

## Dimension of Kindness in the Student Population

Maja Simonović<sup>1,2,\*</sup>, Natalija Vukojčić<sup>3</sup>, Nikola M. Stojanović<sup>4</sup>, Gordana Nikolić<sup>1,2</sup>

<sup>1</sup>Department of Psychiatry, Faculty of Medicine, University of Niš, Niš, Serbia

<sup>2</sup>Center for Mental Health Protection, Department for diagnose and treatment, University Clinical Center Niš, Serbia

<sup>3</sup>Faculty of Medicine, University of Niš, Niš, Serbia

<sup>4</sup>Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia

\*Maja Simonović, MD, PhD, assistant professor, Department of Psychiatry, Faculty of Medicine, University of Niš, Niš, Serbia, [simonovicmaja@gmail.com](mailto:simonovicmaja@gmail.com)

AMM Paper Accepted

## **Dimension of Kindness in the Student Population**

### **Abstract**

The acts of helping others are a manifestation of a personal dimension called kindness, which is of particular importance in medicine. The capacity of people who work in medicine to show kindness is one of the factors that determines the future course of treatment.

The primary goal of the research is to determine the presence of the category of kindness in the group of students of the Faculty of Medicine and the group of students from other faculties of the University of Niš and to determine whether there is a difference in the category of kindness between the two groups of students.

A total of 230 subjects filled out an online questionnaire. The multidimensional instrument Kindness scale was used for the assessment of kindness. Data are presented as mean score values for each aspect of kindness, as well as maximal and minimal values. A comparison between the two groups was performed using Student's t-test for two independent large samples.

The results did not show any difference in any of the studied dimensions of kindness in the groups of respondents. The results provided an insight into the nature of kindness, its obstacles, and its importance and indicated the necessity to think about the dimension of kindness while working with students and in everyday clinical practice.

**Keywords:** kindness, students, communication

AMM Paper Accepted

## Dimenzije ljubaznosti u populaciji studenata

Maja Simonović<sup>1,2,\*</sup>, Natalija Vukojčić<sup>3</sup>, Nikola M. Stojanović<sup>4</sup>, Gordana Nikolić<sup>1,2</sup>

<sup>1</sup>Department of Psychiatry, Faculty of Medicine, University of Niš, Niš, Serbia

<sup>2</sup>Center for Mental Health Protection, Department for diagnose and treatment, University Clinical Center Niš, Serbia

<sup>3</sup>Faculty of Medicine, University of Niš, Niš, Serbia

<sup>4</sup>Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia

\*Maja Simonović, MD, PhD, assistant professor, Department of Psychiatry, Faculty of Medicine, University of Niš, Niš, Serbia, [simonovicmaja@gmail.com](mailto:simonovicmaja@gmail.com)

Postupci pomaganja drugima su manifestacija personalne dimenzije zvane ljubaznost i ona je od posebnog značaja u medicini. Sposobnost ljudi koji rade u medicini da pokažu ljubaznost je jedan od faktora koji određuje budući tok lečenja pacijenta.

Primarni cilj istraživanja je utvrđivanje prisustva kategorije ljubaznosti u grupi studenata Medicinskog fakulteta i u grupi studenata drugih fakulteta Univerziteta u Nišu, kao i utvrđivanje da li postoji razlika u kategorijama ljubaznosti između ove dve grupe studenata.

Onlajn upitnik je popunilo ukupno 230 ispitanika. Za procenu ljubaznosti korišćen je višedimenzionalni instrument „Skala ljubaznosti“. Podaci su predstavljeni kao srednje vrednosti rezultata za svaki aspekt ljubaznosti, kao i maksimalne i minimalne vrednosti. Poređenje između dve grupe izvršeno je Studentovim t-testom za dva velika nezavisna uzorka.

Rezultati nisu pokazali da postoji razlika u bilo kojoj dimenziji ljubaznosti između grupa ispitanika. Rezultati su dali uvid u prirodu ljubaznosti, njene prepreke, njen značaj i ukazali na neophodnost razmišljanja o dimenziji ljubaznosti u radu sa studentima i u svakodnevnoj kliničkoj praksi.

**Ključne reči:** ljubaznost, studenti, komunikacija

## **Introduction**

Contemporary research defines that the acts of helping others are a manifestation of a personal dimension called kindness (1). The goal of kindness is to provide support to another human being without expecting a reward and at a certain personal price (2). High levels of kindness reduce anxiety and somatic symptoms, such as colds and even blood pressure (3). The more altruistic members of the group are deemed popular and respected (4). Kindness encourages healthy social interactions and increases subjective feelings of happiness and life satisfaction (5, 6, 7, 8, 9, 10).

These literature data are easy to understand, keeping in mind that good interpersonal contact has its biological consequences, acting upon a ventral vagal system, which serves to foster calm behavioral states by inhibiting sympathetic influences to the heart and dampening the hypothalamic-pituitary-adrenal (HPA) axis (11). Our social engagement system, involving vagus, allows us to feel connected to ourselves, others, and the world around us. When activated, it stimulates physical and psychological responses, reduces heart rate, relaxes laryngeal muscles, calms breathing, and stimulates digestion. This manifestation of the soothing system finds its origin in the attachment process (12,13). The attachment process activates a safety signal-related neural region and reduces pain experience. (14, 15), paving the way to the capacity to regulate arousal in the presence of another human being (16 ).

Kindness is not just about being nice (17), and it is not in any way a superficial concept. Being kind requires understanding, in the very moment, the needs of other human beings and being *online* with another human being. On a more profound level, kindness stems from the capacity of the individual to act upon impulses manifesting good internal objects and thus of life instinct (18).

That is where the motivation for this work came from. The basis of motivation is the need to recognize that both social connection and social disconnection broadly shape biological responses and behaviors that are consequential for health.

The category of kindness is of particular importance in medicine. People who visit a health facility are vulnerable, and they experience fear and weakness. When people get challenged in an attempt to survive, they start out trying to use a "social engagement system" to look at each other and resolve things warmly, activating the myelinated vagus parasympathetic circuit (19). The capacity of medical workers to possess and show kindness is one of the factors that determine the future course of treatment of help-seeking people (20). Another important fact is that the concept of kindness cannot be described as a unique construct localized within the individual but as a construct that takes place between the individual and the environment. The concept of kindness connects the person and the social world as a bridge (21, 22).

The primary goal of the research is to determine the presence of the category of kindness in the group of students of the Faculty of Medicine and the group of students from other faculties of the University of Niš. The secondary goal of the research is to determine whether there is a difference in the category of kindness in the group of students of the Faculty of Medicine compared to the group of students from other faculties of the University of Niš.

## **Material and methods**

### *Procedure*

The research was conducted during March 2024. An online questionnaire was created, and a link to the questionnaire was distributed through social media. Respondents' answers were always

anonymous since the questionnaire did not involve any personal data apart from the age and faculty in which they were enrolled. It took a student around 10 minutes to fill out the questionnaire. The subjects were well-informed about the nature of the research and agreed to participate in the study. The study was conducted in accordance with the Ethical norms and was approved by the Ethics committee of the Faculty of Medicine, University of Niš.

### *Subjects*

Students of the Faculty of Medicine University of Niš and students from other faculties of the University of Niš were involved in the research. A total of 230 subjects filled out the questionnaire, and the results were included in the analysis. Out of the total number of students, 164 students were from the Faculty of Medicine, and 66 students were from other faculties. Demographic characteristics of the sample included questions related to gender, age, and place of residence.

### *Research instrument*

The assessment of the kindness category was carried out using a multidimensional instrument for measuring kindness consisting of 40 questions [1]. The instrument measures four aspects of kindness: Benign Tolerance (BT; 13 questions), Empathic Responsiveness (ER; 9 questions), Proactive Principle (PP; 9 questions), and Unkindness (U; 9 questions). Participants were given information to answer each item in relation to the question: How often have you shown a specific behavior and the answers were scored on a Likert scale from 1 - almost never, to 7 - almost always. A higher score on the test reflects a higher category of kindness or unkindness [1].

### *Statistical analysis*

Data are presented as mean score values for each aspect of kindness, as well as maximal and minimal values. For each aspect, data normality distribution was performed (Kolmogorov-Smirnov test), and a Cronbach's alpha was calculated. Comparison between two groups was performed using Student's t-test for two independent large samples and the p values less than 0.05 were considered statistically significant. Statistical data processing was performed using the SPSS software package version 18.0 (SPSS Inc., Chicago, Illinois).

## **Results**

### Sample survey

The sample consists of 230 students from the University of Niš, out of which 164 are medical students and 66 are students from other faculties. The structure of the sample in relation to the variables gender, age, and place of residence on the subsample of medical students and students of other faculties is shown in Table 1-3.

**Table 1.** Sample structure by gender on the sub-sample of medical students and other faculties

Group		Gender		Total
		Female	Male	
Other faculties		56	10	66
	Medical faculty	128	36	164
	Total	184	46	230

**Table 2.** Sample structure by age on the subsample of medical students and other faculties

		Age	Total
--	--	-----	-------

Group	Other faculties Medical faculty Total	18-21	22-25	26-30	over 30	66 164 230
		41 55 96	18 93 111	0 11 11	7 5 12	

**Table 3.** Sample structure by place of residence on the sub-sample of medical students and other faculties

Group	Other faculties Medical faculty Total	Place of residence		Total
		Urban area	Countryside	
		60	6	
148	16	164		
208	22	230		

In Table 4, the descriptive-statistical measures, the results of the distribution normality test, and the reliability of the measurement scales are presented.

**Table 4.** Descriptive statistics, Kolmogorov-Smirnov test, and Cronbach's  $\alpha$  reliability coefficient of the data obtained from the instrument

Dimension	Mean	SD	Min	Max	K-S	p	$\alpha$	N
<i>Benign tolerance</i>	54.63	5.269	31	64	0.80	0.53	0.68	13
<i>Empathic responsiveness</i>	35.66	4.63	14	45	0.58	0.88	0.67	9
<i>Proactive principle</i>	33.49	5.74	16	45	0.76	0.60	0.71	9
<i>Unkindness</i>	22.21	5.32	12	45	1.08	0.18	0.74	9

K-S - Kolmogorov-Smirnov test;  $\alpha$  - Cronbach's  $\alpha$  reliability coefficient

From the data obtained (Table 4), we can see that none of the examined dimensions statistically significantly deviates from the normal distribution, thus parametric statistical method was used for further data processing. The reliability of the measurement scales was obtained by calculating the internal consistency reliability. The obtained values of Cronbach's  $\alpha$  coefficient indicate the marginal but still acceptable reliability of all measurement scales.

In Table 5, the results of the comparison between the group of medical students and the group of students from other faculties regarding the expressiveness of the investigated dimensions of kindness are given. Based on the results of the statistical analysis, we can say that there is no statistically significant difference between the group of students from other faculties and the group of medical students in terms of the expression of all four examined dimensions of kindness (Table 5).

**Table 5.** Comparison of the group of medical students and the group of students from other faculties in relation to the investigated dimensions of kindness (Students' t-test)

Dimension	Group	N	Mean	SD	t	df	p
<i>Benign tolerance</i>	Other faculties	66	54.16	5.81	-0.862	228	0.39
	Medicine	164	54.82	5.04			
<i>Empathic responsiveness</i>	Other faculties	66	35.31	4.89	-0.728	228	0.46

	Medicine	164	35.81	4.53			
<i>Proactive principle</i>	Other faculties	66	33.03	6.24	-0.772	228	0.44
	Medicine	164	33.67	5.53			
<i>Unkindness</i>	Other faculties	66	23.04	5.23	1.50	228	0.13
	Medicine	164	21.88	5.33			

## Discussion

In the present work, we determined the presence of the category of kindness in the group of students of the Faculty of Medicine and in the group of students of other faculties that are part of the University of Niš and determined whether there was a difference in the category of kindness between them.

The applied scale measured 4 components of kindness: (i) Benign tolerance, which includes permissive humanity that is reflected in everyday politeness, acceptance, and love for others and refers to the behavioral component (10,11). (ii) Empathic responsiveness, which is more personalized and emotional. It is reactive and takes into account the specific feelings of other individuals. It refers to the affective component [11]. (iii) The Proactive principle is a category driven more by cognition than by emotion. It is a respectful behavior toward others and is typically proactive behavior, not reactive. It includes altruistic behaviors and refers to the cognitive component [12]. (iv) Unkindness as a category not directly opposite of kindness and reflects an independent aspect of interpersonal interactions (1).

The obtained results of our research showed that there is no difference in the category of kindness among respondents of students of the Faculty of Medicine and respondents of students of other faculties of the University of Niš (Table 5).

The obtained results of our research are in line with the results of a study performed at The University of Huddersfield (1) however, it does show some differences. The results scores for the BT and PP components were lower in our sample. BT refers to the attitude to live and let live and to permissive humanity revealed in everyday courteousness, acceptance, and love for one's fellows. These results might reflect the fact that tolerance is not a common feature in our social milieu. The component PP is about behaving honorably towards others and is typically proactive rather than reactive, while much of this behavior is considered altruistic. This component scored lower in our sample. Bearing in mind that this component is rather cognitive than emotional, it points to the need for cognitive intervention in education and upbringing as well. The component ER showed similar results and was not expected due to the attitude that people in our milieu are very empathetic. This could be the case, but it is important to mention that the experience of empathy in our sample could be different, and these results deserve further exploration. The Unkindness component was lower in the medical student sample than in the sample of subjects from other faculties of the University of Niš. The results showed lower values of the Unkindness dimension in our sample compared to the results of the University of Huddersfield (1). The initial understanding of these results is that students in our environment live in protective conditions, in a familiar environment and without specific challenges, which is why aggressive impulses that manifested as unkindness are especially activated. Also, we might be satisfied with the obtained results if we have in mind that kindness is learned through a process, while rudeness, an expression of aggressive content, impulses, and urges, is less subject to learning.

The above results, that the Kindness dimension was equally distributed among the students of the Medical faculty and the other faculties in our sample, could be interpreted in two ways. Firstly, the category of kindness is a construct that is highly susceptible to socially desirable responses, which

means that the respondents could have also given socially desirable answers. Another possibility would be that there really is no difference in the category of kindness between medical students and students of other faculties because both can be grouped simply as - students. During their studies, students live in similar conditions, have similar needs and demands that are placed before them, and communicate with family and friends, and thus their kindness dimension showed the same characteristics in both groups.

The kindness category denotes gentleness, generalized and genuine empathic response instead of superficial charm, and protective behavior towards others instead of exploiting and manipulating others. People with a higher kindness score choose professions of helping others [1]. However, the obtained results of this research are different from the suggestions from the literature.

After initial mild disappointment with the results, due to the expectation that medical students display more kindness than the students of other faculties, two lines of reflection were placed in front. Initial analysis of the unexpected outcome two major points could be reflected on.

The first line of reflection is about the teaching role of the staff at the Faculty of Medicine. Hidden curriculum entails what students really learn in the teaching process. Beyond cognitive content, they learn about emotional processes, both in the patient and in the staff themselves, during healthcare consultations, which can improve or turn off the functioning of either participant in this process in hidden and unconscious ways. Implicit information is far more important and guides decision-making, behavior, and the destiny of both parties in the medical field. Unkindness affects performance. Rudeness hijacks cognitive resources, decreases working memory and attention, and stifles creativity and helpfulness (23, 24). The problem-solving and decision-making are specifically impaired. In medical field, as unkindness as incidents occur, the clinician becomes a second victim, which in turn adds to their stress and further worsens cognitive processing and performance (25). At this point, the informal and formal wisdom passed from mentors to mentees is often serendipitous and contagious. Mentors provide the unprompted give of time, energy and guidance to the next generation. Over time, mentees transition to become mentors for others. Mentorship creates virtuous cycles within institutions, spurring contagious kindness.

The importance of courtesy in the practice of medicine cannot be overemphasized. Data from the literature show that kindness is learned. Medical faculties around the world are introducing a mandatory two-year curriculum called Human Kindness. Research shows that students have resistance towards learning attitudes of professionalism (26). The solution is to create an intellectual and interactive space in which students are exposed to the deeper meaning of empathy in a clinical context. Obstacles to kindness in stressful working conditions at the clinic have been analyzed. A model of compassion and empathy is developed, emphasizing the capacity for emotional self-regulation and cognitive coping with automatic emotional responses in complex clinical situations. Students should learn to develop self-awareness, be open to other perspectives, and gain information about the neural basis of empathy, the function of mirror neurons, and the neural basis of emotional regulation (27, 28). In our clinical setting, the content of the course Psychiatry with Medical Psychology and the elective course Communication Skills partially include the above-mentioned topics, trying to provide students with some basic knowledge and help them learn kindness.

The second line of reflection, based on the results obtained that the category of kindness is equally distributed among the students of different fields at the University of Nis, is the opinion that kindness is a global phenomenon. It refers to every human subject, and it has to be such. It was far more important to get that kind of result, showing that all the students belonging to different professional groups share the unique dimension of kindness. The society, due to this distribution, could benefit much more. Beyond the impact of negative affect on decreasing performance, there is evidence that positive affect increases cognitive function and performance (23). Warmth is contagious and spreads



in waves; the person who receives it continues to give it to others, and thus, the act of generosity could ripple forward (29). Since people depend on each other not only for survival but also for mutual advancement, possessing kindness in our repertoire is of utmost importance.

## Conclusion

This work analyzed the category of kindness measured among students of the Faculty of Medicine and other faculties of the University of Niš. The results did not show that there was no difference in any dimensions of kindness in the groups of our respondents. The results provided an insight into the nature of kindness, its obstacles, and its importance and indicated the necessity to think about the dimension of kindness while working with students and in everyday clinical practice.

## Referneces

1. Canter DV. Towards a measure of kindness: An Exploration of a Neglected Interpersonal Trait. *Personality and Individual Differences*. University of Huddersfield Repository. 2017; 15–20.
2. Youngs DE, Yaneva MA, Canter DV. Development of a measure of kindness. *Curr Psychol* 2023; 42: 5428–5440.
3. Lee R, Oliver C. A range of kindness activities boost happiness. *J Soc Psychol* 2018; 159.
4. Lee R, Oliver C. A range of kindness activities boost happiness, *J Soc Psychol* 2019; 159: 340–343.
5. Emmons RA, Crumpler CA. Gratitude as a human strength: Appraising the evidence. *J Soc Clin Psychol* 2000; 19: 56–69.
6. McCullough ME, Emmons RA, Tsang JA. The grateful disposition: A conceptual and empirical topography. *J Personal Soc Psychol* 2002; 82: 112–127.
7. Watkins P, Woodward K, Stone T, Kolts R. Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Soc Behav Pers* 2003; 31: 431–451.
8. Peterson C, Ruch W, Beermann U, Park N, Seligman M. Strengths of character, orientations to happiness, and life satisfaction. *J Posit Psychol* 2007; 2: 149–156.
9. Lyubomirsky S, King L, Diener E. The benefits of frequent positive affect: does happiness lead to success? *Psychol Bull* 2005; 131: 803–855.
10. Buchanan KE, Bardi A. Acts of kindness and acts of novelty affect life satisfaction. *J Soc Psychol* 2010; 150: 235–237.
11. Porges SW. The polyvagal theory: phylogenetic substrates of a social nervous system. *Int J Psychophysiol* 2001; 42: 123–146.
12. Bowlby J. *Attachment and loss: Vol. I: Attachment*. 2nd. New York: Basic Books; 1969.
13. Porges SW. Social engagement and attachment: a phylogenetic perspective. *Ann NY Acad Sci* 2003; 1008: 31–47.

14. Eisenberger NI, Master SL, Inagaki TK, Taylor SE, Shirinyan D, Lieberman MD, Naliboff BD. Attachment figures activate a safety signal-related neural region and reduce pain experience. *Proc Natl Acad Sci USA* 2011; 108: 11721–11726.
15. Meyer-Lindenberg A, Domes G, Kirsch P, Heinrichs M. Oxytocin and vasopressin in the human brain: social neuropeptides for translational medicine. *Nat Rev Neurosci* 12: 524-538. *Nature reviews. Neuroscience*. 12. 524-38. 10.1038/nrn3044.
16. Oishi S, Schiller J, Gross EB. Felt understanding and misunderstanding affect the perception of pain, slant, and distance. *Soc Psychol Pers Sci* 2013; 4: 259–266.
17. Hart R. Prosocial Behaviors at Work: Key Concepts, Measures, Interventions, Antecedents, and Outcomes. *Behav Sci* 2024; 14: 78.
18. Klein M. *Envy and Gratitude and Other Works 1946-1963*. London: Virago, 1988.
19. Porges S. Social engagement and attachment: A phylogenic perspective. *Ann NY Acad Sci* 2004; 1008: 31–47.
20. Asch SM, Atkins D, Walling A. If kindness were a drug, the FDA. *J Gen Intern Med* 2021; 263–264.
21. Eslinger PJ, Anders S, Ballarini T, Boutros S, Krach S, Mayer AV, Moll J, Newton TL, Schroeter ML, de Oliveira-Souza R, Raber J, Sullivan GB, Swain JE, Lowe L, Zahn R. The neuroscience of social feelings: mechanisms of adaptive social functioning. *Neurosci Biobehav Rev* 2021; 128: 592–620.
22. Frith C, Wolprip D. Ed. *The Neuroscience of Social Interaction: Decoding, Imitating, and Influencing the Actions of Others*. Oxford press, UK, 2004.
23. Fryburg DA. Kindness Isn't Just about Being Nice: The Value Proposition of Kindness as Viewed through the Lens of Incivility in the Healthcare Workplace. *Behav Sci (Basel)*. 2023; 13: 457.
24. Porath CL, Foulk T, Erez A. How incivility hijacks performance: It robs cognitive resources, increases dysfunctional behavior, and infects team dynamics and functioning. *Organ Dyn* 2015; 44: 258–265.
25. Arnsten AFT, Shanafelt T. Physician Distress and Burnout: The Neurobiological Perspective. *Mayo Clin Proc* 2021; 96: 763–769.
26. Shapiro J, Youm J, Kheriaty A, Pham T, Chen Y, Clayma R. The human kindness curriculum: An innovative preclinical initiative to highlight kindness and empathy in medicine. *Educ Health (Abingdon)*. 2019; 32: 53–61.
27. Gleichgerrcht E, Decety J. Empathy in clinical practice: How individual dispositions, gender, and experience moderate empathic concern, burnout, and emotional distress in physicians *PLoS One*. 2013; 8: e61526
28. Decety J, Smith KE, Norman GJ, Halpern J. A social neuroscience perspective on clinical empathy *World Psychiatry* 2014; 13: 233–237.
29. Tang W, Wu D, Yang F, Wang C, Gong W, Gray K, Tucker JD. How kindness can be contagious in healthcare. *Nat Med* 2021; 27: 1142–1144.

AMM Paper Accepted