**Title page**

# Perceptions of Practicing Physicians and Members of the Public on the

# Attributes of a “Good Doctor” ”: A Mixed Methods Study

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**Abstract**

**Background:** High-quality and ethical norms of patient care require physicians and the public to have similar perspectives on the definition of a “good doctor”. Our study compared the perceptions of physicians and members of the public on the essential traits of a “good doctor”

**Methods:** We conducted parallels national surveys of 1000 practicing specialist-physicians, and 500 members of the public in Israel, who were interviewed after selection using targeted sampling. Respondents were asked about the two most important attributes of a “good doctor”, and whether they thought the physicians’ role was to reduce health disparities.

**Results:** Many physicians (56%) and members of the public (48%) reported that the role of physicians includes helping to reduce health disparities. Physicians emphasized the importance of non-technical skills such as humane-ness and a concern for patients as important traits of a “good doctor”, while the public emphasized professional and technical skills. We found that internal medicine physicians were more likely than surgeons to emphasize humaneness, empathy and professionalism. Members of the public with a high school education were more likely to emphasize human attributes such as credibility and honesty than respondents with post-secondary education.

**Conclusions**: The results suggest there is a difference in perceptions about the essential attributes of “good” physicians. Members of the public focused on professional and technical skills, while the physicians emphasized personal and social attributes. Both groups agreed that to advance their agenda of population health, physicians need to do more to address health disparities. Future research should focus on actionable approaches to bridge the gap in the perceptions between the groups, and that may support the formation of caring physicians embedded in a complex array of relationships within clinical and community contexts.

*"A good physician treats the disease. The great physician treats the patient who has the disease."* *(Sir William Osler)*

**Background**

Physicians have been honored for many centuries and were perceived as having noble virtues and their recommendations were accepted as “the word of God” [1, 2]. Physicians rarely explained their medical decisions and most patients accepted their doctor’s recommendations without question. As last as 1984, research showed that nearly one-half of patients preferred their physician to make decisions regarding their medical care [3]. The current patient-centered care approach places the need of patients at the core of the encounter [4]. This radical shift in thinking requires a different set of competencies and attributes associated with being a “good doctor.”

Prior research has explored the skills and attributes associated with a “good” doctor but there remains a gap between the views of practicing physicians and the public with regards to physician’s roles in reducing health disparities. Prior work has categorized these attributes into technical, professional skills, and non-technical, interpersonal and communication skills and attributes [10 -13]. A review of 19 studies found that “humaneness”, defined as the quality of being human (75%), “competence/accuracy'” (64%), and “patients' involvement in decisions'” (63%) were the most important characteristics in supporting patient perceptions of a “good doctor” [13]. Another study analyzed the patients’ prioritization of physicians’ traits and suggested the “ideal doctor” is confident, empathetic, humane, personal, forthright, respectful, and thorough. [22]. In one study, more than half of U.S. respondents chose a family physician with strong interpersonal skills and poor technical skills over a physician with poor interpersonal skills and strong technical skills.[24] In contrast, a study of a large sample of patients from six UK primary care clinics found that patients wanted to have their physicians have strong technical skills [25].

We conducted parallel surveys of physicians and members of the public to learn their views on what is a “good doctor” and what should the physicians’ role be in reducing health disparities.

We posed the following questions, state in your own words what you perceive as the first and second most important traits of a physician. In addition, the respondents were asked to what extent they thought it was the physicians’ role to reduce health disparities.

**Methods**

**STUDY DESIGN**

A team of researchers from the Ben-Gurion University of the Negev School of Public Health designed and analyzed both surveys using a cross-sectional study design. Both surveys were conducted in Israel.

**Physicians**

A total of 2,300 physicians were contacted by telephone and 1,000 (43%) completed the questionnaire. The survey organization that completed the fieldwork (Dialogue - Organizational Consulting, Research and Training Ltd.) used a sample of specialist-physicians registered with the Israeli Medical Association (IMA), stratified according to their medical school training, which was found to affect physicians’ attitudes about their roles in a prior study [46]. The survey was conducted in August 2016.

## **The General Public**

## A total of 500 members of the public were contacted and deemed eligible for a national telephone survey, constituting a representative sample of the adult population in Israel, and stratified by gender, age group and residence region. Respondents were recruited until a representative stratified sample of 500 respondents was reached. The response rate was 27%. The telephone interviews were conducted in Hebrew, Russian or Arabic, according to the language of the interviewee, and lasted several minutes on average (3-10 minute range). Three attempts were made before moving to the next interviewee. Respondents were not given a financial incentive to participate. The margin of error was ± 5%.

**THE SURVEY QUESTIONNAIRE**

A single questionnaire was developed to conduct parallel surveys and was modified for each respondent group. The questionnaire was constructed by physicians and experts in professionalism, medical education and then piloted with 10 individuals from the public and 10 physicians and assessed, for length and comprehensibility. Both surveys were revised based on the results of these tests.

The questionnaire asked multiple choice questions about their socio-demographic characteristics and asked respondents to state in their own words what they perceived as the two most important traits of a physician. In addition, respondents were asked to what extent they thought it was the physicians’ role to reduce health disparities. The question was drawn from a validated physician survey [32].

**DATA ANALYSIS**

The physician traits were coded into the two categories (technical and professional skills vs. non-technical-interpersonal skills and humaneness) by researchers (KD, ND and YB), using a grounded theory approach. Grounded theory sets out to discover or construct theory from data, systematically obtained and analyzed using comparative analysis. We used the constant comparative method, a key element of grounded theory, to organize and analyze qualitative data, based on concepts that emerge as the theory is formed in order to facilitate the coding process [50]. The emerging codes are circulated among researchers and the list of codes is sorted in a face-to-face meeting. Once the researchers agree on the developed codes (to ensure fidelity) the data is further analyzed until conceptual saturation is reached, that is, no new codes or categories are generated.

After this phase, the list of attributes was distributed to 16 experts from medicine, nursing, psychology and sociology, who were asked to indicate whether they thought each attribute belonged to the category of technical / professional skills or non-technical-interpersonal and humaneness skills. When there was disagreement, the data were further discussed in conference calls until complete consensus was reached.

**STATISTICAL ANALYSIS**

We compared the survey responses by testing differences between physicians and the general public using a chi-squared test (χ2) using SPSS v24 software. This considered the design effects for each of the surveys by calculating the effective sample size.  To adjust for sampling biases due to the socio-demographic differences in nonresponse rates and to ensure that the sample was representative, we compared and found no significant differences between respondents and non-respondents for sex, age, level of education and years of experience. All reported p values are based on two-sided tests and were considered significant when below .05.

The study was approved by Ben Gurion University of the Negev Ethics Committee (Research no. 2014-23). Consent was given verbally as the survey was conducted by phone. Participants were told they could stop the interview at any time. The study was funded by the National Institute for Health Policy Research and Health Services (Research Grant R / 2014/156).

**Results**

**DESCRIPTION OF THE SAMPLE**

There were significant demographic differences between the samples of the physicians and the general public. The general public was more equal in terms of gender (with slightly more females), younger, had a lower level of education, and overall, had a lower reported financial status as compared with the physician population. (Table 1 and 2)

Please place table 1 and 2 @ here

**PERCEPTIONS OF PHYSICIANS ROLE IN REDUCING HEALTH DISPARITIES**

The question about physicians’ role in reducing health disparities used a 7-point likert scale (1 = not at all and 7 = to a large extent). We categorized the results into three groupings: 1) to a small extent (answers of 1 to 3); 2) to a medium extent (answer of 4); and 3) to a great extent (answers of 5 to 7). (Table 3) There were significant differences between the physicians’ perceptions and those of the general public regarding the physicians’ role in reducing health disparities (χ2 = 13.40, *p* < .001). Among the members of the public, 41% (n=205) said that reducing health disparities was a physicians’ role to a small extent, and 48% (n=240) said that it was their role to a larger extent, and 11% chose the middle category. In contrast, about a third of respondents, 31% (n=310) of physicians said it was their role to a small extent, and 56% (n=560) said it was their role to a large extent, and 13% (n=130) chose the middle category.

**PERSPECTIVES ON ATTRIBUTES OF A “GOOD DOCTOR”**

After three iterations among an expert panel, an aggregation of attributes for both professional and technical skills categories was achieved. The resulting nine attributes in the humaneness category and even attributes in the professional and technical skills category are shown in Table 3.

**VIEWS OF PHYSICIANS:** The most important attributes of a “good doctor” according to the physicians we surveyed was their humaneness (indicated by 20%, n=200), empathy (n=170, 17%), knowledge and professionalism (n=150, 15%), credibility and honesty (n=140, 14%), and caring and devotion (n=80, 8%) [total 74%]. (Table 3) The second most important attribute indicated by physicians was: knowledge and professionalism (n=360, 36%), empathy (n=110, 11%), humaneness (n=90, 9%), credibility and honesty (n=90, 9%), and caring and dedication (n=60, 6%) [total 71%]. The differentiation of the traits into the two broad commonly used categories (technical and professional skills versus non-technical, interpersonal skills and humaneness) revealed that 62% (n=620) of physicians indicated attributes of humanness as the first most important trait, whereas, 38% indicated professional and technical skills. The reverse picture is seen regarding their perception of the second most important attribute: 61% (n=610) of physicians chose professional and technical proficiency, whereas, 39% (n=390) chose humaneness.

Combining the results of these two questions indicates that 46% (n=460) of physicians put humaneness in first place and professional skill in second place; 23% (n=230) of physicians put professional skills in first place and humaneness in second; 16% (n=160) chose an attribute of humaneness; and 15% (n=150) chose two professional skills.

A comparison by type of specialization found that more physicians specializing in internal medicine indicated two traits of humaneness, as compared to physicians in surgical specializations (56% versus 43%, respectively, χ2 = 4.01, *p* = .045). The same pattern was seen among physicians who primarily work in community clinics versus in hospitals (68% versus 42%, respectively, χ2 =16.14, *p* < .001); and among physicians who do not have a managerial role as compared to physicians with a managerial role (55% versus 40%, respectively, χ2 = 4.39, *p* = .036); non-research physicians versus research physicians (58% versus 46%, respectively; χ2 = 4.22, *p* = 0.040) and younger physicians (1-10 years since completing internship) versus more senior physicians (11 years and above since completing internship) (64% versus 54% respectively; χ2 = 8.59, *p* = .004).

There were no significant differences by respondents’ gender in the choice of attributes of a “good doctor.”

Please place Table 3 @ here.

**VIEWS OF THE PUBLIC (Table 3)**

Members of the general public reported the most important attributes of a “good doctor” are: knowledge and professionalism (n=165, 33%), credibility and honesty (n=85, 17%), humaneness (n=80, 16%), listening (n=40, 8%) and patience (n=35, 7%) (total 81%). They reported the second most important attributes include: knowledge and professionalism (n=160, 32%), humaneness (n=80, 16%), credibility and honesty (n=50, 10%), empathy (n=35, 7%) and listening (n=35, 7%) (total 72%). The distribution of these attributes into the two general categories described above showed that 55% (n=275) of the public chose professional and technical skills as the most important attributes and 45% (n=225) chose humaneness. The same is seen for the second-most important attribute: 53% (n=265) chose professional and technical skills, whereas, 47% (n=235) chose humaneness.

We found that by combining the responses to the two questions that 32% (n=160) of the surveyed public selected a professional attribute as the most important and humaneness as the second-most; 28% (n=140) indicated humanness as the most important and a professional skills as second-most important; 24% (n=120) cited two professional skills and 16% (n=80) cited two aspects of humaneness.

We found significant differences in the combined variable among members of the public with different education levels (χ2 = 7.91, *p* = .15). Respondents with a high school education were more likely to cite two traits of humaneness (n=265, 53%) as compared with those who had a vocational secondary education (n=180, 36%) and those with an academic education (n=155, 31%). There were no significant differences when stratified by gender, level of religiosity, or income levels regarding their views on the attributes of a “good doctor”.

**COMPARSION OF PERCEPTIONS HELD BY PHYSICIANS AND THE GENERAL PUBLIC**

We found significant differences between the views of physicians and members of the public in regard to the most important attributes of a “good doctor” (χ2 = 36.46, *p* < .001). Members of the public are more likely to focus on professional skills (n=275, 55%) than physicians (n=390, 39%). There were also significant differences between the two groups in their choice of the second- most important trait (χ2 = 8.83, *p* = .003), which trended in the opposite direction: physicians were more likely to select professional skills (n=610, 61%) as compared with members of the public (n=265, 53%).

Please place Table 4 @ here.

Combining the results of the two questions (Table 4) reveals significant differences between the groups (χ2 = 44.97, *p* < .001). The same percentage of physicians and members of the general public (16%) cite two traits of humaneness; 15% of physicians versus 24% of the general public cite two professional skills; 46% of physicians versus 28% of the general public cite a trait of humanness as the most important, and professional skills as a second most important trait; 23% of physicians versus 32% of the general public cite a trait of professional skills as the most important and humaneness as second most important trait.

**DISCUSSION**

Our findings have implications given the importance of understanding both physicians’ and patients’ expectations for desirable attributes of physicians. They point to a gap between the perspectives of these two key stakeholder groups for defining the societal contributions of physicians. While previous research has examined physician and patient perceptions, few studies compared the perceptions of the two stakeholder groups. Also, most prior studies used a defined set of physician attributes, while our study asked an open-ended question that allowed for more nuanced responses. These findings have implications for efforts to improve population health and the design of medical school and graduate medical education training.

Second, the surveyed physicians assert that people in their profession must first and foremost possess virtues of humaneness, in addition to knowledge and professional skills. This finding is consistent with previous studies [10, 26, 29, 33] and with the ethical code of the medical profession as stated by the American Medical Association [34]. Rutberg el al [49] presented medical students' narratives through time and their understanding of the “good doctor” as a relational being, with an enduring emphasis on the doctor–patient relationship.

The current study is comparable to previous research in which physicians specializing in the field of internal medicine were more likely to indicate the traits of humaneness in the five most important traits of the “ideal physician” as compared to surgical specialists. (29) It seems that the physicians who have more personal and long-lasting and meaningful interactions with patients (especially those working in primary care, such as family physicians, and internal medicine specialists) place a greater importance on the value of their humaneness over technical skills. Patients have the right to choose their primary care physician in Israel, and thus it is essential for these physicians to maintain empathic and effective communication with their patients.

The findings from members of the public sample differ from prior studies of patient perceptions of physician attributes. Previous research found that patients are more likely to emphasize traits of humanness as their first priority [13, 20-22, 24, 35, 36]. Israeli public opinion differs from the US where patients take technical skills for granted and want physicians who care [22]. However, the findings are consistent with an analysis of 3,000 physician reviews by patients in Germany, which found that patients’ most common concern (63%) was how to assess their physician’s professional competence [37]. In an age in which patients have become consumers and have access to a good deal of online information about their conditions, the role of the physician is to be scientifically and technically proficient. It is possible that the public’s perceptions in the present study reflects these new and emerging attitudes.

Patients with high school education were more likely to emphasize the humaneness in their physician choices as opposed to those with a post-secondary professional or academic education. This confirms the findings of a previous study describing the traits of a “good doctor, in which patients without a college/university education gave higher ratings to interpersonal traits (such as empathy, cooperative decision-making, friendliness of physician and staff, and patient satisfaction with treatment), as compared to patients with a higher education [31]. The latter may have a greater ability to seek medical knowledge for themselves and to understand the importance of medical treatment for their health. The public’s expectations of their physicians may be influenced by their physician’s knowledge and professionalism, rather than by being merely empathic. On the other hand, Paterson noted that patients can judge their physicians’ personal attributes, but may not be in a position to assess their clinical skills. [28] Additionally, the differences in our findings may be due to the interviews being conducted outside of the context of a medical encounter, as well as due the use of different measurement methods. Previous studies gave patients a list of attributes to rate, while in the present study the participants were asked to answer the questions in an open and intuitive way.

**COMPARING PERCEPTIONS BETWEEN PHYSICIANS AND THE PUBLIC**

Our findings show that physicians place more emphasis on humaneness, while the public appears to assign greater value to professional and technical skills. An important finding is a smaller percentage of members of the general view reducing health disparities as a critical part of the physician’s role, compared to physicians. The difference in perceptions of this aspect of the physician’s role is statistically significant. Further research is needed to assess practical implications of these findings.

The differences in perceptions may result from several sources, including among others: 1) physicians having been educated about health disparities and their impact on national health and well-being; 2) patients personally experiencing health disparities either not being included in interview samples or not fully comprehending the meaning of the construct; 3) physicians desiring an expansive role, particularly in contexts where this is not accompanied by specific expectations for action. The higher prioritizing by physicians also may results from the public policy (including policy in Israel) promoting the “medicalization” of health and well-being, rather than focusing on improvements in other social determinants of health, such as education, income and family stability.

**Limitations**

Our study has several limitations. First, the overall response rate to our physician survey questionnaire was modest, introducing a risk of respondent bias. Second, self-reported survey data is always the possibility of social desirability bias. A third limitation of our study concerns the dichotomous definitions and distribution of traits of humaneness versus that of professional skills. This somewhat arbitrary categorization could be a basis for a future research. A fourth limitation concerns the representativeness of our sample. The survey was conducted among graduates of medical schools in Israel, although many physicians working in Israel completed their studies abroad. These physicians may be less represented in the Israeli Medical Association where we drew our survey participants. Further research is needed to assess the views of all physicians including those who graduated outside of Israel.

**Conclusions**

Physicians want and need to put the best interests of their patients first. The humaneness attributes that emerged in this study and the strong support for a physician’s role in addressing health disparities could serve as a basis for future educating and evaluating medical students and residents and for selecting faculty educators to serve as role models for the humaneness of the medical profession. The two attributes that our study focused on —professional and technical skills versus humaneness and non-technical skills—represent complimentary and professional skill sets. It is important that the training and education of future physicians focuses on embedding both aspects in the curriculum of physicians. Future qualitative research is needed including with focus groups of physicians and representatives for the public to generate insights on more effective approaches to bridge the expectation gaps between physicians and the public they serve.

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**Abbreviations:**

**AMA:** American Medical Association; **IMA:** Israeli Medical Association; **PRW:** Physician Rating Websites

**Declarations:**

Ethics approval and consent to participate

The study was approved by Ben Gurion University of the Negev Ethics Committee (Research no. 2014-23). Consent was given verbally as survey was conducted by phone. Participants were instructed to stop the interview in any time.

Consent to publish

All authors have consented to publish this paper.

Availability of data and materials

Data and materials can be available from the authors upon request.

Competing interests

None of the authors has any competing interests.

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Authors' Contributions

Conceptualization: K.D., Z.Y., N.D.; methodology: K.D., and Y.B.; validation: K.D., J.U., N.D.; Data analysis: K.D.; writing—original draft preparation, K.D.; writing—review and editing, N.D., P.B.; supervision: K.D.; project administration: Z.Y.

**List of tables and legends**

**Table 1. Physician Respondents Characteristics**

|  |  |
| --- | --- |
| **Character** | N |
| Men (%) | 70 |
| Age (avg.) Range: 33-66 years | 47±7 |
| Years of seniority as a specialist (avg.) Range: 1-33 years | 10±7 |
| Israeli born (%) | 81 |
| Specialty (%)  Primary care specialties (family and internal medicine)  Surgical specialists  Diagnostic fields | 66  30  4 |
| Main Workplace (%)  Hospital  Community  Research or Management | 63  31  6 |
| Managerial role (%) | 23 |
| Engaged in research (%) | 56 |

**Table 2. Public Respondent Characteristics**

|  |  |
| --- | --- |
| **Character** | N |
| Men (%) | 47 |
| Age Group (%)  18-34  35-44  45-54  55-64  65+ | 33  17  16  16  18 |
| Married (%) | 67 |
| Israeli born (%) | 69 |
| Level of Education (%)  high school education  vocational secondary education  Academic Education | 40  20  40 |
| Socio-Economic Status (%)  Below Average  Average  Above Average | 39  35  26 |
| Religiosity (%)  Secular  Traditional religious  Orthodox religious  Ultra-Orthodox  Did not respond | 42  30  16  9  3 |

**Table 3. Distribution of Views on Key Traits of a “Good Doctor”**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trait** | | **Trait categorization as Humanness (H) or**  **Professional (P)** | **Trait noted as first most important (%)** | | | **Trait noted as second most important (%)** | |
|  | | | | **Physicians**  **(n=1,000)** | **Public**  **(n=500)** | **Physicians**  **(n=1,000)** | **Public**  **(n=500)** |
| Humaneness/humane approach | H | | | 20 | 16 | 9 | 16 |
| Empathy | H | | | 17 | 5 | 11 | 7 |
| Caring and devotion | H | | | 8 | 5 | 6 | 4 |
| Patience | H | | | 4 | 7 | 3 | 4 |
| Attentiveness | H | | | 4 | 8 | 3 | 7 |
| Love of humanity | H | | | 3 | - | 2 | - |
| Communicativeness | H | | | 2 | 2 | 2 | 5 |
| Humility | H | | | 2 | - | 2 | - |
| Courtesy | H | | | - | 2 | 1 | 3 |
| Professionally knowledgeable | P | | | 15 | **33** | **36** | **32** |
| credibility and honesty | P | | | 14 | 17 | 9 | 10 |
| Diligence and perseverance | P | | | 3 | - | 4 | - |
| Curiosity | P | | | 2 | - | 4 | - |
| Responsibility | P | | | 1 | - | 1 | 1 |
| Love of the profession | P | | | 1 | - | - | - |
| Accuracy in diagnosis | P | | | 1 | 3 | 2 | 6 |
| No answer | - | | | 3 | 2 | 5 | 5 |

**Table 4. Differences Between Physicians and The Public in Rating of the Two Traits\***

|  |  |  |
| --- | --- | --- |
|  | **Physicians (%)** | **General Public (%)** |
| Two traits of humaneness | 16 (n=160) | 16 (n=80) |
| Two traits of professionalism | 15 (n=150) | 24 (n=120) |
| First trait humaneness, second trait professionalism | 46 (n=460) | 28 (n=140) |
| First trait professionalism, second trait humaneness | 23(n=230) | 32 (n=160) |

\*p<0.001, χ2=44.97