

Selection of residents: what are the factors that program directors consider as determinants for the selection of residents in the personal interview according to the panel modality or multi-mini interviews in a Community University Hospital?

Alfredo Eymann¹⁰⁰⁰⁰⁻⁰⁰⁰¹⁻⁷⁵⁰⁹⁻³⁷²¹ y Eduardo Durante¹⁰⁰⁰⁰⁻⁰⁰⁰²⁻⁰¹²⁵⁻¹⁵⁶⁰

¹ Instituto Universitario Hospital Italiano de Buenos Aires
alfredo.eymann@hospitalitaliano.org.ar

Abstract. The selection process for admission to residences is complex and the selection instruments are expected to be valid and reliable. The objective was to determine the factors that the program directors considered as determinants in the personal interview for the selection of residents according to the panel or multi-mini interviews (MME) modality. **Material and methods.** A qualitative study was carried out through in-depth interviews with the program directors of the 2010 contest who conducted interviews with the panel modality and those of the 2022 contest with the MME modality. **Results.** The following categories were built: 1) importance of the applicant being able to integrate into a work team, 2) skills to communicate during the interview, 3) motivation to choose the specialty and institution, 4) academic trajectory and aspirations for their development, 5) that they have interests not related to medicine, 6) perception that they are good people. The categories were coincident regardless of the interview modality used. **Conclusion.** The main attributes valued by the program directors were the perception that the applicant can be integrated into a work team and the skills to communicate during the interview.

Keywords: resident selection, selection interview, multi-mini interviews, panel interviews, knowledge test, career average.

1 Introduction and Theoretical Framework

Valid and reliable strategies and instruments are required for the selection of residents. Written tests with previous academic performance for admission to medical careers have shown a small positive predictive value, interviews with panel modality none and MME, some validity and reliability (Prideaux et al., 2011).

Individual interviews or interviews conducted by a panel of interviewers are common as a selection strategy. Kreiter et al (Kreiter et al., 2004) conducted a review and concluded that studies define differently which attributes they intend to identify in applicants, therefore an acceptable degree of reliability could not be established. Albanese et al (Albanese et al., 2003), reached a similar conclusion mentioning that the attributes of validity and reliability of the interviews are relative.

The multi-mini interviews (MME) have proven to be valid, reliable and with good acceptability for the selection of residents. (Ali et al., 2019; Hofmeister et al., 2009)) Finally, a study carried out in our environment established the low correlation between the test scores and the selection interview for admission to the residency system. (Hernandez et al. , 1983)

The objective was to determine the factors that the program directors considered as determinants in the personal interview for the selection of residents according to the panel or MME modality.

2 Method

A qualitative analysis was carried out from the interpretive paradigm through in-depth interviews with the residency program directors. The sample was defined for the convenience of the 2010 contest, which conducted panel interviews and interviewed them until the analysis categories were saturated. All the program directors were interviewed about what MME did in the 2022 contest.

Interviews were conducted with a semi-structured questionnaire to the directors of residency programs.

The following variables were analyzed: age, sex, experience in years in resident selection interviews, characteristics or aspects considered key to selecting or not selecting residents, self-perception as an interviewer (bad, regular, good, very good, and excellent).

3 Results

Interviews were conducted with 17 of the 32 directors of the residency program in the 2010 contest and with the 4 directors who carried out MME in the 2022 contest. Those over 55 years of age were 65% and 75% and 76% and 50% were men in the panel and MME modalities respectively. The program directors had a median experience in interviewing of 12 and 11 years and 59% and 75% perceived themselves as very good/excellent interviewers in the panel and MME modalities, respectively. The categories that emerged from the analysis of the interviews with the program directors in 2010 and 2022 coincided and are described in Table 1.

Table 1. Characteristics or aspects that the program director considers important for admission to the residence according to the interview modality

	Panel interviews (n= 17)		MME (n= 4)		
Integrate a work team n (%)	10	(58,8)	3	(75)	"... I look mainly at their predisposition to join a team..."
Communication skills during the interview, n (%)	8	(47)	2	(50)	"... the way of expressing oneself is a very important factor...", "... the good level of expression and treatment with the other..."
Motivation to choose the specialty and institution, n (%)	7	(41,1)	4	(100)	"...that he is convinced in his choice..." "...his interest in being part of the service..." "...hunger to be..."

Academic career and aspirations for its development, n (%)	7	(41,1)	1	(25)	"...I am very interested in where he studied and how his previous training was..." "...that the resident can show his aspirations and ambitions..."
Interests not related to medicine, n (%)	4	(23,5)	1	(25)	"...I am interested in their interests in social issues..." "...it is important that they do other activities such as reading books and newspapers or playing sports..."
Perception of being good people, n (%)	4	(23,5)	3	(75)	"...I like sincere and genuine people, no frills..."

4 Discussion

The profile of the interviewers was as expected since the defined criteria was that they were program directors. Likewise, the male predominance in such a feminized profession could be explained by the phenomenon called glass ceiling, in which there is conditioning for women to access leadership positions (Muzzle, n.d.).

The many years of experience and the self-perception of being good interviewers could be considered a strength in selecting the best applicants. However, no instrument was used to assess their skills as an interviewer and some of them could be perpetuating inadvisable practices linked to personal identifications or preferences and not to the applicant's skills. (Gong et al., 1984; Hernandez et al., 1983) MMEs are a strategy that increases intersubjectivity, are valid, reliable, and are well accepted by applicants.

The attributes most valued by the program directors were the ability to integrate a work team, communication skills, and the motivation to choose the specialty and institution. (Fuentes et al., 2021) These attributes remained relevant in the interviews conducted in 2010 and 2022 and did not change over time. Although the panel strategy has not shown good levels of validity or reliability, it continues to be used as a resident selection strategy in many institutions. Other authors have described that the interview was the determining factor in the order of merit of the applicants, the same as in our study (Gong et al., 1984).

Finally, it is the applicants who choose the institutions according to their prestige, educational climate and institutional culture (Eymann et al., n.d.).

5 Conclusions

The main attributes valued were the perception that the applicant can be integrated into a work team and the skills to communicate during the interview.

6 Limitations and Future Research

It was carried out in a single training center. Future studies are required to understand the needs of applicants.

Bibliography

Albanese, M. A., Snow, M. H., Skochelak, S. E., Huggett, K. N., & Farrell, P. M. (2003). Assessing personal qualities in medical school admissions. *Academic Medicine: Journal of the Association of American Medical Colleges*, 78(3), 313–321.

Ali, S., Sadiq Hashmi, M. S., Umair, M., Beg, M. A., & Huda, N. (2019). Multiple Mini-Interviews: Current Perspectives on Utility and Limitations. *Advances in Medical Education and Practice*, 10, 1031–1038.

Bozal. (n.d.). Mujeres y ciencia: techos de cristal. *EccoS – Revista Científica*. <https://www.redalyc.org/pdf/715/71510111.pdf>

Eymann, Facioni, & Rosa. (n.d.). ¿ Qué priorizan los médicos recién graduados al momento de elegir la institución para realizar la residencia? *Rev. Hosp. Ital. B.* https://www1.hospitalitaliano.org.ar/multimedia/archivos/noticias_attachs/47/documentos/114609_127-131-6-17-20-Eymann-A.pdf

Fuentes, G. Y., Moreno-Murcia, L. M., Rincón-Tellez, D. C., & Silva-Garcia, M. B. (2021). Evaluación de las habilidades blandas en la educación superior. *Formación Universitaria*, 14(4), 49–60.

Gong, H., Jr, Parker, N. H., Apgar, F. A., & Shank, C. (1984). Influence of the interview on ranking in the residency selection process. *Medical Education*, 18(5), 366–369.

Hernández, N. C., Velan, O., Caruso, E., & Beveraggi, E. (1983). Análisis de la correlación entre la prueba escrita y la entrevista personal en la selección de médicos residentes. *Medicina*, 43, 509–512.

Hofmeister, M., Lockyer, J., & Crutcher, R. (2009). The multiple mini-interview for selection of international medical graduates into family medicine residency education. *Medical Education*, 43(6), 573–579.

Kreiter, C. D., Yin, P., Solow, C., & Brennan, R. L. (2004). Investigating the Reliability of the Medical School Admissions Interview. In *Advances in Health Sciences Education* (Vol. 9, Issue 2, pp. 147–159). <https://doi.org/10.1023/b:ahse.0000027464.22411.0f>

Prideaux, D., Roberts, C., Eva, K., Centeno, A., McCrorie, P., McManus, C., Patterson, F., Powis, D., Tekian, A., & Wilkinson, D. (2011). Assessment for selection for the health care professions and specialty training: consensus statement and recommendations from the Ottawa 2010 Conference. *Medical Teacher*, 33(3), 215–223.