A Spiritual Problem? Primary Care Physicians' and Psychiatrists' Interpretations of Medically Unexplained Symptoms

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BACKGROUND: Patients commonly present to their physicians with medically unexplained symptoms (MUS), and there is no consensus about how physicians should interpret or treat such symptoms.

OBJECTIVE: To examine how variations in physicians' interpretations of MUS are associated with physicians' religious characteristics and with physician specialty (primary care vs. psychiatry).

DESIGN AND PARTICIPANTS: A national survey of a stratified random sample of 1,504 primary care physicians and 512 psychiatrists in 2009–2010.

MAIN MEASURES: The extent to which physicians believe MUS reflect a root problem that is spiritual in nature or result from conditions that scientific research will eventually explain, and whether such patients would benefit from attention to their relationships, attention to their spiritual life, taking medications, and/or treatment by physicians.

KEY RESULTS: Response rate was 63 % (1,208/1,909). More religious/spiritual physicians were more likely to believe that MUS reflect a spiritual problem (55 % for high vs. 24 % for low spirituality; OR=2.8, 1.7–4.5) and that these patients would benefit from paying attention to their spiritual life (79 % for high vs. 55 % for low spirituality; OR=3.1, 1.8–5.3). Psychiatrists were more likely to believe that scientific research will one day explain MUS (66 % vs. 52 %; OR=1.9, 1.4–2.5) and that these symptoms will improve with treatment by a physician (54 % vs. 35 %; OR=2.4, 1.8–3.3). They were less likely to believe that MUS reflect a spiritual problem (23 % vs. 38 %; OR=0.5, 0.4–0.8).

CONCLUSIONS: Physicians' interpretations of MUS vary widely, depending in part on physicians' religious characteristics and specialty. One in three physicians believes that patients with MUS have root problems that are spiritual in nature. Physicians who are more religious or spiritual are more likely to think of MUS as

stemming from spiritual concerns. Psychiatrists are more optimistic that these patients will get better with treatment by physicians.

KEY WORDS: unexplained; spiritual; religious; psychiatrist.

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INTRODUCTION

Medically unexplained symptoms (MUS) are symptoms that present with no physiological abnormalities. They account for 20–30 % of primary care consultations; familiar syndromes include fibromyalgia and chronic fatigue.¹ Despite how common they are, how best to classify and respond to MUS remains controversial.² Some interpret MUS as physical manifestations of underlying psychological distress related to social, cultural and political forces.^{3–5} Some believe that MUS are physical manifestations of diseases that have not been fully characterized.⁶ Others suggest MUS are caused by problems that, although affected by mental and emotional factors, are ultimately spiritual in origin.^{7–10} In the absence of consensus, doctors' varying interpretations of and responses to MUS often give rise to misunderstandings and strain in the physician–patient relationship.^{11,12} Physicians seem to identify patients as “complex” when there are psychosocial factors contributing to illness, and this can lead to dissatisfaction for both the physician and patient.¹³ In fact, patients involved in “difficult encounters” that involve multiple unexplained physical symptoms are likely to experience a worsening of their symptoms following their clinical consultation.¹⁴

The present study is a part of a series to describe variations in physicians' practices that are accounted for by differences in physicians' religious characteristics. In a recent national survey, we found that among non-psychiatrist physicians, those who were more religious were more likely to refer a patient with ambiguous psychiatric

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symptoms to a clergy member or religious counselor, rather than to a psychiatrist or a psychologist.¹⁵ This finding led us to hypothesize that religious physicians would be more likely to believe MUS result from spiritual problems, and they would have less confidence that medical science can explain or effectively treat such symptoms. Yet, a related analysis found that psychiatrists, despite being less religious than physicians from other specialties, are more comfortable with and have more experience addressing religious and spiritual concerns in the clinical setting.¹⁶ As such, we hypothesized that psychiatrists would be more likely to interpret MUS as arising in part from spiritual problems, and would be more confident that such symptoms will improve with medical care.

In order to examine how religion impacts physicians' interpretations of and responses to MUS, we surveyed a representative national sample of primary care physicians (PCPs) and psychiatrists. We included a vignette of a patient with MUS, and after the vignette we asked physicians several questions regarding how they would interpret and respond to patients like the one presented. In particular, we assessed the extent to which psychiatrists and PCPs interpret MUS as part of the normal ups and downs of life, as resulting from spiritual problems, and/or as reflecting medical conditions that science will one day explain. We assessed how confident physicians were that patients with MUS would benefit from medical treatment (and medications in particular), from attention to their relationships, and from attention to their spiritual life. And we assessed to what extent each of these physician interpretations and responses is associated with physician religious characteristics and physicians specialty.

METHODS

A detailed methods report and survey questionnaires are available at <https://pmr.uchicago.edu/studies/mental-behavioral-health>. Between September 2009 and June 2010, we mailed a confidential 12-page, 42-item self-administered questionnaire to a stratified random sample consisting of 1,504 US PCPs (physicians with a primary board specialty of internal medicine, general practice, or family medicine and no secondary specialty) and 512 US psychiatrists, 65 years old or younger. The sample was generated from the American Medical Association Physician Masterfile, a database intended to include all US physicians. To increase minority religious group representation (particularly Jews, Muslims and Hindus) in the primary care sample, we used validated surname lists to oversample physicians with typical South Asian and Jewish surnames.¹⁷⁻¹⁹ The psychiatrist sample was not sufficiently large to warrant oversampling by ethnic surname. Physi-

cians received up to three mailings of the questionnaire. The University of Chicago institutional review board approved the study.

Questionnaire

The questionnaire included the following clinical vignette.

"A 41-year-old woman presents for her seventh clinic visit complaining of generalized muscle pains, fatigue and headaches. She has had the symptoms for several years. Prior physicians have diagnosed her with fibromyalgia and chronic fatigue syndrome. Physical exam is unremarkable except for tenderness over multiple areas of her body. Diagnostic workups have not found any physiological abnormalities. Regular exercise, NSAIDS, and muscle relaxants have not provided relief. She denies depression."

The vignette served in part as the basis for an experiment in which we varied whether or not the woman had problems at work or whether or not she attended church regularly. The present analysis does not focus on this experiment or the primary outcomes related to it, but rather on another set of questions that followed the vignette (Note: there were no significant effects of the experimental manipulations on any of the items analyzed here), where we asked, "In general, how much do you think patients with these symptoms would benefit from each of the following? a) paying more attention to their relationships; b) paying more attention to their spiritual life; c) taking medications." For analyses, responses were dichotomized as not at all/a little vs. somewhat/a lot.

We also asked physicians, "Please indicate whether you agree or disagree with the following statements about patients who have multiple chronic symptoms for which there is no clear physiological abnormality after a thorough medical workup: Such patients 1) are usually experiencing the normal ups and downs of life; 2) have medical conditions that scientific research will one day be able to explain; 3) tend to have a root problem that is spiritual in nature; and 4) often get better with treatment by physicians." For analyses, responses were dichotomized as agree (agree strongly/agree somewhat) vs. disagree (disagree somewhat/disagree strongly).

Primary predictors were physician specialty (psychiatrist vs. PCP) and religious characteristics. Spirituality was measured by asking, "To what extent do you consider yourself a spiritual person?" and categorized as high (very spiritual), moderate (moderately spiritual), and low (slightly or not at all spiritual). We measured religious importance by asking, "How important would you say your religion is in your own life?" Response options were "The most important part of my life," "Very important in my life," "Fairly important in my life," "Not important in my life,"

and “Not applicable. I have no religion.” Religious affiliation was categorized as none (atheist, agnostic, and none), Hindu, Jewish, Muslim, Catholic (Roman Catholic and Eastern Orthodox), Evangelical Protestant, Non-evangelical Protestant, or other religion. Other religious measures included the frequency of attendance at religious services and a two-item measure of intrinsic religiosity. The latter items were derived from Hoge’s Intrinsic Religious Motivation Scale²⁰ and have been validated extensively in our own and others’ research.^{21–24} In all cases, findings for religious attendance and intrinsic religiosity paralleled those for importance of religion, so we display only the results for importance of religion.

Physician age, gender, race/ethnicity, and immigration history were included as controls.

Statistical Analysis

Weights were applied to adjust for sample stratification and variable response rates by strata in order to generate estimates for the population of US PCPs. After generating population estimates for physicians’ responses to each item, we used the χ^2 test to examine differences in demographic and religious characteristics between psychiatrists and PCPs, and to describe associations between each primary predictor and each criterion measure. We used multiple logistic regression analyses to identify the component of physicians’ responses that was independently associated with each religious characteristic and with physician specialty (PCP vs. psychiatrist). All analyses were conducted using Stata SE V.11 statistical software. Missing data were omitted from analysis.

RESULTS

Survey Response

The response rates were 63 % (896/1,427) for PCPs and 64 % (312/487) for psychiatrists, after excluding 77 PCPs and 25 psychiatrists who had invalid addresses or were no longer practicing. The response rate for PCPs varied by stratum: it was 53 % (85/162) among those with Arabic surnames, 56 % (63/112) among those with South Asian surnames, 70 % (59/84) among those with Jewish surnames, and 64 % (689/1,069) among the remaining physicians.

Demographic and religious characteristics of respondents (unadjusted for survey design) are shown in Table 1. Compared to primary care physician respondents, psychiatrist respondents were slightly older (mean age, SD=46.5, 10.9 vs. 44.7, 10.2, $p=0.02$) more likely to be female (43 % vs. 36 %, $p=0.04$), and less likely to indicate their religion is very or most important ($p=0.004$).

Table 1. Characteristics of Primary Care Physician (N=896) and Psychiatrist (N=312) Respondents*

	Primary care physicians N (%) [†]	Psychiatrists N (%) [†]	p (χ^2)
Demographic characteristics			
Age			<0.001
25–36 years	226 (25)	80 (26)	
37–44 years	224 (25)	42 (13)	
45–53 years	225 (25)	92 (29)	
54–65 years	221 (25)	98 (31)	
Gender			0.04
Male	572 (64)	179 (57)	
Female	324 (36)	133 (43)	
Race/Ethnicity			0.25
Asian	142 (16)	64 (21)	
Hispanic or Latino	41 (5)	17 (5)	
Black, non-Hispanic	53 (6)	23 (7)	
White, non-Hispanic	625 (71)	198 (64)	
Other	22 (2)	8 (3)	
Immigration history			0.34
Born in the United States	637 (72)	214 (69)	
Immigrated to United States	249 (28)	96 (31)	
Religious characteristics			
Spirituality			0.64
Low	294 (34)	109 (35)	
Moderate	363 (42)	119 (39)	
High	213 (25)	80 (26)	
Importance of religion			0.004
Not important [‡]	215 (25)	100 (32)	
Fairly important	283 (32)	104 (34)	
Very important	251 (29)	80 (26)	
Most important	127 (15)	25 (8)	
Intrinsic religiosity			0.109
Low	377 (44)	135 (44)	
Moderate	184 (21)	80 (26)	
High	302 (35)	90 (30)	
Attendance at Religious Services			0.022
Never	118 (14)	53 (17)	
Once a month or less	413 (48)	162 (52)	
Twice a month or more	338 (39)	94 (30)	
Religious affiliation			<0.001
None	96 (11)	48 (16)	
Hindu	42 (5)	24 (8)	
Jewish	97 (11)	41 (13)	
Muslim	60 (7)	8 (3)	
Catholic [§]	212 (24)	68 (22)	
Protestant, evangelical	95 (11)	20 (7)	
Protestant, non-evangelical	227 (26)	71 (23)	
Other religion	39 (4)	27 (9)	

*Data in this table are not adjusted for survey design

[†]Because of item non-response, N counts may not sum to 896 for primary care physicians and 312 for psychiatrists. Because of rounding error, percentages may not sum to 100 %

[‡]Includes “Not very important” and “Not applicable, I have no religion.”

[§]Includes Eastern Orthodox (n=26 for primary care, n=1 for psychiatrist)

Interpretation of MUS

As seen in Table 2, substantial majorities of both PCPs and psychiatrists believe that patients with MUS would benefit somewhat or a lot from paying more attention to their relationships (72 % and 79 %, respectively, $p=0.03$), paying more attention to their spiritual lives (67 % and 72 %, respectively, $p=0.15$), and taking medications (68 % and 78 %, respectively, $p=0.001$). Physicians were divided about whether patients with MUS are usually experiencing

Table 2. Primary Care Physicians' (PCPs, N=896) and Psychiatrists' (N=312) Responses to Patients With Medically Unexplained Symptoms

In general, how much do you think patients with these symptoms would benefit from each of the following?	No. (%) of physicians who responded "somewhat" or "a lot"		p (χ^2)	Psychiatrists compared to PCPs
	PCPs	Psychiatrists		Odds Ratio (95 % CI) *
paying more attention to their relationships	636 (72)	243 (79)	0.03	1.5 (1.1–2.2) †
paying more attention to their spiritual life	580 (67)	222 (72)	0.15	1.4 (1.0–1.9)
taking medications	599 (68)	243 (78)	0.001	1.7 (1.2–2.3) †
Patients who have multiple chronic symptoms for which there is no clear physiological abnormality after a thorough medical workup...	No. (%) of physicians who agree		p (χ^2)	Psychiatrists compared to PCPs
	PCPs	Psychiatrists		Odds Ratio (95 % CI) *
... are usually experiencing the normal ups and downs of life.	426 (49)	102 (33)	<0.001	0.5 (0.4–0.7) †
... have medical conditions that scientific research will one day be able to explain.	479 (52)	204 (66)	<0.001	1.9 (1.4–2.5) †
... tend to have a root problem that is spiritual in nature.	316 (38)	70 (23)	<0.001	0.5 (0.4–0.8) †
... often get better with treatment by physicians.	312 (35)	165 (54)	<0.001	2.4 (1.8–3.3) †

*Odds ratios (95 % confidence intervals) from multiple logistic regression analyses, adjusting for age, gender, race/ethnicity, immigration history, and religious characteristics

† $p < 0.05$

the normal ups and down of life (49 % of PCPs and 33 % of psychiatrists agree, $p < 0.001$), have medical conditions that scientific research will one day be able to explain (52 % of PCPs and 66 % of psychiatrists agree, $p < 0.001$), tend to have a root problem that is spiritual in nature (38 % of PCPs, 23 % of psychiatrists, $p < 0.001$), and often get better with treatment by physicians (35 % of PCPs and 54 % of psychiatrists agree, $p < 0.001$).

Differences by Physician Religiosity and Spirituality

Table 3 displays the association of physicians' religious characteristics (PCPs and psychiatrists combined) with their likelihood of believing that patients with MUS have a problem that is spiritual in nature, and that such patients would benefit from paying more attention to their spiritual life. Both outcomes differed by physician religious affiliation (χ^2 : $p < 0.001$ for both), with evangelical Protestants seeming to stand out (70 % agree that MUS patients have a spiritual problem, compared to < 40 % for all others). However, difference by affiliation did not remain significant after adjusting for physician spirituality and importance of religion. (Of note, 93 % of Evangelicals responded that religion is very or most important in their lives, compared to < 50 % of physicians from each of the other religious affiliations.)

Higher physician spirituality and importance of religion were both associated with interpreting MUS as a spiritual problem (odds ratio, 95 % CI=2.8, 1.7–4.5 for high spirituality compared to low, and 7.8, 3.7–16.6 for religion as most important compared to not at all important) and saying that more attention to spiritual life would benefit the patient (odds ratio, 95 % CI=3.1, 1.8–5.3 for high spirituality, and 3.7, 1.8–7.5 for religion as most important).

When we analyzed physicians from each religious affiliation separately, we found that higher religious importance was significantly associated with believing

patients with MUS would benefit from paying more attention to their spiritual life among those with no religious affiliation (χ^2 : $p = 0.04$), Muslims (χ^2 : $p = 0.03$), Catholics (χ^2 : $p < 0.01$), and non-evangelical Protestants (χ^2 : $p < 0.01$), but not among those who described their religious affiliation as Hindu, Jewish, evangelical Protestant, or "other." Similarly, higher religious importance was associated with believing such patients have spiritual problems among those with no religious affiliation (χ^2 : $p < 0.01$), Muslims (χ^2 : $p < 0.01$), Catholics (χ^2 : $p < 0.01$), and non-evangelical Protestants (χ^2 : $p < 0.01$), but not among those who described their religious affiliation as Jewish, evangelical Protestant, or "other." (Surname stratification was collapsed for Hindus, Muslims, Jews and evangelical Protestants because there were, for example, zero Jewish doctors in the South Asian surname group, and only one Hindu in the Arabic surname group. Stratification in analyses is only possible if there are at least two cases in each of the strata for each of the religious groups.)

Differences Between Primary Care Physicians and Psychiatrists

In multivariable logistic regression analyses adjusting for demographic and religious characteristics, psychiatrists were significantly more likely than PCPs to believe patients would benefit somewhat or a lot from paying attention to relationships (odds ratio, 95 % CI=1.5, 1.1–2.2) and taking medications (odds ratio, 95 % CI=1.7, 1.2–2.3). They were similar in the extent to which they believed patients would benefit from paying attention to their spiritual life (odds ratio, 95 % CI=1.4, 1.0–1.9). Psychiatrists were less likely to believe that MUS come from spiritual problems (odds ratio, 95 % CI=0.5, 0.4–0.8), or that patients with MUS are experiencing the normal ups and downs of life (odds ratio, 95 % CI=0.5, 0.4–0.7). Psychiatrists were more confident that scientific research will one day explain MUS (odds ratio, 95 % CI=1.9, 1.4–2.5) and that patients with such

Table 3. The Association of Physicians' Religious Characteristics With Beliefs About Spiritual Cause and Treatment Approach *

	Paying more attention to spiritual life would benefit the patient "somewhat" or "a lot"			Such patients tend to have a root problem that is spiritual in nature (Agree)		
	N (%)	p (χ^2)	OR (95 % CI) †	N (%)	p (χ^2)	OR (95 % CI) †
Spirituality		<0.001			<0.001	
Low	216 (55)		Referent	81 (24)		Referent
Moderate	331 (70)		1.8 (1.2–2.7) ‡	152 (34)		1.5 (1.0–2.2) ‡
High	234 (79)		3.1 (1.8–5.3) ‡	145 (55)		2.8 (1.7–4.5) ‡
Importance of Religion		<0.001			<0.001	
Not important	168 (52)		Referent	48 (17)		Referent
Fairly important	245 (66)		1.7 (1.0–2.7) ‡	110 (32)		2.4 (1.3–4.6) ‡
Very important	250 (74)		2.4 (1.4–4.1) ‡	125 (40)		3.3 (1.7–6.3) ‡
Most important	123 (81)		3.7 (1.8–7.5) ‡	97 (67)		7.8 (3.7–16.6) ‡
Religious Affiliation		<0.001			<0.001	
None	74 (52)		Referent	25 (21)		Referent
Hindu	45 (64)		0.6 (0.2–1.8)	18 (32)		0.6 (0.2–2.2)
Jewish	74 (56)		1.0 (0.5–2.1)	30 (27)		0.9 (0.4–2.2)
Muslim	47 (70)		0.8 (0.3–2.5)	28 (39)		0.5 (0.2–1.7)
Catholic	200 (71)		1.5 (0.8–2.8)	90 (34)		0.7 (0.3–1.5)
Protestant, Evangelical	87 (76)		1.0 (0.4–2.2)	74 (70)		2.2 (0.9–5.7)
Protestant, Non-Evang.	203 (68)		1.1 (0.6–2.2)	94 (34)		0.9 (0.4–2.0)
Other	51 (79)		1.7 (0.7–4.4)	18 (33)		0.9 (0.3–2.7)

*Estimates are for primary care physicians and psychiatrists combined

†Odds ratios (95 % confidence intervals) from multiple logistic regression analyses, adjusting for age, gender, race/ethnicity, immigration history, and specialty

‡p < 0.05

symptoms often get better with treatment by physicians (odds ratio, 95 % CI=2.4, 1.8–3.3).

DISCUSSION

In this national survey, we found that one in three PCPs and psychiatrists believes that patients with MUS have root problems that are spiritual in nature, and two out of three believe that such patients would benefit from paying more attention to their spiritual lives. Physicians who are more religious and/or spiritual were more likely to interpret MUS as resulting from spiritual problems and more confident that MUS patients would benefit from paying attention to their spiritual life. Being a psychiatrist is independently associated with believing that MUS are medical conditions that will one day be explained by science, and with being confident that patients with MUS will benefit from paying more attention to relationships, taking medications, and being treated by physicians; being a psychiatrist is inversely associated with believing that MUS are indicative of a spiritual problem.

This study makes clear that most physicians believe patients with MUS would benefit from paying more attention both to their relationships and to their spiritual life. In this respect, physicians' opinions seem congruent with a prior study's finding that enhanced relationships and spirituality seem to help patients with MUS.¹⁷ While two out of three physicians endorsed attention to spiritual life, however, only half as many interpreted MUS as reflecting a spiritual problem. Many of the former may believe attention to one's spiritual life can help patients to cope with problems that are not necessarily spiritual in origin.^{10,18}

Our study also indicates that physicians who are more religious or spiritual themselves are more likely to interpret MUS as reflecting a spiritual problem and to endorse attention to spiritual life. This parallels an earlier finding that religious physicians are more likely to refer patients with ambiguous psychiatric symptoms to religious counselors or clergy.¹⁵ However, past studies suggest that patients with MUS often experience inadequacy and guilt when they perceive that their clinicians are skeptical about the medical origin of their symptoms.²⁵ Future studies should examine how patients with MUS respond when physicians suggest that their symptoms may reflect spiritual problems, or when physicians recommend dealing with those symptoms in part by paying more attention to their spiritual life.

Because psychiatrists tend to be more comfortable addressing spiritual issues in the clinical encounter,¹⁶ we expected they would be more likely to endorse attention to one's spiritual life for patients with MUS. Our data did not support that hypothesis, though psychiatrists were more likely to endorse attention to one's relationships. Despite a recent tendency to include spirituality as part of mental health care, some psychiatrists feel that intervention in spiritual matters crosses professional boundaries.^{19,26}

We also found that psychiatrists were more likely to interpret these symptoms as medical conditions that would improve with treatment by physicians. As noted, psychiatrists tend to have more training in and comfort with addressing the mental, emotional, social and spiritual dimensions of patients' experiences. Psychiatrists may also be more likely to think of "treatment by physicians" as including counseling and insight-oriented or cognitive

behavioral therapy. In one respect, the relative confidence of psychiatrists should encourage patients with MUS who might otherwise be reluctant to see a mental health professional. In another respect, psychiatrists' and PCPs' optimism about the benefits of medications for MUS may be poorly founded.²⁷ Studies suggest physicians tend to default toward prescribing medications with dubious benefits to patients with MUS, even when those patients are not asking for pharmacological treatment.²⁸

Research indicates that medication,^{29,30} cognitive-behavioral therapy,³¹ and patient-centered management^{32,33} may help relieve MUS, though there are contradictory findings.^{34,35} It seems reasonable in a biopsychosociospiritual^{9,10} model for physicians to explore all options with the patient, but our results demonstrate that physicians' religious characteristics and specialty will influence which option a physician prefers, and how they interpret the cause of MUS. These variations in physicians' judgments and responses may increase the potential for misunderstanding and conflict in the clinical encounter. As such, individual physicians should be conscious of and candid with patients about how their own approach may differ from that of their colleagues. Patients should be aware that their physicians' responses to MUS will likely reflect the physicians' particular personal and professional background.

This study has several limitations. Non-respondents may have differed from respondents in ways that bias our findings. The cross-sectional design limits our ability to draw conclusions about causality. Criterion measures followed one clinical vignette; responses might have differed if the items followed a vignette with different details. Physicians' responses may not accurately reflect their clinical behaviors. Moreover, we studied PCPs and psychiatrists; physicians from other specialties might have different approaches. Although we found statistically significant differences, the effect sizes for most of these differences were modest, suggesting that the clinical significance of the differences is also modest. In addition, the study did not define the term "spiritual," and physicians may have interpreted the term differently in their responses.

Notwithstanding these limitations, this study indicates that physicians' own religious characteristics shape their interpretations of the causes and potential sources of healing for MUS. This finding affirms the importance of physician-patient communication, which others have described as an essential component of caring for patients with MUS.¹² Physicians who are more religious tend to interpret and respond to MUS in spiritual terms. Psychiatrists are more likely to interpret MUS as conditions that scientific research will eventually explain and less likely to interpret MUS as spiritual problems. When physicians see patients with MUS, they may want to acknowledge that

the causes of MUS remain ambiguous, and then be candid about how they make sense of MUS and how their explanatory framework might differ from those of other physicians. Such communication might help a physician and patient clarify how they understand the medically unexplained symptoms and how they want to partner to address them.

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