Background: Primary care providers (PCPs) are often challenged to address multiple patient concerns during time-limited visits. The need for PCPs to limit the number of issues addressed may have a negative impact on discussion of patient-defined visit priorities.

Methods: Using data from a recent clinical trial (Aligning Patients and Providers, ClinicalTrials.gov: NCT02707146), we examined the association between patient-defined visit priorities and subsequent provider actions taken during and after the visit. We tested the hypothesis that psychosocial concerns (eg, stress, anxiety, caregiving demands) are less likely to be addressed than traditional medical concerns.

Results: We analyzed 147 patient-defined visit priorities submitted just before the visit by 109 patients (mean age, 59.0 ± 12.7 years; including 73.4% women, 47.7% non-White race/ethnicity). Nearly one quarter of patient-defined visit priorities were related to psychosocial concerns (35/147; 23.8%). In models adjusting for age, gender, race/ethnicity, and familiarity with PCP, patients’ psychosocial priorities were significantly less likely than medical priorities to be addressed during the visit (63% vs. 88%; adjusted odds ratio [aOR], 0.16; 95% CI, 0.06 to 0.41; P < .001), to receive clinical action (51% vs. 82%; aOR, 0.15; 95% CI, 0.06 to 0.38; P < .001), or to receive post visit information from the primary care doctor (17% vs. 32%; aOR, 0.39; 95% CI, 0.14 to 1.08; P = .07).

Conclusions: Patient-defined psychosocial priorities are less likely to be addressed during (or immediately after) primary care visits compared with patient-defined medical priorities. (J Am Board Fam Med 2019;32:513–520.)

Keywords: Communication, Mental Health, Patient-Centered Care, Physician-Patient Relations, Primary Health Care, Primary Care Physicians, Social Determinants of Health
number of concurrent chronic medical condi-
tions.\textsuperscript{19,20} As a result, visit agendas may be largely
defined by PCPs, and patients may not always have
the opportunity to voice their concerns and may
leave with unmet needs.\textsuperscript{21,22}

Because primary care visits typically involve dis-
cussion of multiple different concerns (e.g., patient
symptoms, test results, behavior changes, recom-
mended screenings), understanding the relationship
between patient-defined priorities and subsequent
provider actions can provide insight into how agendas
are set during visits. We had the unique opportu-
nity to examine patient-defined visit priorities among a
group of primary care patients participating in a
multi-site, randomized clinical trial. In this Aligning
Patients and Providers trial, patients in the interven-
tion arm were guided to identify their top 1 or 2 visit
priorities in the waiting room just before their pri-
mary care visit using a “Visit Planner” tool.\textsuperscript{23} Patients
received a 1-page article print-out listing their top visit pri-
orities then proceeded to their visit. For this current
report, we examine the relationship between types of
patient-defined visit priorities and corresponding
clinical actions arising from the visit. We tested the
hypothesis that providers would be less likely to ad-
dress patient-identified psychosocial concerns com-
pared with medically related patient priorities.

\section*{Methods}

\subsection*{Setting}

Our analysis was conducted using data from the
Aligning Patients and Providers study (APP; Clini-
calTrials.gov: NCT02707146), a randomized con-
trolled trial conducted within Kaiser Permanente
Northern California (KPNC). KPNC is a non-
profit, integrated health care delivery system that
provides care for over 4.1 million members
throughout Northern California.

Full details of the trial have been published else-
where.\textsuperscript{24} Briefly, primary care physicians were re-
cruited for the clinical trial between June 2015 and
February 2016 from 7 primary care practices. Pa-
tient clinical trial eligibility was based on having a
current gap in evidence-based primary care, de-
defined as being due for preventive cancer screening
(breast, cervical, and colorectal); having suboptimal
medication adherence (for treatment of diabetes,
hypertension, or dyslipidemia); being a current
smoker; or having suboptimal chronic disease con-
trol (defined as elevated Hemoglobin A1c [HbA1c],
systolic blood pressure, or Low-Density Lipopro-
tein [LDL]-cholesterol; or being overdue for os-
teoporosis treatment). This broad array of potential
inclusion criteria resulted in a fairly representative
cohort of general primary care patients. Patients
with a diagnosis of dementia, psychosis, or other
medical conditions which could impair participa-
tion were excluded from the study. Patients were
initially contacted by phone for participation in the
study after they had scheduled an appointment.
During this phone call, the research assistant ar-
ranged to meet the patient in the waiting room
before the visit, where written informed consent
was obtained. The study was approved by the in-
stitutional review board of the Kaiser Foundation
Research Institute.

\subsection*{Patient-Identified Visit Priorities}

Our current analysis focuses on data collected from
patients enrolled in the intervention arm of the APP
trial. Using a tablet-based tool in the waiting room
(“Visit Planner”), these patients viewed a 30-second
video clip on the importance of mentioning their
priorities at the beginning of the visit and then se-
lected their top 1 or 2 visit priorities from a list of 6
prespecified categories. Within each category, pa-
tients could further select from up to 5 subcategories
and/or add free text to further clarify the nature of the
priority (Table 1). After making their choices, pa-
tients received a 1-page article print-out with their
selections from research assistant before going in to
the examination room. The patient-priorities were
not entered by staff into the medical record.

For our analysis, responses were grouped into 2
mutually exclusive categories of psychosocial versus
medical priorities based on patient category selec-
tion and any accompanying free text responses.
Priorities were considered psychosocial if patients
identified: 1) ‘I am feeling anxious or depressed,’ 2)
‘Drug or alcohol concerns,’ 3) ‘Caregiving issues,’
4) ‘Family concerns,’ or 5) ‘Stress at home or work.’
Free text responses with specific mention of de-
pression, anxiety, stress, family concerns, or sub-
stance use were also categorized as psychosocial
priorities. Priorities where patients indicated spe-
cific medical concerns (e.g., ‘back pain,’ ‘cough,’
‘diabetes’) were categorized as medical priorities.
Priorities that could not be categorized as either
psychosocial or medically-related (e.g., ‘New pro-
blem’ or ‘Old problem’ without any explanatory text)
were excluded from our analysis.
Study Outcomes
We used structured electronic chart review of visit progress notes, after-visit summaries, orders placed during the visit, specialty referrals, and postvisit email messages between patient and provider to determine whether the provider addressed the patient’s visit priorities.

The main outcome of interest was concordance between patient-defined priority and provider response. Concordance was examined in 3 domains: 1) provider documentation of the patient-defined priority in the progress note or patient problem list, 2) evidence of action or follow up through relevant referral, documentation of in-office counseling, ordering of relevant lab tests, imaging studies, or therapeutics, and 3) provision of information about the patient-defined priority through a primary care after-visit summary or a secure message to the patient with specific reference to the patient priority within 72 hours of the visit.

Statistical Analyses
We examined patient-provider concordance comparing psychosocial versus medically related patient priorities using χ² tests with a significance level of 0.05 and 2-sided hypothesis testing. In secondary analyses, we also examined patient-provider concordance stratified by history of patient mental health disorder and by primary care physician gender. Mental health disorders were defined by International Classification of Diseases (ICD) 10 diagnosis (anxiety disorder, major depressive disorder, post-traumatic stress disorder, Attention-Deficit/ Hyperactivity Disorder, bipolar disorder type 1 or 2, or addiction to alcohol or illicit substances).

We constructed logistic regression models (SAS GENMOD) to examine odds of concordance by priority type (psychosocial vs medically related) after adjusting for potential confounding variables including patient and provider gender, patient age and race, and patient-PCP familiarity defined as new to PCP (<18 months) versus established relationship (≥18 months). We applied generalized estimating equations to adjust for the nonindependence of multiple priorities for some patients. All analyses were performed using (SAS version 9.3, SAS Institute, Cary NC).

Results
Cohort Characteristics
Our cohort included 109 patients with self-identified psychosocial or medical visit priorities. Mean

<table>
<thead>
<tr>
<th>6 Main Categories</th>
<th>Associated Subcategories</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress at home or work</td>
<td>Caregiving issues</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>Family concerns</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>Financial concerns</td>
<td>Psychosocial</td>
</tr>
<tr>
<td>A personal concern</td>
<td>Anxious or depressed</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>Drug or alcohol concerns</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>My personal safety*</td>
<td>Psychosocial</td>
</tr>
<tr>
<td>Medicines</td>
<td>Medicines cost too much</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>Problems with side effects</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td>Stopped taking</td>
<td>Medical</td>
</tr>
<tr>
<td>Need something from my doctor</td>
<td>Referral to a specialist</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td>Medication refill</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td>Blood test, x ray, or other test</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td>Form filled out</td>
<td>Medical</td>
</tr>
<tr>
<td>New problem</td>
<td>I’m feeling anxious or depressed</td>
<td>Psychosocial</td>
</tr>
<tr>
<td></td>
<td>I’ve noticed something new*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I’m having trouble with my usual activities*</td>
<td></td>
</tr>
<tr>
<td>Old problem</td>
<td>Something has changed*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need more explanation*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I’m not getting better from last time*</td>
<td></td>
</tr>
</tbody>
</table>

*Included in analysis if free text clearly defined the patient’s priority as medical or psychosocial concern.
age was 59.0 (± 12.7) years and 73.4% were women. A slight majority of patients identified as non-Hispanic white (52.3%). Patients were taking 2.5 (± 2.5) medications. Most patients received care from a female primary care physician (74.3%) and most patients had the same gender as their physician (71.5% gender concordance). We found no statistically significant baseline differences between patients with any psychosocial concerns compared with patients with only medical concerns (Table 2).

Patients listed a total of 147 unique priorities which were included in our analysis. Most patients identified a single visit priority (77/109; 71%). Nearly one quarter of all priorities (35/147; 23.8%) were categorized as psychosocial concerns. Of these, the most common were anxiety and depression (54%) and general psychosocial stress (43%). The most frequently patient-identified medical priorities were related to musculoskeletal (26%) or cardiovascular (12%) concerns.

Patient-Provider Concordance by type of Patient Visit Priority

Psychosocial priorities were less likely to be addressed by the primary care provider compared with medically related priorities. More specifically, psychosocial priorities were less often documented in the chart (62.9% vs. 88.4%; \( P < .005 \)), less often subject to clinical action or follow-up (51.4% vs. 82.1%; \( P < .005 \)), and less often included in post visit information from the primary care doctor (17.1% vs. 32.1%; \( P = .09 \)) compared with medically related health priorities (Figure 1). Results remained similar when stratified by history of mental health disorder, provider gender, or whether patient and provider were of the same gender.

These concordance differences between psychosocial and medically related priorities remained after adjusting for patient and provider gender, age, patient race, history of mental health disorder, and familiarity between patient and provider. Psychosocial priorities were less likely to be addressed by the primary care provider (62% vs. 88%; adjusted odds ratio [aOR], 0.16; 95% CI, 0.06 to 0.41; \( P < .001 \)), less likely to receive clinical action (54% vs. 82%; aOR, 0.15; 95% CI, 0.06 to 0.38; \( P < .001 \)), and less likely to receive post visit information from the primary care doctor (17% vs. 32%; aOR, 0.39; 95% CI, 0.14 to 1.08; \( P = .07 \)) compared with medically related priorities. Of the other variables considered in our models, only higher patient age

<table>
<thead>
<tr>
<th>Table 2. Characteristic of Patients with and without any Psychosocial Visit Priorities</th>
<th>All Patients (n = 109)</th>
<th>Any Psychosocial (n = 31)</th>
<th>Only Medical (n = 78)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years: Mean (SD)</td>
<td>59.0 (12.7)</td>
<td>56.8 (13.3)</td>
<td>59.9 (12.4)</td>
<td>.3</td>
</tr>
<tr>
<td>Range</td>
<td>30 to 80</td>
<td>34 to 79</td>
<td>30 to 80</td>
<td></td>
</tr>
<tr>
<td>Age, years, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 59</td>
<td>46 (42.2)</td>
<td>15 (48.4)</td>
<td>31 (39.7)</td>
<td>.4</td>
</tr>
<tr>
<td>60 to 80</td>
<td>63 (57.8)</td>
<td>16 (51.6)</td>
<td>47 (60.3)</td>
<td></td>
</tr>
<tr>
<td>Gender, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>80 (73.4)</td>
<td>24 (77.4)</td>
<td>56 (71.8)</td>
<td>.5</td>
</tr>
<tr>
<td>Men</td>
<td>29 (26.6)</td>
<td>7 (22.6)</td>
<td>22 (28.2)</td>
<td></td>
</tr>
<tr>
<td>Race/ethnicity, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-white</td>
<td>52 (47.7)</td>
<td>16 (51.6)</td>
<td>36 (46.2)</td>
<td>.6</td>
</tr>
<tr>
<td>White</td>
<td>57 (52.3)</td>
<td>15 (48.4)</td>
<td>42 (53.8)</td>
<td></td>
</tr>
<tr>
<td>New to PCP, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>46 (42.2)</td>
<td>15 (48.4)</td>
<td>31 (39.7)</td>
<td>.4</td>
</tr>
<tr>
<td>No</td>
<td>63 (57.8)</td>
<td>16 (51.6)</td>
<td>47 (60.3)</td>
<td></td>
</tr>
<tr>
<td>Current medications, mean (SD)</td>
<td>2.5 (2.5)</td>
<td>2.5 (2.6)</td>
<td>2.5 (2.5)</td>
<td>.9</td>
</tr>
<tr>
<td>Medical conditions, mean (SD)</td>
<td>1.4 (0.6)</td>
<td>1.3 (0.3)</td>
<td>1.4 (0.6)</td>
<td>.5</td>
</tr>
<tr>
<td>Care from, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female PCP</td>
<td>81 (74.3)</td>
<td>25 (80.6)</td>
<td>56 (71.8)</td>
<td>.3</td>
</tr>
<tr>
<td>Male PCP</td>
<td>28 (25.7)</td>
<td>6 (19.4)</td>
<td>22 (28.2)</td>
<td></td>
</tr>
</tbody>
</table>

PCP, primary care provider; SD, standard deviation.
was independently associated with lower odds of a patient-identified priority being addressed by the primary care provider (76% vs. 91% for age 60 to 80 vs. 30 to 59 years; aOR, 0.31; 95% CI, 0.11 to 0.82; \( P < .02 \)).

**Conclusions**

Psychosocial concerns are a frequent visit priority for patients in primary care. Prior research has suggested that these concerns may receive less attention than medically defined problems during primary care visits.\(^{25,26}\) In prior studies, identification of psychosocial concerns was by physicians rather than by patients. We had the unique opportunity to examine primary care interactions based on patient-defined visit priorities. These priorities were elicited in the waiting room as part of the APP clinical trial, an intervention that included a brief (30-second) video clip encouraging patients to bring up their visit priorities at the beginning of the visit and an easy process for patients to select their priorities, which were then printed out for them before they entered the examination room.

Through review of these patient-identified priorities during primary care visits and the outcomes of these visits, we found that patient-defined psychosocial priorities were markedly less likely to be addressed by primary care physicians than medically related priorities. Our results extend prior research that providers are more likely to address medical concerns as opposed to psychosocial priorities\(^{3–5,27–29}\) by demonstrating that this disparity exists even when patients themselves have identified these concerns as top visit priorities.

There are likely several different contributors to this disparity between how psychosocial and medically related priorities are addressed in primary care. Providers receive little training in how to talk to patients about concerns such as food or housing insecurity, financial concerns, or caregiver burnout or fatigue. For these reasons, some physicians may perceive medical concerns as more appropriate targets for their care. Providers may also be less likely to initiate discussion regarding more complex psychosocial issues, especially among patients with chronic conditions, as they tend to have less concrete solutions.\(^{30}\) Providers may also lack the necessary resources (eg, available mental health consultants or social workers who can help with financial issues) to direct toward patients with nonmedical needs. These psychosocial needs are also generally less amenable to actions such as ordering tests, giving lifestyle advice, and prescribing medicines with which providers are generally most comfortable.

One strength of our analytic approach was to examine multiple domains of provider action: formal documentation, different tangible clinical actions, and follow-up contact with the patient. It is perhaps not surprising that patient-prioritized psychosocial issues were less likely to be documented during the visit, as providers may limit documen-
tion to details that support billing requirements. To the extent that the psychosocial priorities raised by patients may be helpful for other clinicians reading the chart in future encounters, our results suggest that this may be a missed opportunity. Indeed, evidence has shown that patient-centered care—which would include addressing patient-defined psychosocial needs—can improve care and reduce costs.31

A secondary finding from our analysis was the independent negative association of patient age with patient-provider concordance on visit priorities. This can likely be explained by the fact that older patients have a larger number of chronic medical conditions32 and providers may be more strained for time to address patient priorities.33

Given the ageing of the primary care population, this finding may have important implications for growing the need to improve awareness of psychosocial issues in older patients. Current literature suggests that to circumvent this issue, elderly patients may benefit from family member or companion presence during primary care visits to help more effectively advocate for the patient’s concerns.34

Prior research has also shown that female physicians tend to be more patient-centered than male physicians and are more likely to address patient concerns, particularly when discussing psychosocial matters.35 In contrast to these prior studies, we found no correlation between gender of primary care provider and concordance with patient-defined priorities. This association, however, has only been previously described in settings where providers had to directly elicit patient priorities, rather than receiving them from the patient, and may speak more to communication style discrepancies between genders rather than patients being forthcoming with their priorities.36

Several limitations of our study deserve mention. Our concordance assessment was based on documented priorities and actions and thus does not capture conversations that may have been conducted during the visit. Indeed, although patients were coached to communicate their visit priorities at the beginning of the visit, we cannot be sure that patients voiced these priorities. In addition, current electronic health record (EHR) systems are typically better designed to facilitate coding of medical rather than psychosocial concerns. Nonetheless, the disparities in documentation, clinical actions, and postvisit messaging captured through structured chart review all support our conclusion that psychosocial issues are less likely to be meaningfully addressed in primary care than medically related ones. In addition, we were unable to capture whether more pressing clinical matters such as an acute medical problem superseded patient priorities, thus making concordance less likely. Our tabulation of priorities from our study participants may not be generalizable to other populations, both because all KPNC patients are insured and because participation in the APP clinical trial may have facilitated recognition of psychosocial priorities. Finally, due to the relatively small sample sizes, we were unable to examine concordance by specific concerns within our 2 mutually exclusive categories.

Our results highlight the difficulties that patients face in having psychosocial needs addressed during primary care visits. Based on prior studies, we speculate that the multitude of competing clinical demands and limited resources for psychosocial care may be contributors to the results we found. Although we could not address this question directly in our analysis, our results suggest potential solutions to this problem may include improved provider training and increased care coordination with other primary care team members. Indeed, many primary care practices have begun to include a behavioral medicine specialist on the care team to help support patients with psychosocial issues. Future efforts to improve care should focus not only on helping physicians discuss patient priorities at the outset of the visit to help maximize visit efficiency and improve patient experience,37,38 but also to help bolster clinic- and community-based resources to provide psychosocial support to patients.39,40

To see this article online, please go to: http://jabfm.org/content/32/4/513.full.

References


