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The association between alexithymia and impoverishment of dreaming:

an empirical research amongst undergraduate students

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Abstract: Increasing evidence supports the hypothesis that people with alexithymia present, together with a lack of symbolic function, a dreaming component disorder. Therefore, this study aimed to investigate the association between alexithymia and dreaming correlates amongst undergraduates. Data on alexithymia and dreaming component were collected from 100 undergraduates from the degree course in Psychology and 100 from the degree course in Economy and Trading using the Toronto Alexithymia Scale (TAS-20) and the Dreaming Questionnaire (DQ). Total score for alexithymia and the mean scores for the three factors of the two scales were calculated. We then compared the total alexithymia scores and the three subscales of the TAS-20 with those of the three factors of the DQ. Economy and Trading undergraduates obtained higher scores for alexithymia than Psychology undergraduates. We also found a significant correlation between the three subscales of the DQ and TAS-20 total scores. Significant correlations were also found between the three TAS-20 subscales and DO subscales. Our results extend previous research by suggesting an association between alexithymia and altered dreaming content as expression of lack of affect regulation which emerges through conscious cognitive activity and dreams.

Keywords: alexithymia, symbolic function, dreaming, emotion.

INTRODUCTION

The alexithymia construct (from the greek a = lack, lexis = word, thymos = feeling: literally "lack of words for feelings") was introduced for the first time by Nemiah and Sifneos (1970). During their clinical practice, they observed that patients with psychosomatic disorders presented a difficulty in identifying and describing feelings using words, they had a lack of fantasy and a concrete and externally oriented communication style. Specifically, alexithymic people present difficulties in identifying feelings and in distinguishing them from somatic sensations of emotional arousal; they present a limited emotional vocabulary and, consequently, a difficulty in describing feelings to others throughout words as well as to use feelings as a source of help and support. Moreover, alexithymic people present a lack of empathy associated with social withdrawal and a trend to develop superficial or dependent relationships; reduced imagination skills and a cognitive style focused on details of reality, which is described minutely without any emotional involvement (Taylor et al., 1997; Caretti et al., 2005a). The increasing number of studies and the growing interest towards alexithymia construct has been associated with the publication of the Toronto Alexithymia Scale (TAS-20; Bagby et al., 1994), the first empirically validated scale to assess alexithymia. Therefore, an important step forward in the development of alexithymia as a multi-factorial disorder has been conducted with the publication of Disorder of Affect Regulation (Taylor et al., 1997) in which alexithymia was defined as an affective regulation disorder and, particularly, as a deficit of the cognitiveexperiential dimension of the emotional response systems. Alexithymic people lack the link between the cognitive-experiential and the physiological and motor-behavioral dimensions; therefore the latter is not acknowledged, remaining without any kind of regulation from a more conscious, symbolic and verbal component as well as, on a more relational level, a lack of interpersonal regulation (Taylor et al., 1997; Lane & Swartz, 1987). Therefore, at the origin of the alexithymic personality formation, there is a deficit that prevents the development of symbolic function, or mentalization, in the child. In fact, symbolic function can develop only within a secure relationship with a caregiver who is able to reflect on the

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child's emotional needs, to contain them and to give them a name. affective regulation disorders develop from traumatic experiences of physical, sexual and/or psychological abuse and emotional neglect from caregivers which determine a developmental deficit in identifying and mentalizing emotions as well as a breakdown of the affective regulation function (Caretti et al., 2005b). The deficit in symbolic functioning of people with alexithymia has an impact on their dream activity. Dream, in fact, is constituted by images creatively composed by the person's mind which originate from past emotional experiences of a preverbal and pre-symbolic age. These emotional experiences are then processed throughout the mentalization function and synthesized in mental images that constitute the autobiographic material of the dream. Therefore, dream allows the symbolization and the verbalization of experiences which are pre-symbolic and preverbal in their origins (Mancia, 2004). An increasing number of studies (Bazydlo et al., 2001; De Gennaro et al., 2003; Ouellet et al., 1996: Parker et al., 2000: Nielsen et al., 1997: Nielsen et al., 2011) supported the hypothesis that people who suffer from alexithymia

presented, together with a lack of the symbolic function, a dreaming component disorder due to the deficit of the mentalization process. Specifically, alexithymic patients present an impoverishment of dreaming, characterized by lower dream recall and report length, as well as a reduced intensity of feelings and complexity of the dream images. Moreover, the dreams of alexithymic people are lacking in fantasy, bizarreness and symbolism; they experience frequent nightmares and distressing dreams, sudden awakenings, lack of interest for their own personal dreams and inability in identifying a personal meaning (De Gennaro et al., 2003; Bauermann et al., 2008; Nielsen et al., 2011). In light of this accumulating evidence, we hypothesized that those who suffer from alexithymia reported qualitative and quantitative alteration in dreaming in addition to affective regulation disorders. Therefore, the aim of the study was the following: first, to identify alexithymic features of two groups of undergraduates whose professions involved a close contact or no contact with emotional experiences respectively; second, we investigated the impact of alexithymia on dreaming.

We hypothesized that: - There were significant differences in the levels of alexithymia between the two groups, with the group whose training did not involve a contact with the emotional world reporting higher levels of alexithymia;

- An increased level of alexithymia was associated with an impoverishment of dreaming, lower dream recall and paucity in dream images;

- An increased frequency of nightmares and distressing dreams in alexithymic participants compared to nonalexithymic participants;

- A lack of interest in their own dreams or underestimation of their importance in alexithymic compared to nonalexithymic participants.

Methods

Our sample included a total of 200 undergraduates from the University of Messina, divided into two subgroups: 100 undergraduates from the degree course in Psychology and 100 from the degree course in Economy and Trading. The representation of the total sample included 69.5% (n=139) of women and 30.5% (n=61) of men. The mean age was 23(SD 2.84). The gender split of the group of Psychology undergraduates was 87% (n=87) of women and 13% (n=13) of men; the spread of the Economy and Trading undergraduates differed, where 52% (n=52) of the sample were women and 48% (n=48) were men. There were no significant differences between the two groups in terms of age.

Measures

Alexithymia was assessed with the Toronto Alexithymia Scale (TAS-20), a self-reporting measure that uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) and provides a global score (TAS score) that ranges from 20 to 100. Several studies support the scale's reliability and factorial validity (Taylor et al., 2003). Its three-factor

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structure is assumed to capture three aspects of alexithymia: difficulty identifying feelings (DIF; scores 7 to 35), difficulty describing feelings (DDF: scores 5 to 25), and externally oriented thinking (EOT: scores 8 to 40) (Parker et al., 2003). A validated Italian version of the TAS-20 was used (Bressi et al. (1996). Dreaming activity was assessed using the Dreaming Questionnaire (DQ). This is a 14-item self-reporting Likert-scale questionnaire which assesses a variety of dream experiences. The DO presents a three-factor structure in order to assess dreaming features that past studies suggest are disturbed in people with alexithymia: dream recall, nightmare distress and dream meaning. All participants completed the TAS-20 and Dreaming Questionnaire during their first semester of classes. Students were informed that they were participating in a research project with the aim to assess the relationship between emotions and dreams. Participants were told that there were no correct or wrong answers and anonymity was guaranteed (only age, gender and degree course were specified in the questionnaire). We calculated a total score of alexithymia for each group of students, as well as a mean score of each TAS-20 factor. Chi-square test was used to test the association between the two degree courses and the three alexithymia categories (negative, undetermined and positive). We tested the association between the three alexithymia categories and dreaming components using ANOVA. Covariance between alexithymia and dreaming was further examined by calculating two-tailed Pearson correlation between TAS-20 subscale scores on the one hand and DQ subscale scores on the other.

Results

The entire sample obtained a mean score of 48.20 (SD \pm 12.89) at the TAS-20. 52% of the sample fell into the negative alexithymia category (<50); 28.5% reported a mean score indicating levels of undetermined alexithymia (50-60) and 19.5% obtained a meaning score associated with a positive level of alexithymia (61). The sample of psychology undergraduates obtained a mean score of 40.86 (SD \pm 10.95). 80% of the subsample reported negative alexithymia, 14% fell in the undetermined category of alexithymia and 6% fell in the positive alexithymia category. The Economy and Trading undergraduate sample reported a meaning score of 55.54 (SD \pm 10.26) at the

TAS-20. 24% of the subsample obtained scores which fell in the negative alexithymia category, 43% into the undetermined alexithymia category, and the 33% fell into the positive alexithymia category. Therefore, there was a statistically significant difference of the level of alexithymia between the two groups, with the Economy and Trading undergraduate sample reporting higher scores of undetermined and positive alexithymia compared to the Psychology undergraduate sample (x2=63.60, p<0.001) (see Table 1).

Table 1. Association between "Psychology" and "Economy and Trading" undergaduates with level of alexithymia (N=200).

| | Value | df | Exact Sig. (2-sided) |
|------------------------------|--------|----|-------------------------|
| Pearson Chi-Square | 63.601 | 2 | .000 |
| Likelihood Ratio | 67.858 | 2 | .000 |
| Fisher's Exact Test | 66.610 | | .000 |
| Linear-by-Linear Association | 56.243 | 1 | .000 |
| | | | |

df, Degrees of freedom.

We calculated the meaning score of the three TAS-20 subscales and DQ subscales in order to compare the three factors between the two groups of undergraduates (see Table 2). There was a significant difference between the two subsamples at the TAS-20 subscales of difficulty identifying feelings (t=-5.400(198), p<0.001) difficulty describing feelings (t=-5.220(198), p<0.001) and externally oriented thinking (t=-9.812(198), p<0.001).

| Trading undergraduate samples | | | | | | | | |
|----------------------------------|--|---|---|---|--|---|--|--|
| Economy and Psicology Trading | | 4.44 | Jf | р | | | | |
| | | Trading | | t-test | ai | value | | |
| М | SD | М | SD | | | | | |
| | | | | | | | | |
| 12 70 | 5.07 | 17.09 | 6.04 | - | 198 | < 0.001 | | |
| 13.72 | 5.07 | 17.98 | 0.04 | 5.400 | | | | |
| 11 (2) | 1.60 | 14.02 | 4.24 | - | 198 | < 0.001 | | |
| 11.62 | 4.62 | 14.93 | 4.34 | 5.220 | | | | |
| 15.50 | 4.00 | 22.62 | 5.01 | - | 198 | < 0.001 | | |
| 15.52 | 4.33 | 22.63 | 5.81 | 9.812 | | | | |
| 40.86 | 10.95 | 55.54 | 10.26 | | | | | |
| | Psico M 13.72 11.62 15.52 40.86 | Psicology M SD 13.72 5.07 11.62 4.62 15.52 4.33 40.86 10.95 | Econor Psicology Trac M SD M 13.72 5.07 17.98 11.62 4.62 14.93 15.52 4.33 22.63 40.86 10.95 55.54 | Economy and Psicology Trading M SD M SD 13.72 5.07 17.98 6.04 11.62 4.62 14.93 4.34 15.52 4.33 22.63 5.81 40.86 10.95 55.54 10.26 | Economy and Psicology Economy and Trading t-test M SD M SD 13.72 5.07 17.98 6.04 - 11.62 4.62 14.93 4.34 - 15.52 4.33 22.63 5.81 - 40.86 10.95 55.54 10.26 - | Economy and Psicology t-test df Psicology Trading t-test df M SD M SD SD 11.62 5.07 17.98 6.04 - 198 5.400 11.62 4.62 14.93 4.34 - 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 5.220 198 9.812 10.26 | | |

| Table | 2. | TAS-20 | scores | amongst | "Psychology" | and | "Economy | and |
|--------|------|------------|----------|---------|--------------|-----|----------|-----|
| Tradin | g" ι | undergradu | uate sam | ples | | | | |

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M, mean; SD, Standard Deviation; df, Degrees of freedom.

We found a significant association between alexithymia levels and the three DO subscales of dream recall (F=7.46, p<0.001), nightmare distress (F=34.17, p<0.001) and dream meaning (F=10.39, p<0.001). Alexithymia scores are negatively associated with dream recall (F= 14.75, p<0.001) and dream meaning (F=10.32, p<0.001) and positively with nightmare distress (F= 64.94, p<0.001). Moreover, our results reported a significant correlation between TAS-20 subscales and DO subscales. We found a significant correlation between the TAS-20 subscale difficulty identifying feelings and DQ subscale nightmare distress (r=0.424, p<0.001). The TAS-20 subscale difficulty describing feelings was directly correlated with nightmare distress (r=0.462, p<0.001) and negatively correlated with dream recall (r=0.238, p<0.001) and dream meaning subscales (r=0.120, p<0.005). There was a positive correlation between TAS-20 subscale externally oriented thinking and nightmare distress subscale (r=0.303, p<0.001) and negative correlation with dream recall (r=0.316, p<0.001) and dream meaning (r=0.462, p<0.001) subscales (see Table 3).

| | | TAS-20 subscales | | | | | |
|--|-------------|---------------------------------------|--------------------------------------|------------------------------------|--|--|--|
| DQ subscales | | Difficulty identifying feelings | Difficulty describing feelings | Externally oriented thinking | | | |
| Dream recall | | - | - | - | | | |
| | Pearson | -0.047 | -0.238** | -0.316** | | | |
| | Correlation | | | | | | |
| Nightmare | | | | | | | |
| distress | | | | | | | |
| | Pearson | 0.424** | 0.462** | 0.303** | | | |
| | Correlation | | | | | | |
| Dream meaning | | | | | | | |
| | Pearson | -0.023 | -0.120* | -0.462** | | | |
| | Correlation | | | | | | |
| **Correlation is significant at the 0.01 level (1-tailed). | | | | | | | |

Table 3. Correlation between TAS-20 subscales and DQ subscales amongst the total undergraduate sample (N=200)

*Completion is significant at the 0.05 level (1-tailed)

*Correlation is significant at the 0.05 level (1-tailed).

Discussion

In line with our hypotheses, we found that Economy and Trading undergraduates reported higher levels of alexithymia compared to Psychology undergraduates, indicating a major difficulty in being in touch with their feelings, having the ability to recognize their feelings, and to describe them to other people. Our results suggested that different university careers may have an impact, at least partially, on the ability to confront with one's own, as well as others', affective world. This could be associated with the fact that Economy and Trading course does not attribute importance to the sphere of emotions, because its aim is not to develop emotional skills in the students, which are conversely considered as a base for future psychologists. Another important result strongly supporting our hypotheses is that Psychology undergraduates reported a low level of alexithymia, indicating more sensitivity in identifying and describing feelings. This characteristic might be associated with the quality of training, which aim is the development of emotional awareness and empathic skills. However, a limitation of our study is the potential familiarity of tests to Psychology

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undergraduates; many of the tests used in this research might be familiar to these students, and, consequently, they might induce a bias in the choice of certain answers rather than others. Moreover, the difference between the two groups at the TAS-20 subscales difficulty identifying feelings, difficulty describing feelings and externally oriented thinking might indicate that the two groups differ in a first level of cognitive processing as well as at a level of verbal expression, confirmed by the fact that we found significant difference within groups at the three subscales. Economy and Trading undergraduates, in fact, presented an increased difficulty in identifying feelings and, consequently, in recognizing somatic sensations due to a state of emotional arousal, which might lead to an erroneous interpretation of the feelings. Conversely, Psychology undergraduates pay more attention to their own somatic sensations and feelings and this might help them to afford the reality in a more adaptive and efficacious way. Moreover, the significant difference between the two groups at the externally oriented thinking subscale seems to confirm the predisposition of Economy and Trading undergraduates to think in a concrete way and to focus more on external details rather than their own internal psychical processes compared to Psychology undergraduates which indicates less interest for the emotional world. To confirm our initial hypothesis of an impact of alexithymia on dreaming components, we found a significant association between alexithymia levels and the three DQ subscales. Our results were in line with previous studies which showed quantitative and qualitative alterations in dreaming activity in subjects with alexithymia (Bazydlo et al., 2001; De Gennaro et al. 2003; Ouellet et al., 1996; Parker et al., 2000; Nielsen et al., 1997; 2011). Specifically, we found a negative association between dream recall and TAS-20 subscales difficulty describing feelings and externally oriented thinking. Therefore, the ability to express feelings through words seems to have an impact on dream recall rather than on the ability in identifying feelings. Due to their difficulty in describing emotional experiences, people with alexithymia might be less prone to recall their dreams and to describe them to other people, probably because of their emotional content. Impoverishment of dreaming does not only consist in a lower dream recall but dreams are lacking in complexity, clarity and colors. All these factors reflect the fundamental features of alexithymia: lacking in fantasy content and externally oriented thinking processes. Poverty of imagination and concrete thinking both have an impact on the ability to transform affective experiences into creative stories, with the results of short dream scripts and difficulty in dream recall. Positive correlation between nightmare distress DQ factor and the three TAS-20 subscales difficulty identifying feelings, difficulty describing feelings and externally oriented thinking support our hypothesis regarding an association between nightmares and distress related to them, catastrophic atmospheres and being awoken suddenly which increased their frequency together with an increased level of alexithymia. This aspect clearly shows that feelings are not integrated within the dreaming scene as a result of disturbed mentalization functions. In fact, during the course of dreaming, mentalization processes help to consolidate, to integrate and elaborate the information with an affective component, usually conflictual or negative, which play a fundamental role for affective regulation function. Therefore alexithymia and nightmares reflect both a deficit of emotion regulation processes. Moreover, the negative correlation between dream meaning and difficulty describing feelings and externally oriented thinking might reflect the inability of alexithymic people to link their own feelings with memories, fantasies or specific situations. Only with the development of this link the subject can recognize the sources of memory where the dream content comes from and (s)he can finally attribute a personal meaning to the dream. Therefore, the missing link between feelings and cognitive components of the dream leads to an inability in attributing them to a personal meaning and, consequently, to underestimate their values.

Conclusions

The presence of alexithymic areas in a sample of undergraduate students allows us to reflect more broadly about the underestimation of emotional competency in our society. Therefore, providing an emotional education seems fundamental in terms of prevention, in order to help to identify and to be in touch with our own feelings, which represent the base of individuals' psychosomatic wellbeing as well as the requirement for establishing adequate interpersonal relationships. In line with previous studies, our results suggested an association between alexithymia and a distortion of dreaming contents, and expression of an emotional regulation deficit. Working with dreams represents a requirement for a sufficient level of mentalization and for the development of the symbolic function that could be expressed throughout the conscious. Dreaming has a fundamental role, especially for people with affective regulation disorders. Therefore, it might be possible to identify and to cure mentalization process disorders as well as the fantasy deficits working on dreaming components.

References

Bagby, R. M., Parker, J. D. A., Taylor, G. J. (1994). The Twenty-Item Toronto Alexithymia Scale – I. Item selection and cross-validation of the factor structure. Journal of Psychosomatic Research, 38, 23-32.

Bauermann, T. M., Parker, J. D. A., Taylor, G. J. (2008). Sleep problems and sleep hygiene in young adults with alexithymia. Personality and Individual Differences, 45, 318-322.

Bazydlo, R., Lumley, M. A., Roehrs, T. (2001). Alexithymia and polysomnographic measures of sleep in healthy adults. Psychosomatic Medicine, 63, 56-61.

Bressi, C., Taylor, G. J., Parker, J. D. A., Bressi, S., Brambilla, V., Aguglia, E., Allegranti, S., Bongiorno, A., Giberti, F., Bucca, M., Todarello, O., Callegari, C., Vender, S., Gala, C., Invernizzi, G. (1996). Cross validation of the factor structure of the 20-Item Toronto Alexithymia Scale: an Italian multicenter study. Journal of Psychosomatic Research, 41, 551-559.

Caretti, V., La Barbera, D., Craparo G., Mangiapane E. (2005a). L'alessitimia come disregolazione degli affetti. In V. Caretti, D. La Barbera (Ed), Alessitimia valutazione e trattamento. Roma: Astrolabio.

Caretti V., Craparo, G., Mangiapane, E. (2005b). La correlazione fra dissociazione e alessitimia: il ruolo del trauma e il deficit della funzione riflessiva. In V. Caretti, D. La Barbera (Ed), Alessitimia valutazione e trattamento. Roma: Astrolabio.

De Gennaro, L., Ferrara, M., Cristiani, R., Curcio, G., Martiradonna, V., Bertini, M. (2003). Alexithymia and dream recall upon spontaneous morning awakening. Psychosomatic Medicine, 65, 301-306.

Lane, R. D., Schwartz, G. E. (1987). Levels of emotional awareness: a cognitive-developmental theory and its application to psychopathology. American Journal of Psychiatry, 144, 133-143.

Mancia, M. (2004). Il sogno e la sua storia. Dall'antichità all'attualità. Venezia: Marsilio.

Nemiah, J. C., Sifneos, P. E. (1970). Affect and fantasy in patients with psychosomatic disorders. In O. W. Hill (Ed.), Modern trends in psychosomatic medicine (Vol. 2, pp 26-34). London: Butterworths.

Nielsen, T. A., Ouellet, L., Warnes, H., Cartier, A., Malo, J. L., Montplaisir, J. (1997). Alexithymia and impoverished dream recall in asthmatic patients: Evidence from self-report measures. Journal of Psychosomatic Research, 42, 53-59.

Nielsen, T. A., Levrier, K., Montplaisir, J. (2011). Dreaming correlates of alexithymia among sleep-disordered patients. Dreaming, 1, 1-16.

Ouellet, L., Nielsen, T. A., Montplaisir, J., Cartier, A., Malo, J. L., Lassonde, M. (1996). L'alexithymie, réponse affective et rêves: Investigation en laboratoire de trois caractéristiques sous-jacentes au déficit de l'expression des émotions. Revue Internationale de Psychopathologie, 23, 491-503.

Parker, J. D. A., Bauermann, T. M., Smith, C. T. (2000). Alexithymia and impoverished dream content: Evidence from rapid eye movement sleep awakenings. Psychosomatic Medicine, 62, 486-491.

Parker, J. D. A., Taylor, G. J., Bagby, R. M. (2003). The Twenty-Item Toronto Alexithymia Scale - III. Reliability and factorial validity in a community population. Journal of Psychosomatic Research, 55, 269-275.

Taylor, G. J., Bagby, R. M., Parker, J. D. A. (1997). I disturbi della regolazione affettiva. L'alessitimia nelle malattie mediche e psichiatriche (Tr. it., 2000). Roma: Fioriti.

Taylor, G. J., Bagby, R. M., Parker, J. D. A. (2003). The Twenty-Item Toronto Alexithymia Scale - IV. Reliability and factorial validity in

different languages and countries. Journal of Psychosomatic Research, 55, 277-283.

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