Psychological Intervention Using Motivational Coaching in Dance Sport: A single case study

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Abstract: The work shows a single case intervention based on the motivational coaching model the “Cantón’s Giraffe”, theoretically and experimentally proven in a 20-years-old dancesport practitioner, who considered improving her execution with her dance partner. Methodological triangulation was used [34], combining a test-retest quantitative measure (Using Ryff Psychological Wellbeing Scales; the Rosenberg Self-Esteem Questionnaire and an ad-hoc instrument for the motivational force assessment) and subjective analysis of the responses from the interviews conducted. A three-phase intervention protocol was used [33]: identification, intervention, and follow-up. The results show an improvement in reevaluation scores, an increase in the subjective evaluation, and participant satisfaction and perceived resources raised at the end of the intervention. These results are in line with previous similar studies.

Keywords: motivation; well-being; self-esteem; psychology; sport

1. Introduction

Based on the new psychological demands of the society, it is necessary to find useful tools with good theoretical foundation, applied and efficient for professional psychological intervention [1]; which seek growth and personal development, not necessarily oriented to correct defects. Positive Psychology [2,3] is based on this idea, since it focuses on achieving results and developing personal well-being rather than detecting and correcting discomfort.

Sharing the positive approach, coaching [4,5] is framed as a process of accompaniment in which an expert (commonly coach) generates a facilitating environment for the client (coachee), who achieves his objectives using his own resources [6,7]. It can be understood as a behaviour modification strategy, which produces a change in the client through reflection, learning, self-discovery, and action [8]; in which the coaching expert will bring new strategies to the client or coachee [9] only if it essential. Thus, in coaching the expert must know how to generate the process of change and be competent with the elements of the process; therefore, it is important to be a psychologist expert in coaching to carry out the psychological intervention and manage aspects related to the mental field [10,11,5,12].

Positive psychology perspective studies eudaimonic psychological well-being, which refers to live fully in the pursuit of our goals or seek satisfaction derived from the self-realisation of our
potential [13]; different from searching for positive experiences minimizing the negative ones [14]. From this perspective, the person seeks to enhance human qualities and achieve happiness.

From this positive approach, based on several classical motivational theories such as Motivation Achievement Theory [15], Self-efficacy [16-17,18], Motivational Force Theory or "Expectations x Value" [19-22] and Goal Theory [23-27,21]; Cantón [28,29] develops a motivational intervention model from the perspective of coaching under the metaphorical name: "Cantón's Giraffe". Different motivational components conform the four-part model, which adopts the figure of a giraffe. The four parts represent the motivational factors explored in this psychological intervention from the coaching approach.

Psychological interventions using "Cantón's Giraffe" model have been proven to be effective and efficient in different contexts such as adapted swimming [30], female’s football [31] or rhythmic gymnastics [32], where an intervention protocol designed exclusively [33] was used for this model.

2. Materials and Methods

2.1. Design

To carry out this intervention only a methodological triangulation design was used [34], which combines both quantitative and qualitative procedures. The first one consists of a test-reevaluation (pre and post intervention), while the qualitative procedure involves interviews of analysis and subjective evaluation of his progress and perceived changes.

2.2. Participants

The participant is a 20-years-old college student, who has been practicing competitive ballroom dancing for 14 years, standard (English and Viennese waltz, tango, slow fox, and quickstep) and Latin style (samba, cha-cha-cha, rumba, paso doble, and jive). She had never worked with a psychologist before, lives with her family and her current dance partner is also her boyfriend. Both have proposed as a goal to perform with good level the ten style ballroom dances for the Spain Championship in September.

Prior to the intervention, the participant was informed of the intervention conditions and the possibility of its publication, after her agreement she signed the informed consent, following the recommendations of the ethics committee of the Faculty of Psychology of the University of Valencia, available at: https://www.uv.es/ethical-commission-experimental-research/en/ethics-research-humans/preguntes-frequents.html

2.2. Participants

Regarding the quantitative instruments, the following questionnaires were used to assess pre and post-test variables:

- Rosenberg Self-Esteem Scale [35] in Spanish adaptation [36], which evaluates the subjective assessment of personal skills with a Cronbach alpha of 0.80 and a Likert scale from 4 ("Strongly agree") to 1 ("Strongly disagree") for the first five items, and from 1 ("Strongly agree") to 4 ("Strongly disagree") for the last five items.
- Ryff’s Psychological Well-Being Scale [37,38] in Spanish adaptation of Díaz, Rodríguez-Carvajal, Blanco, Moreno-Jiménez, Gallardo, Valle & van Dierendock [39] with good reliability (Cronbach’s alpha between 0.84 and 0.70). This version has 29 items on a Likert scale from 1 ("Strongly disagree") to 6 ("Strongly agree") and grouped into six subscales: self-acceptance, environmental mastery, positive relationships, purpose in life, personal growth, and autonomy.
- Ad-hoc motivational force scale, which evaluates two fundamental aspects of motivation: perceived expectation of achieving the goal and the value of the expected goal. Three items related to group classes, private rounds, and Saturday measured value: improving my dance, increasing confidence on the floor, and improve physical resistance. Rated with a
scale from -10 ("minimum value") to +10 ("maximum value"). Furthermore, expectations were also evaluated using the same three items scored on a scale from 0 ("minimum expectation") to 1 ("high expectation"). Finally, the expectations score was multiplied for value score in order to obtain the motivational force, being 0 ("minimum motivational force") and 10 ("maximum force").

2.3. Intervention Protocol

The "Canton’s Giraffe" model (Figure 1) was used for this intervention and it begun with the "head", which corresponds to the goal or achievement, which must comply twelve characteristics and an accurate catalyst motivation [28]. Among those, the goal needs to be specific and temporarily planned.

![Image of the 'Cantón’s Giraffe' motivational coaching model](image URL)

Secondly, the "Neck" represents the motivational force that, according to Vroom [22], is the result of the balanced combination of positive expectation and the value granted to the goal.

Thirdly, identification of self-confidence ("body"), based on three supports [40,41]: (the) perception of self-efficacy (I can), self-esteem (I’m worth), and self-concept (I am).

Finally, the information inputs and the self-confidence formation source ("legs") on which the motivational experience is based are identified. The most important is direct experience with similar goals or tasks ("I do"). Another relevant input is the "I hear" that refers to both the self-talk and messages from others about the goal and the person ability to handle it. Also, interpretations and perceptions of the physiological sensations awakened by the goal are important for the self-confidence motivation ("I feel"). Similarly, indirect experiences of people who have achieved similar goals ("I see") conform another relevant contribution.

The intervention followed the three-phase protocol of Cantón & Peris-Delcampo [33]. The first phase was used to identify and obtain information about strengths and weaknesses of the motivational components, qualitatively and quantitatively measured. The second phase of the intervention involves exploring the components of the "Canton’s Giraffe" motivational model, and the third phase consists of a quantitative assessment. Also, a follow-up meeting is included to determine if there is maintenance of the motivational changes achieved.

The intervention was based on the coaching methodology [6,7,12] where the professional promotes reflection and questions, thus the client or coachee reaches his/her own conclusions. Examples of the questions for all the phases are shown in Table 1.
Table 1. Model set of questions for each part of the “Cantón’s Giraffe” semi-structured interview.

<table>
<thead>
<tr>
<th>Goal (Head)</th>
<th>Strengths (Neck)</th>
<th>Confidence (Body)</th>
<th>Base (legs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your goal?</td>
<td>From 1 to 10, what value do you grant to your goal?</td>
<td>Do you think you can really achieve it?</td>
<td>What are you feelings when you dance?</td>
</tr>
<tr>
<td>Why is it important to you?</td>
<td>Do you think it is possible to achieve your goal?</td>
<td>What characteristics define you?</td>
<td>Have any of your friends encouraged you to do it?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Have any of your friends set similar goals?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Have you set similar goals?</td>
</tr>
</tbody>
</table>

2.4. Procedure

The intervention began in March and ended in May, which involved four biweekly sessions and a following-up session in June. Below is a summary table of the content and structure of the sessions (Table 2), which will be explained in more detail.

Table 2. Structure and content of the sessions.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 22nd</td>
<td></td>
</tr>
<tr>
<td>2: Identification</td>
<td>Pre-test pass of the ad hoc motive force scale. Identification of the neck, detection of weakness in positive expectations. Agreements reached in session: weekly training planning.</td>
</tr>
<tr>
<td>March 29th</td>
<td></td>
</tr>
<tr>
<td>3: Intervention</td>
<td>Task review. Questions about her relationship with her partner and usefulness perception of the training. Agreements reached in session: to attend some standard class.</td>
</tr>
<tr>
<td>April 18th</td>
<td></td>
</tr>
<tr>
<td>4: Intervention</td>
<td>Task review. Questions about the trainings, motivation level, and usefulness perception of the intervention. Agreements reached in session: to adapt the time planning in order to attend all the standard classes, and attending dance events with her partner. Post-test pass of the questionnaires.</td>
</tr>
<tr>
<td>May 4th</td>
<td></td>
</tr>
<tr>
<td>Follow-up</td>
<td>Task review. Information collection of the motivation level and progress.</td>
</tr>
<tr>
<td>June 5th</td>
<td></td>
</tr>
</tbody>
</table>
of the situation. Additionally, the participant completed the Ryff’s Psychological Well-being scale and the Rosenberg Self-esteem questionnaire.

The participant reported having experienced ups and downs with her dance partner, since they are not getting the results they expect in Latin style in national competitions. Her partner, whom she has been dancing for two years, blamed her and the insufficient hours they practice for the situation. In consequence, she felt overwhelmed because they were not being able to perform the ten style ballroom dances in a competition, which was the goal they had set at the beginning of the season for this Spain Championship, and had tried since they started dancing together.

Then she was asked why performing the ten style ballroom dances were so important for her; she answered, “Performing the ten style dances is something I have loved since I was a child. Although it involves a high level of effort and dedication, I feel it is something I have to do. Any competent dancer must perform the ten dances in order to control the body and movements”. From the moment she started dancing with her current partner (two years ago), she set this goal and established it for September. She thought they had postponed this goal due to her college demands and decrease training hours. She started not attending weekly to dance classes due to fatigue; when she did she felt disoriented, unwilling to make an effort, and reluctant to participate. She also felt ridiculous when she was asked to dance in front of everyone.

Private lessons were not useful either. “I cannot practice the lessons, so I quickly forget them”, so she decided to quit private lessons during work exams periods. Neither she attended on Saturdays, when they used to perform a simulation of the competition and performed rounds of all dances, because she claimed not to have time to loose even though it lasted two hours.

Following the “body of the giraffe”, she was asked if she truly believed she could achieve that goal, if she felt capable. Although she repeated constantly she was going to act ridiculously, she believed she could do it with effort and over time. She affirmed she was capable and confident in her abilities, although she showed low self-confidence avoiding demonstrating her low proficiency in standard dance “I'm not a complete useless, I can assume that I won't be as good as others but I can improve over time and do not make a fool of myself”.

Later, she was asked if she was new to a friend, currently practicing the ten style ballroom dances, who started practicing half of it. She commented that many people from the academy used to practice only Latin style but decided to complete the ten style dances over time. To the question “Did any of those friends encourage you to do it too?” she affirmed they had tried to encourage her by saying that she would be absolutely capable with effort. However, she hesitated to attend any standard class because she thought she would make a fool of herself. Therefore, it was detected a weakness in the “I hear” leg, specifically in the self-talk.

However, it was detected a strength in the “I feel” leg; she felt good dancing and inhibited everything. Finally, in relation to the “I do” leg (“Have you ever had any bad experience at the academy that stopped you from doing standard?”), another strength was detected since she claimed not having any bad experiences in the academy with the standard style (“I’ve tried dancing waltz and I’m not bad at it”).

In this first session, depending on the weaknesses detected, particularly in the “I hear” leg (Self-talk) and the body (Self-confidence), it was necessary to work on the initiation of activity and classes attendance.

In the second session (March 29th), the neck (motivating force) is identified through the ad-hoc Motivational Force Scale, which showed a weakness in this model component: low achievement expectations in reference to her improve, her physical condition, and her confidence in her performance on the floor during both private and group classes. The participant also was asked how she felt during the week. She claimed to have attended more classes, but she believed she needed to establish short-term goals such as attending private and group Latino classes (Wednesday at 10 pm and Tuesday at 9 pm, respectively) without excuses. In order to have a better planning of the time, she committed to write weekly trainings and classes she would attend.

When she was asked about her trainings she answered, “when we trained every day, we performed better in class. I didn’t even mind dancing in front of everyone since I had been practicing
She also claimed feeling great, at the same level as her classmates. However, she affirmed they stopped training before classes due to the lack of time. Moreover, she expressed her disappointment with the last competition “even though we worked hard in the past a new couple beat us in a short time, and cannot stand that”. She found support in her teacher, who claimed, “national courts were unreliable, that we had to focus on improving our dance, and they would value it and would have no choice but give us an outright first place”. This reflection helped her to realise that winning was not the most important achievement but, as her teacher said, doing everything possible to improve their dancing was. At the end of the session, she said she had decided to attend classes because one of her best friend had insisted so much.

The third session (April 18th) began with the review of the previous weeks and the client’s feelings about it, especially with her partner. His attitude towards her changed since she started writing down on the calendar all the classes she attended “he is seeing how I’m trying, and he is no longer angry at my "laziness"”. In addition, both attended the training sessions marked on the calendar without backing out, and they felt very proud of it. Despite the days the participant was more tired and felt like things were not going as planned, she assured she was trying not to blame herself of the situation, as she also had a good day.

When she was asked about her initial reticence to attend classes, she pointed out her attitude “I used to think I was going to make a fool of myself, also that the teacher was ignoring me. Now I try not to think those things”. She considered classes very important to grow as a dancer. Hence, she evaluated the possibility of attending standard classes for mastering the ten style dances. Although she agreed this task, she believed she would not have enough time for all the training sessions and the new classes, also she felt insecure about her standard style level compared to her classmates.

In summary, the participant felt more motivated to attend classes; she learnt to be more organised, and their relationship improved. She did no longer attend class apathetic; whenever she felt weak, she did not attribute it to her lack of ability.

The fourth session (May 4th) also began reviewing last week progress and asking about the trainings. She affirmed she had attended all the schedule of classes; also that the planning had been very relevant to the improvement of her relationship, since her partner did not blame her for the mistakes, but supported her whenever she thought she was making a fool of herself. She attended some standard style classes and assured she would try to adapt her planning in order to attend all classes. She admitted she had felt restless the previous week due to college demands, consequently, attending classes had required a greater effort on her part but she attended anyway. She said “whenever I can not attend classes I talk to my teacher, and attend the children ones”; thus, her teacher noticed her involvement and helped her and paid more attention to her. The relationship with her teacher improved and she stopped taking criticism negatively: “If she tells me what I’m doing wrong, it is not because I’m useless. Clearly I am insecure and I will always be, but I try to improve. My teacher helps me a lot telling me all the dance events that students can take part”. In order to achieve her goal and improve her dance technique, she agreed to attend those events as an important step to reach success.

Regarding the usefulness of the intervention, she stated that the aspects worked on during the sessions had been useful and had helped her to better planning classes attendance, realising the importance of participating in classes.

Ultimately, the participant filled up the assessment instruments and set a date for the follow-up session.

After one month (June 5th) the follow-up took place, in which she showed progress in her motivation and also a confidence improvement. She affirmed she was regularly attending classes, both Latin and Standard styles, and also dance events proposed by her teacher. Moreover, she assured her partner continued supporting her, and both were increasingly convinced they would be able to perform the ten style dances in September. Therefore, the changes observed during the intervention have been maintained over time.

3. Results
This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation as well as the experimental conclusions that can be drawn.

The results obtained after the intervention are shown below, both graphically (Figure 2 and Figure 3) and in table format (Table 3).

**Table 3.** Most significant changes after the intervention.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre</th>
<th>Post</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>27/40</td>
<td>30/40</td>
<td>+3</td>
</tr>
</tbody>
</table>

**Figure 2.** Psychological Well-being scores.

**Figure 3.** The ‘Cantón’s Giraffe’ motivational coaching model [28,29].

**Table 3.** Most significant changes after the intervention.
The positive changes can be observed in both the figures and the table, which show improvements in the subscales Self-acceptance and Self-esteem. The positive experiences she had in successfully completing tasks successfully and actively participating in classes, favored these results and improved her self-confidence and self-efficacy for the goal achievement, and the relationship with her partner and teachers.

In addition, increases have been observed in the three Motivational Force items, especially in Increasing confidence on the floor (Saturday rounds, private and group classes), Improving my dance (Saturday rounds, private and group classes), and, to a lesser extent Improving physical resistance (Saturday rounds, private and group classes). In all cases both, expectations of achievement and value, have positively changed, showing a greater confidence in achieving the goal in the three points raised, due to the increase attendance in classes and training sessions, which she considered very important to acquire the necessary skills to face her goal. Additionally, the participant had an increase in motivation to attend classes as a result of the positive experiences during the classes, such as learning new dance styles and accepting criticism from her teachers as part of the learning process.

These quantitative results were congruent with the subjective perception of the participant and the changes observed, revealing the importance of temporarily organizing the steps to achieve the goal and benefit from the resources available, for example, participating more actively in classes. As a result, her confidence increased and the relationship with both her partner and teacher strengthened.

4. Discussion

In view of the results from the psychological intervention in the dance practitioner woman, both the reevaluation scores and the subjective considerations improved, showing the effectiveness of the intervention. Especially, the results regarding the motive force (measured through an ad-hoc instrument) turned out greater for both the main goal and the dependent sub-goals. The perception of control and the improvement of the skills related to the goal achievement (for example, the
participant assured that "the sessions have helped me to organize myself better"), were the most significant conclusions of the intervention; and also, according to her words, the most important conclusions.

These results are parallel to similar interventions which used the "Canton’s Giraffe" in different sport disciplines such as adapted swimming [30], Women's Futsal [31] or rhythmic gymnastics [32]. The coaching approach itself favours the expert creativity in this method [7], while the "Canton’s Giraffe" model is a great guide for gradually working on the motivational elements required to achieve the established objectives. Hence, each intervention is unique depending on the circumstances of it, as observed in the current intervention and the ones mentioned above, all followed the structure and protocol of "Canton’s Giraffe" and showed effectiveness despite certain differences in each process. This question can be understood as an advantage of the application of the model, since it really fits the coachee needs due to its agile, fast and justified structure; as limitations, it depends to some extent on the skills and creativity of the professional involved, and also on the client’s involvement in the process.

As a single case design, it presents the limitations inherent to these studies, particularly those related to the difficulty of controlling and measuring all the variables involved in the process.

Studies of this type are important for professionals of applied psychology to "polish" a very agile and fast-application tool: the "Canton’s Giraffe" (strongly grounded in theory, among other things). For further research, we recommend increasing this type of studies (in order to delimit more the structure and the application’s protocol), and also to carry out research involving a greater number of subjects to compare their results.


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