The Effectiveness of Lazarus Multimodal Training on Responsibility, Emotion Styles and Psychological Integrity in Self-harm Students

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Abstract

Introduction: Adolescence is one of the most sensitive age groups in the history of identity formation and education. Girls are much more vulnerable to social issues, given their intrinsic morale. The purpose of this study was to investigate the effectiveness of Lazarus multimodal education on responsibility, emotional expressions and psychological integrity in self-harm students in Mashhad.

Method: The present study was conducted using a short clinical interview based on DSM-5 conducted by a psychologist. To collect the research data, the Emotional Expressionist styles Questionnaire (EEQ), the Responsibility Scale, the California Psychological Questionnaire (CPI), and the Sense of Coherence Questionnaire were used. The statistical population consisted of all high school self-harm students in Mashhad, who were studying in 2016 (90 people).

Results: The results of this research based on multivariate covariance analysis showed that Lazarus multimodal treatment significantly increased the sense of psychological integrity and responsibility and improved emotional expression styles in students with self-harm disorder.

Conclusion: This therapy approach to self-harm is a form of excitement that results from the balance of internal factors of environment and neuro/hormonal processes, and leaves people free from self-harm.

Keywords: Lazarus Approach, Responsibility, Excitement Styles, Self-harm Disorder

Introduction

Adolescence is one of the most sensitive age groups in the history of identity formation and education. During adolescence, time is commonly spent in educational systems by preserving academic and teaching concepts and stress for exams [1]. Girls are much more vulnerable to social issue and damages. Damages that may be caused by the psychological pressures from the community and the surrounding area will be terrible for them, while the surrounding people may not even notice it [2, 3]. Self-harm is self-destructive, localized, and informal. It is actually the inability to interfere with the person’s aggressive shocks, to punish him/herself. The majority of patients with self-harm disorder are from personality disorder, alcohol abuse, and drug abuse. At the same time, many of them have a history of suicide [4].

It usually develops in puberty and can be the first manifestation of severe mental illness [5]. A study shows that people who started self-harm at lower ages, experience more courses and more diverse methods of self-harm. It is worth mentioning that self-harm in lower ages make prognosis much worse [6]. In this regard, one of the factors associated
with self-harm disorder which should be considered is the responsibility of individuals. Glaser believes that the problem of humans and their abnormalities is that they do not want to accept responsibility. This issue is due to the fact that they cannot satisfy their basic needs properly as a human condition [7].

People with fewer responsibilities, are at more risk of self-harm. Research has indicated that people who tend to regulate their evaluations and emotions when faced with stressor (e.g. employing emotion regulation strategies), possess more powerful strategies for their psychological and physiological stress responses [8]. In this regard, by increasing the sense of psychological coherence in students, self-esteem can be increased while they face challenges in their life [9]. Psychological variables of self-esteem and the lack of control have important roles in the orientation and perspective of the students towards their life. Some research show that training packages focusing on fostering stable self-esteem and decreasing fear of negative evaluation may be highly effective in adolescents' self-handicapping and operate as a factor leading to more development and growth for them [10, 11]. The sense of coherence is defined as the general orientation of a person relative to the enjoyment degree of a dynamic and permanent emotional feeling, as well as the sense of self-esteem in facing with life's challenges [12]. One of the treatments used in this manner is the Lazarus multimodal treatment. The multimodal treatment is not a system, but a comprehensive approach that evaluates and treats the personality as a whole [13, 14]. The multimodal therapist does not rule out specific contents for treatment in contrast to psychotherapists, but the multimodal therapist's task is to evaluate the whole patient's thoughts and mental beliefs, to know him/her totally and systematically [15, 16]. Considering the effectiveness of the model employed in this study, this model is suitable to use by therapists and counselors to reduce anxious thoughts in patients with social anxiety disorder. By practicing this model, students will show better performance in their personal and social life [17]. Moreover, educating the students based on these models can have a great influence on them, since it is crucial that they learn proper scientific training models to enhance their mental health [18, 19].

Other influential mental health variables in relation to self-harm behaviors that have not been paid attention are emotional expressive styles. Expression styles are the ways that people express their excitement about their surroundings. The main theorist of emotional expression styles is King [20], who divided emotional expression into three categories: emotional expression, emotional inhibition, and emotional ambiguity (these may be expressive or non-expressive, but they are conflicting with their emotional expression). Self-harm is often seen in mental hospitals as well as outpatient clinics [21]. Self-harm also occurs in healthy people. About 4% of the general population and 14% of students reported self-harm history [22].

Psychiatric Disorders (DSM-5) refer to self-harm, in the personality disorder section. On the other hand, some studies have shown that self-harm has been a diagnosis apart from personality disorder [23]. Self-harm is deliberate, impulsive and non-lethal causing damage to the person's body in various forms [24]. Intentional self-harm is usually recognized by cutting veins or other tissues of the body, burning, taking too much medicine, beating, pulling hair, tweaking skin or choking oneself. These types of self-harm are not usually fatal, and only 13% of these efforts are severe which lead to the transfer of the person to hospitals. However, self-harming was often repeated, and in some cases it lead to suicide [25]. Studies on this disorder revealed that people with a history of self-harm, and imposed serious injuries to themselves, are in higher risk for suicide [26]. Moreover, studies in adolescents also showed that the risk of suicide for those who had already committed suicide is higher, and they require prompt support and treatment [27].

In general, people with self-harm symptoms come from families with abnormal disciplinary methods, or families who use violent or aggressive disciplinary methods. In these families, children are not fully informed in the proper manners to deal with negative emotions [28]. As a result, they will experience higher negative emotions and will have difficulties in executive functions including the ability to focus on efficient problem solving.

What is evident is that having a proper strategy to deal with these negative emotions (e.g. changing emotional expression style) is critical [29]. In a research which aimed to study Lazarus' multimodal training on emotional styles, it was seen that instructing some exercises on positive emotional expression could improve the sense of hope and well-being [30]. Moreover, as their well-being was improved, they were able to express more self-compassion, become more careful and gentle to themselves and to others [31].

In another study, it was shown that Lazarus' multimodal treatment is also effective in curing depression and anxiety [32]. Moreover, results of another study showed that Lazarus multimodal therapy reduced the symptoms of depression, in patient [33]. The effectiveness of the Lazarus' multimodal treatment on the responsibility of the children also demonstrated that following interventions, children were more responsive and became more responsible [27]. Finally, in another study, teaching this method to the people in the experiment group changed their level of happiness [34].

According to the Antonovsky's theory and some other studies, the sense of psychological integrity can be utilized as a strong predictor of anxiety [35, 36]. Psychological integrity is directly correlated with healthy behavior [37] and mental health. In addition, it is a strong prediction to prevent depression. One study demonstrated the effect of coherence sense in the well-being, after being implemented for two years on the undergraduate students of a Japanese university [38]. Multiples research has shown that more psychological integrity in adolescents could create higher mental and physical health, create social protection and the feeling of belonging to the family and community [36, 39, 40]. Also,
feeling more support from the family, school, and peer
enabled people to create better contacts with the
stressors and improve their problem-solving ability [41].

Therefore, in this research, the effectiveness of Lazarus
multimodal training on responsibility, emotional
expressions and psychological integrity in self-harm
students has been investigated. The aim of this research
was to answer the question of whether Lazarus
multimodal training has a significant effect on
responsibility, emotion, and sense of psychological
integrity in self-harm students or not.

**Method**

As it can be seen in figure 1, the statistical population of
this study consisted of all high school students (girls only)
in the 7th district schools of Mashhad, who were studied
in 2016. This population includes around 4500 people.
The number of people who were picked up as the sample
of this community was 90 with random sampling by
choosing a part of this city. The samples were selected
through target sampling. This was followed by a few short
clinical interviews based on DSM-5. Also, those who had
the lowest scores in the questionnaires were identified
with self-harm disorder. These students were diagnosed
and 24 of them were selected by target sampling method.
At the end, 24 girl students were selected and randomly
divided into two groups (12 girls in the experiment
group and 12 girls in the control group).

The instruments used in this research are as follows:

**Emotional Expression Styles Questionnaire (EEQ):**

This questionnaire was designed by King [42] to examine
the importance of the role of emotion in psychological health.
Emotional Expression Styles Questionnaire (EEQ) has three
sub-scales of positive emotion expression, intimacy and
negative emotion expression in 16 items. The EEQ
questionnaire is scored according to the Likert method.
The reliability reported for the questionnaire was more than 0.70
in all subscales. The total scales and subscales for the
reliability of positive emotion expression, intimacy and
negative emotion expressions were 0.79, 0.77, 0.73 and 0.77
respectively [43].

**California Psychological Inventory Questionnaire, Responsibility Scale:**

The California Psychological Inventory Questionnaire,
Responsibility Scale (CPI) has 42 questions and has been
published by Gough [44]. This questionnaire was designed to
determine the responsibility of normal people above 12 years
old. The possible responses in this questionnaire is either
agree or disagree. Plus, it has 18 standardized scales. As
measured by Pasha and Goodarzian, its reliability coefficient
is 0.76, which is more than the threshold of 0.70 [45].

**Antonovsky’s Psychological Integrity Questionnaire:**

The Antonovsky’s Psychological Integrity Questionnaire
includes 29 items, and its reliability coefficient was 0.95 in the
pilot research [46]. As for the Persian translation provided for
the Iranian students, the reliability coefficient for male and
female students were 0.75 and 0.78, respectively. Also, the
total test-retest reliability coefficient was determined as 0.66
[47].

The pre-test session was carried out on both the
experimental and control groups. Then, 10 sessions of
interventional training was performed on the experimental
group using Lazarus’ multimodal training approach (with
each session lasting for two hours), while no training was
performed on the control group. At the end of the training
sessions in the experimental group, to test and compare the
effect of this treatment intervention, both the experimental
and post-test groups were tested and the results of pre-test
and post-test were compared in both groups. The protocol
implemented for the educational sessions were based on
Tehrani and Heidari’s study [34]. The sessions were as follows:
Table 1. Lazarus Approach Training Protocol [47]:

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Purpose, Contents of Meeting, Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Introducing, welcoming and familiarizing the members of the group; establishing the communication; describing the goals and regulations of the group; performing a pre-test; summarizing the session and answering questions; informing the participants about the task of the next session (self-monitoring sheets)</td>
</tr>
<tr>
<td>Session 2</td>
<td>Explaining the nature of self-harm disorder; reviewing the tasks; reviewing the previous session; engaging the participants in group discussion; learning the nature of self-harm disorder; explaining the problems existing in individuals; applying the multimodal methods; presenting a homework and self-monitoring worksheets and a fun ending</td>
</tr>
<tr>
<td>Session 3</td>
<td>Meeting with parents; providing assurance and encouragement; providing explanations on the activities and the role of parents; reviewing the previous sessions; describing how thoughts influence feelings; distinguishing thoughts and feelings; explaining the relationship between thoughts and anxiety; explaining a technique to amend negative thoughts; presenting the homework; summing up and a fun ending</td>
</tr>
<tr>
<td>Session 4</td>
<td>Explaining cognitive reconstruction and structural profile; reviewing the previous sessions; studying the tasks; engaging participants in group discussion; examining one of the seven dimensions of personality; summarizing the discussion and providing feedback on behaviors and feelings; presenting a homework and a fun ending</td>
</tr>
<tr>
<td>Session 5</td>
<td>Explaining the sequencing of problem provoking and the sequencing of people's problems, reviewing the previous sessions, reviewing the assignment, engaging participants in group discussion, explaining the sequence of problem solving, taking a break, performing re-exposure training, summarizing the session, providing feedback on behaviors and feelings, practicing the homework and self-monitoring, preparing the sequence for all problems, and a fun ending</td>
</tr>
<tr>
<td>Session 6</td>
<td>Teaching cognitive-behavioral education, reviewing the previous session, reviewing the homework, educating cognitive-behavior, familiarizing members with a variety of cognitive errors, practicing a task to substitute positive thoughts, practicing encountering, summing up the session and providing feedback on behaviors and feelings; providing a homework; a fun ending</td>
</tr>
<tr>
<td>Session 7</td>
<td>Practicing emotional training, exercising emotional discharge, reviewing the previous sessions, informing the parents to be present in the session, explaining the significant role of both students and parents in the treatment, explaining the concepts of deviations and return and relapse of the disorder, summing up the session and a fun ending</td>
</tr>
<tr>
<td>Session 8</td>
<td>Training interpersonal skills, reviewing the previous sessions, explaining social skills when meeting new people, practicing the explained skills (e.g. getting acquainted, finding the topic of conversation and changing topics), presenting homework, summarizing the session and a fun ending</td>
</tr>
<tr>
<td>Session 9</td>
<td>Reviewing the previous sessions, presenting the participants with biomedical education, training and planning for exercise, receiving proper nutrition and getting enough sleep, explaining the rewards and the rewards program, practicing non-verbal skills (e.g. observing the proper distance, making eye contact, having the proper level of loudness), presenting homework, summarizing the session and a fun ending</td>
</tr>
<tr>
<td>Session 10</td>
<td>Performing evaluation and post-test implementation, reviewing the previous sessions, emphasizing the significance of implementing the list of rewards, announcing the conclusion of the training sessions, reminding the participants of the possibility of having further meetings upon request</td>
</tr>
</tbody>
</table>

Results
In Table 2, the mean and standard deviation of the research variables have been separately presented from the control group and the test with the corresponding components for each of them.

The findings of Table 2 indicate that the scores in the test group in the post-test phase have increased in all three variables. To test the equality of variance, Levine test was used which has been presented in Table 3.

Table 2. Mean and standard deviation for excitement expressiveness variables, responsiveness and psychological integrity in the control and test group

<table>
<thead>
<tr>
<th>Stage</th>
<th>Control Group</th>
<th>Experiment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Emotional</td>
<td>Pre</td>
<td>12.41</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>29.33</td>
</tr>
<tr>
<td>Expression</td>
<td>Pre</td>
<td>160.41</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>160.33</td>
</tr>
<tr>
<td>Psychological</td>
<td>Pre</td>
<td>8.58</td>
</tr>
<tr>
<td>Integrity</td>
<td>Post</td>
<td>8.50</td>
</tr>
</tbody>
</table>

Table 3. Levine's test for experiment and control groups' variances

<table>
<thead>
<tr>
<th>Levin's test</th>
<th>F</th>
<th>Df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Expression</td>
<td>2.26</td>
<td>22</td>
<td>0.14</td>
</tr>
<tr>
<td>Psychological Integrity</td>
<td>0.23</td>
<td>22</td>
<td>0.62</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.48</td>
<td>22</td>
<td>0.49</td>
</tr>
</tbody>
</table>
The results of Table 3 show that the significance level for Levin's test for all the research variables and the corresponding research hypotheses is more than 0.05. Therefore, it can be concluded that the assumption of the equality of variances of the two groups is accepted.

In this study, all Covariance's assumption were checked like normal distribution. This was examined by Kolmogorov-Smirnov test. The results of Kolmogorov-Smirnov shows that the zero hypothesis of this test is not rejected (p-value <0.05).

Therefore, a multilevel covariance test can be employed to investigate the main question of this research: “Does Lazarus’ multimodal training effect psychological integrity, responsibility and emotional expressive styles in the self-harm of students?” The covariance table is as follows.

As indicated in Table 4, the significance level corresponding to the pre-test scores for all three variables (i.e. psychological integrity, responsibility, and emotional expression styles) is less than 0.05. Hence, the pre-test and post-test scores have 95 percent conformity in linear relationship. The significance level corresponding to all three variables in the group index is less than 0.05. As indicated in the results, and considering the rejection of the zero assumptions, it can be conclude that the Lazarus’ multimodal training can in fact effect psychological integrity, responsibility, and emotional expressive styles in the self-harm of students.

<table>
<thead>
<tr>
<th>F Test Details</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
<th>Eta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Expression</td>
<td>133.69</td>
<td>1</td>
<td>133.69</td>
<td>22.01</td>
<td>0.001</td>
<td>0.53</td>
</tr>
<tr>
<td>Psychological Integrity</td>
<td>532.16</td>
<td>1</td>
<td>532.16</td>
<td>536.83</td>
<td>0.001</td>
<td>0.69</td>
</tr>
<tr>
<td>Responsibility</td>
<td>19.54</td>
<td>1</td>
<td>19.54</td>
<td>7.66</td>
<td>0.01</td>
<td>0.28</td>
</tr>
<tr>
<td>Emotional Expression</td>
<td>45.02</td>
<td>1</td>
<td>45.02</td>
<td>7.41</td>
<td>0.01</td>
<td>0.36</td>
</tr>
<tr>
<td>psychological Integrity</td>
<td>10.63</td>
<td>1</td>
<td>10.63</td>
<td>10.72</td>
<td>0.004</td>
<td>0.28</td>
</tr>
<tr>
<td>responsibility</td>
<td>19.13</td>
<td>1</td>
<td>19.13</td>
<td>7.53</td>
<td>0.01</td>
<td>0.28</td>
</tr>
<tr>
<td>Emotional Expression</td>
<td>115.37</td>
<td>19</td>
<td>6.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>psychological Integrity</td>
<td>18.83</td>
<td>19</td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>48.22</td>
<td>19</td>
<td>2.53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

According to Grevensteain et al. [3], adolescence is a very important developmental stage, which strengthens the sense of psychological integrity. Similarly, Prochaska and Norcross [14] reported that the sense of integrity is capable for reducing negative incidents and help prevent negative events. Consequently, it can be said that the sense of psychological integrity is very low in the self-harm patients, which can be enhanced by teaching and training specific techniques (e.g. Lazarus multimodal training) [14].

Based on the obtained results, the differences between pre-test and post-test psychological integrity, responsibility and emotional expression are statistically meaningful. This implies that these two groups are significantly different after intervention while they were not different before intervention.

This finding is explainable in the light of Antonovsky’s theory, as poor sense of integrity is associated with psychological symptoms and behavioral problems in adolescence. In fact, having a strong sense of solidity makes it easier to adapt in everyday life for intrinsic stressors [36, 38, 40].

Conclusion

According to the findings of this research, individuals with low psychological integrity may have personality disorders and they might be engaged in unconventional behaviors such as self-harm. Self-harm in people without a disorder is also a common phenomenon. Therefore, it is important to know the motivation of these people. Many studies in both normal and clinical populations have examined various variables predicting self-harm behavior. As a result, it can be argued that using Lazarus’s multimodal approach can lead to increased psychological integrity and reduced self-harm in people.

According to the results, it can be said that Lazarus multimodal training program is effective in increasing the adopting abilities of patients with self-harm disorder. To explain this finding, it can be stated that a human beings behavior is not separate from his/her thoughts. Therefore, in order to have responsible behaviors, people must have a positive and logical thinking about themselves, the world and their destiny. By raising the sense of responsibility in people with self-harm, problem solving improves in these people.

Self-harm personality disorder has genetic causes. The lack of control of other factors affecting self-harm disorders, such as heredity, developmental history of people, the economic and social class, or the level of social protection of individuals can be considered as the limitations of the present study.

One of the suggestions of this study is that in future research, the effectiveness of various educational, economic, social and cultural variables and patterns be investigated. It is recommended to develop programs for coping with stress, anxiety and gaining effective communication skills. There is a serious problem in the educational and social programs of these people and follow-up studies are needed throughout their life-span. It is suggested that in subsequent studies, for the same educational situation in the control group, psychotherapy with placebo effect be used.

Acknowledgement

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