

Medical Student Perceptions of Healthy Lifestyles: A Qualitative Study

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Abstract

Medical student's commitment to personal and professional health promotion decreases during their 4 years of medical school. Changes in their personal health behaviors are accompanied by a congruent set of changes in their attitudes regarding health promotion. The purpose of this qualitative study was to learn more about medical student attitudes about healthy lifestyles. Focus group sessions were conducted among 45 volunteer medical students at West Virginia University School of Medicine using a 9 question script. Healthy lifestyles were defined as balancing the emotional, physical, social, and spiritual aspects of life. Although no differences were observed between basic and clinical science students with regard to their stated priorities, stark differences were observed with regard to their openness to learning about lifestyle, where basic science students were more receptive.

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Keywords: medical student, healthy lifestyles, medical school, qualitative analysis

Evidence suggests that incoming first year students of U.S. medical schools tend to have better health and physical fitness than their age group peers (Licciardone & Hagan, 1992). The majority of first year medical students regularly participate in physical exercise, consume a balanced diet, and are found to be at or near their ideal body weight. Their general level of wellness exceeds those of age- and gender-specific comparison groups among the general population (Licciardone & Hagan, 1992).

However, the process of medical training seems to have a negative impact on such qualities (Aktekin et al., 2001; Parkerson, Broadhead, & Tse, 1990; Wolf & Kissling, 1984; Wolf, von Almen, Faucett, Randall, & Franklin, 1991). During students' first year of medical school, there is a deterioration of nearly all aspects of health as they exercise with less frequency, experience an increased body mass index, (Parkerson, Broadhead, & Tse, 1990) do not maintain a balanced diet, (Wolf & Kissling, 1984) and experience increased levels of stress and depression (Aktekin et al., 2001; Wolf et al., 1991). Self-esteem and general life satisfaction were also found to decrease during the first year

(Wolf et al., 1991) Over half of first year medical students surveyed stated that they did not seek medical care when needed (Roberts et al., 2000).

Changes in the personal health behaviors of medical students are accompanied by a congruent set of changes in their attitudes regarding health promotion. Students entering medical school are generally optimistic, idealistic, and tend to have a positive attitude toward health promotion and preventive medicine (Bellas, Asch, & Wilkes, 2000). Studies suggest that during the four years of medical school, these positive attitudes steadily decline (Delnevo, Abatamarco, & Gotsch, 1996). By the fourth year of medical school, much of the optimism found among first year students has been replaced by increased cynicism (Testerman, Morton, Loo, Worthley, & Lamberton, 1996).

Once medical students graduate they are faced with new stressors such as rapid changes in the health care system, unprecedented growth of medical knowledge and technology, associated ethical dilemmas, and threats of malpractice

litigation. Data suggest that physicians have higher levels of stress and higher rates of cardiovascular mortality, when compared to other professional groups. Physicians are often negligent in obtaining routine medical care such as physical examinations, and are also less likely to seek psychiatric care when needed (Tyssen, Vagium, Granvold, & Ekeberg, 2001). Thus, physicians are often poor role models for preventive health care and a wellness lifestyle.

Studies indicate that physicians with better personal health habits are more likely to counsel patients about their health habits and behaviors (Wells, Lewis, Leake & Ware, 1984). Physicians who perceive themselves as overweight, are significantly less likely to counsel patients about the benefits of regular exercise, and a balanced diet (Lewis, Wells & Ware, 1986).

At a time when preventive care is increasingly recognized as important, and lifestyle generally contributes more to a person's health than medical treatment, heredity, or the environment, the apparent lack of enthusiasm for information about lifestyle is troubling. Faculty at the West Virginia University School of Medicine were concerned about the lack of interest on the student's part to learn and understand more about healthy lifestyles. Thus, we conducted a qualitative study of medical student perceptions of healthy lifestyles and health promotion among volunteers from the four classes of medical students at West Virginia University Morgantown during the 2000-2001 academic year. The purpose of this study is to learn more about medical student attitudes about healthy lifestyles. A secondary objective is to obtain information that may be helpful in integrating healthy lifestyle information into future curriculum at the School of Medicine.

Methods

West Virginia University (WVU) is located in Morgantown, West Virginia. The Morgantown campus had 354 medical students in 2000-2001, with 90 first year, 88 second year, 88 third year, and 88 fourth year students. Approximately one third of the second year class studies at the Charleston, WV campus for the third and fourth

year. These latter students were not included in the study. Eighty-five percent of medical students are residents of West Virginia at the time of application. There is an almost equal distribution of male and female medical students.

This study examined West Virginia University medical students' attitudes and perceptions of healthy lifestyles and wellness issues. After conducting a review of the literature, the research team interviewed select WVU medical students, residents, faculty, staff, and administration regarding the seeming lack of interest in information about healthy lifestyles either for themselves or for their future patients. We decided to use focus groups to assist us to better understand personal and institutional barriers that might be contributing to this lack of interest.

Funding was received from the West Virginia University School of Medicine Dean's office. The study was approved by the West Virginia University Institutional Review Board. Informed consent was received from all subjects.

Participants

Morgantown-based medical students from all four classes were recruited to participate in the study by e-mail messages, flyers in mail boxes, announcements made in the weekly electronic medical student bulletin, encouragement by faculty, and announcements made in classes by class officers. Volunteers received twenty-five dollars and a free dinner as an incentive to participate. Of forty-eight students who volunteered, forty-five students participated in the study.

Procedure

Once the healthy lifestyle-related concepts were defined, the interview script (see Table 1) was developed by professionals, who had a background in wellness, medical anthropology, social work, and medical education. Three of these professionals had expertise in qualitative research. The materials were pilot tested among graduate students within the West Virginia University School of Medicine.

Table 1
 Nine Focus Group Questions Used In Medical Student Lifestyles Focus Groups

No.	Question
1.	What are your life priorities?
2.	What are the barriers to your life priorities?
3.	Which of your life priorities are impacted by your lifestyle?
4.	How does your lifestyle influence the barriers?
5.	What constitutes a healthy lifestyle? What do you do to create a healthy lifestyle for yourself and what prevents you from adopting a healthy lifestyle?
6.	You look on the syllabus and see that on Tuesday, there is a two-hour presentation on diet and health. What are your reactions? How do you feel about the upcoming presentation? Will you attend the class presentation? If not, why not?
7.	Consider yourself a consultant to the school of medicine, how would you make healthy lifestyle information more appealing to you and your classmates?
8.	Would medical education need to be changed in some way to promote healthy lifestyle in students and residents during their training? If so, what changes do you think would be helpful?
9.	How do you see your role as a physician in helping patients adopt a healthy lifestyle? Do you think this should be part of your responsibility or someone else's? How important do you believe it is for you to adopt a healthy lifestyle to be able to counsel your patients in this area?

Four 90-minute focus groups were held during January and February of 2001. Session One and Session Two involved the first and second year medical students, which are classified as basic science students (BSS). Session Three and Session Four involved the third and fourth year medical students, which are classified as clinical students (CS). We grouped the first and second year students because their learning activities have an intense focus on mastery of specified basic science material in preparation for the medical boards, which are taken after their second year. Medical students must pass these exams prior to beginning the third year of medical education. Clinical studies, the third and fourth year of medical education, provide students an array of learning experiences that are directly linked to the practice of clinical medicine.

Of the forty-five participants in the study, twenty-three were basic sciences students (eleven participating in Session One and twelve participating in Session Two) and twenty-two were clinical students (ten participating in Session Three and twelve participating in Session Four). Each student participated in one

90-minute session. The focus groups were facilitated by a qualitatively-trained medical anthropologist, who was assisted by another investigator.

During the focus groups, participants were seated around a large conference table within the WVU Health Sciences Center. The sessions were audio taped with two simultaneous audio-cassette recordings made for each session. The focus group script included nine questions (see Table I). The focus group facilitator provided each student with an opportunity to respond. The sessions were then transcribed and, after the transcription was verified for accuracy, the audio tapes were erased.

Analysis

Analysis included the utilization of QSR N5, the latest version of the NUD*IST (Non numerical Unstructured Data Indexing Searching and Theorizing) software. The focus group transcripts were formatted as plain text for input into N5 with paragraphs chosen as the unit of text for coding purposes. A codebook was developed based on the thematic responses to each question by project researchers. Two

researchers then coded each paragraph of the entire study independently. This process included coding analysis and revisions of coding with additional coding categories added as needed. Coding was completed with on-screen access to the coding structure developed by the project researchers. This enabled researchers to monitor and manage the emergence of ideas. A third researcher was asked to cross check coding for disputes about the coding for a particular response.

Once coding was complete, searches on each code were carried out to retrieve all text coding under each theme and to obtain the number of text units related to that theme. Researchers then chose quotes to illustrate the most prevalent and salient responses to each question.

Results

Life Priorities

We initiated the focus group sessions by asking about life priorities as a non-challenging introduction. The ordering of priorities was not significantly different for basic science and clinical year students, suggesting that their values did not alter as they progressed from their basic science to clinical studies during their medical training. Overall, family and friends were ranked the highest with 34% of the students indicating that they were a life priority: "My priorities are definitely my family and friends, anyone that I love." (BSS) Healthy lifestyle was ranked second in importance with 25% of the students indicating it was a life priority: "I try to maintain a balanced lifestyle with exercise and having fun." (BSS) Career was ranked 3rd in importance with 19% of the students indicating it was a life priority: "I need a career ... to allow me to enjoy it to the fullest extent." (BSS)

Barriers to Life Priorities

Overall, the greatest barrier to life priorities was lack of time with 27% of the students reporting it as a problem: "Another huge barrier for me is time because three thousand people want you three thousand different places all at the same time." (BSS) There were a greater percentage of clinical science students (34%) than basic science students (20%) who identified a lack of

time as a barrier to life priorities. The time barrier producing tension between nurturing a family and nurturing a career was a common concern, currently for some and perceived to be a barrier in the future for many: "I have found that the time that I do spend with my family quantitatively and qualitatively has decreased." (CS)

Internal barriers represented the second largest impediment to life priorities (reported by 21% of the students). These include stress, troubling emotions, conflicting priorities, not enough energy, losing perspective of what is really important, high expectations for self, and loss of control of their lives. Some students identified their personal attitudes as the limiting factor: "I'm probably the biggest barrier to most of the things that I'd like to accomplish." (CS) There is also recognition that external conditions prevent them from being at their best: "If you are under a lot of pressure and a lot of stress, you tend to not be as patient and as understanding as you might be if you weren't under that level of stress." (BSS) The pressures of the medical student experience overwhelm their abilities to stay focused on what is important: "...being able to see what's really important sometimes gets real clouded with different values." (CS) The majority of responses indicated that the students felt that their lifestyle dramatically changed when they entered medical school. They face the dilemma of "how to balance who I was before I was here and who I've become since I've been here." (BSS)

Lifestyle

In response to "Which of your life priorities are impacted by your lifestyle", 54% of basic sciences students mentioned relationships with family and significant others. Curiously, 84% identified "medical school" as their lifestyle. Students are attempting to find a balance between the demands of medical school and of their personal lives. Some feel at peace with the tension: "Things will balance out in the end." (BSS)

A minority felt that no barriers existed during medical school and therefore had no effect on their lifestyle. These students recognized that

they had control over their lives, and it was their reaction to the environment, rather than the demands of the medical educational environment itself, that dictated the quality of their life: "With the situation that we're in, ...we won't have any control over our schedules and our lives and where we live and work. The only thing that can be done is to keep things in perspective." (BSS) "I feel like med school rearranged my priorities and I learned to accept not having control and not being perfect." (CS)

Define and Create a Healthy Lifestyle

No differences were perceived between basic science and clinical students in responding to what constitutes a healthy lifestyle. Sixty-two percent of all students responded that establishing priorities enables them to develop perspective and maintain control over their lives: "Medical school has taught me the big picture. Forget about these stupid little things...that has kept me from being happy in the past. Medical school has taught me to prioritize..." (CS)

Both basic science and clinical students recognized that a healthy lifestyle is associated with a balance of the emotional, mental, physical, social and spiritual dimensions of their lives. The responses were evenly distributed except for a greater emphasis on mental health by basic science students as compared to clinical students. Establishing balance in one's life during medical school permeated the focus group discussions. The participants reiterated this balance theme: "A healthy lifestyle is complete health. If you're happy emotionally, physically, and mentally, then ...all of your problems I guess are going to resolve themselves." (BSS)

The concept of balance prevailed as a basis for creating a healthy lifestyle. Time management was mentioned by 38 percent of participants, recreational activities by 29 percent, and exercise by 16 percent. More basic science students emphasized recreational activities (40%) and exercise (26%) compared to clinical students (18% and 6%, respectively). Students recognized that regular physical activity helps maintain their alertness and contentment: "I make sure I go to the gym three times a week

and I go to my dance classes. And I make sure I do all the stuff that makes me happy." (CS)

Barriers to a Healthy Lifestyle

The most prominent barriers to a healthy lifestyle for WVU medical students are the time demands of the medical education program (73%). The time barrier to a healthy lifestyle was identified by both basic science and clinical students: "... I think school is a big barrier, but then another one is time also." (BSS) Money was mentioned as a barrier to a healthy lifestyle by 20% of the students (10% BSS and 30% CS): "My husband and I both have lots of loans to pay off..." (BSS)

Interest in Health Promotion

In response to question 6 of the focus group questions, 53% of all students stated that they would attend the two-hour lecture on diet and health. Interestingly, 83% of basic students responded affirmatively compared to 22% of clinical students. Thirty-eight percent indicated they would attend out of duty or obligation and that the subject matter would have no influence on the decision to attend. Twenty-nine percent said that they would not attend the presentation because of other life priorities, and the sessions would be boring. Twenty-four percent of the students indicated that maybe they would attend. Their attendance would depend on 1) other priorities at that time, and 2) the lecture style and the reputation of the instructor making the presentation.

The next question examined how the students would make lifestyle information more interesting and relevant. There was a wide range of responses from the students regarding this question. However, it seemed the most important factors to make healthy lifestyle information more appealing was how the information was delivered to the students (26% of all students) as well as providing information that was useful and needed (29% of all students). In terms of the lecture style, an interactive lecture style was the most important. One student shared that "using role-playing and patient and/or clinical scenarios" was the best way. Another commented that "...making it interactive was the most important factor." The

consensus was that "...learning through hands on experience..." was the most helpful way to retain information. Providing a cooking demonstration on how to eat healthy was also thought to be an excellent way to provide information.

In response to our inquiry about possible changes in the curriculum, both basic sciences students and clinical students offered similar remarks to this question. Students remarked that curricular schedule changes made for basic sciences students at West Virginia University already provided latitude in students' schedules that promoted a healthy lifestyle. Classroom learning is finished by 12 noon on most days such that most afternoons are open for students to study and have time for self-care.

Physician's Role in Health Promotion

Question 9 of the focus groups addressed how medical students perceived their future role as a physician with regard to health promotion. A majority of the students felt they had an important societal and personal obligation to their patients in assisting them to adopt a healthy lifestyle: "You're going to play that role whether you want to or not." (BSS) Several of the first and second year students also expressed concern about losing their idealism during the early years of their medical education.

In response to Question 10, most but not all students recognized it was their obligation to provide health education to their patients. Some noted that this responsibility was being delegated to patient educators because of time constraints. It was also pointed out that there might be more efficient ways to educate patients (media, posters, group teaching) than individual instruction.

We then challenged the students about the relevance of their own personal lifestyle and how it would impact their effectiveness in the education of their patients. Students expressed that it was important for their own sake first as well as for their patients: "I don't want a doctor who doesn't care about him/herself—how could they then care for you?" (BSS) And "You could harm your patients if you don't change." (CS)

Hypocrisy was an expressed concern. Physician lifestyle was seen to affect credibility with patients as well: "While you don't have to live it to teach it, you do if you expect them to listen." (CS)

Discussion

Volunteer medical student participants articulated significant interest in personal and professional healthy lifestyle behaviors. The demands of medical school are an obvious preoccupation to most medical students and a significant barrier to their present quality of life. Participants articulated priorities that placed value on friends, family, and personal health and wellness, more so than just their career concerns. This receptiveness surprised the researchers. We anticipated that the students would have expressed less receptiveness to the importance of a healthy lifestyle.

Students identified lack of time, lack of energy, lack of control, conflict between family and career, and stress as the main barriers to their life priorities. Most identified medical school as their "lifestyle", which was perceived to interfere with their priorities. To counteract these barriers, students felt that maintaining balance was most helpful to success in medical school and peace of mind. They defined a healthy lifestyle as a balance of the emotional, physical, social, and spiritual aspects of their lives. Balance was maintained by excellent time management, regular physical activity as well as keeping the challenges of medical school in perspective.

In 1948 the World Health Organization defined health as "...optimal well-being and not just the absence of disease." Later, in 1986, the Alma Ata Declaration of the World Health Organization promoted participation and control and noted that empowerment is "at the heart" of the health promotion process. Consistent with these notions, the medical students articulated the need for a holistic balance in their life. To be empowered is to have control. While the importance of control in achieving empowerment is recognized as an intrinsic part of the health improvement process, it is not yet well integrated into medical training programs.

The medical students seemed to recognize the importance of this notion for themselves, as a lack of control during medical school was a persistent theme throughout all the focus groups.

We chose to use focus groups to elicit information from students, instead of individual interviews or questionnaires. The benefit of a focus group is the dynamic. Participants' ideas are stimulated and challenged by comments from within the group. Focus groups permitted us to delve more deeply into topics, and to seek clarification of points.

Focus groups, however, have problems in that a dominant participant can sway group thought. The use of volunteers further limits the generalizability of the findings. Volunteers are intrinsically more motivated and are not representative of the medical student population. In addition, social desirability is a factor. Although we attempted to not disclose our biases toward the promotion of health lifestyles, the students unquestionably recognized our bias in favor of a lifestyle approach to the promotion of a healthy lifestyle, even though medicine

primarily focuses on surgical and pharmacological solutions.

Significant curricular changes have been made in the West Virginia University School of Medicine over the past five years to better promote evidence based learning as well as the personal health and wellness of the students. According to the Associate Dean for Medical Education, an effort has been made to make the curriculum more problem-focused and to provide the first and second year students with more unstructured time. These changes seem to be appreciated by the basic science students who did not express the same displeasure with their schedules, as did the clinical students.

Nearly half of all premature death is associated with unhealthy lifestyles (McGinnis, 1993). Continued emphasis on the value of healthy lifestyles is needed in medical school if the students are to value the importance of a healthy lifestyle for themselves and for their subsequent patients. In spite of the widespread denial or token efforts to resolve the systemic problem, students will struggle in the short term and patients will suffer in the long-term.

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