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Students Social Intelligence and the Choice of Behavioral Strategies in Conflict Resolution

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Abstract

The purpose of the presented study is to develop a methodology for measuring social intelligence based on the assumption that social intelligence is reflected in the process of sourcing an optimal strategy for overcoming conflict situations. The efficacy endpoint of the respondents' answers was the degree of compliance with the group consensus. The level of social intelligence did not form significant correlations with the scales of the NEO-FFI questionnaire and also with the level of intelligence according to Raven's test. The conducted study revealed a positive role of social intelligence in the structure of predictors of the students' learning performance and also negative associations of social intelligence with the level of disharmony of interpersonal relationships.

Keywords: Relationships • Methodology • Intelligence • Manifestation

Introduction

It is commonly known that a concept of social intelligence has entered modern psychology through the efforts of such famous researchers as the author of the first concept of social intelligence, interpreted it as the ability to understand and control other people. Thorndike believed that the main function of social intelligence was predicting own behavior and the actions of other people ('to act wisely in human relations') [1].

Despite the large number of publications devoted to this issue, modern psychology lacks valid methods for measuring social intelligence. Also, there is no clear demarcation framework between concepts related to social intelligence (psychometric intelligence, practical intelligence, social and communicative competence, wisdom, etc.); the problem of the ratio of general cognitive abilities, psychometric and social intelligence remains insufficiently studied.

For instance, identifying the polysemy and insufficient theoretical elaboration of the phenomenon of social intelligence, described as many definitions of this concept as there were researchers of this problem [2]. Analyzing the current state of the problem, the Russian academician also noted the lack of a unified systematic approach and general underestimation of the importance of theoretical analysis of the phenomenon under study [3].

The German researcher attempted to classify various definitions of social intelligence and stated a whole range of cognitive and behavioral phenomena, including perception, memory, thought process, intelligence, and creativity [4]. Therefore, such structural features as the absence of clear dividing lines between social and practical intelligence [5], attempts to integrate social and emotional intelligence [6], and identification of social and academic intelligence [7] could be voiced out with confidence.

Emphasizing the importance of 'mental organization' in the structure of personality and pointing out the significance of reckoning the life context of the particular individual, endows the individual with such abilities that are inherent in social intelligence: the ability to quickly and adequately assess a person, to predict possible behavior, etc. [8]. In particular, according to the 16PF questionnaire, attribute to social intelligence such personality traits as sensitivity and diplomacy [9].

The first social intelligence test-The George Washington Social Intelligence Test (GWSIT)-was developed by It included such subtests as assessing social situations, observing human behavior, recognizing psychological states by facial expressions, a sense of humor, etc. [10]. Also, numerous other studies were conducted to validate this technique during the same period. Nevertheless, quite many researchers as have not found confirmation of the existence of social intelligence as a separate factor. In particular, Thorndike Jr. and Stein concluded that the GWIST subtests and other similar methods are overloaded with tasks on verbal ability, and differences in the level of social intelligence are leveled by differences in the levels of psychometric intelligence [11].

In an attempt to build a valid method for measuring social intelligence, V. Jackson developed her social impact test, which involved choosing the correct behavior in everyday life situations. Unfortunately, this technique remained little known, and its results were closely correlated with those of the GWIST test [12]. A logical extension of Jackson's research (1965) was the Social Insight Test proposed by F. Unlike the previous method, the social intuition test involved assessing the causes of certain actions in social situations [13,14].

As a result, the authors of the survey research concluded that all the five main methods for measuring social intelligence-the very social intelligence test (GWSIT), the social intuition test (Social Insight Test), the '6 factors of behavioral cognition' test of Guildford and O'Sullivan, the empathic ability scale by Dymond (Dymond Rating Test), and Feffer's Role Taking Test [15] were associated with academic intelligence.

Although a number of prominent representatives of the factor research prospects in the psychology of abilities did not include social intelligence in their models, a new impetus to the study of this problem was given by the works of J. Guildford and his school. The origins of Guildford's concept could be traced back to the ideas of Thorndike, who formulated three areas of the manifestation of intelligence as a universal cognitive ability: Ideas, objects, and people. The creator of the most popular method for measuring social intelligence regarded this phenomenon as a system of intellectual abilities that are relatively independent of general intelligence factor and are primarily associated with the cognition of behavioral information [16,17].

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The modern Russian follower of notes several advantages of the above model: Completeness of the systemic description of intellectual abilities, great heuristic and correctional-development potential, high technological efficiency, etc. [18]. At the same time, its certain abstractness and out-of-context nature of the methodological tools developed under the guidance of this outstanding researcher should also not go unmentioned.

In particular, R. Hoepfner, a member of the creative team led by Guildford, points to the 'situation free' nature of the methods for measuring social intelligence proposed by Guilford's group. Emphasizes that the study of the ability to understand human thoughts, feelings, and intentions employed first of all the 'stereotypic behavior of individual others'. Analyzing the results of validation of the proposed tests for measuring social intelligence, this researcher notes the need to develop situation-specific methods that take into account the context (background) of human activity. For example, the social intelligence of police officers involves the ability to recognize the sincerity of others [19].

Perhaps the most important theoretical contribution to the study of this problem at the present stage belongs to. They opposed the traditional interpretation of intelligence as a general cognitive ability with the understanding of this phenomenon as an individual fund of knowledge on social reality. In contrast to the classical tradition of considering social intelligence as a property or a set of measurable properties, these researchers put forward the assumption of the rationality and common sense of social behavior in general [20,21].

They also pointed out the contextually conditioned nature of social intelligence and the connection of this phenomenon with the success of solving life problems. Further, Cantor emphasized the importance of studying the processes of constructive cognition of a person, his readiness to build alternative realities, and his understanding of new opportunities (affordances) [22].

Difficulties in distinguishing between social intelligence and IQ, along with the problems of validating the very tests, led to a loss of interest both in such tests and in the problem itself. Also stated that social intelligence was not included in the famous Thurston's list of basic mental abilities [5].

In this work, the authors relied on the ideas of M. Ford, who linked social intelligence with the ability to effectively implement goals in certain social settings. Defining social intelligence as the ability to effectively implement goals in social situations, Ford emphasized the adaptive and contextual nature of the human intellectual activity and believed that one way or another, intelligence in its most general form can be defined as the ability to achieve goals in a certain contextual range under the given restrictions. The academician also believed that the study of behavioral episodes as an organized stream of behavioral patterns is required for a holistic understanding of personality.

Further, Ford interpreted behavioral episodes as contextually specific purposeful patterns of human activity and pointed to the multi-purpose nature of such fragments. A behavior episode scheme is a collection of episodes (real or imagined) whose similarity is determined by common goals and a homogeneous context. Based on the individual experience, such schemes set a person's behavioral repertoire in certain situations. Thus, according to Ford (1983, 1995), goals and contexts play a key role in organizing behavioral patterns [23,24].

Back in 1909, J. emphasizing the situational specificity of social intelligence, defined this class of cognitive abilities as the ability to observe and understand social situations [25]. In this regard, the opinion of S. Weis, who noted the importance of using Situational Judgment Tests to measure social intelligence, represents quite an irresistible argument. It is commonly known that this group of techniques presupposes assessing the acceptability of several options for the development of the situation. It should be also pointed out that situational judgment tests are actively used in the diagnostic assessment of emotional intelligence; examples include the situational tests of emotional assessment and emotional self-regulation STEU and STEM [26] and the TRUST method, designed to assess the socio-emotional competence of teachers [27].

Recently, an interesting hypothesis has been put forward through the efforts of Scandinavian researchers. It represents an empirically confirmed assumption on positive relationships between social intelligence and so-called 'displaced' or indirect aggression. Thus, it turns out that socially intelligent individuals choose the best options for behavior in conflict situations. Along with a peace like strategy, indirect aggression is the optimal way to respond in conflicts [28].

Other mark worthy results was obtained by the Greek researcher who studied the relationship between social intelligence, the level of aggression, socio metric status, and the popularity standing among junior students. At the same time, Andreou put forward a hypothesis that indirect aggression is based on adequate social ideas and involves the use of Machiavellian strategies [29].

In this regard, it was suggested that social intelligence, as the most important factor of social and communicative competence, is reflected in the process of sourcing an optimal strategy for overcoming conflict situations. It should be noted that attempts to use conflict situations to measure social intelligence were undertaken by J. Guilford's team in the context of social creativity research. One of the subtests (Alternate Social Solutions) provided several options to the bailout of a conflict situation [30].

Emphasizing the specific features of social intelligence, A. Rahim associates social intelligence with adequate recognition of the situational context and the ability to find the best way out of a particular situation, along with the effective interaction with other people [31, 32].

Similar ideas were expressed by, who proposed a two-component structure of the social intelligence of managers, including social insight and behavioral flexibility-the ability to vary behavior depending on the requirements arising from new tasks and situations. According to the researcher, leaders with a high level of social intelligence have more elaborated perceptual and behavioral patterns. Thus, they 'clue into' emerging situations better than other members of the group, make adequate decisions more timely and implement them much more effectively than others [33].

A brief summary of the results of the literature review may lead to the following conclusions:

1. Still, the theoretical status of social intelligence is unclear-considering a kind of personality-cognitive duality of this phenomenon, the identification of social and academic intelligence [7], the blurring of the boundaries between social intelligence and personality [9], and the insufficiently studied problem of the correlation of general cognitive abilities and psychometric and social intelligence;
2. Also mark worthy is the lack of valid methods for measuring this ability, a certain abstractness, and out-of-context nature of the methodological tools;
3. In this regard, there is a need to develop valid methods for measuring social intelligence and a systematic study of personal, cognitive, and situational factors of this class of cognitive abilities.

Materials and Methods

Diagnostic assessment of students'social intelligence

The development of the presented method for measuring social intelligence included interviewing students of the Faculty of Psychology of University ; the content served as the basis for defining a set of conflict situations encountered in the practice of university education and campus life. All situations selected this way were divided into two groups: Situations of conflict between students and between student and teacher. Each test situation provided seven answer options, which were assessed on a seven-point system, and each outcome corresponded to a certain conflict exit

strategy.

In addition to the classic strategies well-described in the literature, such as withdrawal, struggle, compromise, cooperation, and concession, the author has added two more: Resorting to a mediator's assistance and the tactic of a joking, caustic response. As a result, the sum of responses for all seven conflict strategies was determined for each subject.

For example, the first test situation, describing solving the problem of collecting money for a bouquet of flowers intended for a teacher, envisaged the following outcomes: 1) 'I will tell them that they are also obliged to donate money, and I'll achieve my goal'-representing struggle; 2) 'I will not pay much attention :Let them balk on that since the collected money is already enough'-withdrawal;3) 'Let's agree that they will participate in other events-a compromise;4)'We will agree on the establishment of a student mutual aid fund'-cooperation; 5) 'I will hand over money for those flunked'-a concession;6) I will say: 'Let the student council deal with that'-an appeal to the mediator;7) I will tell them: 'You have a week to plant and grow flowers, and we will chip in for fertilizers!' a caustic answer. The exemplification of the methodology's first task.

Unlike tests of academic intelligence, the building of a grading system to determine the quality of answers is a separate problem. Within the framework of the presented study, the criterion for the efficiency of responses was the degree to which the answers of each subject correspond to the 'median profile' reflecting the group rating system. In total, 565 students from various universities in the city were interviewed-with respect to the main and additional samples to calculate this profile (340 women, 225 men, average age 20.9 years).

Medians were calculated for each item and each test situation as a whole. The Euclidean metric was used as a measure of the correspondence between the responses with the median profile. The difference between the subject's current response and the corresponding value of the median profile was calculated and, accordingly, squared for each item on the questionnaire. All current differences were summed up and the square root was extracted. The subject with the maximum mismatch of answers was characterized by the minimum (zero) value of social intelligence, and the subject whose answers most closely corresponded to the group mean received the maximum score according to the selected method.

The degree of reliability of this technique was determined by the method of splitting into two parts: the coefficient of reliability according to Spearman-Brown was 0.82. In total, 44 male and 56 female students of the Faculty of Engineering and the Faculty of Psychology of the Bashkir State University, aged 19 to 39 (average age was 23.5 years), took part in the main part of the study.

Evaluation of the efficiency of students'social and educational competence

The classic method for measuring the social intelligence and competence of students is the Tromso Social Intelligence Scale (TSIS), which consists of 21 questions, combined into the scales of social information processing, social skills, and social awareness [34]. In order to obtain more reliable and detailed student-related information, the subjective scaling of the research participants was conducted according to the scheme proposed by the American psychologist J. Campbell and usually employed in foreign industrial psychology. One of the leading researchers in the field of industrial psychology identifies three main factors of professional competence: professional skills, efforts shown, and personal discipline [35,36].

The proposed parameters for assessing social and professional competence were operationalized concerning the specifics of students' educational and learning activities. A preliminary list of behavioral indicators of students' activities consisted of fifty-seven items, from which eighteen final parameters were selected with the participation of expert educators from the Bashkir State University. The first stage involved the detalization of the assessment parameters proposed by Campbell and Williams, using a questionnaire survey of twelve experts of BashSU Faculty of Psychology and with respect to the specifics of students' activities. Expert assessments were rank-ordered; as a result, a preliminary list of fifty-seven indicators was minimized to eighteen of the most important criteria for assessing students' learning activity, which formed six factors:

1. The indicators of the actual learning competence were defined as pertinent responses and suggestions in workshops and practical classes, accurate and legible notes, skillful use of computer technology to solve educational problems, etc.;
2. The factor of the efficiency of the communication included the ability to find an individual approach to each teacher, a competent line of thoughts, the ability to timely ask and correctly formulate a question, active participation at seminars of workshops, etc.;
3. The factor of learning activity and the shown efforts was built of accurate and regular preparation for seminars, active workshop presentations and participation in student conferences, a constant striving to expand and deepen one's knowledge, etc.;
4. The discipline indicator assumed such behavioral indicators as the manifestation of good manners and self-control, the absence of bad habits, regular attendance, a neat and tidy appearance, etc.;
5. The 'helping hand' factor (assisting other students) was characterized by such parameters as active participation in the study group self-governance, assisting fellow students in educational activities, supporting other students in difficult times, active participation in collective group events, etc.;
6. A sixth block was added to the above assessment parameters, called 'self-control and self-presentation', assuming the student's ability to present oneself in a favorable light in front of others. The group of indicators for this block was based on the research of self-reflection by M. Snyder. The scale proposed by Snyder arises from the result of the author's systematic research and assumes the expression of such qualities as the ability to control self-expression, interest in the own public image in the eyes of others, etc. [37].

Thus, the factor of self-control and self-presentation efficiency presupposed such qualities as the ability to maintain self-control in unfavorable or dangerous situations, the ability to timely and reasonably perceive other people's merits, quickly take in the situation, etc.

As a result, each student could be characterized by a system of six parameters:

- Learning competence;
- Communication efficiency;
- Degree of learning efforts;
- Personal discipline;
- Help and assistance to other students;
- Self-control and self-presentation efficiency.

The final stage of the study involved assessing the competence of each subject within his training subgroup in such a way that each participant rated all the members of the sub group one by one in points from one to seven. The final indicator of each student's efficiency represented the average scores calculated for all six of the above parameters.

Measuring students'psychometric intelligence

In search of an acceptable psychodiagnostic assessment for measuring academic intelligence, the author turned to the test [38]. Two series of student testing were conducted to verify the psychometric suitability of this technique. In both cases, the subjects solved 36 test items; in the first series (107 participants) they were given 45 minutes, and in the second

(185 participants)-35 minutes. The tighter time limit for testing gave results in line with the bell curve generally accepted for diagnosing intelligence. Therefore, this option was selected for the presented study.

Assessing students' personal characteristics

One of the most popular methods of express diagnostics of personality traits is the NEO Five-Factor Inventory (NEO-FFI) designed by P. Costa and based on the classic structural 'Big Five' model [39-41]. The questionnaire diagnoses the severity of five basic personality characteristics: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). It consists of 60 items and represents an abbreviated version of the NEO PI-R questionnaire; it was translated into Russian and adopted by at the Institute of Psychology of the Russian Academy of Sciences. The questionnaire also contains 60 statements, the degree of agreement with which has five gradations, and varies from 'completely disagree' to 'completely agree' [42].

Measuring the harmony of interpersonal relationships: The presented study employed the results of the diagnostics of the cognitive and personal properties of Ufa Distillery Plant employees; these results were compared with the peculiarities of disharmonious relationships [43]. The main indicators of S.V. Dukhnovsky's SOMO (Subjective Assessment of Interpersonal Relationships) methodology are tension, alienation, conflict, and aggression in interpersonal relationships. His questionnaire contains 40 statements, the degree of agreement with which has seven gradations, and varies from 'completely disagree' to 'completely agree'. Also conducted a preliminary analysis of the homogeneity, reliability, and construct validity of the test he proposed. The test-retest reliability of this technique on all scales ranged from 0.55 to 0.72. The criterion validity was determined by comparing the test results between healthy people and patients with neurosis. For all 4 scales of the questionnaire, the differences were significant at the level of p=0.001.

Research hypotheses

1. The main hypothesis of the presented research is the assumption that social intelligence as the most important factor in the learning and communicative competence of students is reflected in the process of sourcing an optimal strategy for overcoming conflict situations. As a criterion for the reliability of this assumption, the author considers statistically significant correlations between the success of the proposed methodology and those aspects of students' learning activities that are associated with their self-control, mental ballast, and academic success.
2. It is a common fact that the 'guru of social intelligence' Daniel Goleman considered social cognition as the most important element of social intelligence; Goleman also pointed out that social cognition presupposes the ability to find the optimal solution to social problems in the process of selecting various possibilities [44]. In this regard, it can be assumed that the independent theoretical status of social intelligence, in turn, presupposes the absence of rigid correlations of this phenomenon with both psychometric intelligence and basic personality traits according to the NEO-FFI;
3. Even the discoverer of the phenomenon of social intelligence, E. Thorndike, regarded it as 'foresight in interpersonal relationships,' suggesting the ability to 'understand other people and act wisely towards them' [1]. Building on the metaphor of 'social chess' in the study of social intelligence, proposed by it can be assumed that the assessment of the nature of relationships with the immediate environment largely determines the degree of success and the status of an individual [45]. Indeed, the assumption that the specificity of social intelligence presupposes an adequate and optimal reflection of the subject-subject connections and relations is quite obvious. As noted by R. Walker and J. Foley, the authors of survey research on the history of social intelligence, the relationship between social intelligence and interpersonal assessment also 'seems obvious' [46]. In this regard, the presence of a close negative relationship between social intelligence and the level of disharmony in interpersonal relationships according to the SOMO methodology [43] is quite justified.

In particular, the studies led by conducted with the use of this technique, had shown that social intelligence is inherent in the structure of personal potential and may be associated with the ability of students to effectively implement it in problem situations of interpersonal interaction [47] (Table 1).

	Social intelligence	Psychometric intelligence	N	E	O	A	C
Learning competence	0.26	0.23	0.00	0.00	-0.02	0.04	0.14
Communication efficiency	0.24	0.12	0.08	-0.10	0.17	-0.07	-0.07
Efforts shown Personal	0.48	0.21	-0.16	0.07	-0.14	0.15	0.28
Support for the team	0.19	-0.07	0.11	-0.05	0.23	0.04	0.10
presentation efficiency	0.13	0.06	0.21	-0.16	0.23	-0.07	-0.07

Table 1. Coefficients of rank correlation between indicators of students' competence, personality traits, and intellectual parameters.

Results

Spearman's rank correlation coefficients between indicators of students learning activity, intellectual parameters, and personality traits. Despite a number of revealed significant relationships between the efficiency of learning activity and the Big Five parameters, it is still quite possible to note the leading positive role of various types of intelligence (primarily social) in the structure of predictors of the indices of student learning activity. Hereinafter in the text, statistically significant values of the coefficients ($p \leq 0.05$) are highlighted in bold (Table 2).

	Tension	Alienation	Conflict	Aggression
Social intelligence	-0.32	-0.22	-0.28	-0.36
Psychometric intelligence	-0.08	0.00	-0.12	-0.16
N	0.01	-0.07	-0.11	-0.21
E	-0.04	0.14	0.10	-0.01
O	0.07	-0.01	0.22	0.10
A	0.07	0.16	0.14	0.20
C	-0.09	0.03	-0.05	0.01

Table 2. Coefficients of rank correlation between personality traits, intelligence, and indices of disharmony in student relationships.

The coefficients of rank correlation between the indices of cognitive abilities and personality traits of students. It is easily seen that explicit assumption on the independent conceptual status of social intelligence has found its empirical support. However, unlike psychometric intelligence, social intelligence does not form significant correlations with any scale of the NEO-FFI questionnaire. The presence of the remaining close relationships is explained by the known aspect of the influence of personal factors on the success of achievement tests. Big Five factors such as A and C, denoting properties such as commitment and desire for achievement and cooperation, are closely associated with test conformity and favor the performance of achievement tests. In addition, it should be noted positive but insignificant relationships between social and psychometric intelligence (the rank correlation ratio is 0.19). In order to clarify the relationship between social and psychometric intelligence, 35 students of the Bashkir Academy of Public Service and Management (20 men and 15 women, the average age was 25 years) were included in the main sample. The total correlation ratio was 0.13 (p=0.14). Thus, the assumption of the independent status of social intelligence has been confirmed (Table 3).

	N	E	O	A	C
Social intelligence	-0.06	0.01	-0.1	0.12	0.11
Psychometric intelligence	-0.24	0.07	0.07	0.07	0.07

Table 3. Rank correlation coefficients between students' personality traits and cognitive abilities.

Discussion

Deliveries of children conceived with TESE from males with NOA have been described [18]. As a result, the combination of TESE and ''intracyto plasmic sperm injection'' may provide the NOA males a higher opportunity of fathering their inherent offspring, though they do not expose normal spermatogenesis.

Although TESE is an effective diagnostic and therapeutic option, yet may not continuously be successful in all NOAs [19,20]. Consequently, a failing sperm retrieval practice has vitale motive and economic impacts that underscore the significance of defining the predicting factors for fruitful sperm recovery. This could present genuine prospects for the couple and the clinician together [8,21].

The physiological effect of FSH and Inhibin-B in governing the "hypothalamic-hypophysial-testis axis" is indubitable. Several revisions consider that Inhibin B is worthy and more predictive for spermio genesis than FSH [21-23]. Contrariwise, other researchers had proclaimed that the value of FSH is more[24,25].Instead, other studies have stated that neither FSH nor Inhibin B, separately, could precisely predict the sort of spermio genic injury[5,26]

What we had reached in this study was that Inhibin B is lower in azoospermic males seven times than normal males. Additionally, once Inhibin B is >22.65 pg/ml and FSH is <13.95 mIU/ml, the positive sperm detection will be high with TESE. A significant outcome of this work was the association of positive sperm recovery with plasma Inhibin B. There were significant variations in the measures of Inhibin B between the patients with positive and negative TESE results (P-0.003). In addition, the values of FSH were significantly less in the positively compared to the negatively retrieved groups (P-0.007). These findings are consistent with a recent Syrian study conducted on 228 males with NOA and other previous Italian studies conducted on 89 patients with NOA [8,27].

Sertoli cells maintain spermatogenesis via several paracrine pathways, including Inhibin B release [8].An increasing body of literature suggests that Inhibin B levels areun measurable in males suffering SCOS, even with ordinary testosterone values; signifying damaged Sertoli cells [28]. Hence, Inhibin B reflect directly Sertoli cell activity and indirectly spermato genesis. It has to be pointed out that the castration causes reduced Inhibin B values, showing that Inhibin B is produced by the testicles. As well, suppressed spermio genesis induced by exogenous androgens or cytotoxic agents is associated with suppressed blood InhibinB concentration [29,30].

Supporting our findings, the outcomes reported by Von [28]. They found that the predictability of InhibinB is slightly more than FSH, but they cannot accurately expect the results of the biopsy. The authors supposed that mixed OA and NOA causes may mutually coincide in infertile males in this study.

To scrutinize whether Inhibin B or FSH is superior to predict sperm recovery; the authors made a comparative examination of these hormones. ROC analyses of Inhibin B validated a sensitivity and a specificity [74.1% and 65.1%] compared to [74.4% and 59.3%], respectively for FSH. As a result, even with the parallel inclusive analytic performance of these 2-hormones still, Inhibin B seems superior for proper detection of azoospermic males with spermiogenic foci. Meanwhile, FSH seems better in the detection of azoospermic males without spermiogenesis. These outcomes are in agreement with recent studies [6,9,31].

The best threshold of Inhibin Bt that distinguishes between succeeded and failed TESE by the ROC curve in this study was 22.65 pg/ml that was parallel to the limited researches on Inhibin B and excellence of spermio genesis up to now[8,30,32]. These results deliver robust evidence that Inhibin B is a significant indicator of competent Sertoli cells and spermio genesis.

The cut-off point for serum FSH in our study was 13.95 mIU/ml, consistent with a current Iranian study [31]. However, the cut-off value for serum FSH is quite inconstant for predicting the successful sperm recovery in azoospermia, and no settlement has been gain in this respect.

Our findings confirm preceding results indicating an inverse relation between Inhibin B and FSH serum values [27, 30, 33], further supporting the idea that Inhibin B contributes to the bio-regulation of FSH secretion in males.

The sperm retrieval significantly fell when FSH elevated Figure 4 are intriguing in the context of preceding revisions reported that FSH predicts the existence of sperms in cases that Inhibin B cannot. Added, Inhibin B, FSH, and testicular volume cannot assume the Positive Predictive Value

(PPV) of biopsy [25]. In believed that the combined use of Inhibin B with FSH useful for the expectation of 100% PPV of testicle biopsy. Nevertheless, this combination does not exclude the necessity for a biopsy completely [5,34]. Still, groups of infertile patients were not analogous regarding the dissimilar inclusion criteria. Mutually, the two pieces of research require further external confirmations. Contrarily, other data have verified high retrieval rates in azoospermia with higher FSH values [35].

These conflicts could be related to technical variations for sperm retrieval. Micro TESE has higher sperm recovery testicular biopsy [36]. Further, low successful sperm recovery has been described by FNA compared to TESE [37]. Additionally, the use of two-sided testicular biopsy with a minimum of six biopsy sites has been acclaim to retrieve sperms in azoospermia [31]. The authors proposed another principal cause for the unevenness related to the simultaneous existence of a mixed cause of azoospermia.

The study models will assist to signify NOA who will have a good or poor opportunity for positive retrieval and the couples who will have a higher prospect of attaining a live birth after successful TESE. Additionally, it will allow couples a better assessment of risks versus benefits before initiation of invasive interferences.

Thus, building upon the assumption of a close connection between the problems of social intelligence and the psychology of interpersonal conflicts, the author has developed a new method for measuring social intelligence. This method is based on a consistent assessment of the system of ways of conflict resolution. To determine the test response efficiency, it was proposed to start from the system of group assessments, represented by a vector of median values for all items of the social intelligence questionnaire. In addition to the diagnostic assessment of social intelligence, measuring of psychometric intelligence was also conducted, along with the personality diagnostics using the NEO-FFI questionnaire.

The presented work is featured by the hypothesis that social intelligence as the most important factor in educational and social competence is reflected in the process of sourcing an optimal strategy for overcoming conflict situations. Measuring social intelligence employed a set of twenty conflict situations encountered in the practice of university education and campus life [48].

All situations selected this way were divided into two groups: Situations of conflict between students and between a student and a teacher. Each test situation was provided with seven options for answers corresponding to a certain strategy to the bailout of a conflict situation. The criterion for the efficiency of the answers to the questionnaire was the degree of correspondence of the answers of each subject with the so-called 'median profile' reflecting the group's rating system.

The measure of social intelligence was represented by the degree of disagreement between students' answers with group averages. Thus, the subjects with the maximum misalignment of assessments were assigned the minimum values of social intelligence, and, according to this method, the students whose answers coincided with the group mean received the maximum score.

The results of measuring social intelligence were compared with personality traits, the level of psychometric intelligence, indicators of the harmony of relationships, and a structural assessment of students' learning activity.

Conclusion

Several assumptions put forward in the work were confirmed based on the performed correlation studies, namely:

Negative relationship between social intelligence and the level of disharmony in interpersonal relationships;

The important positive role of social intelligence in the structure of predictors of the efficiency of students' learning activities;

The proposed assumption on the independent conceptual status of social intelligence has also found its partial empirical support. However, the level of social intelligence does not form significant correlations either with the scales of the NEO-FFI questionnaire or with the level of psychometric intelligence.

The materials of this study are of practical value for assessing the social intelligence of students in higher educational institutions. At the same time, it can be suggested that further studies of social intelligence should take into account the multipurpose nature of human activity and communication. Thus, puts forward the concept of 'multiple goal theory', which is based on the theses on the close relationship between goal setting and conflicts, with respect to the multiplicity of contexts for the interpretation of interpersonal communication.

The works of American researchers, who compare the preferred conflict strategies and the actualization of certain goals of aggrieved parties, are of great interest. The consistent implementation of this approach leads to the need to develop new methods for assessing social and emotional intelligence, which provide for the opportunity of a systematic and comprehensive study of the characteristics of individual goals and intentions.

Declarations

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Conflicts of interest/competing interests

The authors declare that they have no competing interests;

Availability of data and material

The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

Code availability

Not applicable.

Ethics Approval

Not applicable.

Consent to Participate

Not applicable

Consent for Publication

Not applicable

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