Middle East J Rehabil Health. 2014 October; 1(2): e23611 DOI: 10.17795/mejrh-23611

Published online 2014 September 27. **Research Article**

# Evaluating the Level of Learning Motivation Among the Rehabilitation Students at the University of Social Welfare and Rehabilitation Sciences of Tehran, Iran; During 2011-2012

Ghoncheh Raheb [1,*]; Alireza Khani [2]; Jafar Jandaghi [3]; Mohammad Sabzi Khoshnami [1]

[1]Social Work Department, University of Social Welfare and Rehabilitation Sciences, Tehran, IR Iran
[2]Ettelaat Daily Newspaper, Tehran, IR Iran
[3]Deputy of Health, Semnan University of Medical Sciences, Semnan, IR Iran

*Corresponding author: Ghoncheh Raheb, Social Work Department, University of Social Welfare and Rehabilitation Sciences, Tehran, IR Iran. Tel/Fax: +98-2122180064, E-mail: ghraheb@gmail.com

**Received:** August 4, 2013; **Revised:** November 16, 2013; **Accepted:** November 23, 2013

**Background:** Learning motivation among the students of rehabilitation, as one of the main challenges in the universities, leaves different impacts on the outcome of learning systems.
**Objectives:** Considering the critical role of rehabilitation services provided by rehabilitation graduates, the current study aimed to determine the level of learning motivation among the rehabilitation students focusing on different aspects of self-efficacy, self-regulation, and communication abilities.
**Patients and Methods:** This descriptive cross-sectional study was conducted on the rehabilitation students of the University of Social Welfare and Rehabilitation Sciences who were selected by the total population sampling method. The validity and reliability of the learning motivation questionnaire were evaluated by its implementation in the study; an independent t-test, Pearson's correlation coefficient and one-way ANOVA analysis were used to analyze the data.
**Results:** The mean and standard deviation of the population under study were 159.853 ± 17.838 (out of maximum 220). It means that the score is farther down cut of point. The social work students got the highest scores in learning motivation, followed by the students of technical orthopedics, occupational therapy, physiotherapy and speech therapy, respectively. There was a significant difference in the mean score of learning motivation among the five evaluated disciplines, based on the ANOVA ($F = 3.085$; $sig = 0.016$). The level of learning motivation among the M.Sc and Ph.D students was higher than that of B.S students. There was a significant relationship between the level of learning motivation and age, gender, and marital status variables ($P = 0.01$).
**Conclusions:** Considering the level of learning motivation among the students in aspects of self-efficacy conception, self-management, and communication abilities, it is recommended to provide programs to develop these characteristics by cooperative learning method based on social constructivism theory.

*Keywords:* Learning; Motivation; Self-; Self-management; Communication; Abilities; Rehabilitation

## 1. Background

Evaluating the level of learning motivation among the students of Iranian reputable universities indicates that contrary to the students high learning potential and high educational quality of these universities some students encounter educational failure on arrival and the rest of their study. Training motivated students who work on producing knowledge is one of the goals of the Iranian educational system, but there are some failures to achieve this goal, and ineffectiveness of the traditional education system is one of them, which leads to educational failure and reduces the learning motivation. Today the modern constructivism theory, the common theory in the developed educational systems, can be influential in providing the fine educational models, and also may help us to evaluate learning motivation. According to constructivism theory, learning is an action in which the learners create their knowledge and work to understand and give meaning to the information based on it (1). In the current study, the level of learning motivation is evaluated based on this theory. Motivation is an influential factor in learning and guides the actions of learners toward programming, organizing, reviewing, decision making, problem solving and evaluation. According to the personal constructivism theory, Piaget believes that learning motivation is a power guided by goal, leads to personal motivation, and finally follows the way up to achieving the goal. Vygotsky, a social constructivism theorist, believes that social interaction, cultural tools, and individual`s participation in the teamwork are the influential factors in learning and increasing the level of learning motivation (2), and for teamwork activities, communicational abilities of the learners is of great

importance. Learners' communicational abilities are the important factors in learning motivation (1). Learners with higher level of communicational abilities feel safe; they are sociable in interpersonal relationships, responsive to the needs of the others, and tend to maintain contact with the others. These learners have usually learned that their instructor is available; they feel close to him and believe that he is reliable and responsive (1). To improve learners communicational abilities, O`Donell points to four factors as having good understanding of the learner's situation, intimacy in interpersonal communication, supporting the learner, and guidance associated with empathy. Bruner, a social constructivism theorist, believes that self- regulation and self-efficacy of the learners are two important factors in increasing the learning motivation (3). Self-efficacy refers to the conception of self-efficacy to achieve a specific goal. Self-efficacy is a factor to organize and implement activities to achieve a goal (4). Self-efficacy is a perception of a learner about his abilities to achieve a goal (1). When the learner overcomes the situation, and learns the necessary skills to achieve the goal, he understands that he has the ability to learn (4). According to Zimerman, self-regulation is a factor that causes the learners to create knowledge; he also believes that learning motivation is influenced by the learners' self-regulation. Self-regulation means selecting the goal, programming, trying to achieve the goal, employing learning approaches, reviewing and assessment. In self-regulation, the learners aim to review, manage and regulate their behaviors (5). Dennis Global Research is one of the research studies that introduce multi dimensions of leaning motivation. This study has evaluated multifactor model of learning motivation in different cultural realms. Dennis Global Research, conducted in eight countries, believes that learning motivation is influenced by multiple factors with hierarchical relation. According to Dennis, learning motivation is influenced by the eight factors in four fields as self-efficacy, functionality, group empowerment, and development. According to Dennis, in the hierarchical structure, learning motivation refers to the self-efficacy conception influenced by the educational field and the learners' efforts, and learners' performance is influenced by their competition and self-promotion. Dennis Global Research is one of the research studies that can guide us to identify multiple dimensions of learning motivation. Shank conducted different studies on the students and compared the performance of students with high self-efficacy and those of the low self-efficacy. Results of this study showed that the learners with high self-efficacy had higher educational abilities than the ones with low self-efficacy. These researches showed that self-efficacy is a predicting factor in learning and academic achievements (6).

## 2. Objectives

Among useful knowledge, rehabilitation plays a decisive role in the country's health system. Therefore, it has special status and high dignity. Considering the aforementioned factors, the current study aimed to evaluate the level of learning motivation in the rehabilitation students in three levels of B.Sc. M.Sc. and Ph.D The current study was conducted to identify the relationship between demographic and situational variables, based on the learning abilities of the rehabilitation students. Working with specific groups and trying to empower the students need high motivations, and different variables affect reduction of the level of motivation among those who work in this field; therefore, understanding motivation and structures creating motivation in the students studying in this field are of great importance.

## 3. Patients and Methods

This descriptive cross-sectional study was conducted on the rehabilitation students of the University of Social Welfare and Rehabilitation Sciences who were selected by the total population sampling method. The validity and reliability of the learning motivation questionnaire were evaluated by its implementation in the study; an independent t-test, Pearson's correlation coefficient and the one- way ANOVA analysis were used to analyze the data. The statistical population under study included B.Sc. M.Sc. and Ph.D students of rehabilitation sciences of the University of Social Welfare and Rehabilitation Sciences. To conduct the current study, the total population sampling was used and all B.Sc. M.Sc. and Ph.D students from five different courses of social work, occupational therapy, physiotherapy, speech therapy, and prosthetics participated in the study, although some of them who indicated no willingness to participate in the study were excluded. A questionnaire was used to collect the data about the learning motivation among Iranian students. This questionnaire evaluates the self-efficacy (19 items), self-regulation (15 items), and communication abilities (10 items) factors; items include cognitive, emotional, and behavioral aspects. To score the items, students should use a five-point scale. Validity of the test for the three aspects of self-efficacy, self- regulation, and communication abilities, based on Cronbach's alpha, was 0.78, 0.92, and 0.8, respectively. The reliability of the questionnaire was evaluated by 10 specialists; to evaluate face validity of the questionnaire, four students (two B.Sc. and two M.Sc. students) completed the questionnaire and then the facial and content problems of the questionnaire were resolved. To process data, descriptive and inferential statistical techniques were employed; an independent t-test, Pearson's correlation, Tukey tests, and ANOVA were used in inferential statistics.

## 4. Results

The population under study included 451 students of occupational therapy, physiotherapy, social work, speech therapy, and technical orthopedics in three B.Sc. M.Sc.

and Ph.D courses of the University of Social Welfare and Rehabilitation Sciences in 2012. Out of 451 students, 351 (77.82%) participated from B.Sc. 69 (15.31%) from M.Sc. and 31 (6.87%) from Ph.D courses; also, 304 students (67.49%) were female and 146 (32.55%) were male. The mean age was 22.58 years. According to Table 1, 22% of the participants were the students of social work, 19% speech therapy, 20% occupational therapy, 20% physiotherapy and 19% technical orthopedics.

According to Table 1, the most participants were the students of social work with 99 students (22%) and the least participants were the students of Speech therapy and Technical orthopedics with 86 students (19.1%).

According to Table 2, the mean score of learning motivation in social work students was higher than those of the other disciplines.

According to Table 3 results of the one-way ANOVA (Table 3) showed significant difference among the mean scores of learning motivation of the students from different disciplines (F=3.085; sig= 0.016). To evaluate the source of differences, the Tukey test was used (Table 4). Results of this test showed significant difference between the learning motivation scores of the social work students with those of speech therapy, occupational therapy and also physiotherapy (sig = 0.037, 0.04 and 0.04, respectively); but the difference between the other groups was not significant.

**Table 1.** The Frequency Distribution of Academic Grades, by Rehabilitation Sciences Disciplines [a]

| Disciplines | Bachelor of Sciences | Master of Sciences | Ph.D. | Total |
|---|---|---|---|---|
| **Social work** | 77 (17.1) | 16 (3.5) | 6 (1.3) | 99 (22) |
| **Speech therapy** | 66 (14.6) | 15 (3.3) | 5 (1.1) | 86 (19.1 ) |
| **Occupational therapy** | 68 (15.1) | 15 (3.3) | 8 (1.8) | 91 (20.2) |
| **Physiotherapy** | 70 (15.5) | 12 (2.7) | 7 (1.6) | 89 (19.7) |
| **Technical orthopedics** | 70 (15.5) | 11 (2.4) | 5 (1.1) | 86 (19.1 ) |
| **Total** | 351 (77.8) | 69 (15.3) | 31 (6.9) | 451 (100) |

[a] Data are presented as No. (%).

**Table 2.** The Frequency Distribution and Standard Deviation of Learning Motivation Scores, by Rehabilitation Sciences Disciplines

| Discipline | Number | Mean ± SD |
|---|---|---|
| **Social work** | 99 | 165.222 ± 16.1198 |
| **Speech therapy** | 86 | 157.814 ± 19.127 |
| **Occupational therapy** | 91 | 157.989 ± 18.191 |
| **Physiotherapy** | 89 | 157.943 ± 18.958 |
| **Technical orthopedics** | 86 | 159.662 ± 15.851 |
| **Total** | 451 | 159.853 ± 17.838 |

**Table 3.** One-Way Analysis of Variance [a]

| | Sum of Squares | Df | Mean Square | F | Probability |
|---|---|---|---|---|---|
| **Intergroup** | 3855.278 | 4 | 963.820 | 3.085 | 0.016 |
| **Intragroup** | 139335.063 | 446 | 312.410 | | |
| **Total** | 143190.341 | 450 | | | |

[a] Abbreviations: Df, degree of freedom; F, name of a static test.

**Table 4.** Results of the Tukey Test to Compare the Mean of Different Disciplines, One by One

| Item | Discipline | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| **1** | Social work | - | - | - | - |
| **2** | Speech therapy | 0.037 | - | - | - |
| **3** | Occupational therapy | 0.04 | 1 | - | - |
| **4** | Physiotherapy | 0.04 | 1 | 1 | - |
| **5** | Technical orthopedics | 0.208 | 0.959 | 0.97 | 0.968 |

**Table 5.** Comparing Mean and Standard Deviation of Learning Motivation Aspects, by Rehabilitation Sciences Disciplines [a]

| Disciplines | Number | Self-efficacy | Self-regulation | Communication Abilities |
|---|---|---|---|---|
| **Social work** | 99 | 68.85 ± 9.24 | 57.95 ± 6.40 | 38.40 ± 4.48 |
| **Speech therapy** | 86 | 63.80 ± 12.44 | 57.05 ± 6.24 | 36.41 ± 4.60 |
| **Occupational therapy** | 91 | 65.24 ± 10.19 | 56.81 ± 7.10 | 35.93 ± 5.170 |
| **Physiotherapy** | 89 | 65.06 ± 10.91 | 56.60 ± 6.87 | 36.26 ± 4.99 |
| **Technical orthopedics** | 86 | 66.47 ± 8.86 | 57.16 ± 6.61 | 36.39 ± 3.98 |
| **Total** | 451 | 65.96 ± 10.48 | 57.16 ± 6.61 | 36.72 ± 4.73 |

[a] Data are presented as Mean ± SD.

Results of the one-way ANOVA regarding the difference between learning motivation of the students in three different academic degrees as B.Sc. M.Sc. and Ph.D showed a significant difference between the learning motivation scores of the students (F= 27.319; sig= 0.001). To evaluate differences between groups, the Tukey's test was used. Results of this test indicated significant difference between the learning motivation scores of students in the three courses (sig = 0.001), but the difference between the students of M.Sc. and Ph.D degrees was not significant (sig = 0.76). Results of the current study showed that the mean score of learning motivation in female and male were 161.68 and 155.87, respectively. Independent t-test between the two groups showed a significant difference (T = 3.28; sig = 0.001). Results of the current study showed that the mean scores of learning motivation in single and married groups were 158.92 and 164.10, respectively. Also, results of the independent t-test showed a significant difference between the mean scores of the two groups (T = 2.38; sig = 0.017); based on Pearson's correlation test, there was a significant positive relationship between the age and learning motivation (r = 0.274; sig = 0.000).

Results of the current study showed a significant difference in the scores of self-efficacy among the students of different disciplines (F = 3.185; sig = 0.013). To evaluate differences between groups, the Tukey's test was used. Results of the current study indicated that the mean score of self-efficacy among social worker students was higher than those of the other groups; also, there was a significant relationship in the scores of self-efficacy between the students of speech therapy and social work (sig = 0.009), but the difference between the other groups was not significant. The one-way ANOVA showed no significant statistical difference between the mean scores of self-regulation in the students of rehabilitation sciences disciplines. Results of the test showed that the mean score of communication abilities in the social work students was higher than those of the other rehabilitation students. Results of one- way ANOVA showed that the mean score of communication abilities among the students of different rehabilitation sciences was statistically significant (F = 4.267; sig = 0.002).

## 5. Discussion

The current study evaluated the learning motivation based on social constructivism theory. To measure the learning motivation of the students, their self-efficacy, self-regulation- and communication abilities were evaluated. Considering the hard-work of the students of rehabilitation sciences, the level of learning motivation was measured in the students of speech therapy, social work, occupational therapy and technical orthopedics. Results of the current study showed that the score of learning motivation among social work students was higher than those of the other disciplines. The statistical tests showed the higher scores of social work students in the self-efficacy and communication abilities. To explain this result considering the following points is of great importance: the diversity in the work of social work students such as health, treatment and rehabilitation affairs, which is associated with frequency and diversity in different realms, may be considered as an influential factor in the different scores of learning motivation among the students of different rehabilitation disciplines. According to Vygotsky, diversity in the work of learners is an influential factor that improves learning motivation (7). Also, extensive theoretical and practical discussions of social workers regarding the appropriate communication with the others are the influential factors that improve communication abilities and learning motivation. The studies showed that learning motivation is influenced by interpersonal relationships. Levin has evaluated the effect of interpersonal relationships on the learning motivation. This study was conducted on 2899 cases. Results of his study indicated that the interpersonal relationships may increase learning motivation of the students if it were associated with feeling safe, innovation, proper understanding of the opposite side and the others (8). Harter believes that relationships with mutual love, respect, and trust between the student and the teacher may increase the learning motivation (9). Lee conducted a review study on the interpersonal relationships among educational practitioners. He reported that friendly and respectful relation between the educational practitioners may improve learning outcome of the students; he also believed

that such relationships can increase the participation of students in the learning processes (10). Autonomy is another factor which increases the learning motivation of students; autonomy may improve self-efficacy conception and communication abilities of students. Considering the nature of social working, students of social work are very autonomous concerning their clients. Autonomy is a mental need which is followed by guiding the client in work and behavior. Students whose instructors support their autonomy are more motivated, feel more competent, have more positive emotions, have creativity at work, have richer social behaviors, and show more educational success and competence in comparison with those who have controlling teachers (8). Atapour believes that freedom of choice (autonomy) is an influential factor in increasing the learning motivation. He conducted a study on learning motivation and showed that there is a relationship between freedom of choice in the students and their learning motivation (11). Rayan showed that students who under evaluated the levels of being controlled by their teachers and believed that they were free to choose, had evaluated themselves more competent and were more motivated (12). Zukerman conducted a study on the students who independently chose their educational works. He concluded that students who were independent in choosing their works were more motivated compared to those who had no choice (13). Evans showed that threats and deadlines can decrease the autonomy and may decrease the motivation. Rigorous evaluation and monitoring may also reduce the level of autonomy and learning motivation (14). High level of cohesion and solidarity among social workers and immense supports of social work students by their teachers may be considered as an influential factor in improving the learning motivation of such students. Cohesion means attachment and emotional connection to the others; in fact, attachment is a reflection of the emotional desire to connect with the others, the connection which is commonly followed by warm relations. Attachment usually leads to being close to honest and supportive people, and also being far away from people who cause high risks and security loss. People usually tend to have satisfactory relationships resulted from connection with deep, noble, and supportive people (1). Selecting motivated students through interviews is another factor which can increase the score of learning motivation in social work students compared to those of the rehabilitation sciences. According to the results of the test, those who are married and are older are more motivated; it seems that this result complies with human and empirical concepts of rehabilitation, because attitude and ideology regarding working with certain groups are of great importance. This attitude and ideology is completed by aging and having more influential experiences. On the other hand, higher level of motivation in female students shows that supportive role is excessive among the feminine roles.

The limitations of the current study were as follows: the current study was conducted only on the students of rehabilitation sciences of the University of Social Welfare and Rehabilitation Sciences; since it was not conducted on the students of the other groups it cannot be compared within the students of different fields. The questionnaire used in the current study did not have a cut-off point; therefore, the obtained scores cannot be compared with it. According to the results of the current study, it is recommended to use modern student-based pedagogical methods and focus on the freedom of choice in the autonomy, cognitive, and metacognitive methods to improve self-regulation among the learners. Also, it is recommended to employ the useful pedagogical methods to improve emotional intelligence of the students, raise awareness of instructors regarding perfect methods of communication with the learners, make diversity in pedagogical fields, localize the teaching programs, provide proper facilities to employ knowledge in the real environment, make educational and operational opportunities for the instructors in the form of lecturing sessions, seminars, posters, and/or theatres, study on the students of the other fields and calculate their mean scores.

## Acknowledgements

University of Social Welfare and Rehabilitation Sciences of Tehran, Iran.

## Authors' Contributions

Submission: Jafar Jandaghi; Designer: Alireza Khani; Data collector and data analyzer: Ghoncheh Raheb and Mohammad Sabzi.

## Finding/Support

This study has been supported by the University of Social Welfare and Rehabilitation Sciences.

## References

1. O'Donnell AM. *Educational psychology.*: Wiley; 2007.
2. Woolfolk A. *Educational psychology.*: Allyn and bacon; 2004.
3. Parsons A, Johnstone A. Postcode prescribing and the Human Rights Act 1998. *J R Soc Med.* 2001;**94**(4):159–60.
4. Lefrancois GR. *Psychology for teaching.*: Wielly; 1997.
5. Zimmerman BJ. Self-regulating academic learning and achievement: The emergence of a social cognitive perspective. *Educ Psychol Rev.* 1990;**2**(2):173–201.
6. Schunk DH. Effects of effort attributional feedback on children's perceived self-efficacy and achievement. *J Educ Psychol.* 1982;**74**(4):54856.
7. Raheb. G . . The design and trial of a teaching model based on the social constructivist perspective and aimed at improving students' learning motivation. *11th international psychology congeress.* Oslo. 2009..
8. Park LE, Crocker J, Mickelson KD. Attachment styles and contingencies of self-worth. *Pers Soc Psychol Bull.* 2004;**30**(10):1243–54.
9. Harter S. *Teacher and classmate influences on scholastic Motivation, self esteemn and level of voice in a dolescents.*New York: Cambridge university press; 1996.

10. Lee VE, Bryk AS. A multilevel model of the social distribution of high school achievement. *Sociol Educ.* 1989;**62**(3):172–92.
11. Atapoor, S. The relations between learning motivation and learning achievement in guidance school in Esfahan. *Res J Ministry Educ Iran.* 2003;**1**(1):25.
12. Rayan RM, Grolnick WS. Self report and projective assessments of individual differences in childrens perceptions. *J Pers Soc Psychol.* 1986;**50**(3):550–8.
13. Zukerman, M. On the importance of self-determinayion for intrinsically motivated behavior. *Personal Social Psychol Bull.* 1978;**4**:443.
14. Evans ED, Tribble M. Perceived teaching problems, self-efficacy, and commitment to teaching among preservice teachers. **J Educ Res.** 1986;**80**(2):81–5.