DOES TRAINING EMOTIONAL INTELLIGENCE MAKE A DIFFERENCE OVER EMOTIONAL SELF-REGULATION? A QUASI-EXPERIMENTAL TRIAL IN SECONDARY SCHOOL

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ABSTRACT

Emotional self-regulation (E-SR) is considered as a core skill for personal and interpersonal wellbeing, especially for current youths' challenges such as social media, mental health issues, or increasing peer conflicts. Nevertheless, self-regulation is not naturally developed and requires a conscious effort through frequent experiences to be acquired. The present study aims to analyze the effects of a training program in emotional intelligence on secondary education students E-SR and conflicting behavior. To this aim, we used the Service-Learning (SL) methodology with Psychology degree students to apply the content of the INTEM O program (Aranda et al., 2013) based on training emotional skills. The sample consists of 87 students in 8th grade from a secondary education center in Salamanca (Spain). To measure the program impact, we assessed emotional skills through the INTEM O program self-reported items and part of the emotional problem-solving situations from the Spanish adaptation of the MSCEIT (Mayer et al., 2023). The results show no differences between groups or across time. They are briefly discussed.

Keywords: self-regulation; emotional intelligence; secondary education

RESUMEN

¿El entrenamiento de la inteligencia emocional genera diferencias en la autorregulación emocional? Un estudio cuasi-experimental en educación secundaria. La autorregulación emocional (AR-E) se considera una habilidad fundamental para el bienestar personal e interpersonal, especialmente para los desafíos de los jóvenes en la actualidad, como las redes sociales, los problemas de salud mental o el aumento de los conflictos entre compañeros. Sin embargo, la autorregulación no se desarrolla de forma natural y requiere un esfuerzo consciente a través de experiencias frecuentes para ser adquirida. El presente estudio tiene como objetivo analizar los efectos de un programa de formación en inteligencia emocional sobre la AR-E de estudiantes de educación secundaria y conductas conflictivas. Para ello, hemos utilizado la metodología del Aprendizaje-Servicio (ApS) con estudiantes del grado de Psicología aplicando los contenidos del programa INTEM O (Aranda et al., 2013) basados en el entrenamiento de habilidades emocionales. La muestra está formada por 87 alumnos de 2oESO de un centro de secundaria de Salamanca (España). Para medir el impacto del programa, hemos eva-
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Iluado las habilidades emocionales a través de los ítems autoinformados del programa INTEM O y algunas de las situaciones de resolución de problemas emocionales de la adaptación española del MSCEIT (Mayer et al., 2023). Los resultados no muestran diferencias entre los grupos ni a lo largo del tiempo. Estos se discuten brevemente.

Palabras clave: autorregulación; inteligencia emocional; educación secundaria

BACKGROUND

Interventions aimed at promoting optimal development have been carried out by national organizations through programs focused on areas such as cognitive, social, or emotional (Oliva et al., 2011). A relevant example in Spain is the INTEM O-guide program to improve emotional intelligence (Aranda et al., 2013). It pretends to build the 4 components of Emotional Intelligence established by Mayer and Salovey (1990): Emotional identification and expression, facilitation or use of emotions, comprehension, and emotional regulation. Since this is a constructive program, the most complex skills, such as comprehension and regulation, are built on each of the previous components, in a constructive process. Then, regulation requires of previous emotional skills for its correct development, especially when it is focused on oneself (emotional self-regulation; Aranda et al., 2013). The development of emotional self-regulation has implications not only for people's ability to cope with emotional experiences but also for their interpersonal relationships and related problem-solving, given that in multiple studies social relationships and emotional intelligence have been related to personal and professional success (i.e., Durlik et al., 1999; Urquijo et al., 2019). This type of program, therefore, although related to the well-being of all adolescents, highlights the special importance of promoting optimal development for adolescents at risk of social exclusion, given that this population presents additional difficulties associated with their condition of exclusion (mental health, peers conflict, etc.). Although the program by Aranda et al. (2013) was not expressly developed for emotional self-regulation, but for acquiring a set of them including it, we believe that the adaptation of the program to be applied by professionals in training for students with mental health issues or frequent peer conflict will help them develop emotional self-regulation and therefore better social behavior.

OBJECTIVES

The objectives of this study were to: (1) test an emotional skills training program and analyse its effects on components of emotional intelligence, especially emotional self-regulation; and (2) analyze the efficacy of this type of program when taught by professionals in training.

METHODOLOGY

Participants

87 secondary school students, in eighth grade, in a charter school in the city of Salamanca, divided in a control group of 57 and an experimental group of 30 students.

Procedures

Two members of the research team, who are Psychologists in training, conducted the interventions. Service-Learning is a methodology that allows university students to provide a service to the community (Bringle & Hatcher, 1995). Thanks to it, university students can better understand the content of their studies, develop problem-solving, communication, teamwork, or decision-making skills, and grow social values (Smith & Shaw, 2012), especially in related fields as Psychology. And the community can develop useful resources to face relevant challenges. Then we focused on this methodology. The program was developed in 8 sessions, based on the structure, objectives, and activities of the INTEM O program. The frequency of the sessions was weekly. While the experimental group received the training, the control group (made up of 2 groups) received tutoring sessions on their academic performance. Pre- and post-training evaluations were carried out in both experimental and control groups. In both of them, the 4 components of the program were evaluated through the INTEM O program self-reported items as well as several applied situations where to use emotional skills from the Spanish adaptation of the MSCEIT (Mayer et al., 2023). Nevertheless, only the self-regulation components were used for this study.
Specifically, the self-regulation was measured through several items (some of them reverse-coded) from the measures mentioned: (1) 8 items referred to emotional restore; (2) 4 items referred to interpersonal regulation; and (3) 2 situations referred to general self-regulation skills in interpersonal relationships. Altogether, we wanted these items to represent both the personal and interpersonal emotional regulation skills we were interested in.

**Analysis**

We performed two-way analysis of variance (ANOVA) with two factors: one intra, referred to the assessment time, and one inter referred to the group (experimental or control).

**PRELIMINARY RESULTS**

The data distributions are represented in the Figure 1.

*Figure 1. Distribution of the standardised measures used in the study.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Time</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Restore</td>
<td>$F(1, 141) = 0.049$, $p = 0.824$</td>
<td>$F(1, 141) = 0.003$, $p = 0.956$</td>
<td>$F(1, 141) = 0.001$, $p = 0.977$</td>
</tr>
<tr>
<td>Interpersonal Regulation</td>
<td>$F(1, 141) = 2.163$, $p = 0.1436$</td>
<td>$F(1, 141) = 2.794$, $p = 0.0968$</td>
<td>$F(1, 141) = 0.169$, $p = 0.6813$</td>
</tr>
<tr>
<td>MSCIT</td>
<td>$F(1, 144) = 0.088$, $p = 0.767$</td>
<td>$F(1, 144) = 1.552$, $p = 0.215$</td>
<td>$F(1, 144) = 0.184$, $p = 0.668$</td>
</tr>
<tr>
<td>Total Emotional Self-regulation</td>
<td>$F(1, 139) = 0.089$, $p = 0.766$</td>
<td>$F(1, 139) = 0.741$, $p = 0.391$</td>
<td>$F(1, 139) = 0.003$, $p = 0.958$</td>
</tr>
</tbody>
</table>

*Note.* RE: Emotional Restore; RI: Interpersonal Regulation; AR: Total Self-Regulation

The two-way ANOVA performed showed no significant differences, neither by group, time or interaction of both variables. The results can be seen in the next table.
DISCUSSION

Emotional self-regulation was shown to be relevant for several areas of development in secondary education. Previous programs tackled either its isolated training or the development of a set of emotional skills, usually under the umbrella of the term Emotional Intelligence, as it is the case of the INTEM0 program (Noguera et al., 2014) in the Spanish context. We used a quasi-experimental design with a control and an experimental group of secondary education students to test if training the full set of the four emotional skills (identification and expression, facilitation or use of emotions, comprehension, and regulation) identified by Salovey and Mayer (1990), would have a specific impact on E-SR considering their model of constructing emotional skills. The results showed no differences between groups, neither across time nor when their interaction was tested.

Several aspects can explain the lack of differences in our time points, groups and their interaction. First, our quasi-experimental design limits our capacity to establish causal patterns. Second, we applied the program and measured the emotional skills during sensible periods that could have affected our program impact. That is, the pretest was done at the beginning of the semester, whereas the post-test was applied almost at the end of the semester, before the final school evaluations, so that the participants emotional and cognitive state could have been affected.

Finally, our results could be reflecting the fact that training a full program of emotional skills does not ensure changes in E-SR, and that, considering its complexity as a skill, it may be benefiting more from more focused programs. In this sense, recent recommendations highlight the need for more tailored programs to the emotional situation and individual aspects when training emotional self-regulation (Cohen & Ochsner, 2018). Further studies comparing these two approaches can help in the progress of this field.

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