

INTEREST SURVEY AND GUIDE TO MEDICAL SCHOOL ADMISSIONS FOR SOF MEDICS

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ABSTRACT

The University of North Carolina at Chapel Hill and the Special Warfare Training Group, Airborne (SWTG)(A) at Fort Bragg, NC began a bilateral partnership in 2009 to enhance medical training, care and innovation in austere environments. As a result of this partnership, instructors from the Joint Special Operations Training Center have been completing month-long rotations in the North Carolina Jaycee Burn Center and University of North Carolina Hospitals. This rotation has been successful and prompted us to assess the interest of Special Operation Forces (SOF) medics is in pursuing careers in healthcare, especially medical school. We surveyed the Special Forces Medical Sergeant (SFMS) listserv on Army Knowledge Online (AKO) to collect these data. This article will review SFMS survey responses and offer information on how to negotiate medical school admissions.

INTRODUCTION

The goals of this article are to assess medical school interest among Special Operations Forces (SOF) medics and to inform interested medics on how to successfully negotiate medical school admissions. Most SOF medics do not attend traditional undergraduate universities and therefore do not have access to resources such as medical school advisors. The University of North Carolina (UNC) and John F. Kennedy (JFK) SWTG formed a partnership in 2009 to improve education and training for both groups. This collaboration led to the development of Advanced Medical Instructor Training, a month-long clinical rotation based in the burn center for SFMS instructors. The instructors work directly with Bruce A. Cairns, MD, Medical Director of the North Carolina Jaycee Burn Center. During this collaboration, discussions arose about how to assist SOF medics in the medical school admission process, and a survey was created to gauge the interest of SFMSs specifically, in pursuing a career in healthcare beyond the military. The survey was reviewed and approved by the UNC Institutional Review Board. This article will discuss the data generated from the survey and explain undergraduate prerequisites for medical school, the Medical College Admissions Test, the admissions process, and military scholarships.

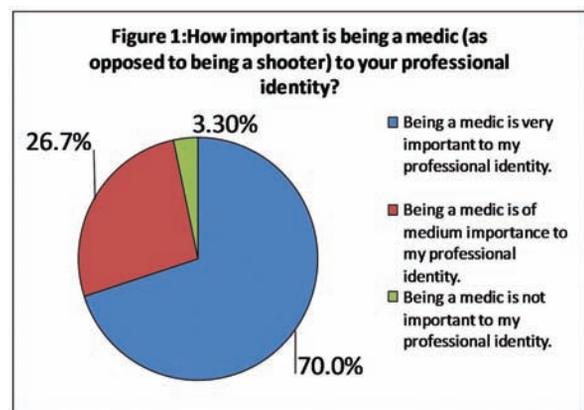
SURVEY RESULTS

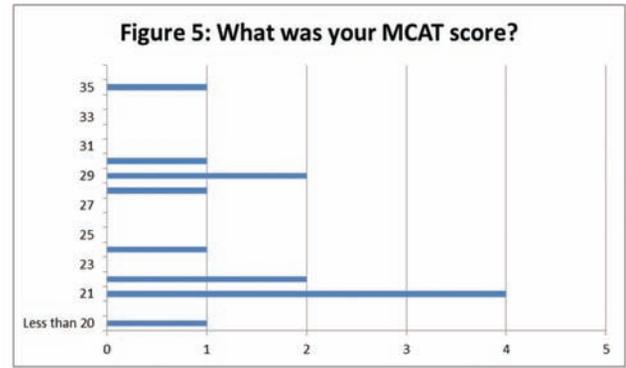
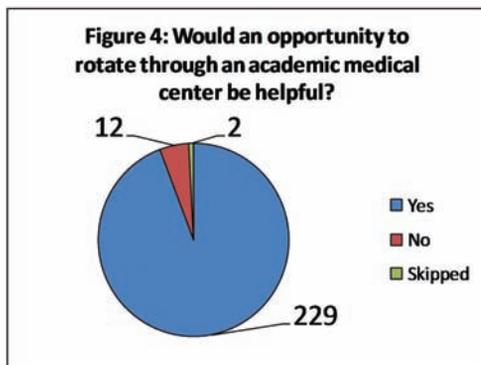
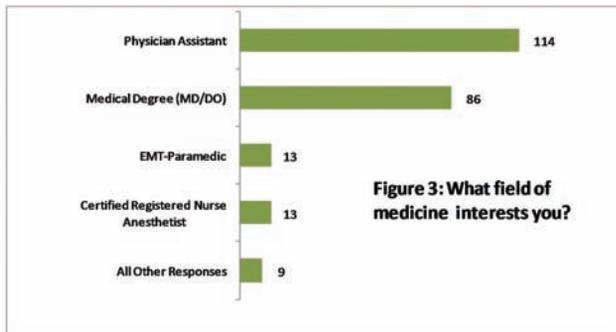
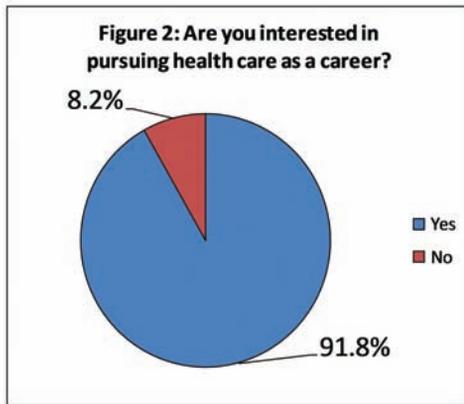
The survey was sent to 1221 Soldiers through the SFMS email listserv on AKO and was available for the entire month of November 2010. The survey contained 21 questions: 17 were multiple choice and four asked for responses in a text box (Table 1).

A total of 243 people filled out the survey, giving a response rate of 19.9%. The majority of respondents had been an SFMS for between five and ten years (33.7%). Of those that responded, 170 reported that being a medic is very important to their professional identity (Figure 1) and 223 responded that they are interested in pursuing healthcare as a career (Figure 2). When asked what field of medicine interested them, 114 responded physician assistant (PA) and 86 responded medical doctor or doctor of osteopathy (MD/DO) (Figure 3). The survey showed 111 respondents are currently working toward, and 102 have completed, an undergraduate degree. The majority (68.6%) did not pursue guidance or men-

Table 1: Survey Questions

1. How long have you been an SFMS?
2. How important is being a medic (as opposed to a shooter) to your professional identity?
3. Are you interested in pursuing healthcare as a career?
4. What field of medicine interests you?
5. What interests you about a profession in healthcare? (text box response)
6. Have you pursued an undergraduate career?
7. How long has it taken you to complete your undergraduate degree?
8. Did you pursue guidance or mentorship as you pursued your degree?
9. Do you think that intermittent guidance during your time as an 18D regarding MD, DO, PA, or other professional schools would influence your career path?
10. Would the opportunity to rotate through an academic medical center while an SFMS be helpful?
11. If you are NOT enrolled in MD or DO school, are you in another healthcare profession?
12. Have you taken the Medical College Admission Test (MCAT)?
13. What was your score?
14. What about your MCAT preparation was particularly helpful? (text box response)
15. Do you wish you had done something different to prepare for the MCAT? (text box response)
16. Would you be interested in taking a MCAT preparation course designed by a medical school?
17. Have you applied to an MD/DO program?
18. If you have applied, have you been accepted?
19. Have you started your MD/DO program yet?
20. Are you aware of military scholarships offered for medical students?
21. What concerns do you have about applying to medical school? (text box response)





programs having a greater emphasis on muscular and skeletal manipulation, and MD programs having a more traditional basic and clinical science curriculum. Both licenses allow one to practice medicine and have equally rigorous testing, as well as the ability to further specialize in a particular field.

UNDERGRADUATE EDUCATION/PREREQUISITES

All applicants must complete an undergraduate degree. Most applicants have a degree in biology or another science field, but medical schools accept students with all types of undergraduate degrees, as long as the student has taken all the required prerequisites. These requirements vary by the different schools; however, most will require a minimum of one year (eight course hours) of the following: general biology, physics (with lab), general chemistry (with lab), organic chemistry (with lab), and English. Some programs also require calculus. Most coursework must have been completed in the previous five to ten years. Keep in mind these courses may be taken after completion of an undergraduate degree. Make sure to research the specific requirements prior to application to individual medical schools. Most schools allow applications to be submitted prior to completion of a degree, as long as it will be finished prior to starting medical school. Clearly, achieving outstanding grades in the prerequisite courses help make an application successful.

Two degree plans are available for those who have completed the Special Operations Combat Medic (SOCM) Course at Fort Bragg, NC. The first is the Health Science degree from Campbell University. The main campus is in Buies Creek, NC, but they also have a campus at Fort Bragg. Campbell requires students to complete 32 hours of the degree at Fort Bragg, and most of the medical school prerequisites are included in the degree plan. They also offer some course credit for training completed in the medic course. Clearly this degree plan is most useful for those stationed at Fort Bragg, NC. The second is through Western Carolina University in Collowhee, NC, and is part of the University of North Carolina system. They offer an Emergency Medical Care online degree, awarding a bachelor of science for students who are certified as paramedics (EMT-P). This program is open to SFMSs and any other graduate of the SOCM Course. Students specialize in science (pre-med), health services management, or wilderness medicine.

MCAT

The Medical College Admissions Test (MCAT) is often the biggest hurdle for SOF medics applying to medical school. Since this is a standardized test, medical schools use it as a tool to

torship during their undergraduate years, but most felt intermittent guidance during their time as an SFMS would influence their career path (88.3%) and 95% indicated that a rotation through an academic medical center would be helpful (Figure 4). Of those not enrolled in MD or DO school, but in another healthcare profession, the majority were EMTs (14.9% Basic and 32.3% Paramedic), with 11.2% Physician Assistants.

Of the survey responders, 13 had previously taken the Medical College Admissions Test (MCAT), with scores ranging from less than 20 to 35. There was a bimodal distribution of scores, in the 21-22 range and in the 28-29 range (Figure 5). Most (88%) indicated they would be interested in taking an MCAT preparation course designed by a medical school. Only seven respondents had applied to an MD/DO program, with two accepted and two awaiting response. 147 (70.3%) were not aware of military scholarships offered to medical students.

MD/DO DEGREE

There are two degree programs to become a physician, either by training as an MD or DO. The four years of medical school are largely similar between the two programs, with DO

compare applicants from different backgrounds. A good score can help an applicant move to the next level in the admissions process, and a poor score can lead to immediate rejection of an application. Each school has different cutoffs for acceptable MCAT scores. Most schools publish the average score for the previous incoming classes, and can serve as a target score for an applicant to achieve.

The MCAT is a four hour computerized exam that tests your ability to apply topics learned in your undergraduate prerequisites. Therefore, it is a good idea to have completed the majority of prerequisites prior to taking the exam. The test has four sections that each last one hour: Physical Science, Verbal Reasoning, Writing, and Biological Sciences. The Physical Science section has passage-based multiple-choice questions related to chemistry and physics. The Verbal Reasoning section involves reading a short passage and answering questions about the author's intent. The Writing section requires students to write two essays on provided topics. The Biological Sciences section also has passage-based multiple-choice questions covering general biology and some organic chemistry. The test awards 1-15 points for each of the Physical Science, Verbal Reasoning, and Biological Sciences sections, and gives a letter score ranging from J-T for the Writing section.

Respondents to the survey who did not do as well on the exam indicated that they did not spend adequate time preparing. Medical school advisors emphasize the importance of adequate test preparation. Formal preparation courses from companies such as Kaplan and Princeton Review can be expensive but valuable. Programs consist of either formal classroom instruction or online courses and can cost well over one thousand dollars. Again, if financially feasible, these courses should be strongly considered. At a minimum, students should plan to work through numerous practice questions and full length practice exams.

Most students want to know what MCAT score they need to get into medical school. There is no magic number. Schools use this score together with undergraduate grades and extracurricular activities to rank applicants. If an applicant has lower grades, a higher MCAT score would help to elevate their application, and vice versa. Obviously, the higher the score achieved, the more competitive the application.

AMCAS/AACOMAS APPLICATIONS

Each type of medical training has a standard online application. MD programs use the American Medical College Application Service (AMCAS) and DO programs use the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). This centralized system eliminates the need to fill out individual applications for each school. It is important not to begin filling out the application online until *after* the first week of May. Entering information prior to that time will populate the application for the year prior and will need to be completely re-entered for the current year. The Army/American Council on Education Registry Transcript System (AARTS) transcript should be included with any undergraduate school transcripts as part of the application.

Students may apply to both MD and DO programs. While applying to a greater number of schools increases the chance of getting an interview, looking at the grades and scores of students who have been admitted to a particular school can give a student an idea whether or not they will be competitive there. Most of this information is available on the individual school's website. It is not un-

reasonable to apply to some schools that may be slightly out of reach, but students should mostly apply to schools where they can expect to be seriously considered for admission.

The application gives a SOF medic the chance to highlight the unique qualifications they possess. Few medical school applicants have this level of medical skills and leadership experiences. Make sure to include information about foreign language skills, military courses not listed on the AARTS transcript, research experience, deployments, and clinical rotations. The personal statement portion of the application is the perfect venue for this type of information. It is important to have several trusted colleagues proofread the personal statement prior to submission.

INTERVIEWS

After the standard application is reviewed and is found acceptable, the majority of medical schools will send applicants a secondary application. The purpose of the secondary application is to get more specific information about a candidate and often involves additional writing samples. Submission of the secondary application is usually associated with an additional fee, so it is important for the applicant to decide if they are serious about travelling to that school for an interview prior to returning the secondary. Remember that travel and lodging expenses to different interviews are generally not covered by the schools.

Letters of recommendation are generally a part of the secondary application. Most schools ask for three to four letters. Since most SOF medics have not had a traditional undergraduate education, this can be a challenge. It is a good idea to get a couple of letters from undergraduate instructors if possible, but letters from commanding officers and battalion surgeons can be very effective, especially if they can further highlight the leadership skills and medical training of the applicant. It is never too early to identify these individuals, as the longer they have to write a letter, the more likely it will be a strong recommendation.

If the secondary application is approved, the school will extend an invitation for an interview. They usually give the applicant a choice of dates they would like to attend. Some schools admit applicants on a "rolling" basis. Rolling admissions means the school will extend admissions while the interview process is ongoing. In this situation, the earlier a student interviews, the better chance they have for admission. Other schools wait to extend invitations for admission until they have interviewed all their candidates.

A typical interview day involves a group of applicants. A portion of the interview day will consist of presentations and tours for the whole group, interspersed with one or two individual interviews with faculty, current medical students, or members of the admissions committee. Generally an applicant will not know who will interview them until the morning of the interviews. Some schools have multiple faculty members interview a single candidate, called a panel interview. Adequate preparation for the interview cannot be stressed enough. This is the one chance an applicant has to put a face to their application, accenting the highlights and explaining any deficits. Be prepared to thoroughly discuss any research or work experience on the application. Resources are available regarding typical medical school interview questions and it is very important to review some of these in preparation and prepare responses. Practicing out loud with a colleague can be extremely helpful in erasing interview day jitters.

MILITARY SCHOLARSHIPS

Several programs highlighted below are available to ease the financial burden of medical school. Other than the GI Bill, most programs involve some service time commitment.

Montgomery GI Bill/Post 9-11 GI Bill:

These two programs are designed to be used by individuals not on active duty, who are attending a school or university and working towards a degree. Medical schools qualify for this program. The reimbursement differs based on several individual factors. Students can find more information on the Veteran's Affairs (VA) website.

Health Professions Scholarship Programs:

These scholarships are offered by the Army, Navy, and Air Force. They can be awarded on a three and four year scholarship plan, and usually involve a signing bonus. These scholarships pay your full tuition and fees, a monthly stipend of more than \$2000.00, as well as reimbursement for books and certain equipment. The service contract requires a year of active duty for each year of the scholarship. Participants in this program are expected to enroll in a military residency program following medical school.

Army National Guard AMEDD:

Once accepted to medical school, students can take a commission in the Army National Guard with an eight year commitment. A monthly stipend of around \$2000.00 is available for an *additional* service commitment of one year for every six months of the stipend taken. Attendance at a monthly drill weekend is required for students in these programs. After completion of medical school, \$240,000 total for school loan repayment is available in \$40,000 increments per year with a year service requirement per year of loan repayment taken. Participants in the AMEDD program are not eligible for a military residency and are expected to enroll in a civilian residency program.

In addition to military programs, the Free Application for Federal Student Aid (FAFSA) is a program open to all medical students. Aid offered includes grants, which do not require repayment, and subsidized and unsubsidized loans, which are normally offered at low interest rates. Loans do not enter repayment until completion of medical school.

DISCUSSION

The results of our survey indicate a strong desire of many SFMSs to pursue a career in healthcare, with many desiring admission to medical school. However, there are some limitations to our survey. The response rate was fairly low (19.9%). Not all SFMSs check their AKO accounts regularly, and the survey was only available for one month, so it is likely that not all SFMSs had an opportunity to respond. Participants were told prior to starting

the survey that the survey addressed interest in pursuing a career in healthcare. This may have led to a bias towards more participants completing the survey with these interests, and may partially explain why so many responded positively to questions about healthcare careers. Additionally, it is difficult to quantify the four questions in which respondents answered with free text. We did try to address issues raised by those responses in the information included in the article.

Regardless, this survey highlights some of the challenges that SOF medics have faced in pursuing the medical school admissions process. Though 86 people responded that they are interested in medical school, only seven had applied and of those, only two accepted. Thus, we have provided practical approaches for SOF medics interested in applying to medical school. This article is intended only to familiarize applicants with the process. There is much more information available on the internet and in books discussing the admissions process in greater detail.

The important thing to remember is that a SOF medic has already demonstrated an aptitude for medicine by graduating the Special Operations Combat Medic Course. They have a practical skill set in place that would be envied by most medical applicants. Medical school is a natural progression for those who would like to further these skills.

RESOURCES

Campbell University:

<http://www.campbellfortbragg.com/programs/healthscience.htm>

Western Carolina University:

<http://www.wcu.edu/2826.asp>

Association of American Medical Colleges:

<https://www.aamc.org/>

American Association of Colleges of Osteopathic Medicine:

<http://www.aacom.org/Pages/default.aspx>

Student Doctor Network:

<http://www.studentdoctor.net/>

Kaplan: www.kaplan.com

The Princeton Review:

www.princetonreview.com

Free Application for Federal Student Aid:

<http://www.fafsa.ed.gov/>

Montgomery GI Bill/Post 9-11:

<http://www.gibill.va.gov/>

Health Professions Scholarship Program:

Army: <http://www.goarmy.com/amedd/education/hpsp.html>

Navy: <http://www.navy.com/navy/careers/healthcare/physician/>

Air Force: <http://www.airforce.com/opportunities/healthcare/education/>

Army National Guard AMEDD:

<http://www.nationalguard.com/careers/medical-professional-officer/medical-professional-officers>

Nicholas A. True



Nicholas is currently a 2nd year medical student at the University of North Carolina, Chapel Hill. Prior to medical school Nicholas worked as a SOCM instructor at the JSOMTC. He served as an 18D in 19th and 20th Special Forces Group (A) before becoming a medical officer in the North Carolina Army National Guard.

Aaron C. Conway Sr.



Aaron is currently a 3rd year medical student at Edward Via Virginia College of Osteopathic Medicine located in the Mountains of Southwest Virginia. Prior to starting medical school and taking a Naval HPSP scholarship, Aaron served as an Instructor at the Special Warfare Medical Group. He also served as a medic with 20th Special Forces Group (A) where he was deployed in support of Operation Enduring

Freedom.

Todd M. Landis

1SG Todd Landis is a former Special Forces Medical Sergeant currently serving as the company the Company A, Special Warfare Medical Group (Airborne) First Sergeant. Previous assignments include 3rd Special Forces Group (Airborne) and 7th Special Forces Group (Airborne). He has multiple deployments in support of operations in Afghanistan, AFRICOM and SOUTCOM. He co-founded the Advanced Medical Instructor Training in 2010.

Charles B. Cairns, MD



Charles is currently the Professor and Chair of Emergency Medicine at The University of North Carolina, Chapel Hill. He completed his Emergency Medicine Residency at Harbor-UCLA Medical Center in 1989 and an EMF Emergency Medicine Research Fellowship in 1990. He co-founded the Advanced Medical Instructor Training in 2010 and serves as the Executive Director of the medical partnership between

UNC and SWTG.

Bruce A. Cairns, MD



Bruce is currently the Director of the North Carolina Jaycee Burn Center at UNC-Chapel Hill. He completed his General Surgery Residency at UNC-CH in 1996. He was an active duty general/trauma surgeon in the U.S. Navy from 1996-99. Bruce then completed a Surgical Critical Care fellowship at UNC in 2000. He co-founded the Advanced Medical Instructor Training in 2010 and has hosted burn rotations for a number of 18D instructors.