

The Sensitiveness and Fulfillment of Psychological Needs: Medical, Health Care and Students

Zlatka Rakovec-Felser

University of Maribor, School of Medicine, Department for Health Psychology, Maribor, Slovenia

ABSTRACT

As health was defined as a state of complete physical, mental, and social well-being, and not merely an absence of disease or infirmity, the bio-psychosocial paradigm of health and illness attests that curing occurs when the science of medicine (the biomedical and pathos-physiological aspects of disease) and the art of medicine (the psychological, social, and interpersonal aspects of illness) merge into one unified holistic approach to patient care (Hojat, 2007). In this context the relationship between health care professionals and patients also become an indispensable tool in clinical situations to achieve better patient outcomes (Engel, 1990)². In our pilot study in year 2009 we try to verify how are the medical students and students of health care (University of Maribor, Faculty of Medicine and Faculty of Health Care) prepared for their sensitive professional relationship in their future. Testing together 211 students (N=157 women, N=57 men), we compared the level of emotional empathy, altruistic love, values, and behavior of 40 medical students, 118 students of health care and the group of 53 students of economics. Because of their professional choice, we expected that the medical and health care students would have higher empathy and altruism scores than the students of economics. Following the self-determination behavioral theory and its concept of autonomy support (Deci, Ryan, 2000)³, we anticipated also that the fulfilment of basic psychological needs could be important factor in everyday health care clinical practice. As the fulfilment of needs of autonomy, competence and relatedness could lead to increased autonomy supportive orientation in interactions with other subjects, and can be useful factor that prepare doctors or nurses for active participation in relationship with patients, we verified and compared the included groups also in this way.

Key words: interpersonal relationships in health care system, empathy, altruism, fulfilment of psychological needs

Introduction

The relationships between health care professionals and patients

Since ancient times, physicians have been aware of therapeutic qualities of the doctor-patient relationship. One of the first and most cited authors, who mentioned the relevance of the doctor-patient relationship, is Hippocrates (400 BC): »The patient, thought conscious that his condition is perilous, may recover his health simply through his contentment with the goodness of the physician«. About fifty years ago, Hungarian psychiatrist M. Balint (1955) reaffirmed the importance of doctor-patients interaction, asserting that by far the most frequently used and most effective drug in medical practice is the doctor himself.

A recent debate about »What is a good doctor« (Coulter, 2002; Hurwitz and Vass, 2002) shows that at the begin-

ning of the twenty-first century, the words of Hippocrates and Balint have lost remarkably little of their former appeal (Bensing & Verhaak, 2004). Summarizing all the research results, it seems that by applying adequate communication techniques, physicians and nurses can help patients to articulate their expectations, reveal the influence of previous experience with health care, disclose emotions such as anxieties and worries, and express their information needs, all of which seems to have important health benefits, directly, and/or indirectly, by enhancing patients' control and self-efficacy. However, it should be clear that the use of modern diagnostic and therapeutic medical technology and pharmaceutical products is possible as well as helpful only by the grace of appropriate communication.

The acknowledgement that patients are not objects of health care, but subjects who want to take an active part and who have their own needs and preferences, has led to

the emergence of a new paradigm in medicine: patient-centered medicine. Different authors have tried to define the concept of patient centeredness. N. Mead (2000) described its five distinct dimensions:

1. The bio-psycho-social perspective – a perspective on illness that includes consideration of social and psychological (as well as bio – medical) factors;
2. The patient-as-person – understanding the personal meaning of the illness for each individual patient;
3. Sharing power and responsibility – sensitivity to patients' preferences for information and shared decision-making and responding appropriately to these;
4. The therapeutic alliance – developing common therapeutic goals and enhancing the personal bond between doctor and patient;
5. The doctor-as-person – awareness of the influence of the personal qualities and subjectivity of the doctor on the practice of medicine;

Starting from a patient perspective, there appear to be two main questions of concern to patients who enter the consultation room: a cognitive one, »What is matter with me?«, and the emotional one, »Is this something to worry about?«¹.

The result is that when patients go to the doctor, they have two sorts of needs (Engel, 1987; Bensing, 1991; Bensing et al., 1996):

- A need to know and understand and
- A need to feel known and understood

The first need is a cognitive need and has to be addressed by the physician's instrumental, problem solving behavior (clarifying the reason for encounter, information exchange). The second need is an emotional need and has to be addressed by the physician's affective, supporting behavior (active listening, empathy, partnership-building). Instrumental behavior and affective behavior serve different functions in the medical consultation and have different aims. Instrumental behavior strengthening patient's problem-oriented coping and to enable self-management. The aim of affective behavior is providing emotional support and strengthening patient's emotional coping, necessary to deal with the situation and to give the disease a place in one's life (Bensing & Vehaak, 2007)¹.

And how in professional relationship to the patients' needs could respond a medical staff? Veloski and Hojat (2006) established that one of the most important elements of professionals' communication with the patients is undoubtedly their empathy².

Empathy

The term empathy has a long history and was first discussed in 1873 by Robert Vischer. Later it was defined in various ways. So George H. Mead (1934) described empathy as an element of social intelligence: »The capacity to take the role of another person and adopt alternative perspectives«. Blackman, Smith, Brokman, and Stern

(1958) defined empathy as an ability to step into another person's shoes and to step back as easily into one's own shoes again when needed. Hogan (1969) described empathy as »the intellectual or imaginative apprehension of another's condition or state of mind without actually experiencing that person's feelings«. On the other hand, empathy has also been defined as emotional arousal or sympathy in response to the feelings or experiences of others³.

Mehrabian and Epstein (1972) defined empathy as »the heightened responsiveness to another's emotional experience«⁴.

Heinz Kohut (1971) described empathy as »a mode of cognition that is specifically attuned to the perception of a complex psychological configuration«. Carl Rogers (1975), the founder of client-centered therapy, described the experience of empathy as entering into the private perceptual world of another person and becoming thoroughly at home in it. An integrative approach which employs both cognitive and emotional approaches to the study of empathy, where empathy has been conceived of as a multi-dimensional construct was made by Davis (1983) and Thornton (1995). They included cognitive and emotional components in his view of empathy, and they believe that empathy »can best be considered as a set of constructs, related in that they all concern responsively to others«³.

Buck and Ginsburg (1997) present a biologically based model that proposes that empathy is a spontaneous, communicative process fundamental to all living creatures and entails innate transmission and attendance to visual, auditory, and chemical displays. Empathic accuracy, or the ability to convey relational messages affectively, depends upon the individual's ability to engage in nonverbal behavior that sufficiently reflects his or her thoughts and feelings, and the ability of other interactions to observe this behavior and derive accurate judgments⁵. Planalp (1999) supposed that a second element of empathy relies upon emotional contagion – ability to feel with someone, to step into someone else's shoes. In this way, individuals are expected to perceive another's emotional state from that person's nonverbal behavior and summarily internalize the other person's position and feelings⁵.

Later Colman (2001) described empathy as a cognitive or an emotional attribute or a combination of both. Cognition is mental activities involved in acquiring and processing information for better understanding, and emotion is sharing of the affect manifested in subjectively experienced feelings (Hojat, 2007). In context of patient care empathy is predominantly cognitive attribute that involves an understanding of patient's experiences, concerns, and perspectives, combined with a capacity to communicate this understanding. In this context it is important to distinguish between cognition and emotion, between understanding and feeling, and between empathy and sympathy because of their effects in patient outcomes (Hojat, 2007).

It is precisely the capacity of empathy that in many ways determines quality of mutual collaboration improves feeling of contentment and trust among patients and empowers their cooperation in medical treatment, which at the end could influence a course as well as an outcome of

the treatment (Neuwirth, 1997; Kim, Kaplowitz, and Johnstone; 2004).

Empathy improves the quality of data acquired from the patients, it improves doctors' ability to diagnose and treat the patients, and it reduces the level of misunderstandings and complaints significantly. Comprehension and involvement of the empathy is an important topic in education of future doctors (Hojat et al., 2003). However, there are some studies that drawn our attention to the opposite trend – i.e. the level of empathy of medicine students may decrease during the educational process (Bellini and Shea, 2005; Chen et al., 2007). Understanding is also a key ingredient of empathic engagement in the physician – patient relationship (Levinson, 1994). Patients' perception of being understood, according to Suchman, Markakis, Beckman, and Frankel (1997), is intrinsically therapeutic because it helps to restore a sense of connectedness and support. Because being understood is a basic human need, the physician's understanding of the patient's physical, mental, and social needs is relevant to the fulfilment of a basic human need. A specific feature of understanding in the physician – patient relationship is the ability to stand in a patient's shoes without leaving one's own personal space and to view the world from the patient's perspective without losing sight of one's own personal role and professional responsibilities.

But, according to Carkhuff (1969) and Chessick (1992), the central curative aspect of clinical-patient relationships rests not only on the clinician's ability to understand the patient but also on his/her ability to communicate this understanding back to the patient. The requirement of mutual understanding and reciprocal feedback («I can understand why this problem is so difficult for you» or «This reminds me of the story of...») supports notion that the patient's recognition of the physician's empathy through the physician's verbal and nonverbal communication plays a significant role in patient outcomes³.

Altruism

The important component of interpersonal relationship is also altruism. It is special, unselfish form of offering help to the others without expecting any compensation. Coke, Batson and Mc Davis (1978) said that the ultimate goal of altruistically motivated helping behavior is to reduce another person's distress without any expectation of reward (whereas the primary goal in egoistically motivated helping behavior is to reduce one's own level of stress, to avoid adverse feelings, or to receive rewards³).

Altruism depends on personal and social factors and as it is connected with empathy – »the greater the empathic emotion, the greater the altruistic motivation« (Batson et al., 2002). A genuine attempt to understand the experiences of another person – or emphatic understanding – increases the likelihood of altruistic helping behavior. Although empathy can be a vital determinant of altruism, its influence is indirect. Empathy promotes altruism, when it does, mainly because empathy promotes sympathetic or other-regarding moral concerns. The influences

of sympathy and morality on altruism are also indirect. Sympathetic or moral concerns promote altruism, when they do, primarily because they lead to caring about the positive welfare of others (Batson et al., 1995).

Davis, Smith, and Marsden indicated that empathic feelings, altruistic-love sentiments, altruistic values, and helping behaviors in American society are all common (2002, 2004). Empathy is closely related to altruistic values, but both empathy and altruistic values are only moderately, positively associated with altruistic behaviors.

On gender's relationship to empathy the literature is very inconsistent (Chou, 1998; Giesbrecht, 1998; Gilligan and Attanucci, 1998; Piliavin and Charng, 1990; Davis, 1994; Post, et al., 2002) and altruism (Amato, 1990; Batson, 1998; Howard and Piliavin, 2000; Johnson, et al., 1989; Khanna, et al., 1992; Penner et al., 2005). Summary of research is that »sometimes men help more than women, sometimes women help more than men, and sometimes the sex of the helper makes no difference«. Expressions of altruistic love are greater among men, the less educated, those who are not divorced/separated or never married, rural residents, and nonBlacks. For the values scale, altruism is greater among women for all models.

Empathy rises with age, but perhaps falls among those older than 65. A similar pattern exists for altruistic values. Altruistic love however shows no drop-off among the elderly and basically increases across age groups. Both altruistic behavior scales show that helping declines with age. The decline among the elderly probably reflects less exposure to requests for assistance because of both less social interaction and because more are physically less able to render the needed help (e.g. giving blood, carrying articles, offering a seat).

Some research indicates that the better educated are more supportive of social-welfare policies and more likely to be volunteers (Berkowitz and Lutterman, 1968; Penner et al., 2005; Webb, 2000). Altruistic values increase with education. Altruistic love is higher among the less educated.

Altruistic love and altruistic values are greater in the more rural areas, but altruistic behavior tends to be greater in the largest central cities and least in the most rural areas. Altruistic values increase with income, but it is statistically significant only because of the lower altruism of those refusing to give their income. Altruistic love does not vary by income.

Regarding social engagement, empathy, altruistic love, and altruistic values have little relationship. For altruistic behaviors, helping generally declines as the level of socializing decreases⁶.

Basic psychological needs satisfaction

Focusing on the sensitiveness of helping professionals in health care system, concepts of needs and autonomy support (Deci and Ryan, 1987) as a part of self-determination theory (Deci and Ryan, 1985b; Ryan and Deci, 2000) can be also used as important factors that prepare doctors or nurses for active participation in relationship with patients.

Generally, the imbalance in relationship between professionals in health care system and patients characterizes the situation where one occupies the position of power (doctor, nurse, etc.), but on the other side, the second participant in contact (patient) is helpless therefore need support. Doctor/nurse can recognize and understand a perspective of a patient –their feelings, views, gives him information and choice and minimizes the employment of pressure and control. Starting from a patient perspective, in this case doctor or nurse can satisfy patient's psychological needs, which usually energize human activity and their satisfaction is essential for the healthy development and general well-being of all individuals regardless of culture⁷.

These are three basic psychological needs – autonomy, competence and relatedness. Autonomy is the psychological need to experience self-direction and personal endorsement in the initiation and regulation of one's behavior (Deci and Ryan, 1985b). Behavior is autonomous (or self-determined) when our interests, preferences, and wants guide our decision-making process and are not self-determining when some outside force takes our sense of choice away and, instead, pressures us to think, feel, or behave in particular ways (Deci, 1980).

Competence is the psychological need to be effective in interactions with the environment, and it reflects the desire to exercise one's capacities and skills and, in doing so, to seek out and master optimal challenges (Deci and Ryan, 1985b). When we make progress on developing our skills, we feel a strong need-satisfying sort of satisfaction.

Relatedness is the psychological need to establish close emotional bonds and attachments with other people, and it reflects the desire to be emotionally connected to and interpersonally involved in warm relationships (Baumeister and Lary, 1995; Fromm, 1956; Guisinger and Blatt, 1994; Ryan, 1991; Ryan and Powelson, 1991; Sullivan, 1953). What people are essentially looking for within need-satisfying relationships is the opportunity to relate the self authentically to another person in caring and emotionally meaningful way (Ryan, 1993)⁸.

Reis, Sheldon, Gable, Roscoe, and Ryan (2000) examined all three basic psychological needs and found that the experienced satisfaction of these three needs is directly related to psychological health and well-being. Baard, Deci, and Ryan (2000) found that satisfaction of all three needs is related to vitality and the inverse of anxiety and somatisation. In the workplace it is related to self-esteem and general health (Leone, Kasser, and Ryan, 1993)⁷.

A substantial body of research has confirmed the importance of autonomy support in promoting outcomes, it has been shown to influence need satisfaction. So Williams, Grow, Freedman, Ryan, and Deci (1996) found that morbidly obese patients' causality orientations predicted the adoption of more autonomous motivation for following a diet, which in turn was related to the amount of weight they lost. Williams, Freedman, and Deci (1998) found similar results for diabetic patients' glucose control.

It seems that positive effects of autonomy support relate also to better academic performance. So Williams and Deci (1996) found that supervisory autonomy support

helped medical students' development of psychological values and fostered autonomy supportive behavior toward patients⁹.

Both authors (1998) suggest that autonomy – supportive medical educators facilitate more humanistic health –care beliefs and behaviors and promote improved conceptual learning and psychological adjustment in their students. The increase in autonomy-supportive patient care that results from humanistic medical education leads to better health outcomes for patients with chronic or preventable illnesses. The motivating styles doctors or nurses use have strong implications for the subsequent motivation, engagement, development, learning, performance, and psychological well-being of patients¹⁰.

And what autonomy-supportive people say and do to motivate? At first, they listen carefully. They allow others time to talk, provide rationale answers, encourage efforts, praise progress, mastery, and ask others what they want to do, respond to the questions and acknowledge also the other's perspective (Williams, Gagne, Ryan, and Deci, 2002)⁹.

Methods and Materials

Working with the students of medicine and health care, we try to find the best way to group up generation of future doctors and nurses who will be able to communicate with patients and their relatives on way that both, they as professional and their clients on the other side, be as well as possible satisfied. It was our basic intention to plan a (pilot) study about their sensibility and satisfaction.

As we expected that some differences between three groups of students – medical, health care, and economics might occur, we were interested to verify them in their level of empathy, altruism and fulfilment of basic psychological needs. In year 2009 we conducted the pilot study, which covered together 211 students at University of Maribor, from Faculties of Medicine, Health Care Science and of Economics (157 women, 54 men). After testing 40 students of medicine (26 women, 14 men with mean age 21.4), 118 students of health care (104 women, 14 men with mean age 19.3), and 53 students of economics (27 women, 26 men with mean age 20.6), we compared their results. We anticipated some differences between these three groups of students, especially between those of medicine and health care study on the one and the group of economy students on the other side.

Testing all them first by age, gender, kind and level of study, we implemented then these measure instruments:

- Emotional Empathy Scale (EES) developed by D. R. Caruso and J. D. Mayer, 1998

It is multi-dimensional scale of emotional empathy consists of 6 sub-scales and 30 items and provides us general measure of emotional empathy.

A General Empathy scale, GE, consisting of the 26 items of the six factor scales (\bar{X} =3.53; SD =.60) as well as detailed in another 5 sub-scales. The first factor-based scale, Empathic Suffering, ES, consists of 8 items (\bar{X} =3.97;

SD=.71), where item 8 have the highest pattern/structure coefficient (»I get very upset when I see a young child who is being treated meanly«). The second factor-based scale, Positive Sharing, PS, included 5 items (\bar{X} =3.82; SD=.83) and among them item 22 has the highest pattern/structure coefficient (»Seeing other people smile makes me smile«). The third factor-based scale, Responsive Crying, RC, has only 3 items (\bar{X} =3.10; SD=1.16) and the item »I cry easily when watching a sad movie« has the highest pattern/structure coefficient. Factor scale four, Emotional Attention, EA, has 4 items (\bar{X} =3.68; SD=.90), with item 13, a reverse-scored item, loading highest: »I rarely take notice when people treat each other warmly«. Factor scale five, Feeling for Others, FO, has 3 items with pattern/structure coefficients of .45 or greater, and one with a pattern/structure coefficient of .43 which was included in the scale since its content was so similar to the other 3 items (\bar{X} =3.10; SD=.79). Item 10, »If someone is upset I get upset, too« had the highest loading on factor five⁴.

- Altruistic Love, Values and Behavior Scale (AL, V, B-S) developed by T. Smith, 2006.

Three aspects of altruism were examined: altruistic love, altruistic values and altruistic behaviors:

Four items measure interpersonal, altruistic love (»I would rather suffer myself than let the one I love suffer«). The agape scale runs from 4 for someone who strongly disagreed with each statement to 20 for someone who strongly agreed with each (\bar{X} =16.6).

Four items measure altruistic values (»The people should be willing to help the less fortunate«) runs from 4 for someone giving the least altruistic response to all items to 20 for the most altruistic (\bar{X} =14.2).

Altruistic Behaviors measure 2 altruistic behavior batteries (as: donated blood, done volunteer work to a charity, talked to depressed persons). The first consists of 11 items asked as part of the empathy and altruism study. These items were based on various baseline studies (Amato, 1990; Johnson, et al., 1989; Khanna, et al., 1992; Rushton, Chrisjohn, and Fekker, 1981a; 1981b; Smith, 2000). The second consists of a similar set of 4 items asked as part of the International Social Survey Program (ISSP) module on social networks (\bar{X} =114)⁶.

- Basic Psychological Need Satisfaction (BPN), developed by Deci and Ryan, 2000.

Scale based on self-determination theory and its concept of basic psychological needs that are assumed to be innate and universal. According to the theory, these needs – the needs for autonomy, competence and relatedness – must be ongoing satisfied for people to develop and function in healthy or optimal ways (Deci and Ryan, 2000). The Basic Need Satisfaction Scale addresses need satisfaction in general in one's life. It assesses the degree to which people feel satisfaction of these three needs. The scale has 21 items concerning the extent from 1 to 8 for all of three needs – 7 items for autonomy (»I feel like I am free to decide for myself how to live my life«), 8 item for competence (»I have been able to learn interesting new skills recently«), and 6 items for relatedness (»I consider

the people I regularly interact with to be my friends«). Five – point Likert scales were used for each statement⁷.

As descriptive statistics for demographic data and all included questionnaire scales were first computed, we conducted then three separate multivariate analyses of covariance (MANCOVAs) in order to examine the association between University program attendance and measures of emotional empathy, altruistic love, values, behavior and fulfilment of basic needs. Gender was included as a covariate as it has been shown to be a significant predictor of empathy and related psychological constructs (Hojat et al., 2002, Caruso and Mayer, 1998). MANCOVA analyses were followed-up by univariate analysis of covariance (ANCOVA) and post-hoc comparison of student groups attending different educational programs. Post-hoc analyses were corrected using the Bonferroni correction.

Results and Discussion

Descriptive analysis of the students' responses (Emotion Empathy Scale, Altruistic Love, Altruistic Value and Altruistic Behavior Scale and Basic Psychological Needs) is presented in the Tables 1 to 6.

In Table 1 we can see the average levels of General empathy scale and all their four components: Empathic suffering (»I feel good when I help someone out or do something nice for someone«), Positive sharing (»Seeing other people smile makes me smile«), Responsive crying (»I take notice when people treat each other warmly«), Emotional attention (»I take notice when people treat each other warmly«), and Feeling for others (»If someone is upset, I get upset, too«). Students' responses are represented in groups by gender and kind of study (Medicine, Health care, Economy). There we can find their mean values and its standard deviations – for all components of emotional empathy – and also for general empathy scale (\bar{X} =3.49; SD=.43). In general the results of our study are well comparable to the results of the sample of the US students (\bar{X}_{GES} =3.53, SD_{GES} =.60; \bar{X}_{ES} =3.97, SD_{ES} =.71; \bar{X}_{PS} =3.82, SD_{PS} =.83; \bar{X}_{RC} =3.10, SD_{RC} =1.16; \bar{X}_{EA} =3.68, SD_{EA} =.90; \bar{X}_{FO} =3.10, SD_{FO} =.79; Caruso and Mayer, 1998). Only in dimension Responsive crying our data are lower in all included groups of students (medicine, health care, economy). The differences are especially presented by male gender (»I take notice when people treat each other warmly« or »I cry easily when watching a sad movie« or »I cry at sad parts of books I read«).

Another analysis of our data shows significant differences in sex and kind of study. So MANCOVA results showed a significant multivariate effect of gender, Willk's λ =0.696, p <.001, η^2 =.304, but also of program attendance, Willk's λ =0.881, p =.012, η^2 =.061, too.

In Table 2 we can find that scores at all scales of the emotional empathy are higher in female students than these in male students. As many prior researchers mentioned higher emotional empathy among female persons, such findings were actually expected.

TABLE 1
MEANS AND STANDARD DEVIATIONS ON EMOTION EMPATHY SCALE FOR GENDERS AND GROUPS OF PARTICIPANTS

	Students of Medicine			Students of Health Care			Students of Economy		
	Fem. X̄/SD	Men X̄/SD	All X̄/SD	Fem. X̄/SD	Men X̄/SD	All X̄/SD	Fem. X̄/SD	Men X̄/SD	All X̄/SD
Emotional empathy (EE)									
General empathy scale	3.64 0.46	3.19 0.35	3.49 0.47	3.57 0.36	3.29 0.32	3.54 0.37	3.75 0.28	3.10 0.35	3.43 0.46
Empathic Suffering	3.96 0.50	3.70 0.41	3.87 0.48	4.06 0.49	3.87 0.57	4.03 0.50	4.16 0.54	3.62 0.60	3.89 0.63
Positive Sharing	3.98 0.60	3.90 0.56	3.95 0.58	4.20 0.62	4.05 0.74	4.18 0.63	4.04 0.59	3.58 0.61	3.81 0.64
Responsive Crying	3.22 0.94	1.88 0.58	2.73 1.06	3.02 0.82	2.30 0.82	2.93 0.85	3.42 0.66	2.03 0.65	2.74 0.95
Emotional Attention	3.94 0.62	3.53 0.64	3.80 0.65	3.60 0.61	3.68 0.42	3.61 0.59	3.86 0.60	3.44 0.54	3.65 0.61
Feeling for Others	3.14 0.71	2.85 0.67	3.04 0.70	2.96 0.59	2.48 0.66	2.90 0.62	3.13 0.49	2.56 0.54	2.85 0.59

X̄ – mean; SD – standard deviation

TABLE 2
MANCOVA RESULTS PREDICTING EES BASED ON PROGRAM ATTENDANCE AND GENDER

	F	df ₁	df ₂	p	h ²
Program attendance					
Empathic Suffering	0.75	2	211	.474	.007
Positive Sharing	3.42	2	211	.035	.032
Responsive Crying	0.73	2	211	.483	.007
Emotional Attention	0.33	2	211	.717	.003
Feeling for Others	2.26	2	211	.106	.022
Gender					
Empathic Suffering	13.37	1	211	<.001	.061
Positive Sharing	4.66	1	211	.032	.022
Responsive Crying	73.26	1	211	<.001	.263
Emotional Attention	5.93	1	211	.016	.028
Feeling for Others	18.46	1	211	<.001	.083

Table 3 presented empathy scores associated with the gender and the interaction of gender and program attendance. It is clearly that empathy is connected not only to the gender but also to interaction of gender and program attendance. Such results are also expected; they correspond to the previous research data (Caruso and Mayer, 1998).

As we can see, in general the included students are sensitive to other's emotional experience (»I get very upset when I see a young child who is being treated meanly«).

The highest level on the subscales Emotional Attention (»I take notice when people treat each other warmly«) and Feelings for others (»If someone is upset, I get upset, too«) has medical students, as we can see later, in Table 2 and 3, especially feminine gender. On the subscale Empathic Suffering (»I feel good when I help someone out or do something nice for someone«) and Positive Sharing (»Seeing other people smile makes me smile«) the values are the highest among the students of Health Care, also females.

TABLE 3
ANCOVA RESULTS PREDICTING GENERAL EMPATHY BASED ON PROGRAM ATTENDANCE AND GENDER

	F	df1	df2	p	h ²
Program attendance					
General empathy scale	0.02	2	211	.976	.000
Gender					
General empathy scale	54.24	1	211	<.001	.209
Interaction	0.04	2	211	.035	.032

TABLE 4
MEANS AND STANDARD DEVIATIONS ON THE ALTRUISTIC LOVE, VALUES AND BEHAVIOR SCALE FOR GENDERS AND GROUPS OF PARTICIPANTS

	Students of Medicine			Students of Health Care			Students of Economy		
	Fem. X/SD	Men X/SD	All X/SD	Fem. X/SD	Men X/SD	All X/SD	Fem. X/SD	Men X/SD	All X/SD
Altruism									
Altruistic love (AL)	15.44 2.97	14.14 3.53	14.97 3.20	13.89 4.21	11.85 5.08	13.65 4.35	14.40 4.15	13.57 3.71	14.00 3.93
Altruistic values (AV)	14.56 2.84	15.43 2.65	14.87 2.77	13.09 2.99	13.00 2.63	13.08 2.94	13.30 3.16	12.84 2.49	13.07 2.83
Altruistic behavior (AB)	74.80 58.20	75.14 48.96	74.92 54.40	93.92 60.98	90.42 54.14	93.50 59.99	87.55 72.73	70.88 68.67	79.38 70.59

X – mean; SD – standard deviation

TABLE 5
MANCOVA RESULTS PREDICTING ALTRUISTIC BEHAVIOR, VALUES AND LOVE SUBSCALES BASED ON GENDER AND PROGRAM ATTENDANCE

	F	df ₁	df ₂	p	h ²
Program attendance					
Altruistic love	2.37	2	209	.096	.023
Altruistic values	2.37	2	209	.003	.055
Altruistic behavior	0.93	2	209	.395	.009
Gender					
Altruistic love	4.06	1	209	.045	.020
Altruistic values	0.04	1	209	.836	<.001
Altruistic behavior	0.38	1	209	.539	.002

The further review of subscales shows a general tendency to be weaker, moved by others' negative emotional expressiveness and don't easily respond to it by crying (subscale Responsive Crying, »I cry easily when watching a sad movie« or »I cry at sad parts of books I read«), but they are more sensitive to greater moved by others' positive emotional reactions as we can see in the subscale Positive Sharing (»Seeing other people smile makes me

smile« or »It makes me happy when I see people being nice to each other«).

In Table 4 they are presented the responds on the altruistic love, values and behavior. As we can see the health care students are especially ready to help others, more than students of medicine and economics. Both groups, medical and economical students have not significant lower scores of Altruistic Love and Altruistic values (»Peo-

TABLE 6
MEANS AND STANDARD DEVIATIONS ON THE BASIC PSYCHOLOGICAL NEEDS SCALE FOR GENDERS AND GROUPS OF PARTICIPANTS

	Students of Medicine			Students of Health Care			Students of Economy		
	Fem. X̄/SD	Men X̄/SD	All X̄/SD	Fem. X̄/SD	Men X̄/SD	All X̄/SD	Fem. X̄/SD	Men X̄/SD	All X̄/SD
Basic psychological needs (BPNS)									
Autonomy	4.76 0.65	4.80 0.64	4.78 0.64	4.89 0.76	5.14 0.79	4.92 0.77	5.02 0.68	4.95 0.62	4.99 0.65
Competence	5.21 0.98	5.01 0.63	5.14 0.87	5.14 0.83	5.26 0.74	5.16 0.82	5.14 0.93	4.92 0.96	5.03 0.95
Relatedness	5.80 0.75	5.77 0.89	5.79 0.79	5.84 0.70	5.78 0.78	5.83 0.71	6.03 0.55	5.47 0.83	5.76 0.75

X̄ – mean; SD – standard deviation

ple should be willing to help others who are less fortunate», but in everyday situations are as it seems not so ready to be altruistic as the students that have choice profession of health care.

As we can see in table 5, in altruism as general we did not found significant differences between male and female students.

As we can see in Table 6 the average level of fulfilment of autonomy needs (»I feel like I am free to decide for myself how to live my life« or »I feel pressured in my life«) is $\bar{X}_{AN}=4.90$, $SD_{AN}=0.69$ and is comparable with others' research results ($\bar{X}_{AN}=5.00$, $SD_{AN}=0.80$; Gagne, 2003; social science $\bar{X}_{AN}=3.43$, humanities $\bar{X}_{AN}=3.83$, natural sciences $\bar{X}_{AN}=2.97$, Filak, Sheldon, 2003¹¹).

The average values for fulfilment of competence needs (»Often, I do not feel very competent«, or »I have been able to learn interesting new skills recently«) is $\bar{X}_C=5.11$, $SD_C=0.88$ ($\bar{X}_C=4.97$, $SD_C=0.93$, Gagne, 2003; social science $\bar{X}_C=3.66$, humanities $\bar{X}_C=3.61$, natural sciences $\bar{X}_C=3.63$, Filak, Sheldon, 2003¹¹). The mean of the fulfilment of relatedness needs (»I really like the people I interact with«, or »I consider the people I regularly interact with to be my friends« or »People in my life care about me«) is $\bar{X}_R=5.79$; $SD_R=0.75$ ($\bar{X}_R=5.60$, $SD_R=1.20$, Gagne, 2003; social science $\bar{X}_R=3.99$, humanities $\bar{X}_R=4.22$, natural sciences $\bar{X}_R=3.54$, Filak, Sheldon, 2003¹¹).

Conclusions

As we have expected some differences between groups of the students have been appeared.

Emotional empathy is higher in female students and is higher in students of medicine and health care than in students of economy. But differences are presented also between medical students and those of health care. So medical students, especially feminine gender have the highest level on the subscales Emotional Attention (»I take notice when people treat each other warmly«) and Feelings

for Others (»If someone is upset, I get upset, too«), but students of health care, also female have higher Empathic Suffering (»I feel good when I help someone out or do something nice for someone«) and Positive Sharing (»Seeing other people smile makes me smile«). It is interesting that both, medical and students of health care show a general tendency to be less sensitive to others' negative then by others' positive emotional reactions (»Seeing other people smile, makes me smile«).

The differences are also presented in altruism. In comparison with health care students have both medical, and economy students lower scores of altruistic helping behavior (donating blood, looking after other's complaints, mail, or pets while they are away, doing volunteer work for a charity, talking to a depressed person) but their scores of Altruistic love (»I would rather suffer myself than let the one I love suffer«) and Altruistic values (»People should be willing to help others who are less fortunate«) are not significant lower. It seems they keep in interpersonal relationships greater distance, keep more energy and free time to own selves in the contrast to the health care students, who are leading, as it was expected in altruistic helping behavior. As we supposed that the health care students are especially ready to help others, more than students of medicine and economics, the results of this research actually confirmed such expectation.

In this context it is interesting to add that Smith found (2006) higher level of altruistic love among men, the less educated, rural residents, those rated as cooperative, which pray more are more religious and in other case, the altruistic values, they are usually greater among women, older adults, college educated. In case of altruistic acts and their differences, as mean Smith further interpretations are better to avoid because, altruistic behaviors are in general too many times influenced by situational and contextual factors. So such, good deeds often depends on opportunity to act occurring (being asked for directions, being asked to help someone, etc.) and are also dependent on specific circumstances as the time pressures, the pres-

ence or absence of others are, etc. Finally, the higher results in altruistic behavior in health care students could be also reflection of their necessity to present own person from the best side.

In our study the values for all three psychological needs – autonomy, competence, and relatedness are comparable with others' research results and show differences neither between male and female students nor between students and their kind of study. It means that with others our sample of students has comparable level of sense of self, self-actualization, and self-esteem, as also comparable level of feeling to be effective in interactions with the environment and to be connected to other persons, to be loved and cared for. From this standpoint, especially when we take in account Filak's and Sheldon's research results where students of natural sciences have much lower level of autonomy satisfaction ($\bar{X}_{AL}=2.97$), competence feelings ($\bar{X}_C=3.63$), and relatedness feelings ($\bar{X}_R=3.54$), our students could have the best possibility for healthy personal development and to be supportive in the future communication with other people. However, we can not be uncritical and completely exclude the opportunity that such results can be also social acceptable self-reports, reflect necessity of presenting own person from the best side, weaker self-introspection or perhaps even the more defensive, suppression self-protective mechanism.

But at the end it remains also the question if the emotional expression of empathy could be the only criterion for the evaluation of medical and health care students' ability to communicate in the perspective to patients. When we take that cognition and emotion in account, although seemingly related, have different qualities, independent of their joint appearance and that in context of patient care distinction between cognition and emotion must be made because of their different implications regarding patient outcomes («a need to know and understand» and «a need to feel known and understood»), our future study would be better conceived if it included both, emotional and cognitive empathy's components.

So for example Farber and his associates (1997) reported that although medicine is a profession characterized by caring and empathy, it is also has been characterized throughout history as aspiring to objective detachment. But this is possible only when emotional involvement in physician-patient encounters is restrained. Similarly, Blumgart (1964), Gladstein (1977), Wispe (1986), and Spiro (1992) mean that it is difficult to be highly emotional and objective at the same time because excessive emotion in patient care can interfere with the principle of objectivity when making diagnostic decisions and choosing treatments. Brody (1997) thought that the real danger to the physician's effectiveness lies just in his/her emotional over-involvement with the patient. Maintaining an affective distance to avoid overwhelming with emotions makes the physician's clinical judgment more objective, but cognitive overindulgence can always lead to a more accurate judgement, says Koenig (2002), too.

But there is also another reason not to consider only emotional empathy. An affective distance between a physician and patient is desirable not only to avoid an intense emotional involvement, which can endanger the principle of clinical neutrality, but also as factor of maintaining the physician's personal durability, means Jensens (1994). The same opinion has Ayra (1993), who suggested that physicians' dissociation from patients' emotions can also help him/her to retain their own mental balance. Finally, in this context we must not forget the phenomenon of professional burnout. Even, in health care system the phenomenon, defined by Maslach and Jackson (1986) as syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment that occur in occupational groups where professionals deal the problems with other people, it is very important to take it into account. In many cases, burnout stems from nature of job, from the occupational and organisational work characteristics, but today we know that reasons are also on individual level. Several of individual characteristics have been found to be related to burnout and among them also age, professional expectations, locus of control, and stage of emotional intimacy (younger persons, with higher, unrealistic expectation, an external locus of control, those who show an increased desire to affiliation with others, and to have a lower emotional distance also by helping others, have usually higher rate of burnout)¹².

At this point of view the educational program for enhancing the empathy of the future doctors and nurses must be careful conceived. When we ask for opportunity to stimulate their empathy, it will be better when our research will be based on holistic view of empathy and mainly its cognitive component will be tested.

In the case when we according to self-determination theory, tested satisfaction ratings of three basic psychological needs (autonomy, competence, relatedness), we determined students' psychological wellbeing, functioning and performance – because an individual is best off when all three are present, and worst off with none present. Usually a person with lack of satisfaction tends to focus on efforts of getting the needs satisfied, but it is not same in person with frustrated psychological needs. He/she may be more readily to make the accommodations that lessen his/her attempts to satisfy needs. Thwarting of psychological needs can promote the development of defenses and need substitutes that may, over time, lead to further thwarting of need satisfaction. Defensive adaptations will have significant negative consequences for individuals' vitality, integrity, and health. In the educational programs of the future doctors and nurses, in the process of promoting their sensibility for others, and also for themselves, it is very important to stimulate also their needs of autonomy, competence, and relatedness. For future doctors and nurses and their future contacts with patients and their close relatives it is significance to grow up into satisfied and therefore to the world opened persons.

REFERENCES

1. BENSING JM, VEHAACK PFM, Communication in medical encounters. In: KAPTEIN A AND WEIMAN J (Eds), Health Psychology (The British Psychological Society and Blackwell Publishing, Oxford, 2007). — 2. VELOSKI JJ, HOJAT M, Measuring specific elements of professionalism. Empathy, teamwork and life learning. In STERN DT (Eds), Measurement of Professionalism in Medicine (Oxford University Press, Oxford, 2006). — 3. HOJAT M, Empathy in Patient Care, Antecedents, Development, Measurement, and Outcomes (New York: Springer Science + Business Media, New York, 2007). — 4. CARUSO DR, MAYER JD, A Measure of Emotional Empathy for Adolescents and Adults (Unpublished Manuscript, University of New Hampshire, 1998). — 5. DALY JA, (2002). Personality and Interpersonal Communication. In KNAPP ML, DALY JA (Eds), Handbook of Interpersonal Communication (Sage Publications, London, 2002). — 6. SMITH TW, Altruism and Empathy in America: Trends and Correlates (National Opinion Research Center, University of Chicago, Chicago, 2006). — 7. DECI EL, RYAN RM, Psychol Inq, 11 (2000) 227. — 8. REEVE JM, Understanding Motivation and Emotion (John Wiley and Sons, Inc., New York, 2009). — 9. GAGNE M, Motiv Emotion, 27 (2003) 199. — 10. WILLIAMS GC, DECI EL, Ann Intern Med, 129 (1998) 303. — 11. FILAK V, SHELDON KM, Educ Psychol, 23 (2003) 235. — 12. RAKOVEC-FELSER Z, Coll Antropol, 35 (2011) 577.

Z. Rakovec-Felser

University of Maribor, School of Medicine, Department for Health Psychology, Taborska ulica 8, 2000 Maribor, Slovenia

e-mail: zlatka.rakovec-felser@triera.net

SENZIBILITET I ISPUNJENJE OSNOVNIH PSIHOLOŠKIH POTREBA KOD STUDENATA MEDICINE I ZDRAVSTVENE ZAŠTITE

SAŽETAK

Budući da zdravlje nije samo odsutnost bolesti, nego je definirano kao stanje potpunog tjelesnog, duševnog i socijalnog blagostanja, bio-psihosocijalna paradigma zdravlja i bolesti, koja objedinjuje medicinu kao znanost (bio-medicinski i pato-fiziološki aspekti bolesti) i medicinu kao umijeće (psihološki, društveni i međuljudski aspekti bolesti) omogućava holistički tretman bolesnika (Hojat, 2007). U tom kontekstu, međusobni odnos i komunikacija između zdravstvenog osoblja i pacijenata postaje važan faktor u procesu liječenja pacijenta (Engel, 1990). To je bio povod za provjeru koliko su studenti medicine i zdravstvene zaštite (Medicinski fakultet i Fakultet za zdravlje Sveučilišta u Mariboru) spremni za rad s pacijentima i njihovim obiteljima. Testirali smo ukupno 211 studenata, od toga 157 žena i 57 muškaraca, prosječne starosti od 19,3 godine. Provjerili smo razinu emocionalne empatije, altruističkih emocija, altruističkih vrijednosti i altruističkog ponašanja među 40 studenata medicine, 118 studenata zdravstvene zaštite i radi usporedbe sa njima isto tako i kod 53 studenata ekonomije. Očekivali smo da će studenti medicine i zdravstvene zaštite imati višu razinu empatije i altruizma od studenata ekonomije. S obzirom na bihevioralnu teoriju samo-determinacije (Deci, Ryan, 2000), pretpostavili smo da je ispunjenje osnovnih psiholoških potreba među medicinskim osobljem važan čimbenik u njihovom svakodnevnom kliničkom radu s bolesnim osobama. S obzirom na činjenicu, da ispunjenje vlastite potrebe po autonomiji, kompetenciji i međusobnoj povezanosti može kod pojedinca dovesti do povećanog senzibiliteta za isto takve potrebe i kod drugih osoba, smatrali smo da kod zdravstvenog osoblja to može poboljšati sposobnost empatijskog aktivnog slušanja pacijenata, a kod njih podići stupanj adherencije u odnosu na režim liječenja.