Dialectical behavioural therapy for oppositional defiant disorder in adolescents: A case series

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Abstract

Background: Oppositional defiant disorder (ODD) is characterised as a recurrent pattern of defiant behaviour towards authority figures, irritability and difficulties in regulating emotions. ODD in adolescents presents similar symptomatology to borderline personality disorder (BPD). A treatment programme that has been shown to be effective for treating problems related to emotion dysregulation such as BPD is dialectical behavioural therapy (DBT). The aim of this article is to outline a case series in which we applied DBT to two adolescents diagnosed with ODD, in addition to psychiatric comorbidity and parasuicidal behaviours. Method: We applied a training programme of 24 sessions in DBT skills, along with individual therapy. Results: The results showed a decrease in impulsive behaviours, maladaptive behaviours to regulate affect, self-mutilation behaviour, number of hospitalisations, anger and depressive symptoms. The data also showed an increase in positive emotions. Conclusion: These results suggest that DBT can be an alternative for the treatment of ODD in adolescents with psychiatric comorbidity and parasuicidal behaviours. Keywords: Oppositional defiant disorder, dialectical behavioural therapy, adolescents, parasuicidal behaviours.

Resumen

Aplicación de la terapia dialéctica comportamental al trastorno negativista desafiante en adolescentes: una serie de casos. Antecedentes: el trastorno negativista desafiante (TND) se caracteriza por un patrón consistente de conductas oponicionistas hacia las figura de autoridad, irritabilidad y dificultades de regulación emocional. El TND en adolescentes presenta sintomatología común con el trastorno límite de la personalidad (TLP). Un programa de tratamiento que se ha mostrado eficaz para el tratamiento de trastornos caracterizados por dificultades graves en la regulación emocional como el TLP es la terapia dialéctica comportamental (DBT). El objetivo de este trabajo es mostrar una serie de casos en los que se aplica la DBT a dos adolescentes diagnosticadas de TND, con comorbilidad psiquiátrica y conductas parasuicidas. Método: se aplicó el programa de entrenamiento en habilidades de la DBT y sesiones de terapia individual. Resultados: los resultados indican una disminución de las conductas impulsvivas, desadaptativas de regulación del afecto, autolesiones, ingresos hospitalarios, síntomas depresivos y de la ira. También se produjo una mejora del estado de ánimo y el afecto positivo. Conclusión: estos resultados sugieren que la DBT puede ser una alternativa para el tratamiento del TND en adolescentes con comorbilidad psiquiátrica y conductas parasuicidas. Palabras clave: trastorno negativista desafiante; terapia dialéctica comportamental; adolescentes; conductas parasuicidas.

Oppositional defiant disorder (ODD) is characterised by a pattern consisting of oppositional, disobedient and hostile behaviours, directed at authority figures (American Psychiatric Association, 2000). Along with this symptomatology, patients frequently: display emotional instability (outbreaks of anger); argue continually with adults; deliberately annoy others; tend to get highly irritable, touchy, furious, resentful and show difficulty with a wide variety of emotional states, such as high emotional lability and low tolerance to frustration. ODD can present different levels of comorbidity, which signifies a greater or lesser degree of severity and personal adjustment (Loeber, Burke, Lahey, Winters, & Zera, 2000). Subjects display high comorbidity along with Attention deficit disorder and hyperactivity (Hinshaw, 1994), with Major depressive disorder (Angold & Costello, 1993) and, in the case of adolescents, Alcohol and substance abuse, producing an aggravation of the symptomatology (Whitmore et al., 1997). It is more prevalent in families with incoherent and negligent educational practices and also implies deterioration in the adaptation of such children to their school and family environment (Stormschak, Speltz, DeKlyen, & Greenberg, 1997). Its prevalence oscillates between 2 and 16% of adolescents (APA, 2000). Furthermore, adolescents suffering from behavioural problems, alcohol abuse, drug dependency and problems of emotional instability, including ODD, are at greater risk of committing suicidal and parasuicidal acts (Miller & Taylor, 2005). The joint presence of three factors — emotional instability, behavioural disorder and impulsiveness — is related to suicidal behaviour in children and adolescents (Miller, Rathus, & Lineham, 2007). Many suicide attempts which adolescents make are impulsive acts, with only a quarter being planned (Hoberman & Garfinkel, 1998).
The treatment of choice for behavioural problems is aimed at reducing maladaptive behaviours and increasing adaptive behaviours, through the parents’ systematic training (Eyberg, Nelson, & Boggs, 2008). Yet these same authors comment that the results are poorer in adolescents older than twelve and when adolescents exhibit psychiatric comorbidity, aggressive behaviours and family dysfunction (Barckley, Edwards, Laneri, Fletcher, & Metelevia, 2001; Greco & Eifert, 2004). One reason for such a loss of effectiveness could be due to this type of intervention being mainly focused on reducing disruptive behaviours and acquiring socially acceptable behaviours. In contrast, the interventions do not consider acquiring emotion regulation skills, despite this being one of the main characteristics of ODD. Furthermore, the obstacles that parents create against treating patients with psychiatric comorbidity and family dysfunction is a predictor for a poorer therapeutic change (Kazdin & Wassell, 1999).

Adolescents with ODD display similar symptomatology to Borderline Personality Disorder (BPD): emotional instability, difficulties handling emotions, explosions of rage, impulsiveness, self-harm behaviours, and problems of adaptation to a rule system as well as interpersonal problems (APA, 2000). Furthermore, they share common risk factors such as dysfunctional child-raising patterns, rejection or family problems.

One of the treatment programmes that has received greatest empirical support for BPD and for problems of emotional instability is dialectical behaviour therapy (DBT) (Staffers et al., 2012). DBT is an intervention programme that deals with a lot of the main symptomatology of ODD (emotional instability, low tolerance with frustration, interpersonal problems and impulsiveness) which leads us to believe it could be effective in treating ODD in adolescents. Some preliminary evidence already exists of the usefulness of DBT in this group. Nelson-Gray et al., (2006) applied DBT to a group of participants diagnosed with ODD where, after receiving skills training, a reduction in emotional symptomatology occurred. Participants only received training in emotional self-regulation skills, not the full DBT intervention (Linehan, 1993). These were participants who did not exhibit psychiatric comorbidity, parasuicidal behaviours or aggressive behaviour toward their parents.

The aim of this article is to describe the intervention made with two adolescents diagnosed with ODD, who do display psychiatric comorbidity, aggressive and parasuicidal behaviours, for whom the full DBT programme was applied (Linehan, 1993) over six months. We describe the results obtained six months after treatment.

**Participants**

Two women of Spanish nationality agreed to take part in the DBT programme. Both participants met the inclusion criteria: fulfilling DSM-IV-TR (APA, 2000) criteria for ODD, and being aged between 12 and 18. The exclusion criteria established for this study were: alcohol and other substance dependence, and suffering from a psychotic or bipolar I disorder. The participants and their parents signed an informed consent form. Below we describe the participants’ most relevant characteristics.

**Participant 1.** Female aged 14. Father aged 48 and mother aged 47. She has a younger sister and medium socio-economic level. The multi-axial assessment (APA, 2000) offered the following diagnosis:

<table>
<thead>
<tr>
<th>Axis I</th>
<th>F 91.3 Oppositional defiant disorder [313.81]; F 32.2 Major depressive disorder, single episode, with atypical features [296.22]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis II: Z03.2 [V71.09]</td>
<td></td>
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<tr>
<td>Axis III: None</td>
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<tr>
<td>Axis IV: Problems with the primary support group</td>
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<tr>
<td>Axis V: GAF = 38 (current)</td>
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</table>

The patient displayed a pattern of oppositionalism and defiance towards her main authority figures, parents, teachers and therapists. She was dysphoric and exhibited low mood, anger, crying and irritability. Her oppositional behaviours were: not taking her medication, insulting her parents, parasuicidal behaviours (cuts on her arms and legs), isolation in her room, and arguments with her mother. It was usual for arguments to escalate, as well as emotional blackmail and problems expressing her emotions. She showed a large deficit in emotional management that led her into difficulties in her interpersonal relationships. From infancy she has shown problems of emotional instability and interpersonal problems, mainly in the school and family environment. Her family maintained a rigid and inflexible rule system. Her clinical history began at 12 years old with a diagnosis of Anorexia nervosa (APA, 2000) for which she was treated in a specialised unit and progressed favourably. The patient was referred to our programme after a hospital admission caused by the severity of her disruptive behaviour, self-harm and emotion dysregulation.

**Participant 2.** Female aged 15. Father aged 52 and mother aged 50. She has a younger brother and medium socio-economic level. The multi-axial assessment (APA, 2000) offered the following diagnosis:

<table>
<thead>
<tr>
<th>Axis I</th>
<th>F 91.3 Oppositional defiant disorder [313.81]; F 43.1 Post-traumatic stress disorder [309.81]; F 10.1 Alcohol abuse [305.00]; F 12.1 Cannabis abuse [305.20]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis II: Z03.2 [V71.09]</td>
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<tr>
<td>Axis III: None</td>
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<tr>
<td>Axis IV: Problems with the primary support group</td>
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<tr>
<td>Axis V: GAF = 52 (current)</td>
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</table>

The patient displayed great behavioural impulsiveness and aggressiveness of an oppositional and defiant nature towards any authority figure. Some of these behaviours were: breaking furniture at home, throwing objects at the family, throwing a cat out of the window, not following the therapy instructions, parasuicidal behaviours (cuts on her arms, legs and abdomen), petty theft in the home, and cutting her hair. The family atmosphere was characterised by emotional outbursts and incongruous, disproportional punishments. The patient had a background of emotion dysregulation and behavioural problems in her childhood. At 11 years old she began to use alcohol, which caused a fierce conflict with her parents, an increase in her aggressiveness and a questioning of the basic rules of coexistence at home and at school, leading to trucancy and a total loss of social references. At that point, she joined radical groups, where she was attacked. The increase of aggressiveness in her oppositional behaviours meant it was necessary to admit her twice in the last three months into a Hospitalisation Short-Stay Unit. Later she was referred to our DBT programme.

In the previous year, both patients had begun psychological treatments aimed at training parents in rule establishment and...
managing contingencies in the family environment. Yet these interventions were abandoned after the initial sessions due to a lack of patient and family collaboration, so they could not be completed.

**Instruments**

Inventory of Clinical Information. It was designed for this research and completed by expert therapists in clinical psychology. Firstly, a multi-axial diagnosis was performed, following the criteria of the DSM-IV-TR (APA, 2000), including the Global Assessment of Functioning (GAF) Scale. Previous psychological treatments, current pharmacological treatment, number of hospital admissions, number of suicide attempts, parasuicidal behaviour, use and frequency of substances and maladaptive behaviours in regulating emotions were all collated. The clinician evaluated the severity of the disorder on a scale of 0= no symptoms to 10= highly severe.

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). It is a 21-item inventory which evaluates intensity of depressive symptoms. This is one of the most commonly used instruments in clinical psychology and its Spanish version offers good psychometric properties (Sanz, Navarro, & Vázquez, 2003).

State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Yagg, & Jacobs, 1983). It contains two scales with twenty items that measure state anxiety and trait anxiety. This study only included trait anxiety. It possesses good psychometric properties.

State-Trait Anger Expression Inventory-2 (STAXI-2; Miguel-Tobal, Casado, Cano-Vindel, & Spielberger, 2001). This instrument measures the expression and experience of anger on three sub-scales. The anger trait scale (T) measures the frequency with which the subject experiences feelings of anger over time. The anger state scale (S) measures the intensity of the feeling with which the subject feels they are expressing their anger at a specific time. Lastly, the Anger Expression Index (AX Index) is a general index based on the elements of these sub-scales. The psychometric properties of this inventory are also satisfactory.

Positive and Negative Affect Schedule (PANAS, Watson, Clack, & Tellelegen, 1988). A scale made up of twenty items structured into two scales that measure positive and negative affect. The first is described as the degree to which a person feels enthusiastic, active, alert, energetic and gratified to participate. Negative affect is described as a dimension of subjective and unpleasant distress, as well as aversive emotional states, dislike, disquiet, tension, anger, guilt, fear and nervousness. This instrument has shown good psychometric characteristics in the Spanish population (Joiner, Sandín, Chorot, Lostao, & Marquina, 1997).

**Procedure**

**Design.** The design is a case series with two assessment points before and after treatment.

**Treatment.** The treatment programme that the participants received was standard DBT proposed by Linehan (1993), which consists of a combination of interventions that were carried out concurrently: individual therapy sessions, group skills training, telephone coaching and team consultation. Participants were treated as outpatients.

**Individual therapy.** DBT has the following objectives that are covered using a hierarchy of priorities (Linehan, 1993):

The first objective is to reduce suicidal and parasuicidal behaviours: parasuicidal behaviours are deemed to be maladaptive emotion regulation strategies, and sometimes, clearly oppositional behaviours. In the cases we present, they were behaviours used to express anger with parents, or to gain things from them. Verbalisation, such as “Mum, give me the razor”, or “Dad, I’ll jump out of the window if you don’t let me go out”, was used for this purpose. Sometimes, after a family argument, a parasuicidal behaviour crisis occurred. The DBT model explains these behaviours as dysfunctional forms of emotion regulation that were possibly successful at one time to relieve emotional unease, but which are currently maintaining the problem while increasing emotional and behavioural dysregulation. The aim of DBT is for participants to learn to manage emotions using the strategies they will learn in the skills group. Figure 1 shows a chain analysis of parasuicidal and severe disruptive behaviours.

The second objective is to reduce behaviours that interfere with the therapy. The most frequent are: non-attendance, non-collaboration in the session, coming to the consultation after having consumed alcohol or cannabis, or being over-medicated. Another objective is to reduce those behaviours that wear the therapist down, for example, threats, resistances, negation, emotional outbursts in the consultation room, and so on.

The third objective is to reduce behaviours that interfere with the patient’s quality of life. DBT maintains that one of the reasons why patients display high levels of emotional instability is due to the lifestyle they lead and the family environments in which they live (Linehan, 1993). The objective of DBT is to make changes to “create lives that are worth living”. This point in the hierarchy covers the continual arguments at home, alcohol abuse, adherence to pharmacological treatment, changing parasuicidal family rule systems and establishing a programme for reinforcement, normalisation of highly dysfunctional interpersonal relationships, return to school, increase in patient autonomy, learning and reinforcement of basic habits of order and personal hygiene. This is established with an attitude of validation and permanent acceptance. Once the patient understands this model, he or she has the choice of changing his or her lifestyle or not. This attitude is maintained throughout the entire DBT process (Linehan, 1993). Naturally it is hoped that insofar as the patient begins retaking control of her or his impulsiveness, her or his emotional instability will wane, and she or he will note emotional and behavioural self-control, enabling him or her to create this new life. In this new life,
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defiant behaviour is no longer functional and the patient permits us to intervene in the same way as other problems that interfere with his or her quality of life. Yet to reach this point, the patient must first learn a series of behavioural and emotion regulation skills which he or she lacks. These skills are acquired in the skills group.

The fourth therapeutic objective is to increase behavioural skills. This consists of training and practising the strategies for emotion regulation she or he has acquired in the skills group. The themes worked on in individual therapy sessions are structured from the information that the patient records in a diary, establishing specific objectives according to the hierarchy of priorities. The main strategies were: review the DBT diary in each session; behavioural analysis of the situation associated to the hierarchy of objectives; problem solving; training in cognitive behavioural techniques and techniques learnt in the skills group. Functional analyses were conducted of the oppositional defiant behaviours (concerning home rules, form of expressing anger and annoyance, since these were emotions that ended in impulsive and parasuicidal behaviours). The patient, through analysis of the daily records, learned what factors maintain these behaviours and how she or he can manage them.

Two sessions were conducted with the parents: 1) Where the DBT model was explained along with the hierarchy and the objectives of the intervention; 2) Basic aspects of behavioural modification were explained, how to reinforce adaptive behaviours and how to eliminate maladaptive behaviours. Parents had the chance to ask about doubts relating to their actions in the sessions with their daughter.

Skills training. The skills group consisted of an initial treatment orientation module (one session) and four skills training modules: 1) training in mindfulness skills; 2) training in emotion regulation skills; 3) training in distress tolerance skills, and 4) training in interpersonal effectiveness skills. This programme was adapted into twenty-four sessions (García-Palacios, Navarro, Guillén, Marco, & Botella, 2010), following the original programme (Linehan, 1993).

Two sessions were conducted to complete the assessment protocol and establish the diagnosis, following the criteria of the DSM-IV-TR (APA, 2000). The clinician completed the inventory of relevant clinical information.

These two main modes of therapy were completed by telephone coaching between sessions and with team consultation that meet once a week.

The treatment lasted six months and was undertaken by expert therapists in DBT; two psychologists conducted the group and a different one ran the individual therapy. Individual therapy consisted of one weekly session of 60-90 minutes. Concurrently, a skills group was run in two-hour, weekly sessions. At the end of the treatment, each participant completed the same protocol and the therapists completed the Inventory of Relevant Clinical Information.

Results

As you can see in Table 1, at the posttreatment assessment, six months after the treatment completion, the parasuicidal behaviours, and alcohol and medication abuse was not present in both participants. Furthermore, the most severe oppositional behaviours and disruptive emotion regulation behaviours such as escalation of violence, aggression, throwing objects, threats and isolation had been completely eliminated. Over the period the intervention lasted and after treatment had ended, no hospital admission was needed. Only Participant 2 maintained a dysfunctional behaviour, occasional consumption of cannabis. After treatment, the participants went back to school, established a positive social network and abandoned their dysfunctional relationships. As a consequence of this, an increase on the GAF scale occurred. Furthermore, there was a reduction in the prescribed medication. Participant 2 did not require any pharmacological treatment once the therapeutic treatment was over. The severity rated by the clinicians at pre-test was notably reduced at post-test. On ending the treatment, participants did not fulfil the diagnostic criteria for ODD (APA, 2000).

In the self-report measures, it can be seen how at the time that both participants ended the treatment, a significant decrease was noted in depressive symptomatology (BDI-II) and trait anxiety symptomatology (STAI-R). Moreover, an increase in positive emotions was reported, related to enthusiasm, being active, alert, and energetic (PANAS-P) and a reduction in negative affect, subjective and unpleasant distress, disquiet, tension, anger, guilt, fear and nervousness (PANAS-N). Simultaneously, significant improvement occurred in handling the expression of anger (STAXI). Patients improved their handling of anger as a trait and also in concrete situations. The scores for the self-report measures can be seen in Table 2.

Discussion

The aim of this article is to offer preliminary data on the effectiveness of DBT applied to two adolescents diagnosed with ODD with psychiatric comorbidity and parasuicidal behaviours who have undergone the full DBT programme (Linehan, 1993) during six months. The results indicate that DBT was effective in reducing impulsive andbehavioural symptomatology, parasuicidal behaviours and aggressiveness. Patients stopped using behaviours of maladaptive emotional escape such as alcohol abuse, isolation, over-medication and escalation of violence. Only participant No 2 persisted in one form of dysfunctional behaviour, which was

<table>
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<tr>
<th>Table 1: Inventory of Clinical Information</th>
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<tr>
<td>Variables</td>
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<tr>
<td>Pre-treatment</td>
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<tr>
<td>PB 1</td>
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<tr>
<td>HA 1</td>
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<tr>
<td>MBERW</td>
</tr>
<tr>
<td>CS</td>
</tr>
<tr>
<td>GAF</td>
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<tr>
<td>Pharmacological treatment</td>
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<td></td>
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</tbody>
</table>

Note: PB= Parasuicidal behaviours; HA= Hospital admissions; MBERW = Maladaptive behaviours of emotion regulation weekly; CS= Clinical severity; GAF = Global Assessment of Functioning Scale 1 in the last 6 months
sporadic cannabis use, a behaviour that was not considered to be a behaviour for regulating emotion, given that it occurred in a leisure context and was permitted within the family environment. We should stress that depressive and negative emotion symptomatology decreased. Participants learned to manage emotions such as anger and anxiety and reported a greater frequency of positive emotions. Furthermore, they made changes to their lifestyle that imply a greater probability of emotional stability and the presence of positive emotions. Some changes in their lifestyle were: returning to their studies, change of social group, keeping to timetables and daily routines, habits of hygiene, and normalisation of sleep patterns. Their level of global functioning was considerably increased.

These results are similar to those found in a prior study in which the skills group was applied to ODD (Nelson-Gray et al., 2006), which suggested that DBT could be a treatment alternative in those cases where the treatment of choice for ODD has not been effective (Eyberg et al., 2008), mainly in the case of adolescents over twelve years old, who display psychiatric comorbidity and parasuicidal behaviours along with aggressiveness, in families that do not collaborate fully with the treatment. We consider this of great importance due to the fact that these are adolescents who are showing a greater risk of committing suicidal and parasuicidal acts (Miller & Taylor, 2005). DBT has received empirical support in numerous controlled studies where it has been shown to be effective for treating problems of pervasive emotional regulation (García-Palacios et al., 2010; Linehan et al., 2006), for suicidal behaviours in adolescents (Rathus & Miller, 2002) and for depression (Lynch, Morse, Mendelson, & Robins, 2003). DBT has a focus on learning emotion regulation strategies, learning to solve interpersonal problems, and also in creating changes in life based on values and goals (Linehan, 1993), necessary objectives when intervening in behavioural problems in adolescents. Furthermore, DBT is aimed at skills training in the sufferer, in contrast to training programmes for parents. This is an aspect to take into account when we work with families that do not fully collaborate in treatment (Kazdin & Wassell, 1999).

One of the limitations of this study is that we only have the results at the end of treatment. It would be extremely valuable to observe the evolution of changes over the coming months (Eyberg et al., 2008).

We understand that this is only a case series and that the conclusions we have drawn could be extended only to cases that are highly similar to the one presented in this work. Therefore, it is necessary to conduct a controlled clinical trial that allows us to analyse the differential effectiveness of DBT on ODD in the short and long term.

Acknowledgments

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Table 2

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Case 1 Pre-treatment</th>
<th>Case 1 Post-treatment</th>
<th>Case 2 Pre-treatment</th>
<th>Case 2 Post-treatment</th>
</tr>
</thead>
<tbody>
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<td>7</td>
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<tr>
<td>STAI-Trait</td>
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<td>31</td>
<td>41</td>
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<td>PANAS-P</td>
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<td>STAXI</td>
<td>59</td>
<td>47</td>
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<td>12</td>
</tr>
</tbody>
</table>

Note: BDI-II= Beck Depression Inventory; PANAS= Positive and negative affect scale, N= Negative affect, P= Positive affect; STAI-Trait= State-Trait Anxiety Inventory; STAXI= State-Trait Anger Expression Inventory

References


