A National Pre-Pandemic Survey of Patient-Reported Health Confidence and Implications for Post-Pandemic Practice

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Abstract: Patient-reported health confidence is a valuable indicator of effective patient-clinician communication, which improves outcomes and reduces costly care use. This national survey examines health confidence attainment in the United States before the COVID pandemic strained health care resources. Health confidence was low for both the percentage of respondents who were financially secure (36%) and financially insecure (18%). Persons enrolled in employer- and union-sponsored plans, who had the highest household income, did not report higher levels of health confidence. Health policy should support the measurement and monitoring of health confidence in clinical practice to improve population health and maximize resource efficiency.

Key words: cost of health care, health confidence, national survey, patient engagement, quality of health care, The Physicians Foundation, What Matters Index

PATIENTS are health confident when they attest that “they are very confident that they can manage and control most of their health problems.” The single-item measure of health confidence is a useful proxy for the abstract concepts of self-management capacity, engagement, self-efficacy, and activation (Hibbard et al., 2004; Wasson & Coleman, 2014). Persons who are very health confident are much more likely than those who are not engaged in self-management to be well and much less likely to use costly health care (Hibbard et al., 2016; Ho et al., 2013a; Mattingly & Nong, 2019, Nunlist et al., 2016; Wasson et al., 2011).

Health confidence is also a strong indicator of effective communication between patients and clinicians. For example, across 11 industrialized nations, there was a strong correlation between the health confidence of patients with asthma, diabetes, heart disease, high cholesterol, or hypertension and the extent to which clinicians allowed these patients time to ask questions, encouraged their involvement in decision making, and explained care in language that was easy to understand (Wasson, 2013). In general practices, after
adjusting for baseline characteristics, more than two-thirds of patients who became more confident over time also reported that their clinicians were aware of and provided good education about emotional problems (Wasson et al., 2008a). Moreover, models of optimum health service delivery for patients with chronic illnesses emphasize the need for effective collaboration between engaged patients and prepared, proactive clinicians, and because such a situation engenders health confidence, the single-item measure can serve as an indicator of optimum service delivery (Bodenheimer et al., 2002a, 2002b; Improving Chronic Illness Care, 2019; Wasson et al., 2003).

An inquiry about health confidence as part of the initial clinical assessment is analogous to welcoming the patient by asking the reassuring, compassionate, and anticipated question, "How are you?" However, although the health confidence measure alone can be used by patients, health care clinicians, or payers to measure, improve, and monitor the quality of collaborative care, health confidence does not exist in a vacuum. Patient-reported health confidence is dramatically and adversely impacted by 4 easily assessed and remediable clinical considerations: pain, bothersome emotions, polypharmacy, and adverse medication. When single-item measures for these 4 remediable problems are summed with inadequate health confidence, a What Matters Index (WMI) is generated that reduces clinician guesswork about what matters to patients, guides subsequent clinical responses, and predicts future utilization as well as computer-generated risk models. The WMI’s brevity and ease of interpretation make it easy to administer to off-site patients by telephone or other telehealth technologies (Wasson, 2020; Wasson et al., 2017, 2018).

The Physician Foundation’s Survey of America’s Patients is conducted on a biennial basis to evaluate US patients’ attitudes on the physician-patient relationship and key drivers of health care outcomes. In 2019, the survey assessed the national attainment of health confidence as a critical first step for its improvement. This report describes the results of that survey and its implications for patients, health care clinicians, and payers.

**METHODS**

Since 2015, The Physician Foundation’s Survey of America’s Patients has used volunteer panel sampling, whereby participants who previously agreed to participate in surveys are invited, usually by e-mail or telephone, to take surveys based on known qualifying characteristics such as age, educational level, access to Internet, etc. Participants’ responses can also be weighted to match the target population on a set of relevant variables. Panel sampling has become increasingly widespread because of plummeting response rates to traditional surveys (Roberts et al., 2020). The Pew Foundation presents an application of this methodology and a description of its limitations for its American Trends Panel survey (Pew Research Center, 2020).

Thus, using a commercial vendor, The Physician Foundation’s invited by e-mail a volunteer panel to complete a survey about medical care in the United States. The survey was distributed between September 4, 2019, and 13, 2019, to individuals selected to represent the adult population of the United States in terms of gender, age, and distribution across 4 geographic regions.

Of 2001 respondents, 70 reported that they had no health problems to manage or control and were therefore excluded from the health confidence analysis. As shown in Table 1, the remaining 1931 respondents’ demographic characteristics closely matched the US adult population in terms of gender (51% female), age (36% aged 18-49 years and 24% aged 65+ years), and annual household income (56% earning <$75 000). However, Black or African American and Hispanic Americans and those with high school or less education were underrepresented in the survey. The impact of this selection bias is described in the “Results” section.
Table 1. Demographic Characteristics of Survey Sample Relative to the US Adult Population

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>Survey Sample</th>
<th>US Adults$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparable with US adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender: Female</td>
<td>51%</td>
<td>51%</td>
</tr>
<tr>
<td>Aged 18-39 y</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>Aged 65+ y</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>Married</td>
<td>51%</td>
<td>50%</td>
</tr>
<tr>
<td>Household earning &lt;$75 000</td>
<td>56%</td>
<td>55%</td>
</tr>
<tr>
<td>Not comparable with US adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education: High school or less</td>
<td>20%</td>
<td>38%</td>
</tr>
<tr>
<td>Education: 4-y college or more</td>
<td>45%</td>
<td>35%</td>
</tr>
<tr>
<td>Race: White, non-Hispanic</td>
<td>79%</td>
<td>66%</td>
</tr>
<tr>
<td>Race: Black, African American</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Race: Hispanic</td>
<td>6%</td>
<td>16%</td>
</tr>
</tbody>
</table>

$^a$Derived from US Census data (https://data.census.gov/).

Measures


For this report, we highlight 3 survey questions.

1. Health confidence: How confident are you that you can control and manage your health problems? Very confident; somewhat confident; not very confident; I do not have any health problems.
   - This item assesses the concepts of self-management capacity, engagement, self-efficacy, and activation and corresponds to 6 measures for confident self-management contained in a Patient Activation Measure (Wasson, 2013).
   - Seventy of 2001 survey respondents did not have any health problems and were excluded from the analyses for this report.

2. Care quality: When you think about your health care, how much do you agree or disagree with this statement: I receive exactly the health care I want and need exactly when and how I want and need it. Strongly agree; somewhat agree; somewhat disagree; disagree strongly.
   - Ranking of office practice quality from this single item corresponds to that calculated from 13 items of the Consumer Assessment of Health Care Plans (Ho et al., 2013b).
   - This score is associated with professional and nonprofessional staff assessments of office function (Wasson & Baker, 2009).
   - Every respondent completed this item.

3. Financial status: Do you have enough money to buy the things you need to live every day such as food, clothing, or housing? Yes, always; sometimes; no.
   - Every respondent completed this item, although 123 respondents did not volunteer information about their income.
   - The “Yes, always” response was chosen by 93% of those patients who claimed an annual income of $150 000 or more versus only 36% of those reporting an annual income of less than $25 000.
   - Thirteen percent of those who answered “Yes, always” strongly agreed with the statement, “Sometimes I feel like I’m one sickness away from being in serious financial trouble,” versus 34% of respondents who reported
that they are not always able to buy the things they need every day.

Analysis

Logistic regression demonstrated that when measures of care quality and financial status were included in the model, respondents’ age, gender, educational level, and number of visits with professionals had no significant statistical impact on attainment of health confidence. Therefore, health confidence attainment rates are herein presented only in relation to reported quality of care and patients’ economic status.

In addition to the 3 highlighted survey items, the analyses included the source of payment for health care via responses to the question: “What is your primary source of health insurance or health care coverage?” (1) A plan purchased through an employer or union (42%); (2) Federal, not Medicaid, including Medicare (32%) or TriCare (3%); (3) Medicaid (14%); and (4) self-pay or other (14%).

RESULTS

Health confidence and care quality

Only 30% of this US sample of adult patients stated that they were very health confident. Those who do not always have enough money to buy essentials were much less likely to report health confidence than the financially secure (18% vs 36%). Across income levels, few (25%) strongly agreed that they receive exactly the health care they want and need exactly when they want and need it. Overall, only 14% of this national sample claimed to be both very health confident and in receipt of the highest level of health care.

Table 2 shows the associations among self-reported quality of care, economic status, and patients’ health confidence. The table demonstrates that care quality is strongly associated with health confidence regardless of patients’ economic status: 59% of financially secure patients are very health confident when they have received top quality care versus only 27% of financially secure patients who report receiving lower-quality care. Only 12% of patients who are not financially secure are very health confident when they receive lower-quality care.

Health insurance coverage and health confidence

In this survey, a household income of $75 000 or higher was reported by 68% of respondents in a plan purchased through an employer or union, 38% of those enrolled in federally subsidized Medicare or TriCare, 11% of Medicaid recipients, and 14% who self-pay or use other options.

Figure 1 illustrates the attainment of the highest and most desirable level of health confidence for financially secure and insecure patients in each of the 4 insurance coverage categories. The data show that most patients

Table 2. Association of Patient-Reported Health Confidence, Quality of Care, and Economic Status

<table>
<thead>
<tr>
<th>Quality of Care</th>
<th>Economic Status</th>
<th>Very Health Confident</th>
</tr>
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<tbody>
<tr>
<td>Strongly agree</td>
<td>Yes, always</td>
<td>59% (n = 211/359)</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>Not always</td>
<td>42% (n = 51/123)</td>
</tr>
<tr>
<td>Do not strongly agree</td>
<td>Yes, always</td>
<td>27% (n = 259/949)</td>
</tr>
<tr>
<td>Do not strongly agree</td>
<td>Not always</td>
<td>12% (n = 58/499)</td>
</tr>
</tbody>
</table>

*I receive exactly the health care I want and need exactly when and how I want and need it. Strongly agree versus somewhat agree; somewhat disagree; disagree strongly.

Do you have enough money to buy the things you need to live everyday such as food, clothing, or housing? Yes, always versus sometimes; no.

How confident are you that you can control and manage your health problems? Very confident versus somewhat confident; not very confident.
are not very health confident regardless of coverage option and that despite their higher average household income, those enrolled in employer- or union-sponsored health plans are faring relatively poorly.

Figure 2 illustrates a similar pattern for the overall quality of care associated with each coverage option. When considering the relatively higher financial security of patients with employer- or union-sponsored plans, their lower quality of care appears paradoxical.

**DISCUSSION**

Evidence-based models for optimum health services emphasize the importance of collaboration between engaged patients and prepared, proactive clinicians (Bodenheimer et al., 2002a, 200b; Improving Chronic Illness Care, 2019; Wasson et al., 2003). By this standard, the results of this national survey indicate that most adult patients in the United States are receiving inferior care. Very few
feel confident that they are engaged in their care and even fewer strongly agree that health care processes are directed exactly to what they want and need. These trends, from data collected before the Covid-19 outbreak, are likely to worsen as the virus continues to threaten the physical and mental health of both patients and clinicians and disrupts health care systems and the global economy.

The finding that financially unstable patients report the lowest health confidence and the lowest quality of care is an anticipated result. Ongoing surveys of Americans have documented large health care disparities by financial status (Agency for Healthcare Research and Quality, 2020). However, this analysis adds to that challenge by the observation that the type of health coverage offers no respite from low health confidence or lower-quality care. In fact, the inferior results for patients with employer- or union-sponsored health plans suggest that a patient’s greater financial assets will not translate into better collaborative care. As unemployment soars and many Americans lose access to employer-sponsored health plans, capitalizing on the potential of health confidence tracking and action, in either remote or face-to-face settings, could lessen the negative impacts of changes in coverage.

Possible remedies

Fortunately, several positive observations suggest that these discouraging results can be remedied. Most directly, patients who are not very health confident can be asked to describe what they want or need to become more health confident so that a specific plan can be tailored to their suggestions. These inquiries can be easily automated, as in one approach freely available at www.HowsYourHealth.org. The Supplemental Digital Content Appendix (available at: http://links.lww.com/JACM/A94) describes the use of this single item and an expanded “WMI” for improving patient health confidence and efficiently planning better care (Finkelstein et al., 2020; Ho et al., 2013a, 2013b; Nunlist et al., 2016; Wasson, 2019, 2020; Wasson et al., 2008b, 2011, 2018; Yoon et al., 2018).

Caveats

Because response rates to traditional mail, phone, or e-mail techniques are so low, panel sampling is an increasing attractive survey method. However, validity in panel sampling suffers from the usual threats that confront traditional methods (Yeager et al., 2011). Notwithstanding, the overall low attainment of health confidence observed here is consistent with other, less comprehensive population samples (Wasson, 2013; Wasson et al., 2011). Moreover, the attainment of health confidence is so low that the positive biases needed to bring attainment to a desirable level would far exceed reasonable expectations.

Regardless of the method used, a cross-sectional survey cannot establish cause and effect. For example, these results show a strong interaction among measures for health confidence, financial status, and care quality. These findings do not prove that a change in health care processes, such as that guided by a WMI, will translate into improved health confidence. However, evidence-based models of health care delivery suggest that this proposition is reasonable.

In this instance, we observed underrepresentation of Black or African American and Hispanic Americans and those with high school or less education. However, regardless of their level of financial security, the percentage of health confidence was similarly low for White (30%), Black or African American (33%), and Hispanic respondents (37%). After allowing for the level of financial security, educational attainment had no significant impact on health confidence.

SUMMARY

The findings from a US adult population surveyed just before the Covid-19 pandemic demonstrate that the majority of patients, and the health systems that serve them, are not reaping the potential benefits of better patient outcomes and lower costs that higher levels of health confidence could generate. The results also suggest that none of the
health insurance coverage available in the United States is having a significant positive influence on the health confidence of the population. Paradoxically, persons enrolled in employer- and union-sponsored plans, who tend to have the highest household income, may be less likely to receive exactly the care they want and need and less likely to be health confident.

The pandemic is likely to degrade health confidence further unless health policy and practice adopt this indicator as a target for action. Patient-reported health confidence is easy to assess at the point of care, by telephone or through telehealth technologies, and acting on this measure can improve patient outcomes. The additional measures of pain, emotional problems, and medication effects included in the WMI augment health confidence monitoring to better guide care that enhances patients’ quality of life. Nationwide adoption of this approach could advance population health and reduce the use of costly health services.

REFERENCES


