

# An instrument to evaluate nightmares, bad dreams and alternating personalities in individuals with craniomandibular disorders (CMDS) and bruxing behavior (BB)

*Um Instrumento para avaliar pesadelos, sonhos ruins e personalidades alternadas em indivíduos com distúrbios craniomandibulares e bruxismo*

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## ABSTRACT

**Objectives:** Review the literature on nightmares and develop a questionnaire on nightmares to be used in individuals presenting craniomandibular disorders and bruxism. **Material and Methods:** Review of 50 papers related to dissociation, nightmares, bad dreams, bruxism and temporomandibular disorders. **Results:** A questionnaire with 100 questions related to 15 categories of dreams, bad dreams and nightmares was developed. Violence, rage, aggression, pursuit, sexuality, animals, persecution, critics, voices criticizing or instigating to use violence and commit suicide; shame, sexual aggression and different types of abuse were the most common themes reported in the reviewed literature. **Conclusions:** A questionnaire to assess dreams, bad dreams and nightmares would be a useful instrument to be used in individuals presenting bruxism and craniomandibular disorders. The instrument covers most of the issues mentioned in the literature, and another advantage is that it could be used for the evaluation of alternating entities or ego states.

## Key Words

Instrument; nightmare; craniomandibular disorders; bruxism.

## RESUMO

**Objetivos:** Revisar a literatura sobre pesadelos e sonhos, desenvolver um questionário sobre pesadelos para ser usado em indivíduos com bruxismo e distúrbios craniomandibulares. **Materiais e métodos:** Revisão de 50 artigos científicos relacionados com dissociação, distúrbios temporomandibulares, pesadelos, sonhos ruins e bruxismo. **Resultados:** Um questionário com 100 questões relacionadas com 15 categorias de sonhos e pesadelos foi desenvolvido. **Violência, raiva, agressão, perseguição, sexualidade, animais, críticas, vozes criticando ou instigando o sonhador para usar a violência ou cometer suicídio; vergonha, agressão sexual e vários tipos de abusos foram os temas mais mencionados na literatura revisada. Conclusão:** Um questionário para avaliar sonhos, sonhos ruins e pesadelos seria um instrumento muito útil para ser usado em indivíduos com bruxismo e distúrbios craniomandibulares. O instrumento abrange a maioria dos temas mencionados na literatura atual. Uma vantagem do instrumento é que pode ser usado para avaliação de entidades alternadas ou estados do ego.

## Palavras-chave:

Instrumento; pesadelos; transtornos craniomandibulares; bruxismo.

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## 1 INTRODUCTION

Craniomandibular disorders, or CMDs, consist of a group of pathologies affecting the stomatognathic system and adjacent functionally related anatomic structures whose complex and diversified etiology generates problems in diagnosis and classification<sup>1</sup>. Signs and symptoms of CMDs include a complaint of pain in the masticatory muscles, joint noises, difficulties to perform normal jaw movements, tenderness to palpation of the masticatory muscles and headaches of neuromuscular origin<sup>2</sup>. Clinicians and researchers are becoming more aware that anxiety, depression, and somatization are psychologically related to CMDs<sup>1</sup>. Bruxing Behavior (BB) is defined as the habit of clenching, and grinding of the teeth. Sleep bruxism, or SB, is defined as a parafunctional activity that includes clenching, bracing, gnashing, and grinding of the teeth and also as an orofacial motor activity during sleep characterized by repetitive and/or phasic sustained contractions of the jaw closing muscles<sup>3</sup>. Daytime and SB are different neurophysiological phenomena with different etiologies, thus needing different management strategies<sup>4</sup>. Oral jaw habits including SB may be very destructive and cause tooth wear, inflammation, damage to the supporting structures, muscle pain and CMDs<sup>5</sup>.

Nightmares are frightening dreams that awaken a dreamer from dreaming and can be memorized and recalled clearly on awakening, because of their distinct intensity of emotion, fear - provoking features and association with psychopathology<sup>6</sup>. People with mental health problems may have a predisposition to present or develop personal distress, anxiety, sleeping difficulties and even nightmares occurring together with insomnia, anxiety and stress<sup>7</sup>. In previous studies, patients and/ or subgroups of those presenting CMDs and BB have been described as psychologically disturbed. They may present somatization and other psychiatric disorders. One investigation<sup>8</sup> reported that 16.8% CMDs and BB individuals demonstrated significant levels of dissociation as compared to controls. BB and CMDs may be etiologically related with sexual abuse and severe psychiatric disorders and many of these patients present nocturnal **bruxism**<sup>9</sup>, insomnia and other sleep disorders including nightmares. In general, 70%-80% of SB patients show symptoms of fragmented and lack of refreshing sleep, nocturnal arousals, higher number of body movements during sleep and excessive nightmares<sup>4</sup>.

Nightmares can be examined from the theory of nightmares representing a continuity of day time psychopathology and/or daytime distress and also from the theory of dissociation of the self. There are no studies examining nightmares in both BB and CMDs individuals. Additionally, studies on nightmares have included only a few items regarding such a disorder, thus not allowing a researcher to evaluate the whole range of nightmares<sup>6</sup>. Moreover, the varieties of characters that may be represented in nightmares are still unknown. In many individuals, nightmares may represent severe psychopathology as there is an association between high dissociation (DES) scores and nightmares<sup>6</sup>. There is an increasing need to develop instruments assessing not only types of nightmares, but frequency, intensity, significance and relationship with high DES scores and nightmares. Because there is scarcity of studies and instruments to assess nightmares in CMDs and BB individuals, the objective of this investigation is twofold:

1. Develop an instrument to assess nightmares in populations of individuals presenting CMDs and BB;
2. Discuss the categories of nightmares/bad dreams in the context of the instrument and the current literature.

## 2 METHODS

The terms bruxism, nightmares, dissociation, CMDs were combined to gather relevant scientific papers describing any or a combination of these disorders. Those terms were entered in [www.google.com](http://www.google.com) and 60 papers were retrieved. Experimental studies, cases report and review of the current literature were accepted. The only condition to include a paper in this review was to provide information on nightmares, BB and or CMDs. Following careful examination of all papers, 50 were considered to have useful information on the subject of this investigation and were included to carry out the development of the questionnaire. Most papers described exclusively nightmares, whereas only a few had scarce information on dissociation and nightmares, BB/nightmares or nightmares/CMDs. The information contained in each study including investigations of the correlation between nightmares and psychological factors, presence of reactive distress (for instance: fear, depression, anxiety, hopelessness), content of each nightmare (for instance: pursuit, aggression, critics ) were used to form phrases in order to prepare a questionnaire which, in a second step procedure, would be responded by CMDs + BB individuals and controls. There is one study<sup>10</sup> indicating that self-report questionnaires on subjects' dreams are a reliable and valid alternative for assessing dream content. Following the preparation of pertinent questions to be answered by participants, 100 questions were considered relevant and were organized in 15 categories representing:

1. Nightmares and reports of fear, terror, tension, distress, depression, anxiety, powerlessness and hopelessness;
2. Emotional and physical aggression, aggressive and/or promiscuous sexuality;
3. Violence, aggression, danger, threat;
4. Violent behavior including killing, homicide and murder;
5. Pursuit, being attacked by people and/or animals;
6. Passive self-destructive behaviors: self-harm, voices instigating the dreamer to self-harm, suicide ideations and suicide attempts;
7. Sadistic abuse, cruelty, self-punishing;
8. Sexual aggression, prohibited sexuality, homosexuality;
9. Shame, lower self-esteem, critics, insults, humiliation;
10. Rage, hate, anger, frustration, stress;
11. Persecutory voices and intrusive thoughts;
12. Suicide trends in nightmares and in the waking life;
13. Punishment;
14. Awakening with headache;
15. A child character in dreams and nightmares.

We anticipated that one of the methods to validate the current instrument would be the use of correlation studies, observing the outcome when using the questionnaire comparing clinical and non clinical populations (for example, nightmares in patients with and without headaches, nightmares in groups presenting CMD and headaches and non CMDs/no headaches). Another useful method to validate the current questionnaire would be to compare scores obtained when using such an instrument in clinical population as compared with those observed in the same populations, but using structured clinical interviews. This study was approved by the Ethical Committee (006-2014).

Before applying the questionnaire in the clinical setting, each participant should receive the following written explanations:

1. A nightmare is a dream that frightens the dreamer and in which fear, fright, distress, hopeless, impotence, worthlessness and other affects can be experienced;
2. A nightmare can be recalled in detail on awakening;
3. To be awoken by a nightmare is not a necessary condition for the event to be considered as such<sup>11</sup>.

It has been reported that in patients with psychosomatic disorders, macabre and threatening dreams do not necessarily produce awakenings<sup>12</sup> and less than 25% of those with chronic nightmares report always awakening from a nightmare<sup>13</sup>. Thus, in the current study we used a less restrictive definition of a nightmare.

### **3 RESULTS**

Once all papers were read and analyzed, 120 questions were prepared. The third step of this study was to eliminate repetitive questions, to shorten each item and modify its written form so that each phrase could be read easily by every respondent. The instrument (shown below), and the review of the literature demonstrate that items related to the presence and emotional aftereffects of a nightmare; characteristics of a nightmare including major affects elicited; awakening or not, remembering the dream; physical and sexual abuse; anger, rage, aggression, violence including homicide and murdering in the nightmare; being pursued by someone or an animal; instigation to do harm or to kill; persecutory voices instigating the dreamer to do harm, to kill and use violence; suicide; punishment; being sexually aggressive, prohibited sex, sexual promiscuity and homosexual interactions; self harm; critics, insults, bullying, rejection, humiliations; harsh, cruel and sadistic characters appearing in the nightmares and a child character probably representing and alter, were commonly described in many papers about dissociation, nightmares and sleep.

In its current format, the questionnaire contains 100 questions and 15 categories of dreams and nightmares. The frequency of every item in the questionnaire is assessed using the words never (0), rarely (1), sometimes (2), frequently (3) and always (4).

### **4 DISCUSSION**

One of the objectives of the current study was to develop an instrument to assess nightmares, bad dreams and alters associated nightmares.

## 5 INSTRUMENTS TO ASSESS NIGHTMARES

Although there is no dispute about the importance and significance of dreams, there is no doubt that, from a psychopathological point of view, nightmares are clinically most relevant. There are many instruments to evaluate nightmare and sleep quality. The SLEEP-50 is perhaps one of the most complete instruments to assess nightmares and bad sleep<sup>14</sup>; however, it does not evaluate the diversity of themes which may be reported in nightmare sufferers. On the other hand, the instrument evaluates important themes relevant for this study, including waking up during the night, walking during sleep, thoughts about having performed an action at night, frightening dreams, waking up, and waking up with a headache.

The Typical Dream Questionnaire or TDQ is another instrument containing 55 different dream themes<sup>15</sup>. Even though this instrument assesses a number of typical dreams, including some related with nightmares or bad dreams (being chased, someone being dead, being frozen with fright, being physically attacked, being killed and presence of violent wild beasts), the instrument fails to evaluate a number of other nightmares related with violence, murder, killing, insults, critics, bullying and other themes. The Disturbing Dreams and Nightmare Severity Index or DDNSI<sup>16</sup> is another tool used to evaluate dreams. However, it is too short to assess the whole range of nightmare themes than can be found or reported in clinical populations.

Categories of dreams/nightmares and the current literature:

1. Nightmares, fear, terror, tension, distress, depression, anxiety, powerlessness, hopelessness

One definition of a nightmare is that of a frightening dream that awakens the sleeper. Whether or not the person awakens presumably reflects a dream's emotional severity<sup>17</sup>. It is likely that some groups of nightmare sufferers also suffer from a much greater prevalence of anxiety symptoms, anxiety disorders, mood disorders and traumatic experience, thus psychopathology may not only be related to nightmare frequency, but also to nightmare content<sup>18</sup>. Emotions in nightmares are not limited to fear or anxiety alone, but anger and grief are also frequently reported emotions<sup>19</sup>. Nightmares are significantly more emotionally intense than bad dreams and a significant greater proportion of bad dreams than nightmares contain emotions other than fear, including anger, sadness and frustration<sup>20</sup>. The subjective emotional valence of any given dream can theoretically fall anywhere along an infinite range of values that range from the most pleasant to the most horrifying<sup>21</sup>.

Many studies have found that individuals who report frequent nightmares score higher than controls on a range of measures indicating greater psychological disturbances<sup>12,13</sup>. It has been demonstrated that individuals who report less frequent but highly distressing nightmares score higher levels of psychological disorders indicating psychopathology<sup>17</sup>. There is information indicating that patients diagnosed with BB have an anxious personality and a considerable drive to reach their personal goals when compared with the rest of the population<sup>21</sup>. SB is related to anxiety and is a secondary aspect of excitation when sleeping<sup>21</sup>. It is likely that anxiety and frustration in those presenting more severe BB and CMDs appear in dreams and nightmares, but experimental studies are needed to prove this assumption.

## **2. Emotional, physical, aggressive/promiscuous sexuality**

In one investigation<sup>20</sup>, researchers found that physical aggression was reported much more frequently in nightmare sufferers than in bad dreams sufferers. In one study in 41 non-clinical participants, violent attacks against the dreamer were reported by 12% of the participants. It has been reported that frequent nightmares may be associated with psychiatric disorders<sup>22</sup>. When children live in a chaotic family and/or are victims of repeated physical abuse in the family, they experience depression, self-harm and sexual promiscuity<sup>23</sup>.

The terms sadistic abuse is used by one researcher to describe severe abuse in children including extreme threat and domination, overlapping physical and sexual abuse and multiple victim or multiple perpetrator patterns of abuse<sup>24</sup>. In individuals with dissociative disorders, a sadistic alter may be observed in some of them and such an entity may find full expression in bad dreams and nightmares.

## **3. Violence, aggression, danger, threat**

Most recurrent nightmares are simulations of primitive dangers including pursuits, fight, attacks, forcing somebody to do something, physical aggression including assault, rape, fist-fight, stabbing and shooting, which are common themes in those reporting nightmares<sup>25</sup>. The frequency of aggression in those reporting nightmares is about 12%<sup>11</sup>. Dreams with increased vividness, violence and aggression contents and increased motor activity indicate the presence of REM sleep behavior disorders<sup>26</sup>. Impulsive, affective, reactive or hostile aggression is a response to frustrating or threatening event that induces anger and may be associated to sleep-related violence<sup>27</sup>. Extremely violent situations are remembered and stored differently in the mind and these phenomena and the accompanying nightmares and reenactments can be the result of failure of symbol formation<sup>28</sup>.

In one study<sup>29</sup> in patients presenting RBD, researchers reported that dreams in those patients were characterized by an elevated proportion of aggressive contents, despite normal levels of daytime aggressiveness. BB and CMD individuals have been described as presenting psychosomatic characteristics<sup>30</sup> and difficulties to express their anger and frustration. Thus, they are more likely to channel anger inward rather than outward. It is also likely that at least part of this aggression directed inward finds full expression in the form of bad dreams and nightmares. Social interactions in dreams follow a multitude of patterns, including threatening and otherwise emotionally-charged situations. In one investigation in patients with RBD, researchers found that after Bonferroni correction, a trend for a higher percentage of the dreamer appearing as an aggressor was observed in the study<sup>29</sup>.

## **4. Violent behavior including homicide and murder**

Dreams with increased vividness, with violent, aggressive contents and increased uncontrolled motor behaviors (enacted dreams) indicate the presence of a REM-sleep behavior disorder<sup>29</sup>. One study<sup>6</sup> included being physically attacked and/or being murdered in the category of paranoia in those individuals reporting nightmares. Such findings indicate that there are so many different dreams and nightmares, that they can be placed in different categories, thus the way we categorized dreams and nightmares in the current study seems to be adequate. Murder may be a more or less common thematic content in nightmares<sup>6</sup> and may be related with violence, paranoia, sadistic behavior and even with a psychopathic disorder.

## **5. Pursuit, being attacked by people or animals**

Events in which a person is persecuted by other human beings, monsters, animals or comparable living persons are common events in bad dreams and nightmares. The frequency of nightmares including being chased, attacked, being murdered and being frightened increases with higher levels of dissociation<sup>6</sup>. The frequencies of events related with being threatened or persecuted, presence of violent attacks against the dreamer, and presence of animals and other creatures are about 25%, 12% and 5% respectively<sup>11</sup> in nightmare sufferers. Alters appearing as dream characters may be observed in the form of persecutory ones which may use their ability to influence the behavior of others and/or communicate important information<sup>31</sup>. One study<sup>32</sup> asserts that being chased or attacked by persons or animals, or being in danger, are common themes reported during nightmares and bad dreams. Additionally, when the effects of bad dreams and nightmares are compared, it is apparent that being chased is reported more frequently in nightmares than in bad dream sufferers<sup>32</sup>.

## **6. Passive self-destructive behaviors: Self-harm, voices instigating to self-harm, suicide ideations or attempts**

Forcing and / or instigating somebody to do something are common themes in nightmare sufferers<sup>32</sup> and nightmares are associated with symptoms of anxiety, depression, dissociative disorders, schizophrenia, borderline personality disorders and suicidal behavior<sup>33</sup>. A large proportion of CMD and BB patients may have been subjected to severe traumatic events in infancy, including rape, sexual violence, physical and emotional abuse. It seems that there is a high prevalence of passive self-destructive behaviors and frequent suicidal ideations containing expressions of self-condemnation, guilt and anger<sup>34</sup>. Moreover, repetition of harm following prolonged traumatization is the result of severe trauma. Symptoms as a result of chronic victimization include suicidal preoccupation, explosive anger, dissociation, isolation, distrust and a repeated search for a rescuer<sup>34</sup>. Methods of suicide attempt in those presenting dissociative disorders include drug overdose, wrist slashing, cutting with a knife or other weapon and hanging<sup>34</sup>.

## **7. Sadistic abuse, cruelty, self-punishing**

The terms sadistic abuse describe severe abuse usually occurring in childhood and include torture, physical and sexual abuse. Children reporting extreme abuse are more symptomatic specifically around presence of sexual and aggressive enactments. Sadistic methods used by some people include control of sleeping, physical and psychological torture<sup>24</sup>. It is very likely that children victims of these misfortunes may in adult life present frequent nightmares representing counterparts or symptoms of severe trauma experienced in early life. Sadistic abuse in childhood may later emerge in adult life in the form of vivid flashbacks, traumatic nightmares, dissociative symptoms and persecutory fears<sup>24</sup>. Thus, it seems that an instrument for assessing both nightmares and alters would be of great value for research and clinical applications. A survivor of sexual abuse presenting dissociation, difficulties to sleep and nightmares, may feel pleasure in discharging rage and violence onto the abuser. He or she may be both the abuser and the one being abused, the sadist and the masochist<sup>23</sup>. It is likely that such a behavior appears in repetitive nightmares causing exaggerated distress in the sufferer.

## **8. Sexual aggression, prohibited sexuality, sexual promiscuity, homosexuality**

One investigation asserts that most DID patients have an alter who is bad at least in the sense of manifesting forbidden sexuality and aggression, and many patients have one that is even evil and identified with an abuser<sup>31</sup>. Threat and direct attack to one's physical integrity by another character, including sexual aggression are common themes in dreams of nightmare sufferers<sup>11</sup>. Many patients presenting CMDs and BB may fulfill the criteria for chronic victimization and posttraumatic stress disorder

or PTSD. Some symptoms in these patients include persistent sadness, suicidal preoccupation, explosive anger, dissociation and difficulty modulating sexual involvement<sup>35</sup>. Moreover, patients with a history of chronic sexual victimization may initiate an extremely promiscuous sexual behavior to the point of frequenting female prostitutes to fix his or her homosexual ideations<sup>34</sup>. One study reviewed the literature on self-harming behavior and dissociation in complex PTSD and reported that chronic victimization may be associated with dissociation in which patients present persistent sadness, suicidal preoccupation, explosive anger, shame, guilt, nightmares and self mutilation<sup>34</sup>. This study reported a case presenting hate, sadness, sense of betrayal and anger, recurrent nightmares, extremely promiscuous behavior, and frequenting prostitutes to fix his homosexual ideations<sup>34</sup>.

#### **9. Shame, lower self-esteem, critics, insults, humiliation**

Verbal threats, teasing and bullying that cause fear, lower self-esteem and humiliation are common themes in patients with history of emotional, physical and sexual abuse<sup>36</sup>. It is very likely that because of identification with the aggressor, such abuse may be expressed at least in part in the form of nightmares. Insults, humiliations, rejection and being self critical constitute events which characterize lower an individual's self esteem and they are within the thematic category of interpersonal conflict in nightmares and bad dreams<sup>37</sup>. Data presented in one investigation<sup>37</sup> demonstrated that the clinical description of nightmares usually involves threats to survival, security and/or self-esteem. Thus, it would be useful to assess the themes of shame and lower self-esteem in nightmares and bad dreams sufferers. A significant proportion of CMDS and BB behavior patients may have been victims of emotional, sexual and physical abuse and may even present signs and symptoms of PTSD. According to one investigation<sup>34</sup>, these symptoms include shame, guilt, helplessness, distrust and isolation.

#### **10. Rage, hate, anger, frustration, stress**

One study assessing emotions in dreams reported that anger and frustration were common themes among those reporting frequent nightmares<sup>34</sup>. Previous investigations<sup>30</sup> have demonstrated that CMDs patients with psychosomatic trends are more vulnerable to stress. We feel that assessing nightmares may be very useful in CMDS patients as it would provide useful information on psychopathology, dissociation and alter types. This assumption is supported by one investigation<sup>11</sup> indicating that subjects with high neuroticism, those under stress<sup>38</sup> and others who are not content with their lives<sup>39</sup> are more likely to be affected by a nightmare. The etiology of CMDs is multifactorial and symptoms are in some way associated with sleep disorders. Additionally, it seems that CMDs, sleep disorders and stress are interrelated. In PTSD, the traumatic event is persistently relived by the individual causing intense suffering, anxious awakenings, nightmares and insomnia<sup>40</sup>. Cyclical autonomic dysfunction involved in the control of dreams in traumatized victims may lead to muscle bracing, tachycardia, vigilance, panic, rage and bruxism<sup>41</sup>. Thus, in these circumstances, it seems that nocturnal bruxism would be a kind of attack on the self.

#### **11. Persecutory voices and intrusive thoughts**

One study<sup>42</sup> describes persecutory alters appearing as recurring characters. Such alters use their ability to influence host behavior or to communicate information<sup>31</sup>. One research<sup>43</sup> evaluated the adequacy of a social and cognitive model of dissociation and reported that hearing voices and passive influence experiences may be present in many DID patients. Schmidt<sup>35</sup> evaluated the developmental needs and a new treatment approach applied to dissociative identity disorders and reported that thoughts of death and suicide occur frequently in those presenting DID. She also reported that persecutory voices indicating the presence of one or more consciously experienced ego states may occur frequently in



DID patients. Germane to this issue is one investigation<sup>44</sup> indicating that a patient may be tormented by intrusive memories of a traumatic incident, by frightening nightmares and by constant emotional tension.

## **12. Suicide trends in nightmares and in the waking life**

There are reasons to believe that there is a strong association between depression, nightmares and suicidality. In this regard, one investigation<sup>40</sup> reported that 66% of suicide attempters report moderate or severe nightmares. It seems that the relation between nightmares and suicidal tendencies is straight as two studies reported that nightmares may predict suicide in adults and suicidal behavior in adolescents<sup>32</sup>; thus, evaluation of nightmare frequency and intensity may be a useful tool to assess depression levels in clinical populations. There is an association between dissociation, trauma, destructive behaviors, aggression and suicide in psychiatric patients<sup>45</sup>. Thoughts of dead and/or suicide are observed commonly in patients presenting DID<sup>35</sup>, but it is not known if they have any relationship with nightmare themes about death and suicide.

## **13. Punishment**

Patients with dissociation, nightmares and trauma may present anger, extreme sexual acts as forms or behaviors representing self-destruction or self punishment<sup>34</sup>. Schmidt<sup>35</sup> evaluated the results of a new treatment method in dissociative disorder patients and reported that thoughts of being punished are frequently reported in such patients. Momartin and Coello<sup>34</sup> evaluated self-harming behavior and dissociation in complex PTSD and reported one case of a patient with a history of severe physical and psychological trauma and nightmares. They found that repetition of harm following prolonged traumatization may be a sequel of severe trauma. Passive self destructive behavior as a form of punishment in those victims of severe physical abuse (punishments, torture) may lead the patient to present physical and sexual punishment, pain and suffering as reenactments of the past physical abuse. In such patients, punishment is reinforced by the so-called mechanism of a compulsion to repeat.

## **14. Awakening with headache**

There is a relationship between trauma, dissociation, nightmares, psychosomatic disorders. These disorders may appear disguised in the form of different symptoms, including headaches<sup>46</sup>. One study<sup>46</sup> about dissociative disorders reported five cases of children presenting DID and reported that headache was present in four of five children and it was the most common somatic presentation in these four cases. Patients with dissociative disorders may present nightmares, substance abuse, somatization, suicidality, headache and analgesic overuse<sup>47</sup>. Headache is usually described as blinding and resistant to standard analgesics and may be a common symptom in patients presenting somatization and dissociation. Its prevalence is about 78.6% in dissociative patients<sup>48</sup>. One investigation<sup>49</sup> reported an association between nocturnal awakening with headache and insomnia, nightmares and BB

## **15. A child character in dreams and nightmares**

Patients with dissociative disorder may present a family of alters or alternate ego states, in which cases there is an acting out of an adolescent child<sup>50</sup>. The majority of patients presenting with dissociative disorders have at least one child alter who has never grown up<sup>31</sup>. This child character appearing in dreams and nightmares may be a fearful one<sup>31</sup>. Child voices may be observed in DID patients, but they are reported less frequently as compared with other signs and symptoms<sup>35</sup>.

## 6 CONCLUSIONS

Within the limitation of this study, and based on the literature review which was useful to establish a correlation between the developed instrument and characters or situations appearing frequently in nightmares, it seems that the instrument previously developed and presented below may be very useful assessing bad dreams and nightmares, and thus, it may assist the clinician and specialist to gather information on psychopathology in dreams and sometimes in the waking life. The review of the literature indicates that useful and vast clinical information may be obtained assessing bad dreams and nightmares. There follows the presentation of the instrument in its original form.

## 7 INSTRUMENT FOR NIGHTMARES AND ALTERS (INA-100)

Please, fill out the questionnaire below. Note that 0= Never 1= Rarely 2= Occasionally 3= Frequently 4= Always.

### Information:

A nightmare is a dream that frightens and may/may not awaken the dreamer. Awakening the dreamer probably depends on the intensity of emotions associated with the nightmare. A nightmare can be recalled in detail on awakening. Please, note that to be awakened by a nightmare or bad dream is not a necessary condition for you to consider that a nightmare occurred. A nightmare is always associated with fear, fright, powerlessness, immobility, anxiety and terror.

1. I have **nightmares**, they wake me up at night/early in the morning. I feel fear/distress and wake up fearful, terrified, sad, anxious, depressed 01234
2. I have **nightmares** that do not wake me up at night. I feel fear, tension, anxiety. When I wake up, I feel anxiety, distress, apprehension, depression 01234
3. My **nightmares** involve a fear invoking situation, I feel powerless, hopeless, terrified 01234
4. If I have a **nightmare** and wake up, I vividly remember most events in the nightmare 01234
5. I dream I am **abused** physically by others. I feel fearful, terrified, helpless, powerless 01234
6. I dream someone **abuses** physically of other people. I remain quiet and observing 01234
7. I dream I **abuse** physically of someone or other persons 01234
8. I dream I abuse of someone or others **sexually** 01234
9. In my dreams, I see someone/people abusing **sexually** of someone or others 01234
10. I dream someone or others **abuse** sexually of me 01234
11. I dream about a person (s) who is/ are **enraged, aggressive, violent** with others 01234
12. I dream about someone/ persons who are **enraged, aggressive, violent** with me 01234
13. I dream I am **enraged, furious, aggressive, violent** with someone /others 01234
14. I have many diseases/complaints. I have somebody inside that is bad to my body 01234
15. I have to learn to live with my diseases and complaints, they never go away 01234
16. I dream about **assault, rape, fight, stabbing and or shooting** someone 01234
17. I dream someone/persons attempt to hurt/**kill** someone or others 01234
18. I dream I attempt to hurt or **kill** someone or other people 01234
19. I dream someone/persons try **to hurt me/ kill me**. I feel danger, fright, fear 01234
20. I dream someone or others **killed** other (s) person (s) 01234
21. **I dream I kill** someone 01234
22. I dream somebody **kill me** 01234
23. I dream someone **instigates** someone/other people **to hurt/kill** himself/herself/themselves 01234
24. I dream I **instigate** someone/others to do **harm/kill** himself/themselves 01234
25. I dream I am **instigated** by someone/others to do **harm or to kill** myself 01234
26. I dream that someone is a **murderer**, or that someone tries to **murder** another one 01234
27. I dream I try to **murder** someone 01234
28. I dream I am **pursued** by someone, I cannot escape, I feel endangered, fearful 01234
29. I dream somebody pursues someone to do harm 01234
30. I dream I pursue someone to hurt him/her 01234
31. I dream I am **pursued by an animal**. I feel endangered, fearful, I cannot escape 01234
32. I dream an **animal** pursues someone. He/she is endangered/fearful, cannot escape 01234
33. I dream with a **big animal**. I feel fearful and anxious. It doesn't attack 01234
34. I dream with a **big animal** close to someone. He/she feels anxious/fearful. It doesn't attack 01234
35. I dream I hear **persecutory voices** telling me to harm or to **kill myself** 01234
36. I dream I hear **persecutory voices** telling me to kill somebody 01234
37. I **hear voices** during the day telling me to be cruel, to harm, to hurt someone 01234

38.	I hear voices during the day telling me to be cruel, to harm and hurt myself	01234
39.	I attempted <b>suicide</b>	01234
40.	I dream that I want to commit or that I commit <b>suicide</b>	<b>01234</b>
41.	I dream somebody wants to or commits <b>suicide</b>	01234
42.	I dream about someone/others telling me to be <b>aggressive/violent/cruel</b> with others	01234
43.	I dream I am <b>aggressive, violent, cruel, enraged, hateful, frustrated, sadistic</b> with someone or others. I feel powerful	01234
44.	I dream someone/others is/ are <b>aggressive, violent, cruel, enraged, hateful, frustrated and sadistic</b> with someone/others	01234
45.	I dream someone or others is/are <b>aggressive, cruel, enraged, hateful, frustrated and sadistic with me</b> . I feel hopeless	01234
46.	I dream about <b>being punished/tormented</b> by someone/others. I feel alone, fearful, helpless	01234
47.	I dream I <b>punish/torment</b> physically someone / or others. I feel in control/powerful	01234
48.	I dream of someone or others <b>punishing/tormenting</b> physically someone/others. I feel fear, distress, anxiety	01234
49.	I dream I am <b>sexually aggressive</b> .	01234
50.	I dream somebody is sexually aggressive	01234
51.	I dream I am involved in <b>sexual activities</b> with many people	01234
52.	I dream of someone else who is involved in <b>sexual activities</b> with many people	01234
53.	I dream I am involved in <b>prohibited sexuality</b> : sexuality with someone of my own genre, sexuality with adolescents, sexuality with relatives, sexuality with old people, others	01234
54.	I dream someone is involved in <b>prohibited sexuality</b> : adolescents, relatives, old people	01234
55.	I dream about males, females involved in <b>sexual activities</b> with males, females	01234
56.	I dream I am involved in <b>sexual activities/attitudes</b> with males, females	01234
57.	I dream someone is looking for a woman or man for <b>homosexual interactions</b>	01234
58.	I dream I am looking for a woman or man for <b>homosexual interactions</b>	01234
59.	I dream that males, females attempts to <b>seduce me sexually</b>	01234
60.	I dream that males, females are <b>sexually available for me</b>	01234
61.	I dream about males, females <b>sexually available</b> for males, females	01234
62.	I dream I try to <b>seduce</b> and involve a male, female in sexual activities	01234
63.	I dream about males, females trying to <b>seduce</b> sexually other males, females	01234
64.	I hear voices during the <b>day</b> instigating me to look for <b>homosexual interactions</b>	01234
65.	I <b>hit</b> objects, tables, furniture, walls. I hurt myself, I complain	01234
66.	I dream I cut <b>myself</b> purposely with a knife or other cutting object	01234
67.	I dream of <b>someone/people cutting</b> himself/ themselves with a knife or object	01234
68.	I dream I am told by someone/others to hurt, cut, hit myself.	01234
69.	I used to <b>cut myself</b> , cause bruises and burn parts of my body	01234
70.	I hear <b>voices</b> inside telling me to <b>cut, hit, cause bruises to myself</b>	<b>01234</b>
71.	I dream I hit, cause bruises and/or burn parts of my body	01234
72.	I have nightmares in which I <b>feel powerless</b> , frustrated, hopeless, abandoned, alone	01234
73.	I have bad dreams in which someone feels powerless, frustrated, hopeless, abandoned, alone	01234
74.	I dream about things, situations, opinions, voices, I feel <b>shameful</b> and diminished	01234
75.	I dream I am naked in public. I feel <b>shameful</b> , distressed, ridiculed	01234
76.	I dream about someone feeling, shameful, ridiculed, diminished, powerless	01234
77.	I dream I criticize, scorn, diminish, <b>humiliate</b> harshly someone/others. He/she/others feel ashamed	01234
78.	I dream about someone <b>criticizing</b> , scorning, diminishing, humiliating harshly another person or other people	01234
79.	I dream about being criticized, scorned, diminished, humiliated harshly by someone, I feel diminished and shameful	01234
80.	I dream I criticize, scorn, humiliate myself harshly. I feel shameful/diminished	01234
81.	I hear internal voices shouting, <b>criticizing me</b> , threatening me, bullying me, rejecting me, yelling at me, humiliating, demeaning, frightening me. I feel shameful, humiliated	01234
82.	I have nightmares about someone/others shouting at me, threatening me, bullying me, rejecting me, yelling at me, insulting me demeaning me, frightening me	01234
83.	I dream someone instigates me to use <b>drugs and / or drink alcohol</b>	01234
84.	In the waking life I hear voices instigating me to use <b>drugs including alcohol</b>	01234
85.	I feel I have somebody inside which is harsh, cruel, <b>sadistic</b> , with me	01234
86.	I have nightmares in which a character of <b>sexual murderer</b> is depicted	01234
87.	I have nightmares in which I am attacked or chased by someone. I feel paralyzed	01234
88.	A little <b>defenseless animal</b> , trying to get free, appears in my dreams	01234
89.	A sad, hopeless, <b>defenseless child</b> appears in my dreams	01234
90.	I was told I behave like a <b>child</b> , I use a child voice when I talk	01234
91.	I dream with little <b>defenseless animals</b> which I'd like to protect in my dreams	01234
92.	I dream with defenseless <b>child or children</b> . I feel like protecting them in the dreams	01234
93.	I feel I am a <b>depressed</b> person. A depressed character appears in my dreams	01234
94.	I wake up with intense headache at night/morning as if a bomb were ready to explode	01234
95.	Somebody in my dreams appears as a very depressed or sad person	01234
96.	Somebody in my nightmares appears as a very violent person	01234
97.	I am a very <b>distrustful</b> person	01234
98.	I dream I am <b>returning</b> to a house, institution, school, university.	01234
99.	I dream with a big animal in passive attitude. I feel scared/worried. It does not attack	01234
100.	I dream I am in a tunnel, hole, water, I feel endangered, desperate, fearful	01234

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