ROLE OF MOTIVATIONAL INSTRUCTIONS UNDER HYPNOTIC TRANCE IN ACADEMIC ACHIEVEMENT OF ELEMENTARY SCHOOL CHILDREN

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Abstract

The role of hypnosis and motivation in academic performance has been under empirical investigation for a long. Therefore, the current quasi-experimental research was designed to explore the role of hypnosis and motivation in the academic achievement of Pakistani elementary school children. A sample of 90 students (50% boys and 50% girls) with an age range of 13-14 years, selected through stratified random sampling technique, was divided into three study groups (two experimental and one control group). One group was given motivational instructions under light hypnotic trance, the other was given the same instructions without induction of hypnotic trance and the third group was not given any intervention. Analyses of the data revealed that motivational instructions given under hypnotic trance as well as without hypnotic trance significantly improved the academic achievement of the participants. Gender differences were also evident as the academic achievement of the girls was significantly higher than that of the boys in the simple instructions group whereas the boys of the hypnotic instructions group performed significantly better than the boys of the simple instructions group. Implications of the study along with recommendations for future research were discussed. ASEAN Journal of Psychiatry, Vol. 23(3) March, 2022; 1-15.

Keywords: Hypnosis, Suggestibility, Motivation, Academic Achievement, Gender, School Children, Quasi-experimental Design.

Introduction

Along with other well-known creative modalities of expression like painting and poetry, “being hypnotic” can also be considered as a creative mode of expression and communication [1]. Hypnosis involves a relative suspension of conscious awareness which is generally induced through suggestions of progressive relaxation that in turn stimulates a state of concentration and focused attention [2].

Although, it is said that hypnotic trance is a naturally happening somewhat altered state of consciousness that everyone experiences regularly to a varying degree in daily life [3] yet this state can also be produced by using a huge variety of techniques. In this way, it has been comprehended in terms of suggestibility and dissociation indicating an altered or less-than-normal state of consciousness [4] as well as in terms of more ordinary psychological processes including; relaxation, attention, and imagination [5]. Hypnosis has very effectively been used to treat a variety of physical and psychological ailments including; obesity [6], chronic pain [7], dermatological illness [8], cancer [9, 10], substance abuse disorders [11, 12], as an adjunct during colonoscopy [13], anxiety [14], depression [15, 16], sleep disorders [17, 18], dementia [19], sexual dysfunctions [20], and has also been proved to be effective in emergency care [21].

Likewise, in non-clinical populations, modern hypnosis has been used for a long to build and
improve self-confidence [22], stop smoking, change habits, and improve memory as well as found to be effective in eliminating anxieties fears, and problematic behaviors in children through relaxing brain waves and inducing a state of hyper-suggestibility in them [23]. Since the hypnotic state offers greater control over physical and psychological processes, therefore, disturbing cognitions and perceptions can be temporarily dissociated to attain desired outcomes.

Thus, the existing empirical literature has suggested the usefulness of hypnosis in learning and other cognitive functions [24]. In this regard, it has been established empirically that all childcare including medical, therapeutic, and/or academic professionals could effectively use hypnotic language to inculcate social-emotional skills and self-regulation in children. Therefore, it has been recommended to arm the children with constructive language in an altered state of consciousness enabling them to have a heightened sense of self-efficacy and emotion-regulation [3]. It is quite evident that hypnotic suggestions have effective positive application in the enhancement of the academic grades in educational endeavors [25]. Since memory recall is considered very important in academic learning and achievement, therefore, it can safely be predicted that hypnotic suggestions enhance academic achievement as these suggestions are given in a heightened state of relaxation that can reduce stress and anxiety, improve working memory, and ultimately facilitate in recalling recently learned material [26].

Thus, researches exploring the relationship between hypnosis and memory have focused on the phenomenon in two fundamental ways; investigation of the effectiveness of hypnosis in recalling precious memories, and in creating new memories [27]. It is said that the changing in words changes the thoughts that ultimately result in action (either positive or negative) thus; the right words yield the right thoughts that convert into the right action and produce good results. It can therefore be assumed that hypnosis could be used in educational settings to empower the students where the use of positive language under hypnotic trance can be used to promote relaxation, decrease anxiety, and regulate emotions effectively in the children [3].

Thus, a vast body of empirical research had focused to explore the effectiveness of hypnosis in learning particularly in terms of the academic performance of the students. In this regard, the significance of hypnotic suggestions was highlighted in a case study of two students who reportedly were victims of accidental hypnosis. They had been given suggestions at an early age that they could not succeed. These inductions were identified and removed followed by positive inductions of success in the future under hypnotic trance. Post assessment revealed that the scholastic performance of the students significantly improved after hypnotic intervention [28]. Similar findings were also obtained in another study conducted on students of South Africa [29].

Likewise, self-hypnosis has been found as an effective tool in the learning process. It was further revealed that the participants who experienced more depth in self-hypnosis showed more improvement in academic performance as compared to the participants experiencing lesser depth [30].

In another study, there was found a significant association between hypnotic suggestibility and academic achievement in undergraduate students [31]. Likewise, a hypnotic training program was developed and introduced for university students to explore the effectiveness of hypnosis in academic performance. Comparison of pre-and post-assessment revealed a significant improvement in the academic achievement of experimental groups as compared to control groups [32].

A recent study [33] explored the relationship between hypnotic suggestibility and academic performance (i.e., reading comprehension) through emotional intelligence in students. Findings of the study not only suggested promising effects of hypnotic suggestibility on emotional intelligence and academic performance of the students but also revealed that the positive effects remained persistent significantly even after the intervention (at one-month follow-up).
Studies suggest that relaxation (an integral part of hypnosis) enhances the ability to recall particularly in terms of short-term memory [34]; however, other studies do not support this finding [35].

Parallel to this, exploring the neurological basis of hypnosis and learning, it has been found that image-provoking memories developed under hypnotic trance prompted stronger activation in the respective parts of the brain suggesting that image-provoking memories developed under hypnotic trance are encoded differently as compared to the memories developed in normal conditions [36]. Moreover, existing literature on the efficacy of hypnosis in academic performance depicts mixed results as some of the researchers have found hypnosis significantly effective to enhance academic performance, whereas, others found no or a neutral effect [25,37].

As far as gender is concerned, females have generally been found to have more hypnotic suggestibility particularly self-hypnotic imagery as compared to the males [38] as well as befit more from hypnosis than that of men [39] Nevertheless, it has been controversial too [40] as both the genders are equally suggestible [41]. Moreover, some of the studies conducted on children depicted non-significant gender differences when the effect of hypnosis was measured in the administration of local anesthesia [42], self-concept, and self-esteem [23]. On the other hand, existing literature also suggests that in some cases like smoking cessation hypnosis is more beneficial in men as compared to women [11].

Motivation is a state of human beings that show various volunteer attitudes to achieve certain goals [43], directing them to act accordingly to attain specific goals [44], and is considered a key factor that affects human behavior and performance in different fields of life [45]. Furthermore, it is assumed to be the collection of the efforts made to mobilize the individuals towards the set goals as well as to ensure the continuity of this drive [46] where internal factors of the individuals initiate this drive and external factors ensure continuity of the consequent behavior by encouraging it [47]. The same phenomenon is observed in educational endeavors as well where motivation as an intrinsic desire is reflected in individuals while acquiring new knowledge or information [48]. Therefore, researchers have always focused to explore the role of motivation as one of the most significant factors in the academic achievement of the students [49].

In this context, a highly significant effect of motivational instructions on the academic performance of school students has been proven empirically [50] and motivation of the school children is appeared to be a significant predictor of academic achievement beyond intelligence and other related factors [51]. Likewise, various recent studies have also proven that motivation plays a significant role in the academic performance of school children as well as college students [52-55].

While the above-mentioned studies exploring the relationship between hypnosis and academic performance have been found inconclusive, the current study was designed to reinvestigate the phenomenon. Moreover, many of the previous studies have focused on the relationship of hypnosis and academic performance, memory, and recall, or explored the role of motivation in academic achievement whereas, the current study aimed to assess the relationship of certain motivational instructions given under hypnotic trance with academic performance of the students as well as to explore the relationship of hypnosis and motivation separately with academic performance in the same sample to determine the relative effectiveness of hypnosis and motivation simultaneously.

Furthermore, girls are considered as less favored socially and culturally than boys of the developing world. A large number of studies have also indicated that such kind of environmental maltreatment of girls negatively affects their psychosocial development; inculcating inferiority, low self-esteem, and low levels of intrinsic motivation in them and affecting their schooling ultimately [56]. Since Pakistan is also a developing country [57-58]
thus, this study was also aimed to explore the role of hypnosis and motivation particularly in less motivated gender (i.e., girls) being a citizen of a developing country. Furthermore, in Pakistani collectivistic culture, children particularly girls are usually more obedient and compliant as compared to the individualistic cultures [59-60] hence, they had been assumed to be better suggestible under hypnotic trance.

Materials and Methods

Participants

The population of the study was comprised of all male and female students of middle standard (8th class), studying in the government schools of Faisalabad city, Pakistan. List of government secondary schools of Faisalabad city as provided by Directorate of Education, Faisalabad, and lists of students studying in 8th class as provided by the offices of the selected schools served as the sampling frame.

The multistage sampling technique was sued in the current study. First of all, two government secondary schools (1 boys’ and 1 girls’ school) were selected using a stratified random sampling technique. A sample of 90 (45 from each school/stratum) students (13–14 years old) was drawn. Again using the stratified random sampling technique, from each selected school, 15 students for each study group, including two experimental groups; (a) Hypnotic Instructions Group (receiving motivational instructions under light hypnotic trance) and (b) Simple Instructions Group (receiving motivational instructions without induction of hypnotic trance), along with one control group i.e. No Instructions Group (receiving no instruction) were selected making a total of 30 students in each group. The groups were assigned to experimental and control conditions randomly.

Measures

Motivational instructions

The motivational instructions were developed that could stimulate the four social motives (achievement, affiliation, counteraction, and exhibition) described by Bhatia [61] and some basic needs other than the physiological needs including belongingness, and love needs, esteem needs, desire to know and to understand, and aesthetic needs., as described by Maslow. For expert validation, these instructions were sent to 7 practicing clinical psychologists, and the same was rephrased as per their expert opinion.

Achievement test

Academic achievement was assessed through teacher-made achievement tests (including Urdu, English, and Mathematics). These tests included objective-type questions (i.e., MCQs, fill in the blanks, and true/false items according to the syllabus of the class). Tests were prepared from the textbooks (recommended by Punjab Textbook Board, Lahore) of the 8th class. Because data collection was done in May, the tests were prepared according to the syllabus being taught from mid-April to 31 May 2005. Some items from the syllabus of 7th class and some items that were common in the syllabus of 7th and 8th class were also included so that students could be able to attempt it in pretest, as they had yet started studying in 8th class.

Items for the tests were selected by the researcher and then forwarded to two experienced teachers (teaching in public sector secondary schools of the city); (a) to select the valid/appropriate items for the test, (b) to exclude the irrelevant items, (c) to set the time limit, (d) to restructure the questions (if necessary) and (e) to make the test applicable in all respects.

Procedure

After getting formal institutional permissions, the selected participants were approached, rapport was established, and written informed consent was obtained. The pre-testing of academic achievement was carried out. Subsequently, suggestibility testing of the “hypnotic instructions group” was done by the researcher (a certified hypnotherapist). Some of the students in the group were found no or poorly suggestible, so first of all relaxation training (e.g., deep breathing and gradual imaginative
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Muscles relaxation of all parts of the body) and imagination improvement training was given to those students. This process took four days. When all the students in the “hypnotic instructions group” become suggestible, they were put into a light hypnotic trance after physical as well as mental relaxation. Progressive relaxation method, counting method, and visual imagery techniques were used to put the clients into a trance. The state of trance was checked through the “arm levitation” technique. In this state, motivational instructions were given to the students for 1 month (i.e. 1 session of half an hour daily for the first 4 days in the morning time and weekly after that). On the other hand, the “simple instructions group” was given the same instructions without inducing hypnotic trance for the same days as well as for the same time as given to the “hypnotic instructions group” whereas “no instruction group” was not given any treatment.

After a month, post-testing was carried out using the same test. Pre and post-tests were administered to the students without any prior intimation to exclude the effect of special preparation for the test. The concerned teachers were also unaware of the pre and post-tests however, the presence of all the selected participants in post-testing was ensured and resultanty no drop-out was there. For data analysis, Analysis of Variance (ANOVA) and t-test was carried out using Statistical Package for Social Sciences (SPSS v-21).

Results

Table 1. One way ANOVA of hypnotic instructions group (n=30), simple instructions group (n=30), and no instruction group (n=30) on achievement test in post-testing (N=90).

<table>
<thead>
<tr>
<th>Scale</th>
<th>Class</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic achievement</td>
<td>HIG</td>
<td>21.92</td>
<td>10.93</td>
<td>3.58*</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>SIG</td>
<td>18.77</td>
<td>6.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIG</td>
<td>8.43</td>
<td>4.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16.37</td>
<td>9.74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. HIG=Hypnotic Instructions Group; SIG=Simple Instructions Group; NIG=No Instruction Group, *: p<0.05; df between groups=2; df within groups=87; df total=89.

The data given in Table 1 revealed a significant difference between the groups (p<0.05). Therefore, Post Hoc Test (i.e., LSD) was carried out to unveil where the difference existed exactly in post-testing. Furthermore, in pre-testing, ANOVA depicted non-significant differences in the study groups therefore; the Post Hoc test was run for post-testing only.

Table 2. Post Hoc tests depicting difference in study groups on post-testing (N=90).

<table>
<thead>
<tr>
<th>Study groups (I)</th>
<th>Study groups (J)</th>
<th>Mean difference (I-J)</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypnotic instructions</td>
<td>Simple instructions</td>
<td>3.15</td>
<td>0.113</td>
</tr>
<tr>
<td>Hypnotic instructions</td>
<td>No instructions</td>
<td>13.48**</td>
<td>0.001</td>
</tr>
<tr>
<td>Simple instructions</td>
<td>No instructions</td>
<td>10.33*</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*: p<0.05; **: p<0.01
The data given in the Table 2 depict that there existed significant differences between the “hypnotic instructions group” and “no instruction group” as well as between the “simple instructions group” and “no instruction group” in terms of academic achievement of the participants in post-testing.

However, there was a non-significant difference between the “hypnotic instructions group” and

Table 3. One way ANOVA of hypnotic instructions group (n=15), simple instructions group (n=15), and no instruction group (n=15) on achievement test in post-testing of boys (N=45).

<table>
<thead>
<tr>
<th>Scale</th>
<th>Class</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement</td>
<td>HIG</td>
<td>19.67</td>
<td>9.08</td>
<td>2.97*</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>SIG</td>
<td>14.93</td>
<td>4.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIG</td>
<td>8.27</td>
<td>4.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14.29</td>
<td>7.86</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. HIG=Hypnotic Instructions Group; SIG=Simple Instructions Group; NIG=No Instruction Group;*: p<0.05; df between groups=2; df within groups=42; df total=44.

The data given in Table 3 revealed a significant difference between the groups (p<0.05). Therefore, Post Hoc Test (i.e., LSD) was carried out to uncover where the difference existed exactly in post-testing in the sample of boys.

Furthermore, in pre-testing, ANOVA depicted non-significant differences in the study groups therefore; the Post Hoc test was run for post-testing only.

Table 4. Post hoc test depicting difference in study groups on post-testing in boys (N=45).

<table>
<thead>
<tr>
<th>Study groups (I)</th>
<th>Study groups (J)</th>
<th>Mean difference (I-J)</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypnotic instructions</td>
<td>Simple instructions</td>
<td>4.73</td>
<td>0.091</td>
</tr>
<tr>
<td>Hypnotic instructions</td>
<td>No instructions</td>
<td>11.41**</td>
<td>0.01</td>
</tr>
<tr>
<td>Simple instructions</td>
<td>No instructions</td>
<td>5.67</td>
<td>0.056</td>
</tr>
</tbody>
</table>

***: p<0.01

The data presented in Table 4 indicate that the boys of the “hypnotic instructions group” performed significantly better than the boys of the “no instruction group” on academic achievement tests in post-testing. The rest of the inter-group comparisons depicted non-significant differences in academic achievement.

Table 5. One way ANOVA of hypnotic instructions group (n=15), simple instructions group (n=15), and no instruction group (n=15) on achievement test in post-testing of girls (N=45).
Role of Motivational Instructions under Hypnotic Trance in Academic Achievement of Elementary School Children

| Scale               | Class     | M    | SD       | F     | p<  
|---------------------|-----------|------|----------|-------|------
| Academic            | HIG       | 24.17| 12.42    | 4.86* | 0.01 |
|                     | SIG       | 22.59| 6.93     |       |      |
|                     | NIG       | 8.61 | 4.62     |       |      |
| Total               | 18.46     | 11.01|          |       |      |

Note. HIG=Hypnotic Instructions Group; SIG=Simple Instructions Group; NIG=No Instruction Group; *: p<0.05; df between groups=2; df within groups=42; df total=44.

The data given in Table 5 revealed a significant difference between the groups (p<0.01). Therefore, Post Hoc Test (i.e., LSD) was carried out to determine where the difference existed exactly in post-testing in the sample of girls.

Furthermore, in pre-testing ANOVA depicted non-significant differences in the study groups therefore; the Post Hoc test was run for post-testing only.

Table 6. Post Hoc test depicting difference in study groups on post-testing in girls (N=45).

| Study groups (I) | Study groups (J) | Mean difference (I-J) | p<  
|------------------|------------------|-----------------------|-------
| Hypnotic         | Simple           | 1.58                  | 0.622 |
| Hypnotic         | No instructions  | 15.57**               | 0.01  |
| Simple           | No instructions  | 14.12**               | 0.01  |

**: p<0.01

The data presented in Table 6 indicate that the girls of the “hypnotic instructions group” and “simple instructions group” performed significantly better than the “no instruction group” on academic achievement tests in post-testing. However, there was a non-significant difference between the “hypnotic instructions group” and “simple instructions group” in terms of academic achievement.

Table 7. Means, standard deviations, t and p values of boys (n=45) and girls (n=45) on achievement test in post-testing (N=90).

<table>
<thead>
<tr>
<th>Groups</th>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p&lt;</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypnotic instructions</td>
<td>Boys</td>
<td>19.67</td>
<td>9.08</td>
<td>1.13</td>
<td>0.267</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>24.17</td>
<td>12.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple instructions</td>
<td>Boys</td>
<td>14.93</td>
<td>4.28</td>
<td>3.65**</td>
<td>0.01</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>22.61</td>
<td>6.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No instruction group</td>
<td>Boys</td>
<td>8.27</td>
<td>4.81</td>
<td>0.194</td>
<td>0.848</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>8.61</td>
<td>4.62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**: p<0.01; df=28.
The data given in Table 7 revealed that the academic achievement of the girls was significantly higher than that of the boys in the “simple instructions group”. However, there were non-significant gender differences between the “hypnotic instructions group” and “no instruction group” in academic achievement on post-testing.

Discussion
As a creative mode of expression and communication [1], hypnosis has been found as an effective intervention to build and improve self-confidence [22] and improve memory in children [23]. In this regard, the existing literature has suggested the usefulness of hypnosis in learning and other cognitive functions [24] and its effectiveness in the enhancement of the academic grades in educational endeavors [25]. Moreover, it has been found that the hypnotic suggestions enhance academic achievement as these suggestions are given in a heightened state of relaxation that can reduce stress and anxiety, improve working memory, and ultimately facilitate recalling recently learned material [26].

Therefore, this quasi-experimental study was designed to explore the role of hypnosis in the academic achievement of students in the cultural context of Pakistan. For this purpose, a sample of 90 middle standards (8th class) students was selected using a multistage sampling strategy. The sample was divided into three study groups: Hypnotic Instructions Group (HIG, motivational instructions were given under light hypnotic trance), Simple Instructions Group (SIG, motivational instructions were given without inducing hypnotic trance), and No Instruction Group (NIG, the control group). The rationale behind coupling motivational instructions/suggestions with hypnotic trance was based on the belief that suggestions would be more effective when the participants are in a relaxed state and altered state of consciousness.

Since it has been discussed earlier in detail that hypnosis and motivation both play distinctive roles in the academic performance of the students, however, relaxation is the basic phenomenon of hypnosis that can enhance the academic performance more efficiently thus, it was hypothesized that academic achievement of the students receiving motivational instructions under hypnotic trance would be better than that of students receiving such instructions without induction of hypnotic trance or students receiving no instruction as well as students receiving motivational instructions without induction of hypnotic trance would perform better on academic achievement test as compared to the students receiving no instruction. Analysis of variance highlighted that in the pre-test, there was no significant difference in obtained scores among the three study groups indicating the same level of three study groups in terms of academic performance. However, in the post-test, there found significant differences as discussed below.

Results of the current study depicted significant differences between the HIG and NIG as well as between the SIG and NIG in terms of academic achievement of the participants. It indicated the better academic achievement of the HIG than that of the NIG. Similarly, there found a better academic achievement of the SIG than that of the NIG. These findings supported our hypotheses and were found to be by existing literature indicating effectiveness of hypnosis in academic performance of the students [31-33] as well efficacy of motivation in academics [48, 49, 51-55]. Results of the study further revealed that although, the difference between HIG and NIG was more significant (p<0.01) as compared to the difference between SIG and NIG (p<0.05) yet both the instructions given under hypnotic trance and instructions without hypnotic trance appeared to be effective to enhance the academic performance of the students. In this way, the difference between HIG and SIG remained non-significant. Therefore, it can safely be asserted that in Pakistani collectivistic culture, both motivation under a hypnotic trance, as well as simple motivation work equally as Pakistani students, are normally suggestible, dependent, and compliant [59]. Furthermore, since the current research was conducted in public sector schools that usually lack appropriate
infrastructure due to which noise-free and comfortable atmosphere (normally considered as pre-requisites of hypnosis and better susceptibility) could not be provided to the participants for better induction of hypnosis. This might have been another reason for the non-significant difference between HIG and SIG. As far as gender is concerned, the existing literature depicts that girls generally have more hypnotic suggestibility, therefore, can benefit more from hypnosis as compared to boys [38,39].

However, the findings of the current study revealed another interesting dimension of the phenomenon in the cultural context of Pakistan as boys of HIG showed significantly better academic achievement than that of the boys of NIG whereas, HIG and SIG of boys depicted non-significant differences in academic achievement. On the other hand, girls of HIG, as well as SIG, performed significantly better than the girls of NIG on academic achievement tests in post-testing. However, there was a non-significant difference between HIG and SIG in terms of academic achievement.

Since boys are generally more autonomous and less compliant than girls [59] therefore, simple motivation could not be beneficial for them but they responded well to the motivation given under hypnosis as the compliance is induced in hypnosis as a part and parcel of it. On the other hand, inter-group comparisons of girls depict that simple motivation is as effective as motivation given under hypnotic trance. As obedience, dependence, and compliance are not only preferred traits of girls in collectivistic cultures but also inculcated in them during their brought-up [57] thus, they can be motivated with even simple words without induction of hypnotic trance.

Furthermore, the existing literature suggests that women are more susceptible and susceptible to hypnosis than men [39]. Therefore, it was hypothesized that the girls would depict better academic performance in response to the motivational instructions under a hypnotic trance as compared to the boys in the same experimental condition. On the other hand, it is established that socially as well as culturally, girls are less favored than boys in the developing world inculcating low self-esteem, inferiority, and low level of motivation in them [56]. Thus, considering the fact that when less motivated girls would be motivated, they would certainly show better results than that of boys, it was hypothesized that the academic performance of the girls receiving simple instructions would also be better than that of boys of the same experimental group.

In this regard, the comparisons between both genders revealed that the academic achievement of the girls was significantly higher than that of the boys in SIG. However, there were non-significant gender differences in HIG and NIG in academic achievement on post-testing. These findings again highlighted the presence of compliance suggestibility as a part and parcel of girls’ personality in collectivistic cultures [60] therefore; they performed significantly better than the boys in SIG. Whereas, in HIG gender differences were found to be non-significant suggesting that both the genders respond to hypnotic suggestions equally.

Conclusion

It can be concluded that, in collectivistic cultures, hypnotic suggestions can be used more effectively to motivate the boys as they are usually insensitive to motivation given in the normal state of consciousness. Furthermore, although, the enhancement in performance produced by simple motivational instructions did not exceed the level of enhancement produced by hypnotic instructions, the simple motivational instructions can also be much more effective to enhance academic performance, particularly in girls. Therefore, it can safely be claimed that enhancement in performance does not depend on the words of instructions rather it depends on how much instructions or sense of instructions are being taken by the subject. As the same words uttered by a saint (a spiritual leader) have more powerful and magical effects on the followers than those uttered by an ordinary person. Similarly, the same words by the same saint cannot affect any non-followers because he would never intake these words as the follower. So, it is the respondent’s ability or willingness to
intake the suggestions or instructions. For these reasons, before starting as well as during the data collection, good rapport establishment was also emphasized.

Limitations and Recommendations

- The selected schools in the current research were lacking appropriate infrastructure due to which a noise-free and comfortable atmosphere could not be provided to the participants for better induction of hypnosis. Future studies should be planned to keep this factor under consideration to get clearer results.
- Sample of the current study was selected from only two schools of one city of Pakistan which limits the generalization of the findings. To improve the generalizability of the findings, future studies can be conducted selecting a relatively large sample from more than two academic institutions as well as from different cities of the country.
- Certain extraneous/confounding variables (e.g., parental education, Physical health of the students, study/sleeping/playing hours, etc.) could not be controlled in the current study which might have an impact on the academic achievement of the students. Such variables can be controlled in future studies in true experimental conditions (if possible).
- Since the effectiveness of hypnosis depends on personal capacity as well as the willingness of the client to intake hypnotic instructions to a certain extent. This willingness was not measured objectively in this research which can be considered in future studies.

Implications of the Findings

This empirical exploration of the phenomena will serve as a ground-breaking effort in Pakistan. The findings of this study highlight the role and involvement of authority figures (i.e., teachers, parents, caregivers) with whom students could perceive a strong bond. Such an influential person using the appropriate method can magically motivate the students and as result can provide a shining future to the nation. Based upon these findings, curriculum planners, education providers, and policymakers can include continued motivation (as an integral part of the education system) provided by trained school/educational psychologists and the use of hypnosis by a certified hypnotherapist.

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