

# Association between Personality Traits and the Effectiveness of Balint Training among Medical Students

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## Abstract

**Introduction:** Promoting communication and empathy skills is an important component of medical students' education. Recently, a technique called Balint training has been introduced in several medical schools to foster the non-clinical aspects of physician-patient interaction. **Aim:** We aim to explore whether personality traits help explain the medical students who were more satisfied with Balint training. In particular, whether students who are more open to experience and more agreeable are more likely to be satisfied with Balint training. **Method:** Balint groups have been introduced as part of the medical school curriculum in the 4th year as part of their clinical training. Students participated in five monthly Balint meetings in groups of 8 - 10 students led by two medical staff facilitators. At the end of the program, questionnaires were delivered to all students. **Results:** A total of 65 participants (36% of the population) who completed all sessions, answered the questionnaires. Findings showed a positive correlation between the personality traits openness to experience and agreeableness to the level of satisfaction in participating in Balint group sessions. **Discussion:** Our findings contribute to the advancement of more effective planning and design of Balint groups in medical education. To maximize the educational benefit of students' participation in Balint training, their personality traits should be taken into consideration.

## Keywords

Balint, Medical Students, Personality, Empathy, Communication Skills

## 1. Introduction

Balint groups are guided peer group discussions of health care providers (physicians, nurses, and health caregivers) who meet periodically to discuss their interaction with their patients. This model of group discussions was introduced by Dr. Michael Balint to primary care physicians in England in 1950 with the intent to share, learn, and support primary care physicians struggling with the burden of care for their patients (Horder, 2001). These group sessions were designed to help general practitioners achieve a more meaningful understanding of their patients and improve doctor-patient relationships (Ryding & Birr, 2022).

Balint training comprises a small group of clinicians who meet regularly to discuss cases from their practices, focusing on psychological aspects and doctor-patient relationships (Yang & Wang, 2022). In Balint training, general practitioners and/or other medical professionals narrate complex cases under the guidance of psychoanalysts, who play a leading role. Then, the described cases are processed (Van Roy, Vanheule, & Inslegers, 2015). Samuel (1987) suggested three primary goals of Balint's work: to encourage doctors to evaluate their interpersonal skills and understand their limits; improve doctors' perception and understand their patients' communication; and allow doctors to become aware of blind spots in their patient interactions. Balint training has been shown to increase empathy, decrease fatigue, and reduce burnout, thus enhancing continued alignment with the meaning of one's career in healthcare (The American Balint Society, 2016).

As the worldwide burden of care is growing, promoting the self-care of physicians is becoming a necessity to prevent burnout. In this context, Balint peer group discussions are beginning to spread to all subspecialties in medicine to support clinicians by cultivating their humanistic qualities as healthcare providers (Colthorpe et al., 2021).

The empathic behavior of doctors has been shown to not only increase patients' subjective satisfaction but also improve diagnosis and treatment outcomes (Haque, 2019). For example, a study showed that patients with diabetes mellitus had fewer metabolic complications when treated by physicians with high empathy levels (Del Canale et al., 2012). The advantages of better-quality empathetic communication are significant for both clinician and patient as empathy considers patients' values, ideas, and feelings beyond deductive logic, physical examinations, and treatment (Decety & Fotopoulou, 2015). Subsequently, this highly effective and influential communication tool improves patient belief in the physician, reduces anxiety, improves patient satisfaction, improves treatment adherence, improves health outcomes, and reduces malpractice complaints while increasing physician health, well-being, and professional satisfaction (Stone, 2018).

Participation of medical students in Balint groups has been investigated in both qualitative and quantitative methods and showed improvement in communication skills, the conceptualization of the patient-doctor relationship, and empathy (McCarron et al., 2023; Ng, Seu, & Cullum, 2022). Research demonstrated

that Balint's effect on students' empathy arriving from different nationalities and cultures such as France, Australia, Israel, and China improved when they participated in Balint groups as part of their training (Yazdankhahfard, Haghani, & Omid, 2019). Yet, in these studies, Balint's effect was only of moderate magnitude. Thus, it is of great importance to further investigate the barriers to the success of medical students' Balint training.

Personality is defined as the pattern of thoughts, feelings, attitudes, habits, and behavior of everyone that persists over time in different situations distinguishing one individual from others (Allport, 1961). Traits as factors can impact life outcomes by generating thoughts, feelings, and behaviors, especially in ambiguous or novel situations (Roberts & Jackson, 2008).

Personality traits imply consistency and stability such that those who score high on a specific trait, for instance, extroversion individuals are expected to be sociable in different situations and over time. Hence, people differ from one another in terms of where they stand on a set of basic trait dimensions that persist over time and across situations (Diener & Lucas, 2019). The Big Five personality model is the most influential and widely accepted personality theory in recent years. It classifies personality traits and differentiates among emotions, values, temperament, and character (John & Srivastava, 1999). The Big Five personality model has some predictive value in almost all personality-related behaviors and includes five dimensions: neuroticism, extroversion, openness, agreeableness, and conscientiousness (Diener & Lucas, 2019).

Research demonstrated a relationship between personality traits and levels of empathy (Bętkowska-Korpała et al., 2022). Greater empathy is an important element in the development of a trustful doctor-patient relationship and has been positively correlated with optimal doctor-patient communication, more accurate diagnosis, and better treatment adherence (Wu, Jin, & Wang, 2022). In medical students, self-reported empathy was positively associated with increased communication skills scores in an objective clinical skills examination (OSCE) (Casas et al., 2017). Interestingly, Cowell et al. (2023) reported that trainees rated "work-life balance" as the thing they valued most in training (64%).

A cross-sectional study conducted at a medical university in China demonstrated that five personality traits were important predictors of cognitive and affective empathy among medical students (Song & Shi, 2017). Nevertheless, the associations between empathy and Big Five personality traits in medical education are still underrepresented in the existing literature (Bętkowska-Korpała et al., 2022). Two studies used the Jefferson Scale for Physician Empathy (JSPE) among medical students (Costa et al., 2014; Magalhães, Costa, & Costa, 2012) and concluded that empathy is positively associated with Agreeableness and Openness to Experience traits. In another study that used the Big Five scale, empathy among medical students was found to be positively associated with Agreeableness and Openness to Experience (Magalhães, Costa, & Costa, 2012). In contrast, in a recent study with Japanese medical students, findings showed that the JSPE was not associated with openness and only weakly related to the

trait of Agreeableness (Abe et al., 2018). However, the authors argued that personality measures are subject to cultural influences and may not have the same association with empathy across different groups.

Individuals who exhibit elevated levels of openness to experience manifest qualities such as creativity, innovation, and a tendency to deviate from established norms. They display heightened curiosity and are more open to receiving feedback (Pathak, 2015). Agreeableness is linked to traits such as politeness, adaptability, trustworthiness, cooperativeness, tolerance, and the fair and considerate treatment of others (Trapmann et al., 2007). Thus, we suggest that individuals with higher levels of either openness to experience or agreeableness will be more cooperative during Balint sessions and thus will have greater satisfaction in participating in the group.

Given the influence that personality may have on empathy and the patient-doctor relationship, the current research aims to explore the relationship between personality traits and satisfaction with Balint sessions. Concerning the above literature, we chose to concentrate on two personality traits—Openness to Experience and Agreeableness. Hence, we hypothesized the following:

## 2. Hypotheses

**H<sub>1</sub>:** Students with a trait of Openness to Experience at a high level will report greater satisfaction with the Balint sessions compared to students with Openness to Experience at a low level.

**H<sub>2</sub>:** Students with a high level of Agreeableness will report greater satisfaction with the Balint sessions compared to students with a low level of Agreeableness.

## 3. Material and Methods

### 1) Sample

Participants included 65 fourth-year medical students at the Hebrew University faculty of medicine who participated in five monthly Balint meetings in 2022. A total of 32 men (49%) and 33 women (51%) with an average age of 26.06 responded.

### 2) Setting

Balint Groups included 8 to 10 students supervised by 2 facilitators—physicians, nurses, social workers, and clinical psychologists working in hospitals and primary care medical facilities. At the end of the training, a measure of satisfaction was distributed. At least one of each co-leader had prior experience as a participant or leading Balint groups.

## 4. Measures

**A very brief measure of the Big Five personality domains:** Participants completed the shortened measure of the Big Five personality domains (Gosling, Rentfrow, & Swan, 2003). This scale consists of 10 items asking participants to rate their level of agreement for each item on a 1 (strongly disagree) to 7

(strongly agree). In this study, we referred to the two main personality traits related to satisfaction with training at Balint—openness to experience—the items: 1) Open to new experiences, complex and 2) denotes reverse-scored item: Conventional, uncreative. The other trait examined is agreeableness. The items for these traits are: 1) Sympathetic, warm, and 2) denotes reverse-scored item: Critical, quarrelsome.

**Satisfaction with the Balint sessions:** A three-item scale was developed to measure whether the students perceived the Balint training as beneficial. The items are scored on a 10-point Likert scale ranging from 1 “not relevant” to 10 “very relevant”: 1) How much do you feel Balint training benefited you? 2) How much did you feel the discussion in the training was beneficial in general? 3) How suitable is Balint training for the 4th year of medical studies? Cronbach alpha was .88.

## 5. Procedure

IRB approval was conducted, and all ethical procedures were observed. Participants completed the above questionnaires voluntarily and anonymously after they completed the Balint sessions. Data were analyzed using SPSS 2006. Descriptive statistics including Means and Standard Deviations were used for analyzing the data. The descriptive statistics for the measures are reported in **Table 1**.

## 6. Results

Three measures were evaluated in the present study: Balint satisfaction, Openness to experience, and Agreeableness.

For testing hypothesis 1, Pearson correlations were examined (see **Table 2**). Results showed a positive correlation between openness to experience to the level of satisfaction with the Balint session ( $r = .371, p < .01$ ) and a negative correlation between conventional and uncreative traits which is the reverse-scored item of openness to experience ( $r = -.392, p < .01$ ). Thus, Hypothesis 1 was confirmed.

For testing hypothesis 2, Pearson correlations were examined (see **Table 3**). Results showed a positive correlation between Agreeableness (the understanding, warm item) to the level of satisfaction with the Balint session ( $r = .374, p < .01$ ) and a negative correlation between critical and quarrelsome traits which is the reverse-scored item of Agreeableness ( $r = -.338, p < .01$ ). Thus, Hypothesis 2 was confirmed.

**Table 1.** Descriptive statistics for study variables.

	N	Minimum	Maximum	Mean	Std. Deviation
Satisfaction from Balint sessions	68	1	10	7.10	2.420
Openness to experience	65	1	7	4.97	2.42
Agreeableness	65	1	7	4.53	1.56

**Table 2.** Intercorrelations: satisfaction with openness to experience.

		Satisfaction	Open to experience	Conventional
1) Satisfaction	Pearson Correlation	1	.371**	.091
	Sig. (2-tailed)		.002	.469
	N	68	65	65
2) Open to experience Complex	Pearson Correlation	.371**	1	-.392**
	Sig. (2-tailed)	.002		.001
	N	65	65	65
3) Conventional Uncreative	Pearson Correlation	.091	-.392**	1
	Sig. (2-tailed)	.469	.001	
	N	65	65	65

\*\* $p < .01$ .

**Table 3.** Intercorrelations-satisfaction with agreeableness.

		1	2	3
1) Satisfaction	Pearson Correlation	1	-.191	.374**
	Sig. (2-tailed)		.128	.002
	N	68	65	65
2) Critical Quarrelsome	Pearson Correlation	-.191	1	-.338**
	Sig. (2-tailed)	.128		.006
	N	65	65	65
3) Understanding Warm	Pearson Correlation	.374**	-.338**	1
	Sig. (2-tailed)	.002	.006	
	N	65	65	65

\*\* $p < .01$ .

## 7. Discussion

In addressing the challenges inherent in medical education, it is prudent to find educational programs that promote communication skills, enhance the understanding of patient-doctor relationships, and cultivate empathy among medical students. There is a scarcity of studies exploring the correlation between these educational targets, and medical students' psychological variables, in particular their personality traits. Hence, the purpose of the present study was to investigate the correlation between medical students' personality traits and their satisfaction with Balint group sessions.

As hypothesized, the findings showed a positive correlation between the personality traits openness to experience and agreeableness to the level of satisfaction with Balint sessions, such that those with higher levels of openness and

agreeableness were more satisfied with Balint sessions compared to students with lower levels of openness and agreeableness.

Prior studies demonstrated that openness and agreeableness were correlated with empathy (Suciu, Melit, & Mărginean, 2021) and that participation in Balint groups improves communication skills and empathy (Yang & Wang, 2022). Thus, our results showing the association between personality traits (openness and agreeableness) and students' subjective impression of Balint group effectiveness may have considerable importance in improving medical education.

Although our study is the first to examine the relationship between personality traits and satisfaction with Balint training, validating our findings will lead to several conclusions. One possible contribution may be in the process of interviewing medical students, as knowing the student's personality traits may influence empathetic behavior towards patients, and therefore advice concerning the suitability of the student. In addition, as personality-targeted interventions have gained increasing popularity in health promotion research and practice (Suciu, Melit, & Mărginean, 2021), it might be feasible to enhance the empathy of medical students by raising medical students' awareness of the unique constellation of personality traits they possess, which can either bolster or hinder their empathy and interactions with patients (Song & Shi, 2017).

Medical students' participation in Balint groups was mostly studied in small-scale studies (Salter et al., 2020). Usually, the group leaders were all experienced Balint leaders who were well trained (psychiatrists, psychologists, social workers co-leading with an experienced M. D. clinician). In this context, our study is unique since it evaluated short-term Balint training of medical students, with less experienced team leaders (at least one of each co-leader had prior experience) and a relatively large number of participants. As Balint training has been shown to be beneficial in several studies, it may be useful to consider it as a major component in training all medical students in the future. Medical schools may want to extend Balint training to a major educational challenge. However, in the face of limited resources perhaps it might be more feasible to investigate the effectiveness of shorter interventions for more students with less experienced team leaders, to spread the Balint method in the medical profession, instead of leaving it as part of an exclusive group of students and professionals.

## 8. Limitations

This study has several limitations that we want to address. The first limitation is the "self-report" nature of the measure. Such data are generally considered to be susceptible to common method bias effects. Yet, when little personal gain is involved, it appears to have only a limited effect on response bias. The second limitation is its generalizability, due to the highly limited nature of the subject sample in a single university setting. The inferences from such a sample may not be fully generalizable to students from other academic institutions or other countries with different national cultures.

## 9. Conclusion

Our findings contribute to the advancement of more effective planning and design of Balint groups in medical education. The results demonstrating the association between personality traits and satisfaction with Balint sessions empower policymakers to make more informed decisions regarding the subject. We suggest that tailored individualized intervention strategies based on the personality traits of medical students be integrated into educational programs to enhance empathy and improve doctor-patient relationships as part of their medical training. Furthermore, the outcomes obtained in this study can serve as a foundation for subsequent research and the broadening of knowledge in the field.

## Conflicts of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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