Idaho Rural Family Physician Workforce Study: Examining the Trait of Grit and Satisfaction In Idaho Physicians

Prepared for:

Office of Rural Health and Primary Care
Idaho Department of Health and Welfare
State of Idaho

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July, 2009

Acknowledgments

This research was funded by the Idaho Department of Health and Welfare, Office of Rural Health and Primary Care (contract HC596600) through a grant from the U.S. Department of Health and Human Services, Health Resources and Services Administration. The authors wish to thank the Idaho Academy of Family Physicians, the Idaho Medical Association, and Tara Cooper for their assistance in this research.

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Executive Summary

Idaho currently experiences challenges in recruiting and retaining family physicians in rural areas. Phase I of the Rural Family Physician Workforce Study found that Idaho family medicine physicians had a broad scope of practice, used technology to advance clinical and educational goals and were generally satisfied with their rural practice. Phase II led to the development of the Community Apgar Questionnaire (CAQ) to help communities assess their relative strengths and weaknesses recruiting and retaining physicians and to gain a better understanding of which factors are seen as most important from the physician point-of-view. Research also suggests that psychological factors may affect retention and satisfaction among rural family physicians. One potential psychological construct, grit, may help to explain the non-cognitive traits that account for both rural physician satisfaction and retention. Grit is defined as perseverance and passion for long-term goals, working strenuously towards challenges, and maintaining effort and interest over years despite failure, adversity, and plateaus in progress (Duckworth, Peterson, Matthews, & Kelly, 2007).

The goal of this study is threefold: (1) assess the levels of the psychological construct grit among rural and non-rural primary care/specialty care Idaho physicians and, (2) assess satisfaction levels across combinations of rural/non-rural and primary care/specialty care Idaho physicians and (3), assess the relationship between the psychological construct grit and satisfaction across combinations of rural/non-rural and primary care/specialty care Idaho physicians.

Physicians (M.D. or D.O., licensed in the State of Idaho) who were either members of the Idaho Academy of Family Physicians, Inc. (IAFP) or Idaho Medical Association, Inc. (IMA) were mailed a twenty item questionnaire that contained the 17 item Grit Scale and 3 questions about medical specialty, completion of a fellowship and satisfaction with practice. The questionnaire is used to measure the Grit Scale and four subscales including Consistency of Interest, Perseverance of Effort, Ambition, and the Brief Grit Scale. The authors of this scale have given permission to use this scale for this study. The survey was successfully sent to a total of 2126 physicians by mail. Of the 2126 physicians, 564 responded, yielding a response rate of 26.5%.

The response rate of rural physicians was 30.5% (151/495), and that of non-rural physicians was 25.3% (413/1631).

The overall analyses for the Grit Survey employed descriptive and inferential statistics. Independent t-tests were performed to determine the statistical significance of relationships among Grit Scale, subscales, medical training, and practice location. A one way analysis of variance (ANOVA) and Bonferroni post hoc multiple comparisons were conducted for comparing means of the Grit Scale and subscales to four different combinations of medical training and practice location. Chi-square tests were performed to examine relationships between levels of satisfaction and medical training, practice location, and combinations of both. Independent t-tests were used when comparing Grit Scale and subscale scores to levels of satisfaction among Idaho physicians.

Both rural and non-rural physicians reported similar levels of overall grit ($M = 3.30$, $SD = 0.32$ and $M = 3.29$, $SD = 0.34$, respectively). Primary care and specialty care physicians also reported similar levels of overall grit ($M = 3.27$, $SD = 0.32$ and $M = 3.31$, $SD = 0.34$, respectively). Specialty care physicians demonstrated a significantly higher level of perseverance of effort ($M = 4.24$, $SD = 0.42$) than primary care physicians ($M = 4.11$, $SD = 0.49$) (t [541] = 4.25, $p = 0.001$). Specialty care physicians also reported a significantly higher level of ambition ($M = 3.63$, $SD = 0.46$) than primary care physicians ($M = 3.45$, $SD = 0.49$) (t [550] = 4.43, $p < 0.001$). A statistically significant difference was found across multiple comparisons of the perseverance of effort subscale (F (3, 539) = 4.25, $p = 0.006$) and of the ambition subscale (F (3, 548) = 7.12, $p < 0.001$) among rural primary, rural specialty, non-rural primary, non-rural specialty care physicians. Further analysis revealed that non-rural specialty care physicians demonstrated a significantly higher level of perseverance of effort ($M = 4.23$, $SD = 0.38$) than non-rural primary care physicians ($M = 4.09$, $SD = 0.52$) ($p = 0.005$). Non-rural specialty care physicians also reported a significantly higher level of ambition ($M = 3.63$, $SD = 0.47$) than non-rural primary care physicians ($M = 3.42$, $SD = 0.51$) ($p < 0.001$). Rural specialty care physicians also had a significantly higher level of ambition ($M = 3.63$, $SD = 0.42$) than non-rural primary care physicians ($M = 3.42$, $SD = 0.51$) ($p = 0.020$).

Satisfaction responses were collapsed into two categories: Satisfied and Unsatisfied for the analysis purpose. Very Satisfied and Satisfied categories were collapsed into the Satisfied category, while Very Unsatisfied and Unsatisfied categories were collapsed into the Unsatisfied category. Non-rural physicians report similar levels of satisfaction (92.4%) compared to rural physicians (89.4%). Satisfaction levels did not have any significant relationship with practice location (χ^2 (1, N = 546) = 1.23, p = 0.27). A statistically significant difference (χ^2 (1, N = 543) = 5.17, p = 0.023) was found between the satisfaction rates of primary care physicians (88.7%) compared to specialty care physicians (94.1%). Although no statistically significant relationship was observed between satisfaction levels (satisfied versus unsatisfied) and a combination of practice location and medical training (χ^2 (3, N = 543) = 5.92, p = 0.12), 26.5% (22/83) of the rural primary care physicians were very satisfied with their current practice. Both satisfied and unsatisfied physicians report the same levels on the grit scale (M = 3.29, SD = 0.33 and M = 3.29, SD = 0.31) and similar levels on the brief grit scale (M = 3.24, SD = 0.32 and M = 3.27, SD = 0.46). Moreover, satisfied and unsatisfied physicians report similar levels for the consistency of interest subscale (M = 2.39, SD = 0.60 and M = 2.52, SD = 0.52), the perseverance of effort subscale (M = 4.19, SD = 0.46 and M = 4.06, SD = 0.47) and the ambition subscale (M = 3.55, SD = 0.48 and M = 3.48, SD = 0.55).

This is the first study to assess both rural and non-rural primary care and specialty care physician's self reported levels of grit and satisfaction in current practice in Idaho. The primary limitation of this research is that the respondents for the surveys may not represent the entire eligible respondent classes. The overall response rates for the two surveys were reasonable given the survey methodology. A second limitation of the research is that small sample sizes in some analyses yielded limited statistical power to detect differences between groups. Increasing the sample sizes in these comparisons would enhance the probability of detecting statistically significant differences between groups, if such differences actually exist. Further studies assessing levels of grit and satisfaction in states with larger non-rural settings and other associated differences may yield levels of grit and satisfaction revealing important regional and or demographic distinctions.

Idaho Rural Family Physician Workforce Study:
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In Idaho Physicians

Introduction

The American Academy of Family Physicians released a report in September of 2006 which suggested that Idaho, along with Nevada, Arizona, Florida and Texas, would experience serious shortages of family physicians by 2020. Currently, Idaho is already experiencing physician shortages and the Idaho Health Workforce profile identified Idaho as ranking 49th out of 50 states in physicians per capita (HRSA, 2000). While many family physicians practicing in Idaho do so in rural areas, access to physicians remains limited. These rural areas experience significant challenges in both recruiting and retaining family physicians (MGT of America, Inc., 2007).

Rural communities throughout the United States are eager to recruit and retain family physicians. Workforce shortages, hospital closures and declining services have created an uncertain future for doctors considering a career in rural medicine (Eley, Young, & Shrapnel, 2008). Moreover, rural family physicians have reported increased workload and professional isolation as just a few of the factors that have led them to experience work dissatisfaction and/or leave rural family practice (Gardiner, Sexton, Durbridge, & Garrard, 2004; Kamien, 1998).

Numerous strategies have been employed to increase retention rates for rural family physicians, including increasing the number of locums available, providing specific skills training, enhancing community appeal, and instigating multi-doctor communities (Gardiner et al., 2004). For example, the Community Apgar Questionnaire (CAQ) was designed to help communities assess their relative strengths and weaknesses and to gain a better understanding of which factors are seen as most important from the physician point-of-view (Schmitz, Baker, Epperly, Reed, & Nukui, 2008). While these are important strategies to consider for retaining rural family physicians, one assumes in using these strategies that all rural doctors and their communities are capable of changing their behavior to comply (Eley et al., 2008). This concern has led to an increasing area of research, namely understanding the psychological characteristics of rural physicians who are satisfied with their practice and remain in their communities. Previous

research has found that rural family physicians are highly self-directed, caring, cooperative, objective and persistent (Ely et al., 2008). Rural family physician's who tended to leave rural practice due to dissatisfaction had higher harm avoidance than those family physician's intent on staying (Eley et al., 2008). Recent research has also found that rural family physician's differ in their levels and profile of temperament and character traits when compared to urban family physicians (Eley, Young, & Przybeck, 2009). Eley et al (2009) discovered significantly higher levels of curiosity, impulsivity and enthusiasm and lower levels of relaxation, confidence in uncertain situations, and optimism in the rural family physicians compared with the urban family physicians. Additional research has suggested that career satisfaction for rural physicians is associated with being able to cope with stress in handling a wide variety of clinic conditions largely on their own (Lepnurm, Dobson, Backman, & Keegan, 2007). This study serves as a starting point to examine the psychological construct of grit in medical doctors, particularly those practicing in rural versus non-rural settings.

One potential psychological construct, grit, may help to explain the non-cognitive traits that account for both rural physician satisfaction and retention. Grit is defined as perseverance and passion for long-term goals, working strenuously towards challenges, and maintaining effort and interest over years despite failure, adversity, and plateaus in progress (Duckworth, Peterson, Matthews, & Kelly, 2007). Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course (Duckworth et al., 2007). For example, research has suggested that grittier individuals make fewer career changes than less gritty individuals (Duckworth et al., 2007). Moreover, grit was a better predictor of first summer retention of cadets at West Point than was either self-control or a summary measure of cadet quality used by the West Point Administration Committee (Duckworth et al., 2007). Grittier competitors in the Scripps National Spelling Bee performed better than less gritty individuals of the same age, though this may due in part because of more accumulated practice (Duckworth et al., 2007). The developers of this construct have suggested that grit may be as essential as IQ to high achievement and grit, more that self-control or conscientiousness, may set apart the exceptional individuals who make maximal use of their abilities (Duckworth et al., 2007).

Background

Boise State University (BSU) originally entered into a contract (HC565300) with the Idaho Department of Health and Welfare (IDHW) in November of 2006 to conduct research related to the Idaho Family Medicine physician rural work force in partnership with the Family Medicine Residency of Idaho (FMRI). Generally, the purpose of this contract was twofold: (1) to support the goals and objectives of the State Office of Rural Health grant (CFDA 93.913); and, (2) to support the mission of the State Office of Rural Health and Primary Care to improve access to quality healthcare services for the people of Idaho. Furthermore, this research was aligned with the IDHW Strategic Plan FY 2005-2008, Goal 3, to integrate health and human services.

Specifically, BSU and FMRI agreed to provide the following services and deliverables in the first year of the contract.

1. To research recruitment and retention issues faced by rural hospital administrators and rural family physicians in states similar to Idaho and produce a summary of research findings.

2. To use the research findings noted in #1 to develop and implement survey instruments to gather Idaho-specific information about rural family physician recruitment and retention challenges experienced by rural hospital administrators and practicing rural family physicians in Idaho.

3. To analyze the survey results and to create a written summary of the findings with recommendations.

BSU and FMRI successfully provided these services and deliverables in July 2007. It is particularly noteworthy that the Idaho Academy of Family Physicians (IAFP) and the Idaho Hospital Association (IHA) worked collaboratively with BSU and FMRI in producing these results. The findings of the first year of the study indicated that Idaho family medicine physicians had a broad scope of practice, used technology to advance clinical and educational goals and were generally satisfied with their rural practice. Idaho rural hospital administrator results produced similar findings regarding scope of work, technology use and satisfaction patterns. The findings were formally presented to state, regional and national groups at several

conferences and were published in various magazines and are currently being evaluated by peer-reviewed journals.

In November of 2007, BSU entered into a second contract (HC596600) with the Idaho Department of Health and Welfare (IDHW) to conduct a second year of research related to the Idaho family medicine physician rural work force, again in partnership with FMRI. The general purpose and alignment with IDHW strategic goals were equivalent to the November 2006 contract.

Specifically, BSU and FMRI agreed to provide the following services and deliverables in the second year of the contract.

1. To develop an objective measurement tool to assess the characteristics and parameters of rural Idaho communities which are associated with the ability of the community with regard to successful recruitment and retention of a complete medical staff. BSU and FMRI agreed to provide a copy of this instrument to the Department of Health and Welfare – Office of Rural Health and Primary Care.

2. To administer the measurement tool to medical leaders in a structured interview format in selected rural Idaho communities.

3. To analyze the survey results and to create a written summary of the findings with recommendations.

BSU and FMRI successfully provided these services and deliverables in July 2008. Again, it is particularly noteworthy that the IAFP and the IHA worked collaboratively with BSU and FMRI in producing these results. The findings of the second year of the study indicated that the Community Apgar Questionnaire (CAQ), a measurement tool developed to assess the characteristics and parameters of rural Idaho communities related to recruitment and retention of family physician, seemed to not only discriminate between communities with greater assets and capabilities and those with lesser assets and capabilities but also appeared to accurately correlate to historical community-specific workforce trends. The findings were formally presented to state, regional and national groups at several conferences and were published in various magazines and will be submitted to peer-reviewed journals.

In November of 2008, BSU entered into a third contract (HC596600) with the Idaho Department of Health and Welfare (IDHW) to conduct a third year of research related to the Idaho family medicine physician rural work force, again in partnership with the Family Medicine Residency of Idaho (FMRI). The general purpose and alignment with IDHW strategic goals were equivalent to the November 2006 and 2007 contracts.

Specifically, BSU and FMRI agreed to provide the following services and deliverable in the third year of the contract:

1. To identify an objective measurement tool to assess the psychological characteristics of physicians that may explain the high rates of satisfaction among rural Idaho family medicine physicians

2. To administer the measurement tool to all members of the Idaho Academy of Family Physicians and Idaho Medical Association.

3. To analyze the survey results and create a written summary of the findings with recommendations.

This report serves as the deliverable to the above referenced BSU and FMRI commitments. The IAFP and the IMA worked collaboratively with BSU and FMRI in producing these results. Appendix A contains the measurement tool, the Grit Scale along with several additional questions. The administration of the Grit Scale is described in the methods section. The Results section provides a summary and analysis of the Grit Scale. Finally, the discussion section describes the findings in greater detail as well as future recommendations for the utility of the Grit Scale.

Methods

Human Subjects Review and Approval

The research methods described in this section as well as the Grit Survey and associated documents found in Appendix A were reviewed and approved by the Boise State University Human Subjects Institutional Review Board on January 6, 2009. Drs. Reed, Schmitz and Baker were identified as the co-principal investigators for the research and were responsible for the conduct of the study.

Research Questions

The focus of the Phase III work will be to address the following research questions:

1. Do Grit levels vary across rural versus non-rural physician categories?
2. Do Grit levels vary across primary care versus specialty care physicians?
3. Do Grit levels vary across combinations of rural/non-rural and primary care/specialty care physician categories?
4. Do satisfaction levels vary across rural versus non-rural physician categories?
5. Do satisfaction levels vary across primary care versus specialty care physicians?
6. Do satisfaction levels vary across combinations of rural/non-rural and primary care/specialty care physician categories?
7. Is there a relationship between Grit and satisfaction across combinations of rural/non-rural and primary care/specialty care physician categories?

Survey

The Grit Scale (Duckworth et al., 2007) questionnaire is one page long (See appendix A). There are 17 questions on 5-point Likert scales ranged from 1 = *Not like me at all* to 5 = *Very much like me* assessing the non-cognitive trait of grit. The questionnaire is used to measure the Grit Scale and four subscales including Consistency of Interest, Perseverance of Effort, Ambition and the Brief Grit Scale. The authors of this scale have given permission to use this scale for this study.

Three additional questions about area of medical specialty, completion of a fellowship and satisfaction with practice were added to the survey. Physicians were classified as primary care if their response to the medical specialty question was family medicine, internal medicine or pediatrics. Physicians were classified as specialty care if their response to the medical specialty question was emergency medicine, obstetrics/gynecology, psychiatry, general surgery, other surgery subspecialty, or other medical subspecialty.

Selection and Recruitment of Target Population

The target populations for the Grit Survey were physicians (M.D. or D.O., licensed in the State of Idaho) who were either members of the IAFP or IMA. The current membership rates at the time of this study were 84% for the IAFP and 79% for the IMA. The IAFP was the primary contact to family physician members for all correspondence related to this research. The IMA was the primary contact to all non-IAFP IMA physician members for all correspondence related to this research. Physician members of the IAFP and IMA whose practice locations were in a county with a population under 50,000 people were defined as rural physicians, and physician members of IAFP and IMA whose practice locations were in a county with a population over 50,000 people were defined as non-rural physicians. Thirty-eight of 44 counties in Idaho were defined as rural. The IAFP membership includes 158 (35%) of its membership as rural and 294 (65%) as non-rural while the IMA membership includes 566 (28.5%) of its membership as rural and 1422 (71.5%) as non-rural.

Survey Administration Process

The IAFP and the IMA both followed the same survey administration process and timeline for distributing their surveys. First, the IAFP and IMA sent a pre-survey e-mail notification to their respective respondents on or about February 9, 2009, that a survey would be sent to members of their associations related to the psychological construct of grit and satisfaction in physicians (see Appendices). The IAFP and IMA then sent a second e-mail notification to their respective respondents on or about February 17th that the survey had been sent. Simultaneously, the surveys were mailed to 2126 respondents as incorrect addresses resulted in 38 surveys being

returned. The survey package (see Appendices A through C) included: (1) the survey, (2) a cover letter with either the IAFP or IMA letterhead, and (3) a Boise State University Center for Health Policy return postage paid business reply mail envelope. The survey package was enclosed in an IAFP or IMA official envelope. Respondents were requested to return the survey by March 1, 2009. A color-coded (rural versus non-rural coding) survey was utilized. On or about February 25th, a reminder e-mail was sent by the IAFP and IMA (see Appendix B and C). Completed surveys were sent to Boise State University and were processed in the Center for Health Policy.

Data Processing, Analysis, and Storage

The surveys were processed at Boise State University by researchers who coded quantitative responses and entered these data into an Access database.

These data were transferred from the Access database to SPSS (Version 14.0) for statistical analysis. The Grit Scale and subscales were calculated as the average score of relevant items in the questionnaire following the directions provided by Duckworth, et al. (2007). The overall analyses for the Grit Survey employed descriptive statistics. Independent t-tests were performed to determine the statistical significance of relationships among Grit Scale, subscales, medical training (primary versus specialty), and practice location (rural versus non-rural). A one way analysis of variance (ANOVA) and Bonferroni post hoc multiple comparisons were conducted for comparing means of the Grit Scale and subscales to combinations of medical training and practice location (rural primary, rural specialty, non-rural primary, non-rural specialty). Chi-square tests were performed to examine relationships between levels of satisfaction and medical training, practice location, and combinations of both. Independent t-tests were used when comparing Grit Scale and subscale scores to levels of satisfaction among Idaho physicians.

These data have been stored in locked files and password protected hard drives at the Center for Health Policy at the College of Health Sciences, Boise State University. Access to the raw data has been limited to the research investigators.

Results

The survey was successfully sent to a total of 2126 physicians by mail. Of the 2126 physicians, 564 responded, yielding a response rate of 26.5%. The response rate of rural physicians was 30.5% (151/495), and that of non-rural physicians was 25.3% (413/1631). Of the total respondents, 151 (26.8%) were rural physicians and 413 (73.2%) were non-rural physicians. Of those who indicated their medical specialty (N = 561), 256 (45.4%) and 305 (54.1%) were categorized as primary and specialty care physicians, respectively. The IAFP membership includes 158 (35%) of its membership as rural and 294 (65%) as non-rural while the IMA membership includes 566 (28.5%) of its membership as rural and 1422 (71.5%) as non-rural. A total of 87 (15.5%) responding physicians were rural primary care physicians; 64 (11.4%), rural specialty care physicians; 169 (30.0%), non-rural primary care physicians; and 241 (42.7%) non-rural specialty care physicians.

Grit Scale Questionnaire Responses

The results of each of the 17 questions for the Grit Scale can also be found in Table 1. Most physicians report they aim to be the best in the world at what they do (42.2% responded "Mostly like me", 27.1% responded "Very much like me."). The majority of physicians report they have overcome setbacks to conquer and important challenge (39.3% for "Mostly like me", 36.4% for "Very much like me."). For the question, "New ideas and projects sometimes distract me," most physicians (35.1%) responded "Somewhat like me" while 33.1% responded "Not much like me." Most physicians report they are ambitious (44.9% for "Mostly like me", 31.6% for "Very much like me."). The majority of physician's interests do not change from year to year (48.0% for "Not much like me."), though some report slight changes in interest (26.4% for "Somewhat like me."). For the question, "Setbacks don't discourage me," most physicians (39.4%) responded "Mostly like me," although 33.0% responded "Somewhat like me." Very few physicians report that they have been obsessed with a certain project but later lost interest (9.3% for "Mostly like me", 1.2% for "Very much like me."). Nearly all physicians (70.7% for "Very much like me.") report that they are hard workers. Very few physicians report that that often set goals but later choose to pursue a different one (7.8% for "Mostly like me", 0.9% for "Very much like me.") or have difficulty maintaining their focus on projects (8.2% for "Mostly like me", 0.7% for "Very much like me."). Most physicians report finishing what they begin (57.7% for "Mostly like me",

24.4% for "Very much like me."). Additionally, many physicians report that achieving something of lasting importance is the highest goal (40.6% for "Mostly like me", 22.3% for "Very much like me."). Very few physicians report that achievement is overrated (5.7% for "Mostly like me", 2.7% for "Somewhat like me."). Nearly all physicians report that that have achieved a goal that took years to work (63.2% for "Very much like me", 30.2% for "Mostly like me."), that they are driven to succeed (44.8% for "Mostly like me", 33.3% for "Very much like me."), and are diligent (48.6% for "Very much like me", 43.5% for "Mostly like me."). Very few physicians report that they become interested in new pursuits every few months (11.4% for "Mostly like me", 1.6% for "Very much like me.").

Satisfaction and Demographic Characteristics

Table 2 shows the satisfaction levels and demographic characteristics of the responding physicians. Of the responding physicians, 42.0% (n = 230) were very satisfied and 49.7% (n = 272) were satisfied with their current practice, while 6.4% (n = 35) were unsatisfied and 1.83% (n = 10) were very unsatisfied with their current practice. The most common medical specialty was family medicine (n = 189), followed by medical subspecialty (n = 134), other surgical subspecialty (n = 100), internal medicine (n = 46), OB/GYN (n = 40), emergency medicine, pediatrics, and psychiatry (n = 27 each). Examples of medical subspecialty include radiology (n = 15), dermatology (n = 12), cardiology (n = 10), gastroenterology (n = 10), and sports medicine (n = 9). Examples of surgical subspecialty include orthopedics (n = 36), ophthalmology (n = 15), otolaryngology (n = 10), urology (n = 8), and anesthesiology (n = 7). Of the responding physicians, 34% (183/539) indicated that they have completed a fellowship in their area of specialty.

Grit Scale and Subscale Scores

Table 3 shows the overall Grit Scales and Subscales (Duckworth et al., 2007) scores for all the responding physicians. Questions were asked on a 5-point Likert scale ranging from 1 (Not like me at all) to 5 (Very much like me). Participants reported a mean Grit level of 3.29 (SD = 0.33). For the Grit Subscales, a mean Consistency of Interest level of 2.40 (SD = 0.60), a mean Perseverance of Effort level of 4.18 (SD = 0.46) and a mean Ambition level of 3.55 (SD = 0.48)

were reported by responding physicians. Table 3 also provides the mean responses to the variables in the Grit Scale (Duckworth et al., 2007) questionnaire.

Comparison of Mean Grit Scale and Subscales by Practice Location

The results of Grit Scale comparisons by practice location can be found in Table 4. The similar levels of overall grit were found for rural (M = 3.30, SD = 0.32) and non-rural physicians (M = 3.29, SD = 0.34). Rural and non-rural physicians also reported the similar levels of consistency of interest (M = 2.38, SD = 0.60 and M = 2.40, SD = 0.61, respectively), perseverance of effort (M = 4.18, SD = 0.41 and M = 4.19, SD = 0.48, respectively), brief grit scale (M = 3.21, SD = 0.32 and M = 3.25, SD = 0.33, respectively), and ambition (M = 3.56, SD = 0.44 and M = 3.55, SD = 0.50, respectively). No statistically significant difference was found in Grit scale and subscales between rural and non-rural physicians.

Comparison of Mean Grit Scale and Subscales by Medical Training

The results of this comparison are profiled in Table 5. Table 5 shows that primary care (M = 3.27, SD = 0.32) and specialty care physicians (M = 3.31, SD = 0.34) reported similar levels of overall grit. Primary care and specialty care physicians also reported similar levels of consistency of interest (M = 2.43, SD = 0.62 and M = 2.37, SD = 0.59, respectively) and grit on the brief grit scale (M = 3.25, SD = 0.31 and M = 3.24, SD = 0.35, respectively). Specialty care physicians demonstrated a significantly higher level of perseverance of effort (M = 4.24, SD = 0.42) than primary care physicians (M = 4.11, SD = 0.49) (t [541] = 4.25, p = 0.001). Specialty care physicians also reported a significantly higher level of ambition (M = 3.63, SD = 0.46) than primary care physicians (M = 3.45, SD = 0.49) (t [550] = 4.43, $p < 0.001$).

Comparison of Mean Grit Scale and Subscales by Combinations of Practice Location and Medical Training

The results of this comparison are shown in Table 6. Table 6 shows that the average score for the perseverance of effort subscale (F (3, 539) = 4.25, p = 0.006) and the ambition subscale (F (3, 548) = 7.12, $p < 0.001$) was not the same among rural primary care, rural specialty care, non-rural primary care, and non-rural specialty care physicians. The results also indicated that non-rural specialty care physicians demonstrated a significantly higher level of perseverance of effort

(M = 4.23, SD = 0.38) than non-rural primary care physicians (M = 4.09, SD = 0.52) (p = 0.005). A significantly higher level of ambition was reported by rural specialty care (M = 3.63, SD = 0.42) and non-rural specialty care physicians (M = 3.63, SD = 0.47) compared to non-rural primary care physicians (M = 3.42, SD = 0.51) (p = 0.020 and $p < 0.001$, respectively).

Comparison of Satisfaction Levels by Practice Location

The results of this comparison are described in Table 7 and 8. Table 7 shows that nearly 90% of the rural physicians were either very satisfied (32.6%) or satisfied (56.9%) with their current practices, while 8.3% reported being unsatisfied and 2.1% reported being very unsatisfied. Non-rural physicians reported similar levels of being very satisfied (45.5%) or satisfied (47%) with their current practice, while 5.7% reported being unsatisfied and 1.7% reported being very unsatisfied. Table 8 shows that satisfaction levels, which were collapsed into two categories: Satisfied and Unsatisfied for the analysis, did not have any significant relationship with practice location (χ^2 (1, N = 546) = 1.23, p = 0.27).

Comparison of Satisfaction Levels by Medical Training

The results of this comparison appear in Tables 9 and 10. Table 9 shows that most primary care physicians were either satisfied (53.2%) or very satisfied (35.6%) with their current practice, while 9.6% were unsatisfied and 1.6% were very unsatisfied. Specialty care physicians reported similar levels of being very satisfied (47.4%) or satisfied (46.8%) with their current practice, while only 3.8% report being unsatisfied and 2.0% are very unsatisfied. Table 10 shows that specialty care physicians were more likely to be either very satisfied or satisfied with their current practice than primary care physicians (χ^2 (1, N = 543) = 5.17, p = 0.023). The results also indicated that odds of specialty care physicians being either very satisfied or satisfied with their current practice were twice as likely as those of primary care physicians (OR = 2.05, 95% CI = 1.09, 3.84).

Comparison of Satisfaction Levels by Combinations of Practice Location and Medical Training

The results of this comparison are shown in Table 11 and 12. Table 11 shows the similar levels of satisfaction among that rural primary care (86.7%), rural specialty care (93.5%), non-rural primary care (89.8%), and non-rural specialty care physicians (94.4%). In spite of the similar

collapsed satisfaction levels, only 26.5% (22/83) of the rural primary care physicians were very satisfied with their current practice, while over 40% of rural specialty care (41.0%), non-rural primary care (40.1%), and non-rural specialty care physicians (49.1%) indicated that they were very satisfied with their current practice. Table 12 shows that satisfaction levels did not have any significant relationship with combinations of practice location and medical training (χ^2 (1, N = 543) = 5.92 p = 0.12).

Comparison of Mean Grit Scale and Subscales by Satisfaction Levels

The results of this comparison are listed in Table 13. Both satisfied and unsatisfied physicians reported the same levels on the grit scale (M = 3.29, SD = 0.33 and M = 3.29, SD = 0.31) and similar levels on the brief grit scale (M = 3.24, SD = 0.32 and M = 3.27, SD = 0.46. Moreover, satisfied and unsatisfied physicians reported similar levels for the consistency of interest subscale (M = 2.39, SD = 0.60 and M = 2.52, SD = 0.52), the perseverance of effort subscale (M = 4.19, SD = 0.46 and M = 4.06, SD = 0.47) and the ambition subscale (M = 3.55, SD = 0.48 and M = 3.48, SD = 0.55). No statistically significant differences were observed in the grit scale and subscales between satisfied and unsatisfied physicians.

Discussion

The discussion section is divided into four areas. First, the research limitations of this study are described. The second area discusses the results for the Grit Scale Survey. The third section reviews the satisfaction rates and comments on the comparisons between mean grit scale scores and satisfaction rates. Lastly, the fourth section provides recommendations for further study.

Research Limitations

The primary limitation of this research is that the respondents for the surveys may not represent the entire eligible respondent classes. However, the high membership rates of the facilitating organizations, 79% for the IMA and 84% for the IAFP, suggest that those physicians surveyed are likely to be representative of the physician population of Idaho. The response rates of rural physicians (30.5%) and non-rural physicians (25.3%) were similar to the overall response rate (26.5%). Additionally, the classification of respondents as rural (26.8%) and non-rural (73.2%) were similar to these populations in the organizational memberships of the IMA (28.5% rural, 71.5% non-rural) and the IAFP (35% rural, 65% non-rural). The overall response rates for the two surveys were reasonable given the survey methodology. The non-respondents could significantly impact the grit scale and satisfaction rates.

A second limitation of the research is that small sample sizes in some analyses yielded limited statistical power to detect differences between groups. Increasing the sample sizes in these comparisons would enhance the probability of detecting statistically significant differences between groups, if such differences actually exist.

Grit Scale Survey

Overall, both non-rural and rural physicians, primary care and specialty care, reported the same level of grit which falls within the response of "somewhat like me" on the 5 point scale used in the survey. A similar finding was found in the brief grit scale for rural and non-rural physicians. Comparable findings were observed for the overall grit scale between primary care physicians and specialty care physicians. This finding suggests that as a whole, all physicians practicing

throughout Idaho see themselves as individuals who work hard and perform well, despite potential setbacks in their lives.

Both non-rural and rural physicians reported lower levels of consistency of interest in their work. Similar levels were found when comparing primary care physicians and specialty care physicians. This subscale includes items such as "I often set a goal but later choose to pursue a different one" or "my interests change from year to year." This was one of the more surprising findings in the survey and may reflect how the interests of physicians who practice in Idaho are frequently evolving and changing. This can be a benefit for physicians as medical information and technology changes on a frequent basis and they must learn to change interests in medical procedures and information in order to keep up with the latest evidence based medicine. This finding may also reflect that physicians who are attracted to practicing in Idaho enjoy a broad scope of practice and lifestyle, as suggested among rural Family Physicians in the previous Idaho Family Physician Rural Work Force Assessment Pilot Study (Baker, Schmitz, Newell, & Ford, 2007) research.

Rural and non-rural physicians reported higher levels of perseverance of effort. This subscale includes items such as "I have overcome setbacks to conquer an important challenge" and "setbacks don't discourage me." This finding is not surprising given the lengthy education individuals must accomplish in order to become physicians. One must anticipate failures and misfortunes and one must point out that excellence in any discipline requires years and years of time on a task (Duckworth et al., 2007). Practicing physicians in rural and non-rural settings must continue to work hard and persevere for their patients in order to remain successful. The statistically significant finding of higher levels of perseverance of specialty care physicians compared to primary care physicians appears congruent with the longer period of training compared to primary care physicians. Further analysis of this subscale found a statistically significant difference between non-rural primary care and non-rural specialty care physicians, which suggests that higher levels of perseverance are associated with becoming a specialty physician compared to becoming a primary care physician. However, it is important to note that despite the statistically significant findings, these findings may have less practical significance as both group's responses generally fall within the same response on the 5 point scale. The finding

of high perseverance of effort is quite interesting when compared to the lower consistency of interest levels. This may be a phenomenon that occurs among physicians as a whole or may reflect a regional occurrence. This set of characteristics could also have implications for physician satisfaction and recruitment if found to be a regional occurrence. For example, practice situations that provide an opportunity for varied skills and new learning (such as the broad scope of practice which occurs in Idaho physician practices) in combination with a demand for high perseverance (also found in such practices with less outside resources) may be the ideal practice situation to attract the kind of physicians identified in this study. Idaho as a rural state, isolated from other urban environments, may be unique in both the advantages and challenges offered for physician practices, and thus may self-select for certain physician characteristics. If confirmed as unique to this region, this information could impact both selection of physician workforce as well as the training of and selection of physician trainees.

Rural and non-rural physicians reported similar levels of ambition. Specialty physicians reported a statistically significant difference demonstrating higher levels of ambition compared to primary care physicians. Further analysis found a statistically significant higher level of ambition of rural specialty physicians compared to non-rural family physicians and non-rural specialty physicians compared to non-rural primary care physicians. This subscale includes items such as "I aim to be the best in the world at what I do" and "I am driven to succeed." In order to become a physician, one must have a desire to achieve such aptitudes.

Grit scale scores and satisfaction rates

Overall, physicians working in rural and non-rural settings reported that they were very satisfied or satisfied in their current practices. The finding of very high rates of satisfaction among Idaho physicians is consistent with similar findings among rural Family Physicians in the previous Idaho Family Physician Rural Work Force Assessment Pilot Study (Baker, Schmitz, Newell, & Ford, 2007). The confirmation of the very high satisfactions rates for rural Idaho Family Physicians found in that study (overall satisfaction rate 92.4% either satisfied or very satisfied) is now demonstrated to be a finding that is both consistent across practice location (rural 89.5% and non-rural 92.5%) as well as physician training (88.8% for primary care and 94.2% for specialty) in Idaho physicians. Specialty care physicians reported a significantly higher difference in their

levels of satisfaction with their practice compared to primary care physicians. Moreover, the odds of specialty care physicians being either very satisfied or satisfied with their current practice were twice as likely as those of primary care physicians. This finding may reflect a number of widely recognized differences, including levels of reimbursement, on-call duties, and duty hours.

The analysis of mean grit scale scores compared by satisfaction rates produced similar findings to the previous discussion of the mean grit scale and subscale scores. Overall, these findings suggest that levels of overall grit, consistency of interest, perseverance of effort and ambition are stable traits despite whether one is satisfied in their current job or not.

Recommendations for further study

Further studies assessing levels of grit and satisfaction in states with larger non-rural settings and other associated differences may yield levels of grit and satisfaction revealing important regional and/or demographic distinctions. The authors believe that Idaho's finding of high physician satisfaction rates may be unique and comparative analysis may be of substantial benefit in better understanding the factors leading to this finding. High rates of physician satisfaction have obvious workforce implications for Idaho and other states and when related to non-cognitive descriptors such as grit, consistency of interest, and levels of perseverance, are worthy areas for further study.

Summary

In conclusion, this is the first study to assess practicing Idaho physicians in both rural and non-rural primary care and specialty care settings for self reported levels of grit and satisfaction. The results of this study suggest that both primary care and specialty care physicians in both rural and non-rural settings reports themselves as individuals who work hard, persevere despite setbacks, and are ambitious. Moreover, Idaho physicians, rural and non-rural, primary care and specialty care, are satisfied with their current practices. The results of this study highlight the potential benefit of further studying the concept of grit and satisfaction among physicians in different regional areas of the United States. This in turn may lead to the potential utility of using the grit scale to help identify those physicians who may be more likely to be satisfied in their practices.

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Table 1
Grit Scale Questionnaire Responses

Items	*N*	Not like me at all (=1)	Not much like me (=2)	Somewhat like me (=3)	Mostly like me (=4)	Very much like me (=5)
I aim to be the best in the world at what I do	561	13 (2.3%)	37 (6.6%)	122 (21.7%)	237 (42.2%)	152 (27.1%)
I have overcome setbacks to conquer an important challenge	560	9 (1.6%)	38 (6.8%)	89 (15.9%)	220 (39.3%)	204 (36.4%)
New ideas and projects sometimes distract me from previous ones	562	35 (6.2%)	186 (33.1%)	197 (35.1%)	117 (20.8%)	27 (4.8%)
I am ambitious	564	5 (0.9%)	15 (2.7%)	113 (20.0%)	253 (44.9%)	178 (31.6%)
My interests change from year to year	561	56 (10.0%)	269 (48.0%)	148 (26.4%)	70 (12.5%)	18 (3.2%)
Setbacks don't discourage me	564	10 (1.8%)	87 (15.4%)	186 (33.0%)	222 (39.4%)	59 (10.5%)
I have been obsessed with a certain project but later lost interest	561	108 (19.3%)	250 (44.6%)	144 (25.7%)	52 (9.3%)	7 (1.2%)
I am a hard worker	564	0 (0.0%)	2 (0.4%)	14 (2.5%)	149 (26.4%)	399 (70.7%)
I often set goals but later choose to pursue a different one	562	95 (16.9%)	305 (54.3%)	113 (20.1%)	44 (7.8%)	5 (0.9%)
I have difficulty maintaining my focus on projects	560	140 (25.0%)	292 (52.1%)	78 (13.9%)	46 (8.2%)	4 (0.7%)
I finish whatever I begin	562	2 (0.4%)	13 (2.3%)	86 (15.3%)	324 (57.7%)	137 (24.4%)
Achieving something of lasting importance is the highest goal	561	18 (3.2%)	58 (10.3%)	132 (23.5%)	228 (40.6%)	125 (22.3%)
I think achievement is overrated	561	155 (27.6%)	252 (44.9%)	107 (19.1%)	32 (5.7%)	15 (2.7%)
I have achieved a goal that took years to work	562	2 (0.4%)	5 (0.9%)	30 (5.3%)	170 (30.2%)	355 (63.2%)
I have driven to succeed	562	5 (0.9%)	22 (3.9%)	96 (17.1%)	252 (44.8%)	187 (33.3%)
I become interested in new pursuits every few months	559	73 (13.1%)	257 (46.0%)	156 (27.9%)	64 (11.4%)	9 (1.6%)
I am diligent	554	1 (0.2%)	3 (0.5%)	40 (7.2%)	241 (43.5%)	269 (48.6%)

Note. Total percentage may not add up to 100 due to rounding. Percentages appear in parentheses next to group frequencies.

Table 2
Satisfaction Level and Demographic Characteristics

Demographic Characteristics	n	%
Satisfaction Level (N = 547)		
Very Satisfied	230	42.0
Satisfied	272	49.7
Unsatisfied	35	6.40
Very Unsatisfied	10	1.83
Medical Specialty (N = 561)		
Family Medicine	189	33.7
Medical Subspecialty	134	23.9
Other Surgery Subspecialty	100	17.8
Internal Medicine	46	8.2
Ob/Gyn	40	7.1
Emergency Medicine	27	4.8
Pediatrics	27	4.8
General Surgery	27	4.8
Psychiatry	15	2.7
Fellowship (N = 539)		
Yes	183	34.0

Note: Percentages may not add up to 100% due to rounding and the acceptance of multiple answers from respondents answering their medical specialty.

Table 3
Grit Scales and Subscales

Scale/Subscale	*N*	*M* (*SD*)
Grit	539	3.29 (0.33)
Consistency of Interest	552	2.40 (0.60)
Perseverance of Effort	546	4.18 (0.46)
Brief Grit	546	3.24 (0.33)
Ambition	555	3.55 (0.48)
Variables in the Grit Scale (Duckworth et al., 2007) questionnaire	***N***	***M* (*SD*)**
I aim to be the best in the world at what I do	561	3.85 (0.97)
I have overcome setbacks to conquer an important challenge	560	4.02 (0.97)
New ideas and projects sometimes distract me from previous ones	562	2.85 (0.98)
I am ambitious	564	4.04 (0.83)
My interests change from year to year	561	2.51 (0.95)
Setbacks don't discourage me	564	3.41 (0.93)
I have been obsessed with a certain project but later lost interest	561	2.29 (0.92)
I am a hard worker	564	4.67 (0.56)
I often set goals but later choose to pursue a different one	562	2.22 (0.85)
I have difficulty maintaining my focus on projects	560	2.08 (0.88)
I finish whatever I begin	562	4.03 (0.72)
Achieving something of lasting importance is the highest goal	561	3.68 (1.03)
I think achievement is overrated	561	2.11 (0.96)
I have achieved a goal that took years to work	562	4.55 (0.67)
I have driven to succeed	562	4.06 (0.86)
I become interested in new pursuits every few months	559	2.43 (0.91)
I am diligent	554	4.40 (0.66)

Note. Questions were asked on 5-point Likert scales ranged from 1 = *Not like me at all* to 5 = *Very much like me*.

Table 4
Grit Scales and Subscales by Practice Location

	Practice Location						
	Rural		Non-rural				
Scale/Subscale	*N*	*M* (*SD*)	*N*	*M* (*SD*)	*t*	*df*	*p*
Grit	141	3.30 (0.32)	398	3.29 (0.34)	-0.25	537	0.81
Consistency of Interest	146	2.38 (0.60)	406	2.40 (0.61)	0.38	550	0.70
Perseverance of Effort	145	4.18 (0.41)	401	4.19 (0.48)	0.05	544	0.96
Brief Grit	146	3.21 (0.32)	400	3.25 (0.33)	1.22	544	0.22
Ambition	148	3.56 (0.44)	407	3.55 (0.50)	-0.25	553	0.80

Table 5
Grit Scales and Subscales by Medical Training

	Medical Training						
	Primary		Specialty				
Scale/Subscale	*N*	*M* (*SD*)	*N*	*M* (*SD*)	*t*	*df*	*p*
Grit	246	3.27 (0.32)	290	3.31 (0.34)	1.25	534	0.21
Consistency of Interest	251	2.43 (0.62)	298	2.37 (0.59)	-1.08	547	0.28
Perseverance of Effort	249	4.11 (0.49)	294	4.24 (0.42)	3.46	541	0.001
Brief Grit	250	3.25 (0.31)	293	3.24 (0.35)	-0.16	541	0.88
Ambition	252	3.45 (0.49)	300	3.63 (0.46)	4.43	550	< 0.001

Table 6
Grit Scales and Subscales by Practice Location and Medical Training

Scale/ Subscale	Practice Location × Medical Training									
	Rural Primary		Rural Specialty		Non-rural Primary		Non-rural Specialty			
	N	*M* (*SD*)	*N*	*M* (*SD*)	*N*	*M* (*SD*)	*N*	*M* (*SD*)	*F*	*p*
Grit Scale	81	3.29 (0.35)	60	3.30 (0.28)	165	3.26 (0.31)	230	3.31 (0.36)	0.68	0.57
Consistency of Interest	84	2.39 (0.65)	62	2.35 (0.52)	167	2.44 (0.60)	236	2.37 (0.61)	0.52	0.67
Perseverance of Effort	83	4.14 (0.43)	62	4.23 (0.38)	166	4.09[a] (0.52)	232	4.25[a] (0.44)	4.25	0.006
Brief Grit	84	3.23 (0.34)	62	3.20 (0.30)	166	3.25 (0.29)	231	3.25 (0.36)	0.60	0.61
Ambition	85	3.51 (0.45)	63	3.63[c] (0.42)	167	3.42[bc] (0.51)	237	3.63[b] (0.47)	7.12	< 0.001

Note. Means with the same subscripts within rows are significantly different at the $p \leq .05$ based on Bonferroni post hoc comparisons.

Table 7
Satisfaction Level by Practice Location

	Practice Location	
	Rural	Non-rural
Satisfaction Level	*n* (%)	*n* (%)
Very Satisfied	47 (32.6)	183 (45.5)
Satisfied	82 (56.9)	189 (47.0)
Unsatisfied	12 (8.3)	23 (5.7)
Very Unsatisfied	3 (2.1)	7 (1.7)

Note. Total percentage may not add up to 100 due to rounding.

Table 8
Crosstabulation of Satisfaction Level and Practice Location

Satisfaction Level	Practice Location		χ^2	*OR* *(CI)*	*p*
	Rural	Non-rural			
Very Satisfied/ Satisfied	129 (132.1)	372 (368.9)	1.23	1.44 (0.75, 2.77)	0.27
Very Unsatisfied/ Unsatisfied	15 (11.9)	30 (33.1)			

Note. Expected frequencies if the null hypothesis was true appear in parentheses below group frequencies.

Table 9
Satisfaction Level by Medical Training

	Medical Training	
	Primary	Specialty
Satisfaction Level	*n* (%)	*n* (%)
Very Satisfied	89 (35.6)	139 (47.4)
Satisfied	133 (53.2)	137 (46.8)
Unsatisfied	24 (9.6)	11 (3.8)
Very Unsatisfied	4 (1.6)	6 (2.0)

Note. Total percentage may not add up to 100 due to rounding.

Table 10
Crosstabulation of Satisfaction Level and Medical Training

Satisfaction Level	Medical Training		χ^2	*OR* *(CI)*	*p*
	Primary	Specialty			
Very Satisfied/ Satisfied	222 (229.3)	276 (268.7)	5.17	2.05 (1.09, 3.84)	0.023
Very Unsatisfied/ Unsatisfied	28 (20.7)	17 (24.3)			

Note. Expected frequencies if the null hypothesis was true appear in parentheses below group frequencies.

Table 11
Satisfaction Level by Practice Location and Medical Training

	Practice Location × Medical Training			
Satisfaction Level	Rural Primary *n* (%)	Rural Specialty *n* (%)	Non-rural Primary *n* (%)	Non-rural Specialty *n* (%)
Very Satisfied	22 (26.5)	25 (41.0)	67 (40.1)	114 (49.1)
Satisfied	50 (60.2)	32 (52.5)	83 (49.7)	105 (45.3)
Unsatisfied	9 (10.8)	3 (4.9)	15 (9.0)	8 (3.4)
Very Unsatisfied	2 (2.4)	1 (1.6)	2 (1.2)	5 (2.2)

Note. Total percentage may not add up to 100 due to rounding.

Table 12
Crosstabulation of Satisfaction Level, Practice Location, and Medical Training

	Practice Location × Medical Training						
Satisfaction Level	Rural Primary	Rural Specialty	Non-rural Primary	Non-rural Specialty	χ^2	Φ	p
Very Satisfied/ Satisfied	72 (76.1)	57 (55.9)	150 (153.2)	219 (212.8)	5.92	0.10	0.12
Very Unsatisfied/ Unsatisfied	11 (6.9)	4 (5.1)	17 (13.8)	13 (19.2)			

Note. Expected frequencies if the null hypothesis was true appear in parentheses below group frequencies.

Table 13
Grit Scales and Subscales by Satisfaction Levels

	Satisfaction Level					
	Very Satisfied/ Satisfied		Very Unsatisfied/ Unsatisfied			
Scale/Subscale	*N*	*M* (*SD*)	*N*	*M* (*SD*)	*t*	*p*
Grit	479	3.29 (0.33)	44	3.29 (0.31)	-0.002	1.00
Consistency of Interest	489	2.39 (0.60)	45	2.52 (0.52)	-1.42	0.16
Perseverance of Effort	486	4.19 (0.46)	44	4.06 (0.47)	1.79	0.07
Brief Grit	485	3.24 (0.32)	44	3.27 (0.36)	-0.46	0.65
Ambition	493	3.55 (0.48)	44	3.48 (0.55)	0.93	0.35

Appendix A: Grit Survey of Idaho Physicians

We are in need of your invaluable assistance in understanding more about physician's perseverance and passion for long term goals. Would you kindly complete this brief survey? Your responses will remain confidential. Please do not write your name on this survey. Thank you.

Please circle one answer or fill in the blank.

- **Please respond to the following items. Be honest- there are no right or wrong answers**

1=Not like me at all 2=Not much like me 3=Somewhat like me 4=Mostly like me 5=Very much like me

1. I aim to be the best in the world at what I do 1 2 3 4 5
2. I have overcome setbacks to conquer an important challenge. 1 2 3 4 5
3. New ideas and projects sometimes distract me from previous ones 1 2 3 4 5
4. I am ambitious. 1 2 3 4 5
5. My interests change from year to year. 1 2 3 4 5
6. Setbacks don't discourage me. 1 2 3 4 5
7. I have been obsessed with a certain idea or project for a short time but later lost interest. 1 2 3 4 5
8. I am a hard worker 1 2 3 4 5
9. I often set a goal but later choose to pursue a different one. 1 2 3 4 5
10. I have difficulty maintaining my focus on projects that take more than a few months to complete. 1 2 3 4 5
11. I finish whatever I begin. 1 2 3 4 5
12. Achieving something of lasting importance is the highest goal in life. 1 2 3 4 5
13. I think achievement is overrated. 1 2 3 4 5
14. I have achieved a goal that took years of work. 1 2 3 4 5
15. I am driven to succeed. 1 2 3 4 5
16. I become interested in new pursuits every few months. 1 2 3 4 5
17. I am diligent. 1 2 3 4 5
18. Overall, how satisfied are you with your current practice? Very Satisfied Satisfied Unsatisfied Very Unsatisfied
19. Your medical specialty is:

Family Medicine Emergency Medicine

Internal Medicine Pediatrics

Medical Subspecialty:_____ Ob/Gyn

General Surgery Other Surgery Subspecialty:_____

Psychiatry

20. Did you complete a fellowship in your area of specialty? Yes No

THANK YOU!

Appendix B: IAFP Survey Cover Letter and E-mail Notification Documents

(Cover letter for IAFP physician survey)

IAFP Letterhead
Date
Physician Address
Dear Colleague (or individual name):

The Idaho Academy of Family Physicians (IAFP) is participating in a research study focused on physician recruitment and retention issues. The project will be used to understand individual factors that may account for physician retention and satisfaction. With your help, we can develop Idaho-specific data relevant to our state. Lawmakers and community leaders respond best to information that directly impacts their constituents. These data will help educate community and government decision makers concerning resources needed to assist physicians in their efforts to care for citizens in Idaho. It will enable the IAFP and other organizations to better support physicians.

Please take a few minutes to answer the questions on the survey and return it to Boise State University in the postage-paid envelope. We are requesting all surveys be returned by March 1, 2009. Due to the make-up of Idaho's population, the combined answers to these questions may make an individual person identifiable. We will make every effort to protect participants' confidentiality. However, if you are uncomfortable answering any of these questions, you may leave them blank.

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Thank you for helping us learn more about recruitment and retention issues impacting physicians in Idaho. This research is important in expanding access to quality health care and improving outcomes. The results will be available through the Idaho Academy of Family Physicians, Inc office in late July 2009.

Sincerely,

Keith Davis, MD.
President, Idaho Academy of Family Physicians, Inc.

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Appendix C: IMA Survey Cover Letter and E-mail Notification Documents

(Cover letter for IMA physician survey)

IMA Letterhead
Date
Physician Address
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