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The relationship between alexithymia, depression, and sleep complaints

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Abstract

The study assessed in normal subjects the hypothesis of a specific association between alexithymia and poor sleep quality, taking into consideration the contribution of depression. Five hundred fifty-four university students (480 F and 74 M) filled out the Italian version of the 20-item Toronto Alexithymia Scale (TAS-20), the Center for Epidemiologic Studies Depression Scale (CES-D), and the Pittsburgh Sleep Quality Index (PSQI). TAS-20 scores were significantly correlated with many measures of self-rated poor sleep quality and also strongly correlated with depression scores. Any association between alexithymia and sleep complaints disappears when the contribution of depression is partialled out by multiple regressions, and only the well-known relationship between depression and impairment of sleep quality is confirmed.

Keywords: Emotional regulation; Sleep quality; 20-item Toronto Alexithymia Scale (TAS-20); Center for Epidemiologic Studies Depression Scale (CES-D); Pittsburgh Sleep Quality Index (PSQI)

1. Introduction

Alexithymia is a personality variable incorporating difficulty in identifying and describing feelings, difficulty in distinguishing between feelings and the physical sensation of emotional arousal, limited imaginal processes, and an externally oriented cognitive style. This construct has garnered substantial research and theoretical attention in the past two decades, and the constellation of inadequacy in affect and mental representations of emotions has been associated with various psychosomatic, psychiatric, and substance-abuse disorders (Taylor, 1997). It has also been associated with both impoverished sleep quality and low dream recall (Taylor, 1997). While some evidence points to an altered experience of dreaming in alexithymics with a lower frequency of recall (Nielsen et al., 1997; Monday et al., 1987; De Gennaro et al., 2003) and a limited emotional content (Lumley and Bazydlo, 2000; Parker et al., 2000), there is little empirical support for the hypothesis that alexithymia results in poor sleep quality.

A self-report study in a community sample in Finland found that alexithymic features were related to long sleep latency, frequent nocturnal awakenings, and habitual insomnia (Hyyppae et al., 1990), and a study

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on Japanese working men showed that subjects with higher alexithymia scores had more non-restorative sleep and daytime sleepiness (Fukunishi et al., 1997).

Objective sleep measures, i.e., recording polysomnographic (PSG) parameters, provided contrasting evidence. No significant difference in REM sleep variables was found when comparing alexithymic and non-alexithymic subjects, recorded for two consecutive nights (Ouellet et al., 1994). In another study, 50 healthy subjects were recorded during the first night of adaptation to a sleep laboratory, showing a positive correlation between 20-item Toronto Alexithymia Scale (TAS-20) scores and stage 1 amount, number of REM episodes, and negative correlations with Slow Wave Sleep (SWS) amount and REM latency (Bazydlo et al., 2001).[1] The authors interpreted the finding as an expression of a poorer sleep quality in subjects with higher alexithymia scores (Bazydlo et al., 2001). A further study, re-assessing this association in subjects adapted to a sleep laboratory, did not confirm the finding (De Gennaro et al., 2002).

However, the assessment of any association between alexithymia and poor sleep quality should necessarily take two issues into consideration:

1. Several studies, based on clinical samples and healthy college student populations (Haviland et al., 1988; Wise et al., 1988; Hendryx et al., 1991; Saarijarvi et al., 1993; Rief et al., 1996; Aarela et al., 1997; Honkalampi et al., 1999) and on the general population (Honkalampi et al., 2000), have reported a strong connection between depressive mood and alexithymia.
2. There is a strong bidirectional relationship between depression and impairment of sleep quality (for a recent review, see Riemann et al., 2001). More than 90% of depressed patients complain about impairments of sleep quality, as expressed by difficulties in falling asleep, frequent nocturnal awakenings, and early morning awakening (e.g., Mendelson et al., 1977). Complaints of hypersomnia may also be related to certain subtypes of depression (Garvey et al., 1984; Hawkins et al., 1985; Shimizu et al., 1979; Detre et al., 1972; Thase et al., 1989). On the other hand, epidemiological studies strongly suggest that sleep disorders may be an independent risk factor for depression (Hohagen et al., 1993; Breslau et al., 1996; Schramm et al., 1995; Brabbins et al., 1993; Chang et al., 1997; Foley et al., 1999; Ford and Kamerow, 1989; Livingston et al., 1993; Pfaffenberger et al., 1994).

It should also be mentioned that the negative correlation between REM latency and a facet of alexithymia (De Gennaro et al., 2002) could depend on higher depression in more alexithymic subjects,[2] since it is well known that depression is characterized by a shortening of REM latency (e.g., Kupfer, 1976).

Therefore, the aim of the current study was to evaluate the hypothesis that alexithymia is associated with poor sleep quality; this association was assessed by partialling out the contribution of depression. Based on the lack of an association between alexithymia scores and most PSG sleep variables in good sleepers (De Gennaro et al., 2002), any correlation between alexithymia and self-reported sleep complaints should disappear after partialling out depression.

2. Method

2.1. Subjects

From an initial sample of 600 university students, 554 returned the questionnaires (480 F and 74 M) and were thus included in the study [mean age = 23.17 years (SD = 3.28)]. All of them signed an informed consent before participating in the study and were unaware of the purpose of the study.

2.2. Procedure

The subjects were given the Italian version of (1) the 20-item Toronto Alexithymia Scale (Bressi et al.,

[1] It should, however, be mentioned that the first-night effect is a well-known phenomenon in sleep research, characterized by a poor sleep quality as expressed by lower sleep efficiency, wakening after sleep onset, increased sleep latency, lowered REM sleep amount, and extended REM latency (e.g., Browman and Cartwright, 1980; Coble et al., 1974). Therefore, that study appears to point to a larger first-night effect in subjects with higher alexithymia scores instead of a relationship between alexithymia and PSG measures of normal sleep.

[2] Depression was not measured in that retrospective study (De Gennaro et al., 2002).