Supplementary Material 1.

2020 Lifestyle Medicine Survey

Consent

Please enter your AAFP ID Number. *****

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Extent and Patterns of Lifestyle Medicine Among Family Physicians: Implications for Health Equity

INTRODUCTION: Lifestyle medicine is defined as an evidence-based approach to preventing, treating, and even reversing diseases by replacing unhealthy behaviors with positive ones - such as eating healthfully, being physically active, managing stress, avoiding risky substance abuse, adequate sleep, and having a strong support system.

The purpose of this survey is to identify the extent and patterns of use of lifestyle medicine principles among family physicians and to identify implications for health equity. The results of this survey will inform the American Academy what lifestyle medicine education and resources would be most useful for family physicians.

INFORMED CONSENT: We invite you to participate in this survey. Participation is completely voluntary. This survey is being conducted by the American Academy of Family Physicians and has been funded by the Ardmore Institute of Health. The survey should take approximately 12 minutes. Your responses may help us develop better resources and tools for family physicians (you will receive no other benefits from participating in this survey). There are no foreseeable risks.

CONFIDENTIALITY: Your responses will not be anonymous to the research team. Your AAFP member ID was pre-populated in the survey to 1) allow us to link your responses to this survey with information from your AAFP record for a more robust analysis while saving you time, and 2) to ensure survey completers do not receive reminder emails. Your identity will not be shared with anyone outside of the research team, your information will

remain confidential, and survey results will be reported in the aggregate only.

CONTACT: Please contact Rajani Bharati, the principal investigator, at (913) 906-6213 or at rbharati@aafp.org. If you have questions about your rights as a research subject, you are encouraged to contact Jennifer Farris, AAFP IRB Assistant at (913) 906-6134 or jfarris@aafp.org.

ELECTRONIC CONSENT: Clicking on "Agree" indicates that you have read the above information and voluntarily agree to participate. Please select your choice below.

( ) **Agree**

( ) **Disagree**

How important is each of the following in improving the health of your patients?

	Very important	**Important**	**Not very important**	**Not at all important**	**Not applicable**
Perform a history and physical exam specific to lifestyle-related health status	( )	( )	( )	( )	( )
Order and interpret tests to screen, diagnose, and monitor lifestyle-related diseases	( )	( )	( )	( )	( )
Counsel patients using behavioral modification techniques	( )	( )	( )	( )	( )
Tailor care and recommendations	( )	( )	( )	( )	( )

to the patient context					
Assist patients in self-managing their behavior and lifestyles using evidence-based, achievable, specific, written action plans	( )	( )	( )	( )	( )
Practice in an interdisciplinary team of health care providers and support a team-based approach	( )	( )	( )	( )	( )
Use appropriate community referral resources that support the implementation of healthy lifestyles	( )	( )	( )	( )	( )
Partner with public health and community-based organizations to share information, coordinate services, and build shared capacity for chronic disease prevention	( )	( )	( )	( )	( )
Advocate for policies that	( )	( )	( )	( )	( )

would improve community conditions that influence patient and population health					

Using Lifestyle Medicine in Your Practice

For each of the following, please mark whether your practice:
--Does this regularly already
--Does this some of the time already
--Is likely to incorporate this in the next few years
--Is not likely to incorporate this in the next few years

	Does REGULARLY already	**Does SOME OF THE TIME already**	**LIKELY to incorporate in the next few years**	**NOT LIKELY to incorporate in the next few years**
Perform a history and physical exam specific to lifestyle-related health status	( )	( )	( )	( )
Order and interpret tests to screen, diagnose, and monitor lifestyle-related diseases	( )	( )	( )	( )

Counsel patients using behavioral modification techniques	( )	( )	( )	( )
Tailor care and recommendations to the patient context	( )	( )	( )	( )
Assist patients in self-managing their behavior and lifestyles using evidence-based, achievable, specific, written action plans	( )	( )	( )	( )
Practice in an interdisciplinary team of health care providers and support a team-based approach	( )	( )	( )	( )
Use appropriate community referral resources that support the implementation of healthy lifestyles	( )	( )	( )	( )
Partner with public health and community-based organizations to share information, coordinate services, and	( )	( )	( )	( )

build shared capacity for chronic disease prevention				
Advocate for policies that would improve community conditions that influence patient and population health	( )	( )	( )	( )

In your practice, who talks/would be most likely to talk with patients about using lifestyle medicine practices that would improve their health?
Mark all that apply

[ ] You/other physicians in your practice

[ ] Nurse practitioners/physician assistants

[ ] Nurses

[ ] Other

[ ] Not applicable

If other, please specify;

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To what extent do the following community conditions affect your patients' health?

	To a great extent	**To a moderate extent**	**To a little extent**	**To no extent**	**Don't know**
Availability of *healthy* **food**	( )	( )	( )	( )	( )
Availability of *unhealthy* **food**	( )	( )	( )	( )	( )
Easy access to alcohol	( )	( )	( )	( )	( )
Easy access to tobacco	( )	( )	( )	( )	( )
Safe and affordable housing	( )	( )	( )	( )	( )
Access to reliable transportation	( )	( )	( )	( )	( )
Access to park, open spaces, and bicycle/walking lanes	( )	( )	( )	( )	( )
Job opportunities	( )	( )	( )	( )	( )
Educational opportunities	( )	( )	( )	( )	( )
Health literacy (access to health care	( )	( )	( )	( )	( )

classes					
Racism and discrimination	( )	( )	( )	( )	( )

How often do you/someone in your practice talk with your patients about the following?

	Every visit/almost every visit	**Most visits**	**Some visits**	**Never**
Tobacco use	( )	( )	( )	( )
Illicit drug use	( )	( )	( )	( )
Alcohol use	( )	( )	( )	( )
Diet and nutrition	( )	( )	( )	( )
Physical activity	( )	( )	( )	( )
Stress	( )	( )	( )	( )
Sleep	( )	( )	( )	( )
Relationships or social connection	( )	( )	( )	( )
Environmental toxins	( )	( )	( )	( )

How comfortable are you prescribing interventions that address the following?

	Very comfortable	Comfortable	Not very comfortable	Not at all comfortable	Not applicable
Tobacco use	( )	( )	( )	( )	( )
Illicit drug use	( )	( )	( )	( )	( )
Alcohol use	( )	( )	( )	( )	( )
Diet and nutrition	( )	( )	( )	( )	( )
Physical activity	( )	( )	( )	( )	( )
Stress	( )	( )	( )	( )	( )
Sleep	( )	( )	( )	( )	( )
Relationships or social connection	( )	( )	( )	( )	( )
Environmental toxins	( )	( )	( )	( )	( )

On what lifestyle medicine topics would you like the AAFP to provide resources?

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To what extent do you perceive the following to be barriers to incorporating lifestyle medicine into your practice?

	To a great extent	To a moderate extent	To a little extent	To no extent
Difficult to change patient behavior	( )	( )	( )	( )
Patient's lifestyle is not the focus of the office visit	( )	( )	( )	( )
Lack of incentive/reimbursement	( )	( )	( )	( )
Lack of interest on my part	( )	( )	( )	( )
Lack of leadership buy-in	( )	( )	( )	( )
Lack of appropriate staff for lifestyle medicine	( )	( )	( )	( )
Not enough time during office visits	( )	( )	( )	( )
Patients not interested	( )	( )	( )	( )
Personal lack of knowledge about behavior modification techniques	( )	( )	( )	( )

Personal lack of knowledge about lifestyle medicine	( )	( )	( )	( )
Poor patient compliance	( )	( )	( )	( )

Please describe any barriers not listed above to incorporating lifestyle medicine into your practice.

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Lifestyle Medicine Formal Training/Certifications

In this section, we want to identify what formal training/certifications, if any, family physicians have relevant to lifestyle medicine and behavioral modification. Remember, lifestyle medicine is defined as an evidence-based approach to preventing, treating, and even reversing disease by replacing unhealthy behaviors with positive ones - such as eating healthfully, being physically active, managing stress, avoiding risky substance abuse, adequate sleep, and having a strong support system.

Please indicate all of the formal training/certifications you have, if any, relevant to lifestyle medicine. ***Mark all that apply.***

[ ] Board Certification in Lifestyle Medicine

[ ] Certified Health Coach

[ ] Certified Complete Health Improvement Project Facilitator

[ ] Certified Diabetes Educator

[ ] Certified Exercise Specialist

[ ] Registered Dietician

[ ] **Public Health Degree (MPH, DrPH, PHD in public health, etc.)**

[ ] **None of the above**

[ ] **Other**

If Other, please specify:

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What year did you receive your Board Certification in Lifestyle Medicine?

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Who is your primary employer?

( ) **You (self-employed, majority practice owner, independent contractor)**

( ) **Physician's group (single or multi-specialty)**

( ) **Hospital or health system (university-owned, private or non-private)**

( ) **Financial professional corporation/private equity firm**

( ) **Federally Qualified Health Center (FQHC)/Community health center**

( ) **Insurance company or managed care organization**

( ) **Federal, state, or local government**

( ) **Locum tenens group/staffing organization**

( ) **Retail health clinic**

( ) **Other**

If Other, please specify:

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_____
_____
_____

About Your Practice

What is the zip code of the primary place you care for patients?

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Including yourself, about how many physicians work at your place of employment?

( ) One
( ) 2 to 5
( ) 6 to 10
( ) 11 to 30
( ) 31 to 100
( ) 101 or more

About how many midlevel providers work at your place of employment?

( ) One
( ) 2 to 5
( ) 6 to 10
( ) 11 to 30
( ) 31 to 100
( ) 101 or more

The AAFP welcomes any comments you have on Lifestyle Medicine, or on any other topic.

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Thank You!

Thank you for considering participating in this survey. Participants must agree with the terms specified in order to participate.

Supplemental Material 2.

Factor Analysis

Principal Component Factor analysis was used to reduce the eight LM core competencies into a small set of correlated variables for ease of analysis [Kaiser-Meyer-Olkein (KMO) was 0.84, and Bartlett test of sphericity was significant ($\chi 2$ (36) = 1175.14, $p<0.01$)]. Two of the eight factors were retained because they had an eigenvalue over one. These two factors explained 47% and 15% of the variance. Orthogonal varimax was used for the rotation, and the rotated factor loadings and uniqueness were sorted into a pattern. All the items with primary loading above 0.5 were considered for the respective factors. For instance, Factor 1 included items 7, 8, and 9 related to community competencies. Factor 2 included items 1, 2, 3, 4, and 5, mainly related to clinical competencies. The Cronbach's alpha for factor 1 was 0.84, and factor 2 was 0.78, which indicated good reliability on the combination of items under each factor.

Supplementary Material 3.

Table. Perception of social determinants of health by the area of physician's practice (SDI score)

% perceived the importance of SDoH in a moderate to a great extent	SDI (0-25)	SDI (25-49)	SDI (50-74)	SDI (75-100)
Availability of healthy food	60.6	73.3	79.5	81.1
Availability of unhealthy food	82.9	92	90.4	93.2
Easy access to alcohol	81.8	89.3	89.2	87.8
Easy access to tobacco	73.7	86.7	85.5	87.8
Safe and affordable housing	53.54	66.7	75.9	86.5
Access to reliable transportation	52.5	61.3	66.3	86.5
Access to park, open spaces	47.5	58.7	55.4	70.3
Job opportunities	58.6	72.0	68.7	81.1
Educational opportunities	50.5	61.3	62.6	70.3
Health Literacy	51.5	68	62.6	70.3
Racism and Discrimination	44.4	42.7	48.2	78.4