Understanding U.S. Physician Satisfaction: State of the Evidence and Future Directions

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EXECUTIVE SUMMARY

Physician satisfaction is an important issue, yet we know less about it than we should. This narrative review updates our knowledge about U.S. physician satisfaction and proposes new foci for understanding and studying the topic that align better with the evolving U.S. healthcare delivery system, physicians’ everyday work situations, and medicine’s internal demographic changes. Using the PubMed database of empirical studies published between 2008 and 2013 that examine U.S. physician job, career, or work satisfaction, we compare our review findings with a review covering studies published between 1970 and 2007. We included 22 studies in our review.

Overall, U.S. physicians experience moderate to high levels of job, work, and career satisfaction, and these levels have remained stable over time. This is surprising given discussions in the popular press of declining physician satisfaction. The observed consistency and the high levels of satisfaction do not tell the entire story. While autonomy, income, and perceived job demands are several of the stronger predictors of physician satisfaction, variables such as age and gender have been understudied. And our understanding of what drives physician satisfaction still draws too heavily on other variables that are less salient given today’s workplace and the current trends in professional demographics and employment arrangements. Future thinking and research on physician satisfaction should align more with the array of changes now occurring within the U.S. medical profession and the larger U.S. healthcare delivery system, within which physicians work. To do this, new variables and conceptual thinking that capture these changes must be used.

For more information about the concepts in this article, contact Dr. Hoff at t.hoff@neu.edu.
INTRODUCTION

Why does physician satisfaction matter? We define satisfaction in this paper in terms of three separate dimensions: job, career, and work. Job satisfaction is satisfaction with one’s actual job, that is, its various dimensions and structure such as pay and schedule. Work satisfaction refers to one’s satisfaction with the actual content of the work performed, in this case the clinical and administrative work involved in being a trained physician. Career satisfaction is the extent to which individuals are happy with their overall career trajectory and the sum of their career experiences over time.

Research has shown that all three dimensions of physician satisfaction are positively associated with patient satisfaction (Haas, Cook, Puopolo, Burstin, & Cleary, 2000; Linn et al., 1985). Physician satisfaction also may affect aspects of care quality such as patient adherence to treatment (DiMatteo et al., 1993), and job-related outcomes such as burnout (Spickard, Gabbe, & Christensen, 2002). Finally, physician satisfaction is at the heart of the types of leadership and teamwork needed in the current climate of team-based care, accountable care organizations, and patient-centered medical homes.

Satisfaction in the Context of Changes to and Within the U.S. Medical Profession

Despite its importance, our understanding of U.S. physician satisfaction has not kept pace with the changes occurring in their clinical work environments, the surrounding healthcare delivery system, and the medical profession itself. These changes began in earnest with the advent of managed care in the 1990s and continued with the passage of the Affordable Care Act in 2010. In the past 15 years, we have witnessed profound changes in how physicians work; relate to each other and to members of other healthcare occupations such as nursing; embrace their professional identities; and function in new models of care delivery (such as accountable care organizations). These changes call into question the traditional manner in which we think about and study physician satisfaction.

In addition, the traditional image of the U.S. physician as a self-employed, fully autonomous professional is outdated. Most physicians now work as salaried employees, and more will be similarly employed in the future (Jackson Healthcare, 2013). This employment will occur in traditional healthcare organizations such as hospitals. It also will occur in newer, integrated delivery systems such as accountable care organizations, where physicians may work within a nested structural configuration in which their own medical practice is beholden to a larger network of hospitals and ancillary service providers. Regardless of the setting, this move toward employment within larger organizations involves less direct ownership by physicians and more salaried work, some of which is contingent on meeting performance targets (Kocher & Sahni, 2011). These trends might affect how physicians experience their jobs, work, and careers, and shape their satisfaction levels in the process.

Besides these structural changes introduced by the system, demographic shifts within the profession also may affect satisfaction. Women now make up
30% of physicians, up from 7% in 1970 (AAMC, 2012). Women bring different needs, expectations, and preferences to their jobs and careers as physicians (Hoff, 2010). Millennials (i.e., people born after 1980) who become physicians also have different value systems and preferences for medical practice than physicians from previous generations (Relman, 2007). For both of these groups, emphasis on work–life balance, lifestyle, and equity in the workplace with respect to advancement opportunities and pay loom as predictors of all forms of satisfaction.

**A Current Assumption: U.S. Physicians Are Not Satisfied**

If one reads only the popular press, the current takeaway would be that U.S. physicians are a highly dissatisfied group. Such conclusions often are drawn from physician surveys conducted by consulting firms and media companies. For example, a 2012 national survey of 24,000 physicians across all specialties found that, if given the choice, only slightly more than half—54%—would choose medicine as a career again (Crane, 2012). In a 2013 survey, 59% of physicians would not recommend their profession to a younger person, and 42% were dissatisfied in their jobs (Jackson Healthcare, 2013). In another 2013 national survey, 40% of physicians self-identified as being burned out (Peckham, 2013). Anecdotes abound about how unhappy physicians are with their work, the high rates of job turnover, and the increasing lack of joy with which they ply their trades. However, these anecdotes have not been shown to be true. A review by Scheurer, McKean, Miller, and Wetterneck (2009) of satisfaction studies published between 1970 and 2007 showed moderate to high levels of physician satisfaction across different subgroups.

Our review serves a twofold purpose: (1) to update existing knowledge about U.S. physician satisfaction, and (2) to propose new insights and foci for understanding and studying U.S. physician satisfaction that align better with system changes that began during the managed care era of the 1990s and continue through the recent internal demographic shifts in the profession.

**METHODS**

We conducted a review of the empirical literature on U.S. physician job, work, and career satisfaction published from 2008 to 2013. Our goals were to update the knowledge base for this topic and, equally important, to set the stage for better articulating the ways in which our understanding of and approach to physician satisfaction must evolve to align better with the fast-changing healthcare working conditions that U.S. physicians experience. We used this precise period for our review because Scheurer et al. (2009) conducted a systematic review that included satisfaction studies from 1970 to 2007, and we did not wish to conduct a review that included the same studies. We used the PubMed database and a series of search-term combinations that included “physician” or “provider” with the phrases “work satisfaction,” “job satisfaction,” and “career satisfaction.” Reviewing only article titles and abstracts, we preliminarily identified 79 physician-specific satisfaction studies for the period from
2000 to 2013 (our initial search period). Review of the full-text articles resulted in removal of 24 that were not empirical, leaving a total of 55 articles from 2000 to 2013 (Figure 1). Because Scheurer et al. reviewed articles up to 2007, we removed 33 articles published before 2008. This left 22 studies for the period 2008 to 2013 that examined U.S. physician populations and one or both of the following: (1) overall job, work, or career satisfaction levels among physicians, and (2) key predictors of job, work, or career satisfaction.

The process of article review proceeded in the following manner. Two of the authors (T.H., G.Y.) each reviewed 11 articles in their entirety, using a standardized abstraction form to glean information such as research design, research setting, sample, time period of data collected, methods used, independent variables and type of job satisfaction examined, and main findings. Use of the abstraction form ensured consistency in how the articles were reviewed and the type of information that were summarized. A third author (E.X.) then audited parts of the 22 abstraction forms, serving as a reliability check on the two full reviews. In addition, each of the two authors who reviewed 11 articles checked a portion of the other’s abstraction forms as a second reliability check. Overall, this checking process caused the authors to disagree approximately 6% of the time (calculated as 15 disagreements out of a total of 240 abstraction-form elements that were jointly reviewed). For these cases, the three authors met and resolved their differences. Once the authors completed the 22 abstraction forms, the information was entered into an electronic spreadsheet, which was used to record the open-ended items on the forms. These documents became the basis for analysis, which included frequency counts, simple bivariate analyses of variables on the abstraction form, and a qualitative review of the main satisfaction findings in each article to determine general (i.e., across the 22 studies) patterns of results.

RESULTS
Table 1 presents a summary of the key aspects, including the main satisfaction-related findings, of the 22 studies we reviewed. We compare several of these findings to what Scheurer et al. (2009) found in their review, which included satisfaction studies from 1970 to 2007. Many of the results of the two reviews are similar. For example, 8 of the 22 studies in our review used nationally representative survey databases such as the Community Tracking Survey (CTS), which is a slightly higher percentage than that in the Scheurer et al. review. The CTS was by far the most heavily used secondary data set for the studies in either review. Only 1 of the 22 studies used qualitative methods to gauge physician satisfaction, which might lead to a richer understanding of satisfaction and its predictors. Regarding the types of satisfaction studied, 55% of the 97 studies in the review by Scheurer et al. (2009) examined job or work satisfaction, and 52% examined career satisfaction (some studies examined multiple forms of satisfaction). In our review, similar numbers emerged, with 50% of the 22 studies examining either work or job satisfaction, and 59% including career satisfaction in the analyses, either alone or with another type.
FIGURE 1
Flow Diagram for Selection of Literature Review Studies

Initial Library:
2,789 articles

Stage 2 Library:
1,519 unique, recent articles

Stage 3 Library:
79 research articles about U.S. physician job, work, or career satisfaction

Stage 4 Library:
Final analysis: n = 22 articles
**TABLE 1**  
**Summary of 22 Physician Satisfaction Studies Reviewed**

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Design¹</th>
<th>Sample Size</th>
<th>Use of Theoretical/Conceptual Framework²</th>
<th>Key Independent Variables or Interventions Examined</th>
<th>Outcomes/Dependent Variables Examined</th>
<th>Main Satisfaction-Related Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arora et al.</td>
<td>6</td>
<td>300</td>
<td>A1</td>
<td>Resident work hour restrictions</td>
<td>Job satisfaction</td>
<td>• Decline in job satisfaction among attending physicians associated with introduction of ACGME resident work hour restrictions</td>
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</tbody>
</table>
| Aseltine et al.     | 4                | 456         | A1                                      | Primary care specialty (i.e., pediatricians, family physicians, internists) | Career satisfaction                   | • Higher career satisfaction associated with specialty–pediatricians reported higher satisfaction relative to other primary care specialties  
• Higher satisfaction associated with greater income across specialties |
| Clem et al.         | 4                | 1,380 (female emergency department physicians) | A1                                      | Compensation, career advancement opportunities      | Career satisfaction                   | • Higher career satisfaction associated with working in an academic environment, recognition for work, opportunities for involvement, flexible schedule, and pay fairness  
• Career satisfaction not associated with age |
| Cole et al.         | 6                | 893         | A1                                      | Employment at community health centers (CHCs)        | Job satisfaction, career satisfaction, work satisfaction | • Higher satisfaction with choice of specialty associated with CHC employment  
• Lower satisfaction with employer associated with CHC employment  
• Higher satisfaction associated with increasing age  
• Satisfaction not associated with gender |
| Cossman et al.      | 6                | 490 and 428 (two panels) | A2                                      | Job autonomy, malpractice risk                        | Career satisfaction                   | • Higher career satisfaction associated with greater job autonomy and increasing age  
• Lower career satisfaction associated with increased malpractice risk in the short run  
• Satisfaction not associated with gender |
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<tr>
<th>Study</th>
<th>Research Design&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Sample Size</th>
<th>Use of Theoretical/ Conceptual Framework&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Key Independent Variables or Interventions Examined</th>
<th>Outcomes/ Dependent Variables Examined</th>
<th>Main Satisfaction-Related Findings</th>
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</table>
| Cydulka et al.        | 6                           | 740         | A1                                                  | Job characteristics                               | Career satisfaction                    | • Higher career satisfaction associated with leadership roles, rewarding work, job security, fair compensation, involvement with teaching  
• Lower career satisfaction associated with greater work-related stress and job demands  
• Career satisfaction not associated with gender |
| Deshpande et al.      | 4                           | 4,720       | A1                                                  | Job characteristics                               | Career satisfaction                    | • Higher career satisfaction associated with more opportunities for patient interaction and greater income  
• Lower career satisfaction associated with perceived inadequacy in quality of care, greater malpractice risk, and greater level of practice ownership  
• Pattern of associations differed somewhat by type of primary care specialty |
| Elder et al.          | 4                           | 5,198       | A1                                                  | Use of information technology                    | Career satisfaction                    | • Higher career satisfaction associated with greater use of information technology |
| Fang et al.           | 4                           | 9,294       | A2                                                  | Active use of medical information by patients (i.e., information-oriented patients) | Career satisfaction                    | • Lower career satisfaction associated with higher proportion of information-oriented patients |
| Gibson et al.         | 4                           | 211         | A3                                                  | Specialty, gender                                 | Job satisfaction                       | • Job satisfaction associated with specialty: surgeons reported higher level of satisfaction than primary care physicians  
• Job satisfaction not associated with gender |

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| Karsh et al.  | 4               | 408          | A1                                     | Job characteristics                                | job/work satisfaction                  | • Higher job satisfaction associated with the strength of relationships with colleagues  
• Relationship with colleagues was a stronger predictor of job satisfaction than standard job characteristics including income, staff support, and work-related time pressures |
| Katerndahl et al. | 6               | 7,197, 7,264, 7,673 (3 panels) | A1                                     | Job autonomy, complexity of care                  | Career satisfaction                    | • Higher job satisfaction associated with greater job autonomy and greater access to high-quality ancillary services  
• Lower job satisfaction associated with higher-than-desired complexity of patient care, solo practice, and greater reliance on managed care revenue  
• Career satisfaction not associated with gender |
| Leigh et al.  | 4               | 6,590        | A1                                     | Specialty, job characteristics                    | Career satisfaction                    | • Career satisfaction varied across specialties  
• Higher career satisfaction associated with greater income and medical school employment  
• Lower career satisfaction associated with work schedules in excess of 50 hours per week, sole ownership of practice, and greater reliance on managed care revenue  
• Career satisfaction not associated with gender |
| Levine et al. | 4               | 1,396        | A1                                     | Employment status (full time versus part time) for academic-based physicians | Job satisfaction                      | • Higher job satisfaction not associated with employment status  
• Job satisfaction associated with different factors for part-time versus full-time academic physicians: academic rank for part-time physicians, publication record and career recognition for full-time physicians |
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| Mazurenko et al. | 4               | 4,720       | A3                                     | Market and demographic conditions                  | Career satisfaction                   | • Higher career satisfaction associated with increasing number of primary care physicians per capita and greater income  
• Lower career satisfaction associated with increasing number of specialists per capita, located in a state with an existing malpractice crisis, and perceived higher market competition for physician services |
| Menachemi et al. | 4               | 4,203       | A2                                     | Adoption and use of information technology          | Work (practice) satisfaction           | • Higher work satisfaction associated with greater use of electronic medical records and personal digital assistants  
• Higher work satisfaction associated with higher satisfaction with information technology |
| Mohr et al.      | 4               | 7,734       | A3                                     | Involvement in research, job characteristics        | Job satisfaction                      | • Higher job satisfaction associated with greater involvement in research  
• Higher job satisfaction associated with greater job autonomy, provision of performance feedback, better work-life balance, and opportunities for skill development |
| Pratt            | 4               | 2,105       | A1                                     | Job autonomy, quality of care, workload, access to resources, under-insurance of patients | Career satisfaction                   | • Higher career satisfaction associated with perceived ability to provide quality of care and greater access to resources  
• Lower career satisfaction associated with perceived underinsurance of patients, more barriers to autonomy, and greater workload  
• Career satisfaction associated with age: Men reported lower satisfaction with increasing age; women reported higher satisfaction with increasing age |

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</tr>
</thead>
</table>
| Saperstein et al.     | 4               | 186         | A1                                     | Mentorship                                         | Job satisfaction                     | • Higher job satisfaction associated with having a mentor  
• Higher satisfaction associated with greater involvement in research, spending more than 50% of time in patient care, and gender (male) |
| Shanafelt et al.      | 4               | 7,288       | A1                                     | Physician specialty                                 | Work satisfaction (work–life balance) | • Lower satisfaction with work–life balance compared with random sample from general population  
• Satisfaction with work–life balance differed according to specialty |
| Simpson et al.        | 4               | 641         | A1                                     | Family medicine training program (allopathic versus osteopathic) | Job satisfaction/career satisfaction | • Satisfaction not associated with type of family medicine training program |
| Solomon               | 2               | 25          | A1                                     | Work-related time pressures, compensation           | Job satisfaction                      | • Higher job satisfaction associated with greater time spent with patients (even when it resulted in negative financial consequences) |

Note. ACGME = Accreditation Council for Graduate Medical Education.

*Research design: 1 = quasi-experimental/case–control; 2 = descriptive case study (qualitative and/or quantitative analysis); 3 = pre–post statistical comparison (nonexperimental design without controls); 4 = cross-sectional data analysis (bivariate or multivariate, use of primary or secondary data); 5 = univariate comparisons over time (with or without statistical significance analysis); 6 = longitudinal data analysis (cross-sectional, bivariate, or multivariate with primary or secondary data).

*Use of theoretical/conceptual framework: A1 = none; A2 = minimal; A3 = extensive.
The period from 2000 to 2006 was the most commonly used time for data collection in the 22 studies, which is explained by the heavy use of older secondary data sets in many of these studies. For 15 of the 22 studies (68%) in our review, no information was available regarding employment setting (e.g., solo private practice, hospital-based practice) for the sample being examined. Thus, it was impossible to interpret anything contextually for these studies regarding the type of everyday practice environment in which physicians worked. In terms of the types of variables examined in association with satisfaction, only 8 of the 22 studies (36%) analyzed “personal” variables such as age or gender. This percentage is slightly higher than the percentages in the review by Scheurer et al. (2009); among the 97 studies, 18% and 22%, respectively, examined age and gender.

Consistency of Satisfaction Findings Over Time

Our findings in the 2008 to 2013 review confirm key findings from earlier studies of U.S. physician satisfaction. First, the percentage of physicians in a surveyed group that reports being satisfied is both high and stable. For example, Katerndahl, Parchman, and Wood (2009) found that approximately 80% of the physicians in their sample were satisfied with their career across three different time periods. Leigh, Tancredi, and Kravitz (2009) reported that 70% of the physicians in their samples were satisfied or very satisfied. Saperstein, Viera, and Firmhaber (2012) had a similar finding, with 74% of their physician sample reporting being satisfied. For the majority of studies that stratified their analyses by specialty, these strong levels of satisfaction held up regardless of the specialty examined, with a few exceptions. One of those exceptions was Shanafelt et al. (2012), who found that dermatology, pediatrics, and preventive medicine had higher satisfaction levels than surgical subspecialties and obstetrics/gynecology.

In addition, similar to the earlier studies reviewed by Scheurer et al. (2009), some samples showed that within primary care, pediatricians experienced higher satisfaction than other specialists such as general internists or family practice physicians (Aseltine, Katz, & Geragosian, 2010; Deshpande & Demello, 2010). The survey by Aseltine et al. (2010) of primary care physicians revealed scores, on average, slightly higher than 4 on a 1–5 scale, with 5 being the most satisfied. This was similar to Desphande and Demello’s 2010 primary care sample. The results of our review are consistent with those of Scheurer et al. regarding overall levels of satisfaction among U.S. physicians, regardless of specialty. U.S. physicians as a whole remain highly satisfied with their jobs, careers, and work, even in a healthcare system undergoing changes that impinge on their autonomy, income, and day-to-day activities.

Relationship of Variables to Satisfaction

Similar to the findings in other studies, our results showed that predictors such as autonomy, age, and income were associated with physician satisfaction. However, studies in the Scheurer et al.
review presented a mixed picture of the age–satisfaction relationship. Several studies found a positive relationship, several found a negative one, and others identified a U-shaped relationship, with physicians at the age extremes (i.e., very young, older) exhibiting the most satisfaction. The studies we reviewed were similarly equivocal, although the number of studies examining satisfaction in relation to age was small (3 of 22). Pratt (2010), for example, found that age was inversely related to satisfaction, but only for male physicians. On the other hand, Cossman and Street (2010) found a positive effect of age on satisfaction. Finally, Clem et al. (2008) found no relationship between age and satisfaction in their study of female emergency physicians.

With respect to autonomy, 15 of the 16 studies in Scheurer et al. that examined the autonomy–satisfaction relationship found significant positive associations between the two. Our review also found that greater autonomy leads to increased satisfaction. For example, Cossman and Street (2010), Katerndahl et al. (2009), and Mohr and Burgess (2011) identified work autonomy as critical to both physicians’ job and long-term career satisfaction. In the Scheurer et al. (2009) review, income was a strong predictor of satisfaction, as in our review sample, with higher compensation or income leading to greater satisfaction across different studies (Aseltine et al., 2010; Deshpande & Demello, 2010; Leigh et al., 2009; Mazurenko & Menachemi, 2012).

Although more women now practice medicine, gender has not been identified as a strong predictor of U.S. physician satisfaction in the past, and it has not often been included as a central variable in predicting job, work, or career satisfaction for physicians. In the 2009 review by Scheurer et al., 22 studies (23%) evaluated gender in relation to physician satisfaction. This percentage is similar to that found in the present review (i.e., 6 of 22 studies, or 27%). Of the 22 studies in the Scheurer et al. review that looked at the gender–satisfaction relationship, only 6 found independent effects of gender on physician satisfaction. In our review, aside from one exception, the finding that gender was not associated with satisfaction continued to hold. For instance, Gibson and Borges (2009) and Katerndahl et al. (2009) found no significant difference in job satisfaction based on gender. Cossman and Street (2010) found no effect of gender on physician career satisfaction. Cydulka and Korte (2008) and Leigh et al. (2009) also found that male and female physicians in their samples had similar levels of career satisfaction. However, Saperstein et al. (2012) found in their sample of active U.S. Navy physicians that males were more satisfied than females.

Finally, with respect to work- or job-related variables besides autonomy, such as job demands and work-related stress, the Scheurer et al. (2009) review found that the subjective or perceived aspects of a physician’s job and workload were generally more related to satisfaction than objective aspects such as the number of hours worked or the actual workload. However, the number of studies that examined job-related demands and stress was fairly small in their review, ranging from 3 to 13 of the
97, depending on what particular job-related variable was examined. In our review, a higher percentage of studies examined aspects of the physician’s work or job (14 of 22, or 64%).

Aseltine et al. (2010) found that physician satisfaction with the number of hours worked per week predicted enhanced career satisfaction. Clem et al. (2008) identified flexible work schedules as positively related to satisfaction. Cydulka and Korte (2008) found that physicians’ perceptions of their work (e.g., job demands) were important predictors of career satisfaction, similar to Leigh et al. (2009), who found that physicians who believed their lifestyles were out of their control had lower satisfaction. Finally, Katerndahl et al. (2009) found an inverse relationship between workload and satisfaction. Thus, our review is consistent with the 2009 review by Scheurer et al., which identified both job-related perceptions and objective job demands as important for predicting satisfaction.

**DISCUSSION**

The findings of this updated review align closely with those of Scheurer et al. (2009) in their review of 97 studies published from 1970 to 2007. This observation does not lessen the importance of the present review. On the contrary, the consistency of satisfaction-related findings over an almost 45-year time frame merits further discussion given the changes occurring in and to the profession.

Overall, U.S. physician satisfaction levels remain moderate to high. Variables such as gender and age—important proxies for demographic shifts within the current U.S. medical profession—remain less studied at present. Aspects of the job, particularly in how it is perceived by physicians, tend to shape satisfaction. Finally, autonomy and income are positively related to satisfaction. We believe that the consistency of key U.S. physician satisfaction findings over the past 40 years must be considered in the context of the changes occurring within and to the profession, and that some revision in how we think about and study satisfaction must occur moving forward (Tables 2 and 3).

**Reconsidering How We Study Physician Satisfaction**

This revised thinking and studying includes (1) employing a diversity of methods to collect and analyze real-time satisfaction-related data; (2) expanding our analysis of physician job, work, and career satisfaction to include more subdimensions of these constructs; and (3) reflecting on the appropriate mix of drivers for physician satisfaction today, as well as the best variables to include in future satisfaction studies (Tables 2 and 3). Methodologically, our review shows a high number of satisfaction studies published over the past several years that use large data sets that are dated, not based on primary data collection, and limited in terms of the variables that can be included in their analyses. For instance, one third of the 22 studies used the Community Tracking Survey, which is both a limited satisfaction-related survey and often several years in arrears in terms of data collection.

Only one study used qualitative methods and collected in-depth satisfaction data in real time. Almost all of this
research shows statistical associations between satisfaction and different variables, but it lacks any descriptive richness or explanatory power that might help us better understand how this psychological dynamic is affected through a myriad of work and organizational situations. Clearly, given the fluidity of the system and the internal changes affecting the U.S. medical profession, future studies of physician satisfaction require an expansion of methodological approaches, a greater emphasis on primary data collection, and increased use of real-time data that more accurately capture the current satisfaction-related realities.

The review also illustrates the need for a deeper investigation of the physician-satisfaction construct and the consistency of satisfaction levels over time. Within the constructs of work, career, and job satisfaction are various subdimensions that could become a focal point for research moving forward (Table 3). For example, instead of simply examining “job satisfaction,” the emphasis could be more specifically on particular aspects of the job, such as “satisfaction with pay” or “satisfaction with job duties such as . . .”. This specificity may move us past the general conclusion that most physicians are moderately or highly satisfied and help us understand how specific components of physicians’ overall satisfaction relate to one another and how they are affected by the same predictor.

Finally, we also must rethink both the drivers and everyday contexts that affect physician satisfaction and (1) increase the emphasis on personal characteristics such as age and gender in studies of U.S. physician satisfaction; (2) develop richer dimensions for variables such as job demands, control over lifestyle, and work environment, as is consistent with the increased variety of employment settings and work duties U.S. physicians now face; (3) consider the increasingly symbiotic relationship between doctors and organizations as

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**TABLE 2**

Key Conclusions From Current Review

- Physicians have remained moderately or highly satisfied with job, work, and career over time; our understanding moving forward should be to understand the precise system, workplace, and personal factors that cause fluctuations in these levels.
- Physician satisfaction needs to be studied differently.
- Drivers of the need for different approaches to physician satisfaction research include the growing importance of personal characteristics such as age and gender, the increased variety of physician employment settings and compensation arrangements, work innovations (such as teams), and greater tradeoffs for physicians working in and for large organizations.
- Physician satisfaction research should emphasize primary data rather than rely on large secondary data sets, which may include data from periods not typical of the contemporary physician work milieu or that cannot include variables reflecting specific aspects of physicians’ work or system contexts.
we revise our thinking on values such as autonomy; and (4) factor in system-level changes that include emphasis on value-based reimbursement and greater transparency for physician performance.

Future studies of U.S. physician satisfaction should focus more on variables that reflect the key dynamics occurring within and to the profession of medicine today. Two of these variables are age and gender. Half of all medical school graduates are female. This sheer number, and the fact that women now make up 30% of the profession, demands that we ask important questions about potential gender-based differences in satisfaction, and no study of U.S. physician satisfaction should exclude a detailed examination of gender. There is evidence that, compared to men, female physicians have somewhat unique needs and expectations relative to their jobs, such as a greater desire for job flexibility and a preference for longer patient visits (Roter, Hall, & Aoki, 2002). It also has been found that key elements of the female physician work experience affect satisfaction in meaningful ways, such as a general lack of time and a dearth of career advancement opportunities (Rizvi, Raymer, Kinik, & Fisher, 2012). Female physicians also practice medicine differently from their male colleagues (Roter et al., 2002). Despite these realities, gender remains a less-focused-upon variable in satisfaction studies (for an exception, see Rizvi et al., 2012). Less than one quarter of physician satisfaction studies published since 1970 have included gender centrally in their analyses, based on both the Scheurer et al. (2009) review and the present one.

Physician age is another key variable that deserves more attention. As a third or more of the profession nears retirement, younger physicians will become more of the demographic norm. Compared with their older colleagues, these younger physicians think differently and have different expectations about their medical careers and work–life balance (Hoff, 2010). For example, young physicians often prefer nonwork to work activities, prioritize lifestyle over compensation, and are more comfortable with salaried employment, technology,
and positions in large organizations (Rizvi et al., 2012). Until now, however, age has been included in only a small number of satisfaction studies, and the logic of why age may or may not matter to satisfaction has been left underspecified. Thus, any results are largely unexplained. Moving forward, every study of U.S. physician satisfaction should include age as a potentially important causal variable, and must articulate how specifically age serves as a proxy for the underlying value and preference shifts that shape physician satisfaction.

**Accounting for Changes in Work, Pay, and Employment Setting**

In 15 of the 22 studies reviewed, the employment setting of the physicians being studied was unclear. In addition, the abundance of studies with data sets collected from 2000 to 2006 means that much of the U.S. physician satisfaction research published over the past 5 years has been unable to examine satisfaction relative to the current organizational and practice contexts within which physicians under study currently find themselves. Given how much these contexts are undergoing change, this is a glaring omission. Physicians increasingly work in many different settings and employment arrangements, whether as salaried employees, contractors providing contingent work, or self-employed business owners. More physicians work directly for hospitals than ever before (Jackson Healthcare, 2013), and physician practices are consolidating into larger networks and groups, making large organizations the employment setting of the future.

More than half of all U.S. physicians, including three quarters of the country’s newly hired physicians, now work as salaried employees. While values such as autonomy still merit investigation with respect to satisfaction, the effects of these values should be viewed as contingent on the specific types of settings in which physicians now work. For example, in some settings and employment relationships in which physicians may trade off control for other benefits, autonomy’s effect on job satisfaction may be less significant.

Other values and expectations, such as the level of job flexibility, opportunity for organizational advancement, and degree of collaborative culture, may be as important to predicting satisfaction as is the level of control.

As stated at the outset, numerous systemwide changes also are occurring in the delivery of healthcare services that have profound implications for satisfaction among U.S. physicians. Two emerging and related trends are (1) the measurement and public reporting of physicians’ performance in areas such as quality of care and efficiency, and (2) employment with organizations that receive most or all of their revenue through value-based performance contracts with government and private health plans. This latter trend puts more physician compensation at risk than ever before.

Public performance reports for U.S. physicians already exist at national and local levels, and the idea of profiling physicians against one another and a set of standard process criteria (e.g., quality measures for specific diseases, efficiency measures such as hospitalizations and use of the emergency department) began in the early 1990s with the advent of the Healthcare Effectiveness
Data Information Set. Increasingly, these data are being made public to a variety of stakeholders, including patients (James, 2012). However, the data are minimal or nonexistent on how such developments in public reporting might affect the job, work, or career satisfaction of physicians. Indeed, none of the studies we examined considered the emergence and growth of public reporting on physician satisfaction by examining variables that might serve as proxies for things such as the perceived level of accountability physicians feel in their work or the manner in which their performance is reported upon or reviewed (James, 2012). In addition, all physicians likely will experience the pressures of operating under performance-based pay—that is, pay that is contingent upon meeting performance targets in areas such as quality, efficiency, and chronic-disease management. Consequently, we need research to examine how the satisfaction of U.S. physicians is affected when they practice in settings where performance-based pay constitutes all or most of a practice’s reimbursement. At a minimum, this requires collecting the right kinds of data from the practice level that can identify how physicians are paid, and the types of factors that go into these compensation schemes.

CONCLUSION
Several limitations to the review are worth noting. First, some physician satisfaction studies may have been missed. However, in searching for the terms “physician,” “provider,” and “satisfaction” in both the title and abstract of a given journal article, we feel confident that studies having a major focus on physician satisfaction were identified. Second, the review findings cover only the time period from 2008 to 2013, and some of the articles published during that time used data from an earlier period. This is not a limitation of our study approach but rather a limitation of the studies examined, and we have highlighted the need for future studies to use more contemporary data. Finally, although our focus in this report is on job, work, and career satisfaction, there remain a number of other important workplace variables—commitment, burnout, empowerment, and role conflict—that merit study in terms of physicians as a group. That said, satisfaction still looms as the key variable, given its linkages with a variety of healthcare and worker outcomes.

The study of U.S. physician satisfaction has produced consistent findings over the past several decades, and this body of work identifies physicians as relatively satisfied professionals. However, we should be careful not to oversimplify how we look at this concept. Given the continued changes occurring both to and within the U.S. medical profession, our future understanding and study of physician satisfaction require modifications as outlined. If we continue to study this important construct in the same manner moving forward, our conceptual understanding will remain narrow, compromising our knowledge of how these important professionals are evolving in the midst of change. Our ability to leverage this knowledge for improving the lives of physicians, and for enhancing patient and organizational outcomes, also will remain limited.
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**PRACTITIONER APPLICATION**

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In their article on physician satisfaction, Hoff et al. review the literature from 2008 through 2013 and compare the results with findings of a review from 1970 through 2007. Their findings indicate that physicians experience a moderate to high level of job, work, and career satisfaction that has remained stable over time. Hoff et al. studied the impact of autonomy, income, and perceived job demands; the impact of age and gender was understudied in both time frames.
The article also examined the effect of physician satisfaction on patient satisfaction, care quality, and teamwork. The findings indicate a high correlation among these variables; with the current emphasis on value-based purchasing and incentives or withholds, these relationships will become even more important in the future. Although physician autonomy was noted as a predictor of satisfaction in the literature review, none of the studies examined by Hoff et al. focused on women physicians or the millennial generation.

Hoff et al. noted that we must rethink how we study physician satisfaction. Do the studies ask the right questions for a true picture of the current state of physician satisfaction? Other factors that must be considered are the effects of publicly reported cost and quality data and the impact of value-based purchasing on physician and health system reimbursement.

A recent Medscape study does not draw the same conclusions regarding physician satisfaction (Peckham, 2015). The Medscape report and found that burnout among physicians ranged from a low of 37% to a high of 53% and that burnout negatively affects patient care. Burnout was more prevalent among women and those aged 46 to 55 years. The leading causes of burnout, according to the Medscape report, are bureaucratic tasks, long hours, low income, increasing computerization, and the impact of the Affordable Care Act.

As CEO of St. Joseph’s Hospital and Medical Center, a Dignity Health facility in Phoenix, Arizona, I agree more with the Medscape study. An increasing number of physicians are being employed by health systems, which is having an effect on their level of autonomy and income. I have observed that, by and large, physicians completing their residency training programs want to be employed. They do not want the hassle of private practice and the uncertainty that comes with that model. Middle-aged and older physicians are seeing the market divide and coming to the realization that they will need to pick a health system partner. They are doing so reluctantly in some circumstances, but I find that more physicians see this change as inevitable.

In my organization, the two major areas that drive physician dissatisfaction are bureaucracy and electronic health record (EHR) documentation. The demands associated with regulatory and compliance activities are overwhelming. This is viewed as time consuming and not really improving or affecting patient care. While physicians understand that the EHR is here to stay, they have not yet seen the benefit of computer systems in their ability to streamline patient care or pull analytical data. The biggest physician satisfiers are the level of nursing care and the culture of our organization regarding its mission and values. Income and autonomy seem not to sway in either direction.

Physician satisfaction is critically important for healthcare systems to provide the high-quality care and experience we all want for our patients and their families. Future studies need to look at different domains so we can understand how to achieve a positive impact on one of our most critical resources.

**Reference**