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Medical School Campus Choice: Factors Influencing a Student's Decision to Attend a Rural Regional Medical Campus

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Abstract

The factors that influence medical school choice have been the subject of previous reports, but there is a paucity of data regarding the factors influencing a student's choice between the main campus and a regional medical campus (RMC) in the United States. The authors surveyed current students and graduates of the University of Kansas School of Medicine (KUSM) rural RMC in Salina regarding those factors that influenced their decision to attend that campus and their satisfaction with delivery of their medical education and student support services. The authors identified 3 major factors influencing rural campus selection (important or very important in $\geq 75\%$ of current students and graduates): small class size, quality of core clinical experiences, and working one-on-one with clinical faculty and residents. Salina met student expectations regarding the main reasons for selecting the campus but were disappointed with several other campus aspects, including: research opportunities, interest groups, academic counseling, mental health services, and residency counseling. The survey results provided impetus for optimizing recruitment strategies and improving campus support services.

Introduction

Medical school campus selection can be a daunting process for any prospective medical student. While it may be a straightforward decision for the premedical student who is accepted at only one medical school, there may be disappointment and hesitation if it was not their preferred choice. The decision can be challenging for the pre-medical student accepted to more than one school. Undoubtedly, multiple factors are considered when deciding on which medical school to attend or on which campus to attend when a school offers more than one campus location. Hours of research, self-reflection, and advice seeking may be required, resulting in what one hopes is the best decision regarding school choice. The factors that influence a student's decision to choose a particular medical school have been addressed previously.¹⁻⁸ The most common threads in a student's decision regarding a choice of medical schools in nearly all of these reports were the importance of school reputation and campus location.

The decision regarding medical school choice may be just as difficult for those students admitted to a

medical school with a main campus (usually in a metropolitan area) and one or more regional (often rural) campuses. Which campus should they attend? In a study by Graeme Jones,⁹ students attending the University of Melbourne in Australia were sent a survey to evaluate their concerns about choosing to study at the rural clinical school (RCS) for 18 months of their training. The most commonly cited concerns were quality of teaching and education, transportation and location issues, and student access to patients. Family and partner commitments, financial issues, and housing commitments were the most common deterrents cited by those students who did not choose the RCS. In their study of campus choice (main campus versus 2 regional campuses), Mihalynuk et al¹⁰ from the University of British Columbia and the University of Northern British Columbia in Canada also investigated the factors influencing the decision to attend the main metropolitan campus versus a smaller regional campus. The authors noted that the smaller regional campuses emphasized close relationships and educational experiences, while greater access to medical and educational specialists, a

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greater patient case mix, and the community were features of the larger campus. While education, relationships, and lifestyle were important influences on study-site choice, partner and family exerted even greater influence on campus choice. Krahe et al¹¹ surveyed 6 Australian universities with RCSs and found that the primary driver to attend a RCS was students' access to patients, although friends and academic reputation were also important considerations. Because there is a paucity of data from the United States regarding the factors that influence the decision to attend a main urban campus versus a rural regional medical campus (RMC), the Salina RMC of the University of Kansas School of Medicine (KUSM-Salina) conducted a survey of current students and graduates regarding the factors that influenced their decision to attend its campus. The primary goal of this study was to identify those factors influencing a student's decision to select the rural RMC in Salina. Determining what factors were most important and least important can assist the KUSM Admissions Committee in presenting campus choices to prospective students, as well as in campus assignment decisions. This information may also provide guidance to other medical schools with urban and rural campuses in their recruitment of students and their campus assignment decisions. The secondary goal of this study was to determine the satisfaction of KUSM-Salina students with the educational program and support services provided once they were on campus.

KUSM-Salina was established as a small rural 4-year RMC in 2011; eight students matriculated on the campus each year from 2011 to 2019. This campus complemented KUSM's urban RMC in Wichita and the main campus in Kansas City. Salina is a community of approximately 50 000 people located in a predominately agricultural region in north-central Kansas. The founding mission of KUSM-Salina is to educate medical students in a rural environment, hoping that many graduates will choose to practice in rural Kansas.¹²

Although there are differences in presentation, the curriculum on the KUSM-Salina campus is identical to that on the Kansas City and Wichita campuses. The majority of the foundational science lectures during years 1 and 2 are delivered to Salina students via live televideo conferencing generated from the main campus, while small group case-based discussions, anatomy labs, and clinical skills labs are facilitated by local faculty. Required and elective clinical clerkships during years 3 and 4 are offered in Salina, although

students have the opportunity to complete clinical work on other campuses.

The rural KUSM-Salina campus is particularly attractive to students from rural communities, and studies have shown that medical students originally from rural areas are more likely to return to such areas and practice medicine.¹³⁻¹⁸ Cathcart-Rake recently published a report regarding the dramatic impact the KUSM-Salina campus has had on the production of primary care physicians who stay in or return to Kansas, especially rural Kansas.¹⁹ Students applying to KUSM do not list campus choice on their AMCAS application. Prospective students rank their choice of campuses (main campus in Kansas City, metropolitan RMC in Wichita, first 2 years in Kansas City and final 2 years in Wichita, or rural RMC in Salina) on their supplemental application. The KUSM Admissions Committee initially decides which students are accepted for admission to the medical school and then decides on campus assignment. Campus assignment is predominantly based on student preference.

Methods

An invitation to voluntarily and anonymously participate in a 51-question REDCap^{20,21} survey was sent to all 24 current students (Classes of 2021, 2022, and 2023, each comprised of eight students) and all 47 graduates of KUSM-Salina (Classes of 2015-2020). The study was conducted during the first weeks that the incoming first-year medical students (Class of 2024) were on campus. Although this group could identify factors that influenced their campus choice, they could not accurately reflect on their KUSM-Salina campus experiences; therefore, they were not invited to participate.

The first 8 questions of the survey identified the participants' current status as either a student or graduate of KUSM-Salina, interview site for medical school admission, rural background, future medical practice plans, and overall satisfaction with the KUSM-Salina campus. The next 22 questions used a 5-point Likert scale (1 = not important, 2 = slightly important, 3 = moderately important, 4 = important, and 5 = very important) to query factors that may have influenced their decision to attend KUSM-Salina. Then 17 questions (also using the same 5-point Likert scale; 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, and 5 = very satisfied) inquired about satisfaction with the campus. Finally, there were 4 open-ended questions: 1) why they did or did not rank Salina first among the 3 KUSM campuses; 2) what was most gratifying about

matriculating to KUSM-Salina; 3) what was most disappointing about attending KUSM-Salina; and 4) satisfaction with the KUSM curriculum in general. The survey remained open for 3 weeks. Reminders to complete the survey were sent to both current students and graduates at approximately weekly intervals. All respondents who replied within the 3 weeks of opening the survey were included in the analysis. Univariate statistics were calculated to describe participant responses and achieve our study objective. The University of Kansas Medical Center IRB reviewed and approved the study protocol (STUDY00146084).

Results

Summary statistics regarding respondents are noted in Table 1. Fifty-three (20 students and 33 graduates) of the 71 individuals invited to participate in the REDCap survey completed the survey, representing an overall response rate of 74.6% (an 83.3% response rate for current students and a 70.2% response rate for graduates). Overall, 18 (90%) of the current student respondents and 29 (87.9%) of the graduate respondents indicated that they ranked Salina number one on their supplemental application. Seventeen (85%) of the current students and 29 (87.9%) of the graduates indicated that they were originally from a rural community the size of Salina or smaller. Twelve (60%) of the current students and 25 (75.8%) of the graduates were either planning to practice or were practicing primary care. Twenty (100%) of the current students and 26 (78.8%) of the graduates were planning on or engaged in rural practice. All respondents in both groups (100%) stated that they were ultimately happy with the KUSM-Salina campus assignment, regardless of whether they ranked Salina as their first choice.

Factors that influenced a student's decision to select the KUSM-Salina campus (Table 2) were segregated into 3 ranges: 1) important to very important ($\geq 75\%$ of current students and $\geq 75\%$ of graduate respondents selected a Likert score of 4 or 5 score = important or very important), 2) moderately important (50-74.9% of each group of respondents selected a 4 or 5 score), and 3) less important ($\leq 50\%$ of each group of respondents selected a 4 or 5 score). The factors that were ranked most important in influencing the decision to choose the Salina campus were: the desire to work one-on-one with attendings and residents, small class size, and high-quality core clinical experiences. The factors ranked moderately important were the desire to practice in a community the size of Salina or smaller, the desire to receive individualized attention from the faculty/faculty mentors, a good "gut feeling" about the campus, the location of the campus in a rural community, and a short commute to school. The factors that were least influential in choosing the Salina campus included: proximity to the student's hometown, school/campus reputation, easy parking, opportunities for leadership roles, family medicine specialty emphasis, positive experience during the medical school interview, the history of Salina graduates matching in top residency, family influences, campus differences in presentation of curriculum, few distractions outside of school, campus facilities, Salina community assets, Salina campus-specific scholarships, and research opportunities. We did not attempt to determine statistically significant differences in responses between current students and graduates; however, it was noted that there was relatively close agreement in ranking of responses to nearly all questions.

Table 1. Summary of respondent statistics

Survey Questions	Current Students Number (%)	Graduates Number (%)
Respondents	20 (83.3)	33 (70.2)
Ranked KUSM-Salina #1 on supplemental AMCAS application	18 (90)	29 (87.9)
Interviewed in Salina	5 (25)	17 (51.5)
Interview experience influenced decision to preference the Salina campus	4 (20)	5 (15.2)
Originally from a rural community the size of Salina or smaller	17 (85)	29 (87.9)
Planning on or engaged in primary care practice	12 (50)	25 (75.8)
Planning on or engaged in rural setting practice	20 (100)	26 (78.8)
Eventually happy with KUSM-Salina campus assignment	20 (100)	33 (100)

Table 2. Factors Influencing the Decision to Attend KUSM-Salina

Survey Questions	Current Students	Graduates
What factors influenced your ranking of the Salina campus?	Important or Very Important (Likert scores of 4 or 5) Number (%)	Important or Very Important (Likert scores of 4 or 5) Number (%)
One-on-One with attendings and residents	19 (95)	25 (75.8)
Small class size	17 (85)	26 (78.8)
Core clinical experiences	16 (80)	26 (78.8)
Desire to practice in a community the size of Salina or smaller	15 (75)	23 (69.7)
Individualized attention (from faculty/faculty mentors)	15 (75)	20 (60.6)
Good "gut feeling"	14 (70)	26 (69.7)
Rural community	13 (65)	28 (64.8)
Short commute to school	10 (50)	19 (57.6)
Proximity to hometown	11 (55)	16 (48.5)
School/campus reputation	11 (55)	15 (45.5)
Easy parking	8 (40)	15 (45.5)
Opportunities for leadership roles	6 (30)	7 (21.2)
Family Medicine emphasis	5 (25)	16 (48.5)
Positive experience during medical school interview	5 (25)	11 (33.4)
History of Salina graduates matching in top residency choice	5 (25)	4 (12.1)
Family influences (spouse, parents, siblings, etc.)	4 (20)	7 (21.2)
Campus differences in presentation of curriculum	4 (20)	7 (21.2)
Few distractions outside school (sporting events, shopping, restaurants, etc.)	4 (20)	4 (12.1)
Facilities (classrooms, study rooms, lounges, fitness room, etc.)	3 (15)	9 (27.3)
Salina community assets (restaurants, theaters, shopping, etc.)	1 (5)	5 (15.2)
Salina campus-specific scholarships	1 (5)	1 (3)
Research opportunities	0 (0)	0 (0)

Students and graduates were asked to provide text comments regarding their choice of the Salina campus (Table 3). Among the respondents who ranked KUSM-Salina as their first choice, open-ended responses echoed similar themes: a desire to live in a small town, a desire for a small class size, studying on a campus close to home, KUSM-Salina's history of providing frequent hands-on experiences, one-on-one experiences with attendings, and an interest in rural medicine. For those who did not rank Salina as their first choice of KUSM campuses, open-ended responses included: location far from home, foundational science lectures presented by interactive televideo (ITV) conferencing rather than in person, less access to a wide range of specialties, and lack of knowledge about the KUSM-Salina campus.

Table 3: Selected open-ended responses regarding factors influential in choosing KUSM-Salina

"The third-year experience, especially in a rural area, is unmatched."
"I knew I wanted to practice in a rural area and felt that training in Salina would allow me to see how a primary care physician should make decisions when they didn't necessarily have the most up-to-date resources at hand."
"I grew up in a smaller town. I wanted to live in a smaller area. I thought it would help prepare me more for rural medicine."
"Salina's smaller class size seemed ideal for me. The one-on-one learning with the attending physicians was invaluable. I also enjoyed living in Salina as opposed to Wichita or Kansas City."

One section of the survey was designed to determine how well the Salina RMC delivered on the students' expectations (Table 4). Elements of the educational experience were segregated into three ranges: 1) high satisfaction ($\geq 75\%$ of current students and graduates selected a Likert score of 4 or 5 score = satisfied or very satisfied), 2) moderate satisfaction (50-74.9% of each group of respondents selected a 4 or 5 score), and 3) low satisfaction ($\leq 50\%$ of each group of respondents selected a 4 or 5 score). Students were highly satisfied with the cost of living in Salina, the exposure to attendings and residents in clinical years, the Salina campus building and equipment, the exposure to specialties and sub-specialties in clinical years, and virtual lectures via ITV.

Students were moderately satisfied with the Salina clinical simulation lab, student health services provided locally, accessibility to student resources (i.e. library, financial aid, educational support), social environment/opportunities in Salina during free time, the living space/housing options in Salina, campus diversity, and assistance with financial aid/debt management questions.

Issues associated with lower levels of satisfaction were research opportunities, academic counseling services provided in Salina and/or virtually by Kansas City staff, number of student interest groups on campus, mental health services provided in Salina, and residency program information provided on the Salina campus (process, lifestyle, choices, etc.).

Table 4. Current Student and Graduate Satisfaction with KUSM-Salina

Survey Questions	Current Students	Graduates
How satisfied were you with the following?	Satisfied or Very Satisfied Number (%)	Satisfied or Very Satisfied Number (%)
Cost of living in Salina	19 (95)	31 (94)
Exposure to attendings and residents in clinical clerkship years (not answered by Year 2 students)	12 (92.3), total n=13	32 (97)
Salina campus building and equipment	18 (90)	25 (75.7)
Exposure to specialties and sub-specialties in clinical clerkship years (not answered by Year 2 students)	10 (83.3), total n=12	27 (84.4)
Virtual lectures via ITV	16 (80)	26 (78.8)
Salina simulation lab	14 (70)	22 (66.7)
Student health and medical services provided in Salina	14 (70)	22 (66.7)
Accessibility to student resources (library, financial aid, Ed support)	13 (65)	18 (54.6)
Social environment/opportunities in Salina for free time	12 (60)	27 (81.8)
Living space/housing options in Salina	12 (60)	26 (78.8)
Campus diversity	12 (60)	21 (63.6)
Assistance with financial aid/debt management questions	11 (55)	21 (63.7)
Research opportunities provided to you	9 (45)	11 (33.4)
Counseling services provided in Salina and/or Kansas City	8 (40)	10 (30.3)
Amount of student interest groups on campus	7 (35)	18 (54.6)
Mental health services provided in Salina	6 (30)	13 (39.4)
Knowledge of residency programs (application process, lifestyle, different choices, etc.)	5 (25)	20 (60.6)

Discussion

The Salina rural RMC was particularly appealing to students from rural communities who eventually wanted to return to rural communities to practice. Interestingly, interview site and the interview itself had a minor influence on campus choice, leading the authors to conclude that neither visualizing the campus nor the interviewer or interview process were major factors influencing campus selection. Reputation and location were identified as important factors influencing school choice in multiple previous studies.^{1-4, 5-9} Although the general topic of school or campus reputation was not a major factor influencing campus choice in this study, the reputation of the KUSM-Salina campus for specific attributes (small classes, high-quality core clinical experiences, and working one-on-one with attendings and residents) was important in campus choice. Interestingly, in contrast to the findings of Mihalyuk et al,¹⁰ family pressures had little influence on Salina campus choice. Also, the fact that KUSM-Salina offered a

minimum of \$5 000/year in scholarship support was not an important factor in campus choice.

The cost of a medical school education is not trivial; however, participation by many KUSM-Salina students in the Kansas Medical Student (KMS) loan program may negate the need for scholarship awards. The KMS loan program, offered to all KUSM students, funded by the State of Kansas and administered by KUSM, pays tuition expenses and provides a modest living allowance during medical school. Loans are totally forgiven if the recipient elects to practice primary care in one of 100 rural counties or the single underserved urban county in Kansas. The majority of KUSM-Salina students are interested in rural primary care; therefore, a KMS loan provides an excellent means to fund an expensive medical education. Historically, 57% of KUSM-Salina graduates elected to receive KMS loans to fund all or part of their medical education.¹⁹

In 2018 the KUSM-Salina moved from old and crowded quarters to a larger, completely remodeled, state-of-the-art medical school building. It was anticipated that this new health education center would be a major draw for the current medical student group (Classes of 2021-2023). Surprisingly, the new facilities had minimal impact on campus choice for those students who would use it. A significant number of respondents were disappointed with the delivery of a number of support services: campus mental health services, academic counseling services, residency program information provided, research opportunities, and campus student interest groups. KUSM-Salina provided mental health services through a local behavioral health center, as well as via secure, confidential telehealth services provided by the main campus. Whether respondents were fully informed regarding these services and/or dissatisfied with them is unknown. Respondents also voiced dissatisfaction with academic counseling services. Access to a learning specialist is available on campus and through the main campus in Kansas City. It is unknown whether respondents were not fully cognizant of what the learning specialists could provide or were just dissatisfied with the services received. Respondents were not satisfied with the information provided about residency programs and the residency application process. Although there was not a designated KUSM-Salina campus office or faculty member to handle residency questions and concerns, the local KUSM-Salina faculty was available to provide information regarding residency programs and the residency application

process. Once again, respondents may not have realized what was available or wanted more than provided. Despite the fact that no respondents identified research opportunities as an important factor in choosing the Salina campus, after matriculation the majority of respondents were dissatisfied with the research opportunities offered. It is possible that once students realized that research experiences/scholarly engagement could be an important factor in competing for residency positions, their opinions regarding research opportunities changed dramatically. Therefore, once on campus, they found the KUSM-Salina campus lacking in this respect.

Opportunities for leadership roles was another area deemed less important for prospective KUSM-Salina students; however, once on campus, opinions changed. Although the Salina campus offered students the opportunity to serve in tri-campus student government organizations, the opportunities to participate in a wide variety of campus student interest groups was limited and this was disappointing. Student interest groups and student government organizations provide opportunities for students to meet other students with similar interests and assume leadership positions. Engagement in such organizations may also strengthen their resume for residency positions.

Conclusion

The small rural KUSM RMC in Salina has a 10-year history of providing a full 4-year allopathic medical education to a select group of students. Although the small group of current students and graduates surveyed might be criticized, the response rate was nearly 75% and the results provided insight into what factors influenced the decision to choose a particular campus, what factors were less important, and how well that campus met student expectations. Over 75% of respondents found KUSM-Salina's small class size, strong clinical program, and one-on-one relationships with faculty attractive, and this campus met their expectations regarding these issues. Our findings amplify previous reports that, when faced with the decision to choose a medical school or choose between medical school campuses, students are influenced by the school's academic reputation and location. In addition, as noted by Cecelia Brown et al,² students may be attracted by "intangible factors"—perhaps the "good gut feeling" noted by 70% of respondents in this study.

The Salina campus is not perfect. There is room for improvement in providing student research

opportunities, expansion of student interest groups, delivery of mental health services, providing academic counseling, and providing information regarding residency programs and the process of residency application. The importance and methods of providing student support services at KUSM-Salina were previously reported by Kollhoff et al.²² Despite mechanisms established to address the support services required by the Liaison Committee on Medical Education and, more importantly, demanded by students, KUSM-Salina needs to review and redress several elements. Identifying these deficiencies provides impetus to the KUSM-Salina administration to seek solutions, whether it be improved communication regarding what is available, or improvement/expansion of services provided. The lessons learned by KUSM-Salina are important in improving strategies for recruiting students to a rural RMC and providing them with an exceptional educational experience. KUSM-Salina was most attractive to students from rural communities who were interested in eventually returning to rural communities to practice. Recruitment efforts should be focused on, although not entirely limited to, this cohort. In addition, promotional materials should emphasize what current and previous students have found most attractive about the rural RMC and what the RMC has historically delivered—small class size, quality clinical experiences, and working one-on-one with clinical faculty. It may be difficult for RMCs to provide a robust array of research opportunities and interest groups, as well as other student support services, but they cannot ignore these important elements in the education, health and happiness of students. Our findings may benefit other medical schools with rural RMCs in improving their programs and attracting the best students.

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