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Relationship between Optimism-Pessimism, Learning Style and Teaching Style among Medical Students

Abstract

Each person is born with a certain ability towards particular learning styles, which demonstrates that people learn in different ways. Styles influence the way students learn, the way teachers teach, and the way they interact. Thus, the main aim of our paper was to introduce the relationship between optimism-pessimism and teaching and learning styles among medical students. The Grasha-Reichmann Student Learning Styles Scale (GR-SLSS), Grasha's Teaching Style Inventory (TSI) and Children's Attributional Style Questionnaire (CASQ) were administered to a sample of 160 medical university students. The results demonstrated that among the teaching styles, facilitator, delegator and expert were the teaching styles most preferred by students. Based on the results, the dominant learning style of students in general was the collaborative, competitive and participatory style. At the same time, there was a significant positive relationship between optimism and student-centered teaching styles (facilitator and delegator), while pessimism was highly correlated with teacher-centered styles (expert, formal authority and personal model). Also, we found a significant positive relationship between optimism and the collaborative, competitive, independent and participatory learning style. On the other hand, pessimistic students tend to choose the dependent and avoidant learning style. More than half of male and female students preferred the collaborative, competitive and participatory learning style and the delegator, facilitator and expert teaching style. Overall, the research findings have successfully shown the relationship between a learning style, a teaching style and optimism-pessimism among medical students. The learning and teaching style together with the dichotomy optimism-pessimism are a significant factor for the teaching-learning process.

Keywords: optimism-pessimism, learning style, teaching style, students, management

Introduction

The world young people live in today is different from the one where their parents grew up (Heibert, 2002). Heibert suggests that we, as a society, are only beginning to identify and understand the nature of this change. Listening to the needs and wants of young people enabled the society to provide "tools" that are necessary for them to survive and succeed. Today higher institutions are shifting from their sole objective of transfer and absorption of knowledge and academic achievement towards a more inclusive focus on the development of the whole individual. Fullarton (2002) describes this as being a shift from a focus on what is learned to a focus on what it takes to develop the learner.

Each person is born with a certain ability towards particular learning styles, which demonstrates that people learn in different ways. Styles influence on the way students learn, the way teachers teach, and the way they interact.

According to Efiong (2005, in Caraballe, 2015), it is believed that young people all over the world have their own individual variations in the modes of perceiving, remembering, and thinking and the ways of taking on, storing, transforming, and solving problems. They also have varied ways of learning.

Just as students have individual learning styles, teachers have preferred teaching styles that work best for them. Gaining knowledge on students' learning styles can be very helpful for both teachers and learners.

Affective issues play a central role in the process of learning and teaching (Demetriou et al., 2009). When pessimistic students encounter negative events, they are likely to exhibit a constellation of helpless behaviors including cognitive deficits, passivity, sadness, lowered self-esteem, assertiveness and competitiveness (Chang et al., 2003). On the other side, optimism is believed to be associated with positive learning or teaching styles.

Definition and classification of a learning style

In order to apply a learning styles theory of medical learning and teaching we have to know what a learning style is. A learning style takes place when a change of a learner's behavior resulting from what has been experienced is observed. Therefore, students' characteristic learning style is an indicator of how a student learns and likes to learn. Additionally, learning styles refer to how students process, focus and make information meaningful, and gain new information in order to translate it into building new skills (Dunn & Griggs, 2000).

Among Grasha's initial findings, most university medical students had developed abstract thinking or independent abilities (Grasha, 2002). Subsequently, his studies showed that the students' preferences are a product of their previous experiences and that the adaptation of their learning styles is in accordance with the way the professor structures and the classmates communicate between them.

Learning style was defined by Grasha (2002, p. 127) as "personal qualities that influence a student's ability to acquire information, to interact with peers and the teacher, and to participate in learning experiences". He proposes a learning styles classification based on three categories of analysis: students' attitudes toward learning; perception of classmates and professors; and reaction to teaching styles in class. From this categorization the following learning styles are defined and explained, because they will be covered in the research part.

Competitive style: Students compete with other peers and prefer teacher-centered classroom with activities.

Collaborative style: These students tend to share knowledge and are cooperative with peers and professors.

Avoidant style: This group of students is not willing to cooperate with teachers and other students.

Participatory style: These students are interested in participating in activities and prefer the lectures and discussion.

Dependent style: They would prefer to work alone, especially in topics they are highly interested in, and would tend to get clear and unambiguous instruction.

Independent style: Students think independently, they participate in independent projects and tend to determine their goals and learning process.

Teaching styles

Every person has particular distinctive styles of thinking, preferences and ways of doing things which influence their behavior. In an educational environment, teachers' personal qualities and the attitudes that they employ in their teaching refer to their teaching styles.

According to Jarvis (2004, p. 40), a teaching style "includes the implementation of philosophy; it contains evidence of beliefs about values related to and attributes toward all elements of the teaching-learning exchange". In Grasha's view (1996), a teaching style is the consistent behavior of teachers in their relationships with their students. In the same line of inquiry, Grasha identified typical orientations and categories teachers use in their classes: expert, formal authority, personal model, facilitator and delegator. Teachers with an expert teaching style have the knowledge that students need and are concerned with transmitting correct information to students. Teachers with a formal authority style are considered an expert in their field of study. Being the center of the class, they emphasize an acceptable standard, provide positive and negative feedback, establish learning goals for students, and supervise students with critical views towards standard practices and procedures. Teachers with a personal teaching style consider themselves models for their students and students are expected to emulate their approaches. On the other hand, teachers with a facilitator style focus on student-teacher interaction. Teachers attempt to encourage their students to make informed decisions. Delegator teachers are characterized as resourceful persons who are available at the request of students. Fostering autonomy in learners is of primary importance for the delegator teaching style (Kazemi & Soleimani, 2013).

Optimism and pessimism

There are no universally agreed definitions of dispositional optimism and pessimism. However, researchers have often related definitions that involve biases in generalized positive and negative expectations for future events. Optimism has been defined as a tendency to expect positive outcomes or the belief that positive events will prevail over negative ones, while pessimism has been defined as a failure expectancy or an anticipation of bad outcomes (Kassinove & Sukhodolosky, 1995).

Positive or negative emotions, such as optimism and pessimism, penetrated into every aspect of the teaching and learning process, thus, an understanding of the nature of emotions within a school or a university context is of great importance. According to cognitive and social psychologists, optimism and pessimism affect and shape students' cognitions (Sutton & Whearley, 2003). Positive emotions and feelings make the student's perception of self-efficacy better and make them ready to deal with life and educational problems. Negative emotions and pessimism are negatively related to learning and teaching styles. Thus, the main aim of our paper was to introduce the relationship between optimism-pessimism and teaching and learning styles among medical students.

Research methods

Participants

The analysis was conducted through a correlation study including a population of 160 medical university students who enrolled in a learning theory and practice course at the Faculty of Medical Science in Tetova. The population consisted of 80 girls (50%) and 80 boys (50%), with an average age of 20.32 years, within the range from 19 to 22 years of age, and a standard deviation of 2.46.

Instruments

Children's Attributional Style Questionnaire-Revised (CASQ-R)

The scale revised by Kasiow and Nolen-Hoeksema (1991) was developed by the participants. The CASQ-R includes 48 items, half addressing positive outcomes and half addressing negative outcomes. It is a two-point Likert-type scale. The minimum and maximum scores for each domain were 24 and 48, respectively, with an overall score ranging from 48 to 96. Cronbach's Alpha for the 46 of 48 items were .756, which represents a good correlation between items.

Grasha-Reichmann Student Learning Styles Scale Inventory (GR-SLSSI)

Grasha-Reichmann Student Learning Styles Scale Inventory (Grasha & Reichmann, 1975) is a self-report Likert-type test of 60 items, with five answer options from 1 to 5. The 60 items are classified into six categories, ten in each category in order to assess the competitive, collaborative, participatory, dependent, avoidant and independent learning style. Cronbach's Alpha for the 57 of 60 items were .832, which represents a good correlation between items.

Grasha's Teaching Style Inventory (TSI)

Grasha's Teaching Style Inventory (1996) includes 40 items on a 7-point Likert-type scale ranging from strongly disagree to strongly agree. The participants are supposed to respond to each of the items in terms of how the teachers teach. Each 8 items identify one of the basic teaching styles defined by Grasha regarding the expert, formal authority, personal model, facilitator and delegator teaching style. Cronbach's Alpha for the 37 of 40 items were .784, which represents a good correlation between items.

Data procedure and data analysis

Tests were administered by the researchers during the winter semester of the academic year of 2019-2020. They were applied to the students in a classroom setting, with the permission of the researchers. The duration of the time for answering the scale was 50 minutes. Statistical analysis of the results obtained in the study was conducted with SPSS 20.0 for the Windows package program.

Results

The percentage and frequency of each teaching style subscales were calculated. The highest percentage is related to the facilitator style (33.75%). The delegator style (26.85%) had the second highest percentage among the other teaching styles. The three other styles have lower percentages as follows: expert (23.78%), formal authority (11.25%) and personal style (4.37%).

Among the six domains of learning styles, collaborative (35.00%), competitive (30.05%) and participatory (15.00%) are the most dominant learning styles among students. The other learning styles have lower percentages: dependent (11.85%), independent (4.35%) and avoidant (3.75%).

The results indicated that there was a positive and a significant relationship between optimism and facilitator (r=.421, p<.01), delegator (r=.364, p<.01) and expert (r=.204, p<.05), but negative correlation between optimism and formal authority (r=.214, p>.05) and personal style (r=.412, p>.05). Also there was a strong negative relationship between pessimism and facilitator (r=.463, p>.01), and delegator (r=.456, p>.01), but positive correlation between pessimism and expert (r=.603, p<.05), formal authority (r=.406, p<.05) and personal style (r=.417, p<.05).

Regarding the relationships between optimism and learning style subscales, the following results are presented: optimism and collaborative (r=.506, p<.01), competitive (r=.706, p<.01), participatory (r=.604, p<.05), independent (r=.407, p<.05), dependent (r=.452, p>.01) and avoidant model (r=.431, p>.05). There are strong negative relationships between pessimism and collaborative (r=.421, p>.01), competitive (r=.585, p>.01), independent (r=.515, p>.05) and participatory model (r=.797, p>.01), but a positive relationship between pessimism and dependent (r=.604, p<.05) and avoidant model (r=.431, p<.05).

In our study, we observed that there were significant differences between the score of optimism and pessimism among the girls and the boys. The girls had higher scores of pessimism (M=33.14, SD=6.12), and optimism (M=33.14, SD=6.12), while the boys had lower scores of pessimism (M=21.12, SD=4.34), and optimism (M=24.16, SD=4.08). There was a positive relationship between the level of optimism, pessimism and gender ($F_{159,1}$=32.16, sig=.008, p<.01). Also, the results showed that there was a positive correlation between gender and collaborative, competitive and participatory learning style, but a negative correlation between gender and dependent, avoidant and independent style. At the same time the results confirmed that there was a positive relationship between gender and facilitator, delegator and expert teaching style, but negative correlation between gender, formal authority and personal model.

Discussion

In this study the results demonstrated that of all teaching styles, facilitator, delegator and expert were the most preferred teaching styles among students. The obtained results are similar to the results obtained by other researchers (Ahmed, 2013). Teachers who have a facilitator model teaching style tend to focus on activities in the classroom. This finding further explains that most teacher respondents emphasize student-centered learning and their overall goal is to help students develop independent action, initiative and responsibility (Eken, 2000). The teachers with delegator and expert style are also concerned with developing the students' autonomous and independent learning.

Based on the results, the dominant learning styles of students in general were collaborative, competitive and participatory style. Attending class activities and a competition for the best student are generally accepted and favored in our society. Furthermore, the results showed that positive emotions such as optimism were highly correlated with student-centered styles (facilitator and delegator), while pessimism was highly correlated with teacher-centered styles (expert, formal authority and personal model). It can be concluded that teachers with facilitator and delegator styles are more flexible and adaptive to regulate negative emotional

experiences in order to provide a non-threatening learning environment for the learners.

In addition, the results demonstrated that the dominant learning style of optimistic students is the collaborative, competitive, independent and participatory style, while the pessimistic students tend to choose the dependent and avoidant learning style. Students who have developed pessimistic cognitive frameworks did not participate in the activities and tend to be anonymous. Therefore, it can be concluded that students with positive emotions express the need of flexibility within the classroom (Osborne & Ireland, 2000).

In our study we found that girls had higher level of optimism and pessimism than boys. Existing literature reveals the same information about these parameters in female students (Miller et al., 2001). One of the reasons for the increasing levels of optimism-pessimism of female students may be due to the biological and psychological differences between boys and girls. More than half of the students preferred the collaborative, competitive and participatory learning style, and the delegator, facilitator and expert teaching style.

Conclusion

Overall, the research findings have successfully shown the relationship between a learning style, a teaching style and emotions among medical students. Understanding student's unique learning style preferences and instructional needs can assist teachers in developing a more favorable view of all students' abilities and stimulate the development and implementation of differential instructional practices and the provision of intention and personalized intervention.

Gender plays an important role in influencing students' emotions towards learning, and it was found that female students feel more optimistic and enjoy learning when they were competing with peers. Therefore, there is only a little or no difference between favorable teaching styles that both genders almost feel the same in regard to the way professors delivered their lessons. Students also prefer the teaching styles that include two-way communication and are likely to engage in learning when teachers suggest them the outcomes of some tasks.

From our study we can conclude that there is need to adapt the medical curriculum and the teaching practice in a flexible manner so that students with different learning backgrounds and styles will be able to overcome difficulties during the learning process. Nevertheless, this research only involved medical students from the first year of studies at the University of Tetova. Thus, future researchers are advised to do the research on a large scale of respondents, to involve several universities and extend the scope of the area.

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