

## Investigating Perfectionism in Medicine and Architecture Majors

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### **Abstract**

The study aimed to analyze and compare perfectionism in medicine and architecture students at Tehran University. The research method is a descriptive one in which the participants are evaluated using the Multidimensional Perfectionism Scale (Hewitt and Flett, 1991). The population to be investigated in the present study was all the medicine and architecture students at Tehran universities in the academic year or 2013-2014. Sampling was done using clustering sampling based on which Tehran University and Shahid-Beheshti University were selected. Then through random sampling, 60 medicine and architecture students (male and female) were selected. The subjects took Hill et al.'s (2004) perfectionism questionnaire and a demographic questionnaire. Data were analyzed using descriptive statistics and independent-sample t-test. Findings show that there is a significant difference between medicine majors' and architecture majors' perfectionism. The implication of the present research is for teachers to plan on medicine majors' perfectionism and intervention approaches and techniques

**Keywords:** perfectionism, medicine majors, architecture majors

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## I. INTRODUCTION

Human beings always wish to do all their tasks and duties perfectly and flawlessly. One aspect of culture which is being taught to children by their parents is to put all their efforts in doing their tasks flawlessly (Shahbazirad & Haghghi-Kermanshahi, 2012). Basically, tendency towards perfectionism is an inherent feature in human beings and is viewed as a positive trait because it creates an energy in human beings that renders individual achievement and success. Artists' *persistence* and *perseverance* in creating their works of art originates from their perfectionism. But the process of achieving perfection is not progressive in all human beings. Perfectionism is said to be of advantage and positive as long as it is used to activate all the potentials and abilities of a person. On the other hand, when perfectionism is particularly

directed at competing and outdoing others so as to obtain other people's approval and consent for doing a task, it is viewed as a negative or abnormal perfectionism (Kobori & Tanno, 2005).

Perfectionism is the state of on-going trial to be perfect and to fix probable flaws. And perfectionists are people who want to be perfect in all aspects of their lives and who are characterized to put increasing efforts in being perfect and setting extreme or very high standards for themselves. Also, they continuously show a tendency for critical evaluation of their behavior (Stoeber & Yang, 2010).

There has been no formal, consensual definition of perfectionism and researchers have used a variety of definitions for perfectionism (Clark & Coker, 2009). Although increasing attention to this construct has resulted in its understanding, but new researchers are facing many varied definitions in this regard that may lead to their confusion. Thus, it is quite essential to define perfectionism from the viewpoints of the researchers in the field.

Perfectionism is a personality trait characterized by striving for flawlessness and setting excessively high personal standards for performance, accompanied by tendencies toward overly critical evaluations of one's behavior (Hewitt & Flett, 2002). They believe that perfectionism is reinforced through the cycle of irrational thoughts and behaviors. Perfectionists set excessively high personal standards of performance and then strive to achieve them or sometimes avoid them when they feel they may fail to succeed. If the perfectionist avoids or delays doing his tasks, or when he fails to achieve his goals, he responds to this failure with self-criticism. Yet, his perfectionistic views will last since achieving positive results and goals is a positive reinforcement for the perfectionist's irrational thoughts and standards. Albert Ellis was the first cognitivists who described perfectionism. He considered perfectionism as one of the twelve irrational beliefs that lead to psychological distress. Ellis describes perfectionism as "The idea that one should be thoroughly competent, adequate, intelligent and achieving in all possible respects instead of the idea that one should do rather than desperately try to do well and that one should accept oneself as an imperfect creature, who has general human limitations and specific fallibilities" (Ellis, 1958). Ellis (1962) believes that the irrational beliefs are based on the idea that there is a right, precise, and perfect solution to all problems and that it is catastrophic if this perfect solution is not found. Historically, the concept of perfectionism as a psychological and personal concept has been attended to by a large number of psychologists like Freud (1926), Adler (1956) and Horney (1939). However, it was forgotten for a long time. But in the last two decades of the twentieth century, psychologists began to attend to perfectionism and its traumatic role.

Freud (1959 cited in Schultz, 1977), taking into account the traumatic role of perfectionism, has defined perfectionism as a person's consistent tendency to strive to achieve excessively high standards. Freud (1959) placed the desire for perfection as an aspect of the narcissistic personality that in turn clearly falls within the realm of neurotic disorders. Freud (1959) also explains that the main driving force in perfectionists' lives is not achieving prosperity, but being perfect and outdoing others. Perfectionists like to be perfect in every task and do everything in the best possible way or they will not be satisfied. Failing to achieve perfection makes them suffer from anxiety and depression.

Nowadays, students are considered as important and influential members of society. One of the most important issues is paying attention to their physical and mental health. In the meantime, health is a state that depends not only on the person's bodily functions, but also on

his many aspects of mental function (DiMatteo & Martin, 2001). Perfectionism is one of the variables that have been studied as a multi-dimensional attribute in the last few decades. Various researchers have proposed a variety of definitions for perfectionism, in which negative and maladaptive aspects of the attribute have been taken into account more than its positive aspects. Altogether, in these definitions, perfectionism has been considered as a negative, neurotic, and maladaptive attribute.

Medical students' cognitive and emotional characteristics have a significant impact on their academic performance and emotional adaptation in their educational courses (Enns et al., 2001). Variables such as mental health, intelligence quotient, cognitive styles, attitudes and motivations are the source of seventy percent of academic success (Bagherzadeh et al., 2010). There are many common causes of stress in medicine students: a large volume of study materials, time pressure and constraints, limited social and recreational activities, close competitions between partners, and heavy duties in clinical wards are among the stress and pressure factors for these students (Amini & Yousefi, 2001).

Ross's study in Great Britain showed that anxiety is the most important factor in students' academic failures (Ghamari, Baghi & Salehi, 2010). Some experts believe that there is a weak correlation between academic achievement and self-esteem, because if a person feels good about himself, it has a significant impact on his success (Ross & Broh, 2000). Perfectionism is another contributing factor to the success of students (Humphris & Kaney, 1998). While distinguishing between adaptive (positive) perfectionism and non-adaptive (negative) perfectionism, Hamachek (1998) believes that a person with a positive or normal perfectionism enjoys doing tasks while in the latter case (i.e. negative perfectionism) the perfectionist is never pleased with his performance due to unrealistic expectations of himself. Fear of failure can be noted as one of the negative consequences of perfectionism. This feeling is the problem of medicine students. The large volume of study materials, poor grades, initial doubts about the one's efficacy are among the factors that cause this fear and anxiety. Thus, taking into account the importance of the high cost of medical education and the students' health care, a comprehensive research should be conducted so as to intervene the possible negative perfectionism in the students which in turn prevents their academic performance failure and improves their mental health. Perfectionism is negative if the student intervention and treatment is to prevent students from poor academic performance and mental health.

Dual dimensions of perfectionism: A second way of defining perfectionism is to define it as a multidimensional trait. In the 1990s, a paradigm shift occurred in perfectionism during which the normal components of perfectionism were paid more attention. The idea that perfectionism can have positive values was first introduced by Hamachek (1978). He suggested that perfectionism can be seen as two separate, but related traits: normal perfectionism and abnormal perfectionism. Normal perfectionists have a well-developed self-concept; they are delighted with their skills, and when they do their task quite well, they appreciate themselves. According to Hamachek (1978; cite in Bios, 1998), the distinguishing feature of normal perfectionists is that they set themselves achievable and realistic goals. Normal perfectionists are often able to achieve the goals they set. And thus they are more likely to be satisfied with the positive consequences resulted from setting realistic goals. These people are more likely to have mental health. They know their strengths and weaknesses, and they will coordinate their efforts, accordingly. On the other hand, abnormal perfectionists set unrealistic goals and they expect themselves to get unachievable performance. They are concerned about their

shortcomings and instead of focusing on how to best accomplish tasks; they focus on how to avoid mistakes. Such people are nervous, hesitant, bewildered, anxious and emotionally tired even before beginning their tasks. Also, they will not be motivated by the satisfaction resulted from improvement and progress, but their main motivation is to avoid failure. Hamachek (1978; cited in Besharat et al., 2008) suggests that abnormal perfectionism occurs in children whose parents set unrealistically high standards for the children, have high expectations, and are critical of their children's behavior, but are not satisfied with the progress of their children. On the contrary, normal perfectionism occurs in children whose parents set high standards with flexibility, and can demonstrate their satisfaction of their children's performance. Burns (1980) states that abnormal perfectionists are those who set standards beyond achievable, who strongly and steadily strive to achieve impossible goals, and assess their own self-concept based on the consequences and usefulness of their achievements. Frost (1990) states that the concept of perfectionism is the tendency to set unrealistic standards and evaluating one's behavior based on those strict standards. In fact, self-oriented perfectionists have self-imposed perfectionistic standards and trials, and they believe that it is very important that they be perfect and flawless (Stober and Yang, 2010).

This also encompasses setting extremely high standards for other individuals and assessing their performance strictly. Perfectionists set such standards for an individual or people who are more important for them like perfectionistic expectations of parents for their children. These standards will lead to blaming others and the feeling of distrust and hostility towards others. Other-oriented perfectionists experience fear, loneliness, paranoia and marital or relationship problems more than others (Hewitt and Felt, 1991).

From among the sayings related to the scale for measuring this trait is "anything that others do must be done with the highest level of quality".

The belief that others set extremely high and unacceptable standards for a person is considered to represent this kind of perfectionism. Socially-prescribed perfectionists oblige themselves to follow such standards set by other people. In fact, these people believe that high pressure from others (family and society) is imposed on them to be perfect, and that achieving others' approval is bound to being perfect and flawless (Stober and Yang, 2010).

From a cognitive perspective, this type of perfectionism may make a person believe that he cannot meet others' expectations, that others' expectations are unreasonable and that those around him assess him negatively.

Socially-prescribed perfectionism is associated with a need to earn and maintain approval from others, an external locus of control, self-criticism, over-generalization of failure, being criticized and negatively assessed by others, interpersonal high sensitivity, psychological maladjustment, and potential insidious and aggressive personality traits (Hewitt & Flett, 1999).

An important factor that distinguishes these dimensions of perfectionism is the understanding of the locus of control.

Self-oriented and other-oriented perfectionism are controlled by the individual. On the contrary, socially-prescribed perfectionism results from the imposed expectations of others (Dixon, Lapsley & Hanchon, 2004).

Adapted perfectionism: adaptive perfectionists are organized and are less doubtful about their own ability to complete tasks, set high standards for themselves, and do not respond to their mistakes in an excessive, negative manner, are not severe critical of their own behavior, and their parents have high expectations of them.

### A. Key terms

**Learner.** Perfectionists are organized learners but they are always doubtful in their ability to do their assigned tasks, they set extremely high standards for themselves and respond to their mistakes in an extreme and negative manner, and they are hyper-critical. Also, their parents have high expectations of them.

**Non-perfectionists.** Non perfectionists believe in their own ability to complete tasks but they do not pay much attention to organization and orderliness. They do not set high standards for themselves and do not respond to their mistakes negatively. Their parents do not have high expectations of them and are not critical of their behavior.

**Maladaptive perfectionists.** Maladaptive perfectionists pay too much attention to their mistakes and are skeptical about their own potentials to successfully complete the tasks. They set relatively lower standards for themselves and pay little attention to discipline and organization. Their parents have high expectation of them and are highly critical.

**Perfectionism.** Perfectionism can be defined as a consistent tendency to set perfect standards beyond reach and reason, and straining compulsively and unremittingly toward impossible goals (Burns, 1980).

**Self-oriented perfectionism.** It is defined as the setting of excessively high standards and focusing on one's performance flaws with self-monitoring.

**Other-oriented perfectionism.** It is the holding of unrealistically high standards of performance for another individual.

**Socially-prescribed perfectionism.** It is defined as the perception of maintain excessively high standards prescribed by important people in order to achieve their approval. In other words, socially-prescribed perfectionism is the excessive desire to follow the rules of the society.

Hill et al.'s (1995) 8-scale measure of perfectionism: Hill et al. (1995) have developed a new measure of perfectionism that entails most previous measures. The measure with its basic unidimensional definitions of perfectionism is in coordination with other multi-dimensional definitions of perfectionism which is presented in other perfectionism inventories.

They presented that the following 8-scale measure of perfectionism which is called the *Perfectionism Inventory*:

1. Concern Over Mistakes: Tendency to experience distress or anxiety over making a mistake
2. High Standards for others: Tendency to hold others to one's own perfectionist ideals
3. Need for Approval: Tendency to seek validation from others and to be sensitive to criticism
4. Organization: Tendency to be neat and orderly

5. Perceived Parental pressure: Tendency to feel the need to perform perfectly to obtain parental approval
6. Planfulness: Tendency to plan ahead and to deliberate over decisions
7. Striving for excellence: Tendency to pursue perfect results and high standards
8. Rumination: Tendency to obsessively worry about past errors, less than perfect performance, or future mistakes.

## METHOD

### A. Procedure, Subjects & Sampling

The study aimed to analyze and compare perfectionism in medicine and architecture students at Tehran University. The research method is a descriptive one in which the participants are evaluated using the Multidimensional Perfectionism Scale (Hewitt and Flett, 1991). The population to be investigated in the present study was all the medicine and architecture students at Tehran universities in the academic year or 2013-2014. Sampling was done using clustering sampling based on which Tehran University and Shahid-Beheshti University were selected. Then through random sampling, 60 medicine and architecture students (male and female) were selected. The subjects took Hill et al.'s (2004) perfectionism questionnaire and a demographic questionnaire. Data were analyzed using descriptive statistics and independent-sample t-test.

### B. Instrumentation

Hewitt & Flett's (1991) Multidimensional Perfectionism Scale is a questionnaire that consists of 70 items which assesses the three dimensions of self-oriented, other-oriented, and socially-prescribed perfectionism based on a 5-point Likert scale (ranging from 1 to 4). Every dimension is measured with 10 items.

The minimum and maximum scores of the subject in each of the subscales will be 10 and 50, respectively. Hewitt and Flett (1991), in their study on a sample of individual patients, reported acceptable internal consistency for their scale, which were .88, .74 and .81 for self-oriented, other-oriented and socially-prescribed perfectionism, respectively.

In a study carried out by Besharat (2006), Cronbach's alpha coefficient for self-oriented perfectionism, socially-prescribed perfectionism and other-oriented perfectionism were .88, .81, and .74, respectively which is an indicator of a high internal consistency.

**RESULTS****Table 1: The age standard deviation of subjects**

	Medicine Group	Architecture Group
Age SD	1.57119	1.53941

According to Table 1, the two groups did not differ significantly in terms of their ages.

**Table 2: Comparison of perfectionism scores of the two groups of medicine and architecture students**

Groups	N	Mean	SD	Standard Error of measurement	Sig.
Medicine Students	30	15.8667	1.2793	.2335	.05
Architecture students	30	7.9667	2.2816	.4165	.05

At first, a comparison was done between the scores of perfectionism of medicine and architecture students.

Table 2 shows that results of the comparison done on the two groups based on the t-test. As it can be seen there is no statistically significant difference between the two groups,  $p < 0.05$  and  $t(58) = 12.064$ . Medicine students obtained higher perfectionism scores but the difference was not significant.

**Table 3: Comparing the self-oriented perfectionism in both medicine and architecture Students**

Groups	N	Mean	SD	Standard Error of measurement	Sig.
Medicine Students	30	37.2333	2.2388	.4086	.05
Architecture students	30	17.9333	2.8639	.5228	.05

Next, the researchers ran a comparison between the scores of self-oriented perfectionism of the medicine and architecture students using the t-test:  $t(58) = 2.897$ . The architecture groups achieved a lower mean in this sub-test.

**Table 4: Other-oriented perfectionism scores of the two groups of medicine and architecture students**

Groups	N	Mean	SD	Standard Error of measurement	Sig.
Medicine Students	30	31.3333	.5265	.6438	.05
Architecture students	30	11.6333	2.3850	.434	.05

Table 4 shows the results of the comparison between other-oriented perfectionism scores between the two groups using the t-test:  $t(58) = 6.410$ . As it can be seen, architecture group's mean score in the subtest was lower than the other group and thus it had a poorer performance.

**Table 5: Comparison of socially-prescribed perfectionism between medicine and architecture students**

Groups	N	Mean	SD	Standard Error of measurement	Sig.
Medicine Students	30	32.7432	.2265	.2438	.05
Architecture students	30	13.1281	2.3850	.134	.05

Table 5 shows the results of the comparison between other-oriented perfectionism scores between the two groups and shows the obtained  $t(58) = 7.020$ . As it can be seen, architecture group's mean score in the subtest was lower than the other group and thus it had a poorer performance.

## DISCUSSION & CONCLUSION

Hollender (1978; cited in Shafran & Mansell, 2001) is one of the first people who defined perfectionism: He defined perfectionism as "the practice of demanding oneself or others a higher quality of performance than is required by the situation" to refer to the manner in which a person performs or aspires to perform. Burns (1980) described perfectionism as a network of cognitions including expectations, interpretation, and evaluation of events. He describes perfectionists as people who set high, irrational standards for themselves. Generally speaking, Hollender (1978), Ellis (2002), and Burns (1980) stressed on the fear of failure and the negative aspects of perfectionism. Burns (1980), in his definition of perfectionism, adds: Many perfectionistic people are characterized by all or nothing thinking. Perfectionists believe that performance must be perfect or it will be worthless. Frost et al. (1990) define perfectionism as "the setting of excessively high standards for performance accompanied by an overcritical self-evaluation".



Fear of failure may incite behavioral standards of perfectionism whose target is for the individual to achieve high, irrational standards. For instance, careful examination, safety investigation, continuous evaluation of others, and excessive attention before decision making are examples of perfectionists' behaviors. In addition, people with abnormal perfectionism may avoid situations which are needed for a perfectionist to abstain his perfectionistic standards. In other words, they may begin experiencing to postpone tasks. Abnormal perfectionists have a strong desire to delay tasks because the desire to be perfect and flawless in doing tasks makes them anxious. Sometimes, they may leave tasks incomplete due to a lack of access to perfectionist standards (Frost et al., 1990).

Based on the above definitions, maladaptive perfectionism is self-defeating and disorder-inducing and perfectionists can never be satisfied with their performance. In Webster Dictionary, perfectionism is defined as the belief based on which the main objective of all efforts and creativity is the ideal reform of moral behavior. On the other hand, in the Wisdom of God, perfectionism means that it is possible to be sinless. In another definition, perfectionism has been defined as being normal or neurotic. Normal perfectionists set high standards for themselves; in the meantime, they feel free to make mistakes in different positions. They feel good about their performance and they relatively admit their mistakes.

But neurotic perfectionists set high standards in every situation and will not approve their own performance.

Perfectionism is viewed as the stable tendency to set complete, achievable standards and strive to reach them which is associated with critical assessment of the perfectionist's performance. Pacht (1984) believes that striving for perfection, which is unattainable, creates numerous psychological problems. Although perfectionists can avoid disappointment through achieving their highly-set standards but rarely are they satisfied with the results of their activities. However, in several studies it has been demonstrated that perfectionism construct consists of some sub-parts that increase the risk of psychopathology. In the early 1990s, perfectionism was regarded as a multidimensional construct. This paradigm shift in perspective was done for two reasons. First, the research conducted on perfectionists described them as people who are pre-occupied and over-anxious about their mistakes, are unsure about the quality of their actions, they give considerable value to parental expectations, and pay too much attention to following other people's views and rules. Second, independent clinical observations led to a view in which perfectionism is believed to have its own interpersonal aspects and these aspects are important in causing the problem (Hewitt & Flett, 1991).

A comparative study in Canada showed that positive perfectionism in medicine students is higher as compared to art students (Choy & McInerney, 2007).

Eagan (2008) studied perfectionism scores among students in medicine, dentistry, pharmacy, and nursing students in America and it indicated that perfectionism scores were higher in medicine and pharmacy students. The mean score of perfectionism was 46.9 for the students. It also showed that female students are more perfectionist than students than male students.

Hill et al. (2004) state that negative perfectionism is negatively correlated with the academic performance of medicine students.

### A. Suggestions for further research

The results obtained in the present study indicate that there is a significant correlation between perfectionism in male and female students. Based on the results of the study, it is suggested that in future research information such as age, obtained scores, quotas, the interval of diploma to university entrance, marital status, and being native to the country should be considered.

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