (from director to student) process.

Other processes have been suggested to encourage to perform scholarly work. One such method by Nocera et al showed a "Think, Do, Write" process. The process assumes that all participants have the skill set to proceed to completion. Although the process was successful, the assumption needed to be made prior to inception would not fit the osteopathic model.

Some models proposed a departmental process for scholarly work that involved a core group of Medical Education Research Group (MERG). This group had facilitator within the group that assisted in development of scholarly work. Again the process was successful but lacked the structure needed to change a culture with a entire hospital system. Mayo et al, shows that there are key foundational requirements needed to have a scholarly environment. These were the following: communication of expectations and development of a robust program structure, dedicated protected time, a dedicated research curriculum, programmatic support, mentorship and oversight as well as accountability/tracking of accomplishments. The Scholar 7 does provide for nearly all of the requirements protected time must be incorporated within the institution that is tide to work hours. We have implemented a weekly research meeting that would be held during a traditional didactic session. This act allows for accountability and tracking. The research was presented at research forum at the end of the year.

Peer writing circles have been suggested as a method of enhancing confidence within the faculty. Brandon et al, suggested that the following obstacles; lack of time, confidence, and optimal writing practices can inhibit the growth of scholarly work of clinical faculty within a department. They demonstrated that organized writing circles can encourage clinical faculty to proceed beyond the first draft. The seventh session of the Scholar 7 utilizes a writing circle of individuals involved in the document development. This process familiarized and encouraged all members of the study group, clinical faculty and resident champions in the creation of scholarly work.

It is clear that scholarly work needs to be fostered within an institution in order for it to be productive with presentations and publications. This fostering requires a robust framework of skill training with consistent weekly research meeting and dedicated institutions. We feel that if the Scholar 7 program is correctly implemented as a system wide process with focus on a top down teaching forum, the osteopathic focused programs will meet all ACGME requirements.

## Conclusions

1. A knowledge of basic skill sets are required for the production of scholarly work.
2. Osteopathic training programs are component to perform scholarly work but some lack the basic skill set.
3. Scholar7 provides the needed skill sets.
4. Utilization of the Scholar 7 in an Osteopathic Training facility enhanced scholarly work.