MARSHALL JOURNAL OF MEDICINE
Expanding Knowledge to Improve Rural Health.

Volume 3 | Issue 1 Manuscript 1085

2017

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Recommended Citation

Crump, William J.; Ziegler, Craig H.; Martin, Leslee J.; Fricker, R. Steve; Shaw, M. Ann; Crump, Alllison M.; and Sawning, Susan (2017) "Changes In Rural Affinity Among Rural Medical Students As They Experience Education In An Urban Setting," *Marshall Journal of Medicine*: Vol. 3: Iss. 1, Article 11.

DOI: http://dx.doi.org/10.18590/mjm.2017.vol3.iss1.11

Available at: https://mds.marshall.edu/mjm/vol3/iss1/11

DOI: http://dx.doi.org/10.18590/mjm.2017.vol3.iss1.11

Author Footnote: The authors thank Emily Carr and Laura Weingartner for their assistance with survey and project management, as well as submission assistance.

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This original article is available in Marshall Journal of Medicine: https://mds.marshall.edu/mjm/vol3/iss1/11

Changes In Rural Affinity Among Rural Medical Students As They Experience Education In An Urban Setting

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The authors have no financial disclosures to declare and no conflicts of interest to report.

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Abstract

Introduction

The maldistribution of physicians in the United States has led to a shortage of healthcare providers in rural areas and rural patients being underserved. A physician's connections to rural settings, including upbringing and medical training, often influence the decision to practice in rural areas. This study examines opinions from medical students who participated in a regional rural campus track, which includes summer immersion programs, rural-focused sessions, and clinical rotations. The authors hypothesized that Rural Track students experience urban disruption, and their opinions about rural living and practice would become increasingly less positive over time while students lived at the urban campus for preclinical coursework.

Materials and Methods

The Rural Health Opinion Survey (RHOS), a previously published measure of opinions concerning living and practicing in rural areas, was administered to students at one public medical school located in Louisville, Kentucky. Factor analysis was performed on each of the three sections of the survey (items related to rural living, patients in rural areas, and physicians in rural areas), and composite subscale scores were calculated for each student. The first phase of this large longitudinal study reported here uses t-tests to compare pre- and post-test scores for 36 students in the Rural Track program. Scores of M1/M2 students who were based at the urban campus were also compared to M3/M4 students who had returned to the rural campus.

Results

Ninety-two percent (36/39) of Rural Track students completed both pre- and post-surveys, and of these respondents, 89% percent (32/36) grew up in a hometown with fewer than 30,000 people. Overall scores were not significantly different between Rural Track M1/M2 in the urban setting and the Rural Track M3/M4 students based at the rural campus. M3/M4 students showed a differential positive opinion over time of rural comfortable living that approached significance and agreed less that the rural physician workload is heavier. M1/M2 students expressed more positive opinions over time about availability of quality service. Both groups showed strong agreement over time that rural patients are more motivated.

Discussion

Our hypothesis that Rural Track students on the urban campus would show increasingly less positive opinions about rural health and practice was not supported. Students may not have experienced urban disruption because of the Rural Track curriculum elements, and/or time in the urban environment may have reinforced rural affinity by providing new perspective on the positive aspects of rural settings. Further research and efforts are necessary to identify critical points of reconnection for medical students and to support rural affinity within medical school curriculum. Upcoming research efforts will address the overall hypothesis that Rural Track students' continued connection to rural settings generates more positive opinions about rural

living and practice as compared to opinions from students with rural backgrounds who spend all four years of medical school in the urban setting.

Keywords

Rural affinity, urban disruption, rural health, physician workforce, medical education, rural medical campus

Introduction

The United States has a significant maldistribution of physicians; while about twenty percent of the general population lives in rural areas, only about ten percent of physicians choose to practice in rural settings.[1] Studies indicate that the most powerful predictors of physicians ultimately practicing in rural areas are rural upbringing, time spent in rural areas during medical school and residency, and choice of Family Medicine specialty.[2] The optimum duration and type of rural training has not been determined via rigorous studies. In recent years, regional clinical rural campuses have been established that provide the last two years of medical school in a small-town environment.[3] One recent study showed that even when controlling for rural upbringing and Family Medicine specialty choice using a multivariate analysis, attendance at a rural clinical campus was a powerful predictor of rural practice choice.[4]

The affinity model asserts that rural students who choose to train in rural areas will be more likely to ultimately choose rural practice.[5-7] The concept of "urban disruption" has been used to describe the process where rural students who move to urban areas experience a sense of dislocation caused by the different landscapes and daily routines of a faster paced city.[8] The second phase of this process occurs after months or years of acclimation when the rural student returns home and no longer feels comfortable among the green spaces with fewer commercial amenities.[9] Urban disruption is hypothesized to be one cause for the outmigration of rural medical students who largely attend all four years of medical school in an urban environment.

Each year, six to twelve of our 160 medical students in each class enter our Rural Track, which includes: 1) rural-focused sessions during the first two years, while living and studying at the urban campus,[10] 2) preclinical summer immersion programs at the regional rural campus, located in a town of 20,000, and 3) clinical rotations at the regional rural campus during the last two years, while living and studying at the rural campus.[11]

The three-week preclinical summer immersion experience at the rural campus includes precepting in very rural areas (towns of 3000-5000 people), completion of a detailed practice site report, group problem-based clinical reasoning case studies, and focused readings about rural practice.[12] Most of the Rural Track students grew up in towns of 650-20,000 and many attended small regional colleges or universities, with the remainder graduating from major state universities. Rural Track students interview at both the urban and regional rural campus, are recommended by the rural selection committee to the central admissions committee, and at admission, are assigned to the Rural Track.

Our study addresses the following hypothesis: Opinions about rural living and practice will become less positive among Rural Track students who are based at an urban campus, and the longer they spend at an urban campus, the larger the decrement. We found no previous study that addressed this question in a longitudinal fashion.

Materials and Methods

Ethics

The research protocol was approved by the Institutional Review Board of the University of Louisville School of Medicine via expedited review (#15.0772).

Study Design

We report findings here from the first phase of a large longitudinal study at one public medical school located in Louisville, Kentucky. Using a previously published measure of opinions concerning living and practicing in rural areas, all four medical school classes were surveyed in the fall and late spring of the 2015-2016 school year. In subsequent phases of the study, students will continue to be surveyed on an annual, longitudinal basis over multiple years to examine changes in opinions.

Our 53-item Rural Health Opinion Survey (RHOS) was modified from a previously published source.[13] The first two questions asked for student name and ID number, with the goal of tracking students over time; therefore, survey responses were confidential, but not anonymous. Students were asked to rate their opinion on statements concerning rural living, patients in rural areas, and physicians in rural areas using a 5-point Likert scale (1=strongly disagree to 5=strongly agree) on forty-six questions. Five questions assessed demographics. Rural Track students completed the survey in the summer just before they began the next year of medical school. The entering first year medical students (M1 students) did this on the first day of a 3-week preclinical summer immersion experience at the rural campus.

The second survey for all four Rural Track classes was completed in October 2015, after three months living in the urban medical school environment for the M1 and M2 students or returning to the rural campus environment for the M3 and M4 students. All medical students at this time were invited to complete the survey via an email that included a SurveyMonkey® (Palo Alto, California, USA) link; this included both Rural Track and the traditional urban-based students, therefore, this was the first survey for the traditional urban-based students and technically the first phase of the longitudinal study. The survey was completely voluntary. An incentive to complete the survey was offered; students who completed the survey were entered into a drawing for a $200 Visa gift card. All students received three reminders via email. The final response rate was 42%, with a total 260 of 622 students responding. This data was used to refine the survey analysis, but the results will be reported in a later paper.

The group of 39 Rural Track students described here was in the first pilot phase of the larger survey that requested responses from all 622 students. All 39 students were roughly evenly

distributed across all four years of medical school at the time of the survey, and 36 students responded to the October 2015 survey.

Statistics

The original survey included 16 items under the heading of rural areas, 9 items under the heading of rural patients and 21 items under the heading of rural physicians. Factor analysis and principle component analysis examines the interrelationships among a large number of items to find if specific items correlate with one another to create specific factors or components. Once these factors are determined, the process allows the data to be reduced to a smaller number of concepts. The description that follows shows how we converted these 46 items into 9 factors that represented the important concepts measured by the longer survey.

Factor Analysis and Item Elimination

Principal factor extraction with varimax rotation was performed using IBM SPSS Statistics for Windows, version 22 (IBM Corp., Armonk, N.Y., USA) factor analysis algorithm for the Fall 2015 sample of students on each of the three sections of the RHOS. Preliminary analysis of items for each section was examined by using the Kaiser-Meyer-Olkin Measure of Sample Adequacy (KMO), correlation matrices, and the anti-image correlation matrices. The KMO measure of sample adequacy showed that the statistic for each section was greater than 0.80 indicating the correlation matrix of each section was ideal for factor analysis.

For the 16-item section of the RHOS dealing with rural areas, inspection of the anti-image correlation matrices showed that the items “in rural areas shopping amenities are available" and "in rural areas there are opportunities to pursue leisure activities" had anti-image correlations greater than 0.30, indicating one of the items could be eliminated.[14] Therefore, the item "in rural areas shopping amenities are available" was removed. The factor analysis on the 15 items revealed that a three-factor solution accounted for 45% of the total variance, with no single factor accounting for more than 18%. The three factors were labeled Comfortable Living (seven items), Availability of Quality Services (four items), and Community Support (three items). For the factor Availability of Quality Services, one item, "people with different cultural backgrounds are accepted by the community," had a relatively high factor loading. However, this item did not fit with the other items, and therefore it was removed to make the factor more conceptually pure. Table 1 depicts the results of this factor analysis.

Table 1. Factor Loadings* of Rural Health Opinion Survey (RHOS) Rural Living Section Items

In Rural Areas:	Factor 1 Comfortable Living	Factor 2 Availability of Quality Services	Factor 3 Community Support
Comfortable Living (Cronbach's Alpha= 0.82)			
The physical environment is clean	0.69		
There are opportunities for a relaxed lifestyle	0.61		0.38
The rate of homicide is lower than the national average rate of homicide	0.58		
The police are willing to provide assistance	0.57		
The cost of living is lower than the national average cost of living	0.46		
Comfortable houses are available	0.45	0.44	
There are opportunities to pursue leisure activities	0.45		
Availability of Quality Services (Cronbach's Alpha= 0.75)			
Health care services are available		0.78	
Day Care services for children are available		0.65	
There are employment opportunities		0.54	
The schools provide quality education		0.53	
Community Support (Cronbach's Alpha= 0.69)			
There are friendly people in the community			0.84
Neighbors help each other			0.55
There are opportunities to participate in community activities			0.37
Total variance accounted for by factor	17.30%	16.80%	11.30%
Cumulative	17.30%	34.10%	45.40%

*Computed using the baseline sample of 255/260 due to some students not responding to all items. Loadings under .30 are not shown. A principal axis factoring solution with varimax rotation was used for the factor analysis.

For the nine-item section dealing with patients in rural areas, examination of both the correlation matrices and the anti-image correlation matrices indicated that all items were suitable for inclusion. The factor analysis extracted a two-factor solution accounting for 44% of the total variance. The first factor consisted of five items and accounted for 25% of the variance; the

factor was labeled Patient Motivation. Four items constituted the second factor (labeled Physician Value), which accounted for 19% of the variance. Results of this factor analysis are shown in Table 2.

Table 2. Factor Loadings* of Rural Health Opinion Survey (RHOS) Patients in Rural Areas Section Items

Patients in Rural Areas:	Factor 1 (Patient Motivation)	Factor 2 (Physician Value)
Patient Motivation (Cronbach's Alpha= 0.58)		
Are interested in preventive health care	0.73	
Are interested in learning about their medical conditions	0.73	
Are interested in maintaining their health	0.68	
Follow their physician's advice	0.60	
Are willing to try new treatments	0.45	
Physician Value (Cronbach's Alpha= 0.80)		
Want to have the same physician over time		0.74
Trust their physicians		0.70
View physicians as an important part of their community		0.63
Keep appointments with their physicians		0.42
Total variance accounted for by factor	25.10%	18.80%
Cumulative	25.10%	43.90%

* Computed using the baseline sample of 255/260 due to some students not responding to all items. Loadings under .30 are not shown. A principal axis factoring solution with varimax rotation was used for the factor analysis.

The final section of the RHOS pertains to 21 items addressing physicians in rural areas. The items "physicians in rural areas are involved in community activities" and "physicians in rural areas are expected to be involved in the community" displayed elevated anti-image correlations; as well as, "physicians in rural areas can make a positive difference in health" and "physicians in rural areas are respected by their community." Therefore, the item "physicians in rural areas are involved in community activities" and "physicians in rural areas can make a positive difference in health" were eliminated. The factor analysis on the 19 items revealed a four-factor solution accounting for 43% of the total variance. The four factors were labeled Medical Resources (seven items), Physician Workload (five items), Physician Status in the Community (four items), and Attractive Practice Options (three items). Table 3 depicts the results of this factor analysis.

Table 3. Factor Loadings* of Rural Health Opinion Survey (RHOS) Physicians in Rural Areas Section Items

Physician in Rural Areas:	Factor 1 Medical Resources	Factor 2 Physician Workload	Factor 3 Physician Status in the Community	Factor 4 Attractive Practice Options
Medical Resources (Cronbach's Alpha=0.81)				
Have opportunities for professional interaction	0.72			
Have access to medical consultants	0.69			
Have access to advanced medical technology	0.65			
Have competent support staff	0.51			0.37
Have access to continuing medical education	0.50			
Can easily schedule vacation time	0.47			
Have hospital privileges	0.41			0.40
Physician Workload (Cronbach's Alpha=0.73)				
Work more hours per week		0.74		
See more patients daily		0.69		
Are often contacted by patients after regular hours		0.57		
Are often on call		0.51		
Have to do more paperwork		0.33		
Physician Status in the Community (Cronbach's Alpha=0.74)				
Know most people in their communities			0.78	
Are respected by their communities			0.65	
Are expected to be involved in the community		0.34	0.54	
Are responsible for helping with social problems			0.34	
Attractive Practice Options (Cronbach's Alpha=0.71)				
Have employment opportunities				0.69
Earn incomes within the national average				0.56
Have comfortable offices				0.55
Total variance accounted for by factor	14.00%	10.80%	9.40%	9.10%
Cumulative	14.00%	24.80%	34.20%	43.30%

*Computed using the baseline sample of 255/260 due to some students not responding to all items. Loadings under .30 are not shown. A principal axis factoring solution with varimax rotation was used for the factor analysis.

Analysis

After performing the factor analysis, nine composite subscale scores were calculated for each student by averaging the scores of items that make up each factor (Comfortable Living,

Availability of Quality Services, Community Support, Patient Motivation, Physician Value, Medical Resources, Physician Workload, Physician Status in the Community, and Attractive Practice Options). Three average composite scores of all items making up each section of the RHOS (Rural Living, Patients in Rural Areas, and Physicians in Rural Areas) were also calculated. For each subscale, internal consistency was assessed through Cronbach's alpha. Three subscales had good reliability with Cronbach's alpha ≥ 0.80 (Comfortable Living, Physician Value, and Medical Resources); four subscales had adequate reliability ≥ 0.70 (Availability of Quality Services, Physician Workload, Physician Status in the Community, and Attractive Practice Options); and two subscales had inadequate reliability < 0.70 (Community Support and Patient Motivation).

SPSS (SPSS, 2013) version 22.0 was used to analyze the quantitative data for the 36 Rural Track students. Frequencies and percentages were used to describe the demographic data. Paired sample t-tests were used to compare the summer and fall Rural Track students on the three overall average scales and the nine subscales as a whole, along with comparison of the students stratified by M1/M2 and M3/M4 years. Independent sample t-tests compared the mean differences in the change scores between the M1/M2 and M3/M4 students. Effect sizes expressed through Cohen's D were also calculated. Cohen's D values between .20 and .49 is considered a small effect, .50 to .79 a medium effect, and >.80 a large effect. All p-values were two-tailed. Statistical significance was set by convention at $p<0.05$.

Results

Demographics

Ninety-two percent (36/39) of Rural Track students completed both the summer and fall surveys. Females represented 58% (21/36) of the respondents and 89% (32/36) were white. Eighty-nine percent (32/36) of students grew up in a hometown with less than 30,000 people and 64% of the students were considering specializing in primary care (24/36). Table 4 presents the demographic information.

Scale Scores

Using the scales and subscales calculated based on the factor analysis from all four classes including both urban and Rural Track students, the comparison of the summer and fall survey completions from the Rural Track students are shown in Table 5. Most subscales changed very little, but four scales or subscales showed significant change to more positive opinions and demonstrated a small to moderate effect. One other closely approached statistical significance. None showed significant movement towards more negative opinions.

Table 4: Demographic Information of Rural Track Students Completing The Summer and Fall Surveys

		Frequency (%)
Sex	Female	21 (58%)
	Male	15 (42%)
Race	White	32 (89%)
	African-American/Black	0 (0%)
	Asian	2 (6%)
	American Indian/Alaskan native	1 (3%)
	Hispanic/Latino/Spanish origin	0 (0%)
	Other	1 (3%)
Year in medical school	M1	12 (33%)
	M2	10 (28%)
	M3	8 (22%)
	M4	6 (17%)
What is the population of the town you grew up (where you spent the most time)?	0-2499	11 (31%)
	2500-4999	4 (11%)
	5000-9999	6 (17%)
	10,000-29,999	11 (31%)
	30,000+	4 (11%)
What specialty do you hope to practice in?	Family Medicine	9 (25%)
	Internal Medicine	7 (19%)
	Pediatrics	7 (19%)
	Surgery	6 (17%)
	Emergency Medicine	5 (14%)
	Psychiatry	1 (3%)
	OB/GYN	1 (3%)

Table 5. Means, Standard Deviations, Effect Sizes, and P Values of the Rural Health Opinion Survey (RHOS) Scales and Subscales Comparing Summer and Fall Rural Track Students

			Summer	Fall	Difference		
		n	Mean (SD)	Mean (SD)	Mean (SD)	Cohen's d	P Value
Rural Living:	Average of All 14 Items	36	4.21 (0.36)	4.37 (0.37)	0.16 (0.36)	0.44	0.013
	Comfortable Living (7 items)	36	4.25 (0.44)	4.41 (0.44)	0.16 (0.41)	0.39	0.024
	Availability of Quality Services (4 items)	36	3.80 (0.59)	3.96 (0.59)	0.16 (0.61)	0.26	0.125
	Community Support (3 items)	36	4.67 (0.37)	4.81 (0.28)	0.14 (0.42)	0.33	0.053
Patients in Rural Areas:	Average of All 9 Items	36	3.80 (0.34)	4.01 (0.39)	0.21 (0.50)	0.42	0.014
	Patient Motivation (5 items)	36	3.30 (0.42)	3.69 (0.54)	0.39 (0.60)	0.65	<0.001
	Physician Value (4 items)	36	4.42 (0.46)	4.42 (0.39)	0.00 (0.51)	0.00	1.000
Physicians in Rural Areas:	Average of All 19 Items	36	3.64 (0.30)	3.67 (0.28)	0.03 (0.30)	0.10	0.666
	Medical Resources (7 items)	36	3.86 (0.56)	3.84 (0.47)	-0.02 (0.58)	0.03	0.839
	Physician Workload (5 items)$^{\Omega}$	36	3.82 (0.51)	3.72 (0.56)	-0.11 (0.53)	0.21	0.241
	Physician Status in Community (4 items)	36	4.51 (0.47)	4.49 (0.45)	-0.02 (0.27)	0.07	0.545
	Attractive Practice Options (3 items)	36	4.44 (0.46)	4.47 (0.52)	0.03 (0.47)	0.06	0.727

Range of scales 1 (strongly disagree) to 5 (strongly agree)

Interpretation of Cohen's d: Small 0.2, Medium 0.5, Large 0.8 effect

$^{\Omega}$ Lower Scores indicate more favorable attitude

We found no significant differences in score changes between the Rural Track M1/M2 students based in the urban setting and the Rural Track M3/M4 students based at the rural campus. However, as shown in Table 6, the rural-based M3/M4s showed a differential positive opinion over time of rural comfortable living that approached significance (Cohen's d=0.58, p=0.054)

and agreed less that the rural physician workload is heavier (Cohen's d=0.61, p=0.037). The urban based Rural Track M1s/M2s expressed more positive opinions over time about availability of quality services (Cohen's d=0.50, p=0.031), and both groups showed strong agreement over time that rural patients are more motivated [(Cohen's d=0.56, p<0.015) and (Cohen's d=0.90, p=0.005)].

Table 6: Means, Standard Deviations, Effect Sizes, and P Values of Select Rural Health Opinion Survey (RHOS) Scales and Subscales Comparing Summer and Fall Rural Track Students Stratified by Class

			Summer	Fall	Difference		
		n	Mean (SD)	Mean (SD)	Mean (SD)	Cohen's d	P value
Rural Living: Comfortable Living (7 items)	M1|M2	22	4.27 (0.43)	4.40 (0.48)	0.13 (0.44)	0.30	0.181
	M3|M4	14	4.21 (0.46)	4.43 (0.38)	0.22 (0.38)	0.58	0.054
Rural Living: Availability of Quality Services (4 items)	M1|M2	22	3.67 (0.50)	3.91 (0.63)	0.24 (0.48)	0.50	0.031
	M3|M4	14	4.00 (0.69)	4.04 (0.54)	0.04 (0.77)	0.05	0.865
Patients in Rural Areas: Patient Motivation (4 items)	M1|M2	22	3.35 (0.42)	3.75 (0.60)	0.40 (0.71)	0.56	0.015
	M3|M4	14	3.23 (0.41)	3.60 (0.44)	0.37 (0.41)	0.90	0.005
Physicians in Rural Areas: Physician Workload (5 items) $^{\Omega}$	M1|M2	22	3.89 (0.48)	3.92 (0.53)	0.03 (0.51)	0.06	0.806
	M3|M4	14	3.71 (0.54)	3.40 (0.44)	-0.31 (0.51)	0.61	0.037

Range of scales 1 (strongly disagree) to 5 (strongly agree)

Interpretation of Cohen's d: Small 0.2, Medium 0.5, Large 0.8 effect

$^{\Omega}$ Lower Scores indicate more favorable attitude

Discussion

In this initial analysis including only the Rural Track students, our hypothesis that opinions about rural living and practice will become less positive among rural students who are based at the urban campus—and the longer they spend at the urban campus, the larger the decrement—was not supported. After a three-month exposure to urban living, M1/M2 students actually showed even more positive opinions about rural availability of quality services and rural patient motivation. It is possible that spending time in the urban environment actually provided new

perspective and the positive aspects of rural became more prominent when compared with the busy, potentially uncomfortable pace and style of urban living. The more positive opinions about availability of quality services in rural areas expressed by the preclinical students after spending some time in an urban area is particularly interesting, as stereotypes would posit that services in urban areas would surpass those in most rural areas. It may be that experience in an urban area actually gave these rural students renewed appreciation for what quality meant to them. Opinions about the health care, day care, jobs, and schools in their rural hometowns may have more to do with comfort with those providing the services and easy transportation access than the quantity or diversity of options that would be more typical of urban areas.

In retrospect, the timing of the two surveys was not structured well to test our first hypothesis. The M1s may have begun the summer immersion program with less positive opinions of their hometowns after living for four years in a larger college town. In addition, after the initial survey, these M1 students experienced the three-week summer rural immersion, as well as two rural medicine elective sessions held in the urban environment. The M2s also had similar, but less intense discussions of rural opportunities between the two surveys. All of these exposures were intended to reinforce positive views of rural living and rural practice, with one session during the elective entirely focused on dispelling myths about both. So the increment in positive opinions may actually be a result of the curriculum elements, and/or any decrement may not have had time to develop during the short three months between surveys. To have accurately measured any urban disruption effect in the M1s, it would have been necessary to compare a baseline survey done at the end of the three-week immersion and the subsequent survey done prior to any of the rural medicine elective sessions at the urban campus. Also, between the two surveys, the M3s had three months of their first real rural clinical exposure and the M4s had opportunities for urban and rural electives to provide useful perspective that may have resulted in more positive views of rural patients and rural physician workload. To measure any overall urban disruption, it will be necessary to compare the opinions of the Rural Track students with those of rural students who do not receive the rural curriculum nor participate in the clinical rotations in a rural environment.

The possibility that the Rural Track curriculum elements may have actually mitigated any effects of urban disruption is encouraging, but more study is needed. In the next academic year, the baseline survey will be done at the beginning and the end of the three-week rural immersion experience. The first survey in the urban environment will be done prior to any of the rural medicine elective sessions. There will also be a spring survey completion after effects from the fall rural medicine elective sessions have faded. However, in the previous report of the survey portion concerning opinions about rural physicians, four of the 21 questions showed a significant positive increment five to nine months after the first teaching session at the urban campus [10]. A better comparison group may be the survey data from rural students who did not participate in the Rural Track. If the rural students in the urban track begin with similar opinions to those held by the Rural Track students before any rural-focused curriculum, yet show a differential decrement as they are in the urban environment for medical school, this would support the concept of urban disruption and highlight the positive effects of the Rural Track curriculum.

Limitations and Future Directions

Considering the resources that are being invested worldwide in programs to promote medical student interest in rural practice, the possibility of mitigating urban disruption is attractive. Our study has several limitations that could affect its generalizability. The 36 students responding to this survey are 92 % of the total Rural Track students, however, this is a relatively small number. Additionally, the study is non-randomized; the Rural Track students were self-selected and also carefully selected by our program. It is possible that this selection process resulted in a group of students resistant to urban disruption.

The factor clusters we developed have face validity but may not represent what we think they do. Rural affinity is a complex concept, and 46 questions may not capture what is really important—especially considering that rural upbringing, rural training, and Family Medicine choice only explain 19% variance in practice choice.[4] Choice of rural practice would be a better measure of rural affinity, so our measure reported here is just an interim indication, with real affinity demonstrated 7 to 12 years later with practice choice.

Conclusions

In order to meet the needs of rural patients, it is critical that more physicians choose to practice in rural communities. By delivering a curriculum designed to support and reconnect students to their rural roots, we hope to provide the foundation to successfully encourage students to pursue practices in rural environments. Results from the first Rural Track phase of this longitudinal study are promising and indicate that students may not experience the urban disruption reported in other studies if they are engaged in such a curriculum. In fact, our results indicate that, for particular aspects of rural life, rural affinity may increase even after living in an urban environment if students are exposed to a curriculum that reinforces rural affinity.

This study also provides a factor analysis framework that is useful for pinpointing important areas for focus of rural curriculum efforts. By measuring rural affinity over time across different types of students and using those data to adjust and improve our curriculum, we hope to determine the best strategies for supporting students and inspiring them to provide needed health care in rural communities.

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