How should Personal and Social Skills be Assessed?

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Abstract

Medical chairs' personal and social skills are increasingly important for managing change and for managing up, down, and across departmental lines. However, medical schools are left in the dark about how to identify the relevant personal and social skills of medical chairs and about selection methods for assessing those skills. Therefore, we started by conducting a thorough review of the literature that identified taxonomies for parsimoniously grouping the various personal and social skills, namely (a) the **Big Five personality traits** and (b) a recent taxonomy of social skills with two main meta-social skill dimensions in the form of **communication and relationship-building skills**. Relying on basic principles and recent insights in the broader personnel selection domain, we next identified relevant selection procedures for assessing personal and social skills. Specifically, after "selecting out" candidates on the basis of factual criteria (e.g., research and teaching record) assessing medical chairs' personal and social skills is best done via two main groups of selection procedures. The first group represents **past-behavior-oriented selection procedures** (accomplishment records, past-behavior interviews, and multiple reference checks from others). The second group comprises scenario-based selection procedures (situational interviews, situational judgment tests, and simulation exercises). Through using these selection procedures, search committees satisfy evidence-based personnel selection principles, such as relying on job analytic information, measuring both past accomplishments as well as forecasting future potential, standardizing the assessment, ensuring procedural fairness, using multiple information sources (self and others), and making predictions on the basis of multiple aggregated pieces of information.

Introduction

Terms such as "personal characteristics", "soft skills," "noncognitive skills," and "21st-century skills" are often used to refer to a wide array of attributes viewed as valuable in many settings. In the field of Industrial and Organizational Psychology, there exists a long interest and tradition in measuring these non-cognitive predictors for use in selection as they enable to go beyond cognitive factors and predict success [1,2]. Assessing medical academic chairs on personal and social skills fits in this broader trend.

The growing importance of medical chairs' personal and social skills results from the changing role of medical chairs in medical schools/hospitals. Generally, medical chairs have responsibilities that can be grouped in four main domains: **managing up** (relationships with the hospital CEO, with the dean, etc.), **managing across departmental lines** (relationships with the medical chair's department and other specialties or other health professionals such as nurse leaders, coordination of interdisciplinary/interdependent work activities, strategy formulation across different departments, etc.), **managing down** (relationships with division chiefs and/or faculty members, coaching and development of individual members of the department, etc.), and **managing change** [3, 4, 5, 6, 7]. Despite

the growing importance of medical chairs' personal and social skills, medical schools are left in the dark about how to identify the relevant personal and social skills of medical chairs and about methods for assessing those skills (as summarized by the three questions above).

This manuscript aims to provide an answer to the three questions mentioned above. The structure of this paper is as follows: We start by providing details about the research methods we used for finding answers to these questions. Next, we present the results of our analysis.

Methods

We conducted **electronic searches of the Web of Science with the following keywords "personal skills", "personal qualities", "social skills", "interpersonal skills", "personnel selection", "medical", and "chair"**. The results of some of these searches were overwhelming. For instance, the keyword "personnel selection" produced 1,675 relevant articles. This can be understood from the fact that this research has been conducted since 100 years. In fact, the last review on personnel selection in Annual Review of Psychology [8] was appropriately entitled: "A century of personnel selection" (see also special lecture by Prof. Dr. Filip Lievens - Slides). Therefore, we concentrated on three sources of information:

- **Major reviews and meta-analytic research** findings in this field [8, 9, 10] served as our first source. Although none of them dealt specifically with the selection of medical chairs in particular, these meta-analyses typically summarized findings that were obtained in large samples across many professions and countries all over the world. For example, one meta-analysis compiled 85 years of research on the effectiveness of various selection procedures [10].
- As a second source, we scrutinized the guidelines and recommendations of **major international societies, organizations, and associations** [11, 12, 13, 14] related to personnel selection such as the Society for Industrial and Organizational Psychology.
- As a third source, **various papers in Medical Education** [15-32] were identified. Although few of them dealt with the topic of medical chairs and personal and social skills, the importance of those skills was often mentioned in them.

Results

A. What are personal and social skills? How can they be defined?

To define personal and social skills, we inspected research on personality, social and industrial/organizational psychology [33, 34] because in the last decades these fields made considerable progress in defining personal and social skills. As a result, our definitions are:

- **Personality/personal skills** represent the character traits possessed by a person, thereby referring to a person's general behavioral tendencies that are relatively stable across situations and time.
- **Social skills** refer to goal-directed behaviors, including communication and relationship-building competencies, used in interpersonal interactions.

B.   Can the myriad of personal and social skills be summarized in a taxonomy?

We used the same sources (research on personality, social and industrial/organizational psychology), as in the previous question to search for more parsimonious taxonomies, that group the plethora of personal and social skills. We noticed that although in the past, there existed a lot of confusion about the nature and number of personal characteristics, there is now relative consensus that personal characteristics pertain to five main domains, also labeled the "Big Five". Importantly, these **Big Five** factors seem to generalize across samples in the work place [35] and around the globe [36]. Table 1 lists these Big Five factors.

Table 1:

The "Big Five" Personality Trait Taxonomy	
Big Five Trait	**Description**
Extraversion	The tendency to seek stimulation in the company of others, and talkativeness. Energy, positive emotions, surgency, assertiveness, sociability.
Agreeableness	The tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. It is also a measure of one's trusting and helpful nature, and whether a person is generally well tempered or not.
Conscientiousness	The tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behavior; organized, and dependable.
Emotional stability	The tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, and vulnerability. This also refers to the degree of impulse control, tolerance for stress.
Openness to experience	The degree of intellectual curiosity, creativity and a preference for novelty and variety. This also refers to the extent to which a person is imaginative, independent, adaptable, and change oriented.

In recent years, we noticed that similar progress, clarity, and parsimony have been obtained in uncovering and categorizing the key social skills. Table 2 presents the well-known framework of Klein, De Rouin, and Salas (2006), that made a distinction among ten social skills, grouped under **two meta-social skills (communication and relationship building)**. So, we conclude that these two taxonomies listed in Table 1 and 2 represent the best available research-based evidence to delineate the broad array of personal and social skills.

Table 2:

Taxonomy of Social Skills		
Skill	**Description**	**Related Terms**
Communication Skills		
Active listening	Paying close attention to what is being said, asking the other party to explain what (s)he means, and requesting that ambiguous statements are repeated	Listening with empathy and sympathy; listening for understanding
Oral communication	Sending verbal messages constructively	Enunciating; expressing yourself clearly; interpersonal communication
Written communication	Writing clearly and appropriately	Clarity; communicating intended meaning
Assertive communication	Directly expressing one's feelings, opinions preferences, and needs in a way that is neither threatening nor punishing to another	Proposing ideas; social assertiveness; defense of rights; directive
Nonverbal communication	Reinforcing or replacing spoken communication via body language, gestures, voice, or artifacts	Expression of feelings; perception/ recognition of feelings
Relationship-building Skills		
Cooperation & coordination	Understanding and working with others in groups/teams; includes offering help and pacing activities to fit the needs of the team	Adaptability; monitoring and feedback; interpersonal relations; communication; decision making; group problem solving
Trustworthiness	Faith in the integrity or reliability of another; willingness of a party to be vulnerable to the actions of another party based on the expectation that these actions will be done	Self-awareness; self-disclosure
Intercultural sensitivity	Appreciating individual differences among people	Acceptance; sensitivity to others; cross-cultural relations
Service orientation	Basic predispositions and an inclination to provide service, to be courteous and helpful in dealing with customers, clients, and associates	Exceeding customer's expectations; ability to maintain positive client relationship; building rapport
Self-presentation	Process by which individuals attempt to influence and manage the images people have of them; behaviors designed to create a positive influence on work associates	Self-expression; face-saving and impression management; managing perceptions; self-promotion

C. Which selection procedures can be used for assessing personal and social skills? What are their respective (dis)advantages?

In this section, we present the main conclusions related to the large body of research conducted in industrial and organizational psychology (personnel selection) about methods for measuring personal and social skills, and apply it to medical chair selection. The basic model underlying personnel selection [37] always starts with a thorough job analysis to determine the relevant tasks/responsibilities (in this case of medical chairs) (see panel 1). Therefore, reaching consensus on those aspects constitutes one of the first tasks of any search committee that wants to be successful in hiring medical chairs. As noted above, the distinction between managing up, managing across, managing down, and managing change can serve as a useful framework for grouping the relevant tasks/responsibilities of medical chairs. In this analysis, it is also important to consider the team, organizational, and cultural context in this job analysis because the importance of these four broad domains might differ depending on contextual factors.

As a second step, the search committee should identify the relevant personal and social skills (from the taxonomies presented in Tables 1 and 2) associated with those key tasks/responsibilities. Clearly, not all personal and social skills in Tables 1 and 2 will be relevant. It is important that search committees reach consensus on the most critical personal and social skills for the specific medical chair position.

Only in the third step, search committees choose the selection procedures for assessing the personal and social skills selected. Our review of the personnel selection literature suggests that search committees should use two main groups of selection procedures for assessing personal and social skills. The first broad group represents past-behavior-oriented selection procedures such as accomplishment records, past-behavior interviews, and multiple references from others. The second group constitutes of scenario-based (aka future oriented) selection procedures such as situational interviews, situational judgment tests, and simulation exercises. Table 3 presents a schematic overview of these two groups of selection procedures. In using these selection procedures, search committees can also be assured that they satisfy general evidence-based personnel selection principles, such as measuring both past accomplishments as well as forecasting future potential, ensuring the necessary standardization and fairness, using multiple information sources (self and others), and being able to make judgments on the basis of multiple pieces of evidence (principle of aggregation).

Table 3:

	Format	Selection procedure	Validity & research evidence
Overview of Selection Procedures for Assessing Personal and Social Skills of Medical Chairs			
Past	Written	Accomplishment record	.25
	Interview	Past-behavior interview	.47
	Behavior	Multiple references	.26
Future	Written	Situational Judgment Test	.26
	Interview	Situational interview	.47
	Behavior	Simulation exercise	.54

In the following paragraphs, we explain the selection procedures mentioned in Table 3 and provide example items (*in italics*). First, past accomplishments in terms of personal and social skills can be assessed by inspecting biographical information. Apart from the traditional questions about education, training, work experience, etc., accomplishment records might be especially useful for medical chair selection. In an **accomplishment record**, medical chairs are asked to write down detailed accounts of past episodes, wherein they used their personal and social skills. Meta-analyses [10] show that biographical data produce valid inferences for various outcomes. An example of an item in accomplishment record is the following: *"Please describe your past accomplishments that illustrate your skills in establishing cooperation among a team. Provide a general statement of what you accomplished and then give a description of exactly what activities you performed in accomplishing the achievement, the time period in which these activities were performed, and the name and address of a person who could verify this information."*

Second, past accomplishments in terms of personal and social skills can also be assessed via **past behavior interviews**. This is a type of structured interview with a set of predetermined questions and scoring rubric in which the interviewer asks what a medical chair did in a past situation. An example is of a past behavior interview question is *"Can you talk me through a past situation in which you had to re-establish trust among a group of people? Describe the initial situation? What was your role? What did you do? What was the result?"* Meta-analytic research [10] shows that structured interviews provide more reliable and valid predictions than those based on unstructured interviews. So, it is important that unstructured interviews (in which the interview questions and topics are not predetermined) are avoided or combined with a series of structured interview questions.

Third, it is important to use other-reports in the form of **multiple references** to compliment/verify/validate the self-report information collected from the medical chairs during past-behavior interviews or accomplishment records. So, in reference checks, others (e.g., supervisors, peers, subordinates), who have worked with the medical chairs are asked to evaluate a medical chair's past accomplishments in terms of personal and social skills. Example reference check questions are:

- *Does the candidate always conduct his/her dealings with others in a tactful manner? Is she/he diplomatic in handling various interactions? Explain.*
- *In stressful situations, describe how the candidate communicated with others. Be specific.*
- *How would you describe the candidate's style of communication?*
- *Has s/he consistently and effectively developed and maintained positive working relationships with his/her supervisors, peers, faculty and students? Be specific.*
- *What feedback or first-hand observations have you had regarding his/her interactions with individuals who may be difficult to work with? What is his/her conflict resolution protocol?*
- *What area of development could she/he focus on in terms of personal and social skills?*

Meta-analyses [10, 38, 39] indicate that other reports and reference checks are a useful predictor of job performance. As with employment interviews, adding structure to reference checks can greatly enhance their validity. Strategies for structuring reference checks include basing questions on a job analysis, asking applicants the same set of questions, and using standardized rating formats.

Whereas all three aforementioned selection procedures target the past of medical chairs, the next three selection procedures enable to assess future potential. To this end, they present future scenarios to medical chairs. A first such selection procedure that is often used for assessing procedural knowledge about personal and social skills is the **Situational Judgment Test (SJT)**, which presents medical chairs with realistic, hypothetical written scenarios and asks them to identify the most appropriate response or to rank the responses in the order that is most effective. Meta-analyses [40] confirm that SJTs enable to predict various criteria and are positively perceived by applicants. An example written Situational Judgment Test item is:

A professor that was recently appointed has had many disagreements with you and your colleagues, and usually supports her position by indicating that her view is "how things were done" in her previous job environment. In a meeting with you and your team, after you propose a way to solve a procedural problem, she said, "no, we'll do it the way I've always done it". You should…
  (a) *Ask her to explain why her way is necessarily the best way*
  (b) *Accept her decision but let her know how the team feels about being undermined*
  (c) *Tell her that in this case her suggestions are simply wrong*
  (d) *Meet with her privately and explain that you feel she is not accepting any input from the team and this is hurting morale*
  (e) *Tell her that you will be looking for a new assignment if this is the way you will be working together*
  (f) *Meet with her privately and explain the effect she is having on you and the entire team*

The fifth selection procedure, the **situational interview**, is essentially an open-ended written version of the SJT. A situational interview represents another type of structured interview in which the medical chair is asked what he/she would do in a hypothetical situation. As already noted, meta-analytic research [10] indicates that such structured interviews provide more reliable and valid predictions than those based on unstructured interviews. An example situational interview question is: *"Suppose that you lead a department in which many internal candidates are eying an assistant professorship at your department. Clearly, there exist frictions among them. From time to time, the internal candidates (all of who you know very well) come to your office to talk about this professorship. What would you say to them?"*

Finally, **simulation exercises** (aka performance-based assessment, assessment center exercises or work samples) are carefully constructed to simulate realistic on-the-job situations. One popular example is the role-play in which the interpersonal challenges faced when working with others are simulated. In the typical role-play, the candidate interacts with a trained role-player (that plays the role of a subordinate, etc.). Role-play exercises are prime instruments for assessing personal and social skills. Performance may be observed by a trained evaluator, or may be videotaped and evaluated at a later time. Other examples of simulation exercises are oral presentations or group discussions. Meta-analyses [10] reveal that simulation exercises yield valid predictions of future job performance. Applicants also perceive such exercises as favorable. Reliability can be increased by using multiple evaluators, training the evaluators and role-players, and using standardized observation/ rating scales. It is also key to structure the role-plays so all individuals are given the same opportunities to perform. As a disadvantage, they are more costly to develop and run.

An example scenario of a simulation exercise is the following:

In about fifteen minutes you will meet with the Dean of your department (enacted by a role-player). You have asked for this meeting because you want to make a plea for more resources (people, equipment) for your department. The problem is that your Department has not done well in recent years. According to you, this is because of the lack of resources. However, others posit that resource and budget allocation should be contingent upon research results. You have about fifteen minutes to use all of your personal and social skills to convince the Dean of your case.

Three final caveats:

First, it is important for search committees to assess personal and social skills via these selection procedures in a second selection stage (i.e., after more factual information is gathered in the first selection stage). So, personal and social skills should be used to "select in" candidates who already score well on other more factual aspects (instead of as tools for "selecting/weeding out" candidates).

Second, research strongly recommends using a mechanical integration approach [41] to combine all of the information gathered during the selection stages. When using a mechanical integration approach, search committees have to decide whether to give similar weight to personal and social skills as to these other more factual aspects. In a similar vein, search committees have to decide whether to use a compensatory (i.e., weaknesses on personal and social skills can be compensated by stronger research, organizational or teaching skills) or a noncompensatory rule (i.e., candidates with weak personal and social skills are excluded). These decisions are the discretion of the search committee and are contingent upon how much value they place on personal and social skills.

Third, note that selection on personal and social skills represents only one side of the equation. Other human resources management functions such as recruitment, socialization (onboarding), and development (mentorship and assistance programs to medical chairs that were hired) are equally important and should be deployed in addition to selection.

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