ACTING OUT DREAMS

By Tore Nielsen, Connie Svob and Don Kuiken

Dreaming is typically viewed as a sleeprelated cognitive activity characterized by imagined scenarios, in which one appears to, but does not actually, move, speak or express emotions. However, our recent demonstration (Nielsen and Paquette, 2007) shows that 63% of new mothers, 56% of pregnant women and 40% of null gravida controls report episodes of acting out some form of real motor, speech or emotional behavior that is ongoing in their dream, suggesting that this view may be limited. Our findings also raise questions about whether such dream-enacting (DE) behaviors are gender specific; what forms of questioning may be best suited for assessing them; how diverse such behaviors are; whether behaviors are related to other parasomnias (abnormal sleep behaviors or cognitions), such as somnambulism (sleepwalking) and nightmares, or to personality traits and habitual frequency of dream recall; and whether reporting of DE behaviors is influenced by socially desirable responding. A series of follow-up studies was designed to investigate these questions in a normal population (Nielsen et al., in press).

We studied three groups of undergraduate students who completed questionnaires

Tore Nielsen, Ph.D., is full Professor in the Department of Psychiatry at the Université de Montréal and Director of the Dream and Nightmare Laboratory, which is part of the Sleep and Biological Rhythms Research Center in Montreal's Sacré-Coeur Hospital. His research deals with the phenomenology, demographics, physiology and function of normal and disturbed dreaming and is funded by the Canadian Institutes for Health Research, the Natural Sciences and Engineering Research Council of Canada and the Social Sciences and Humanities Research Council of Canada.

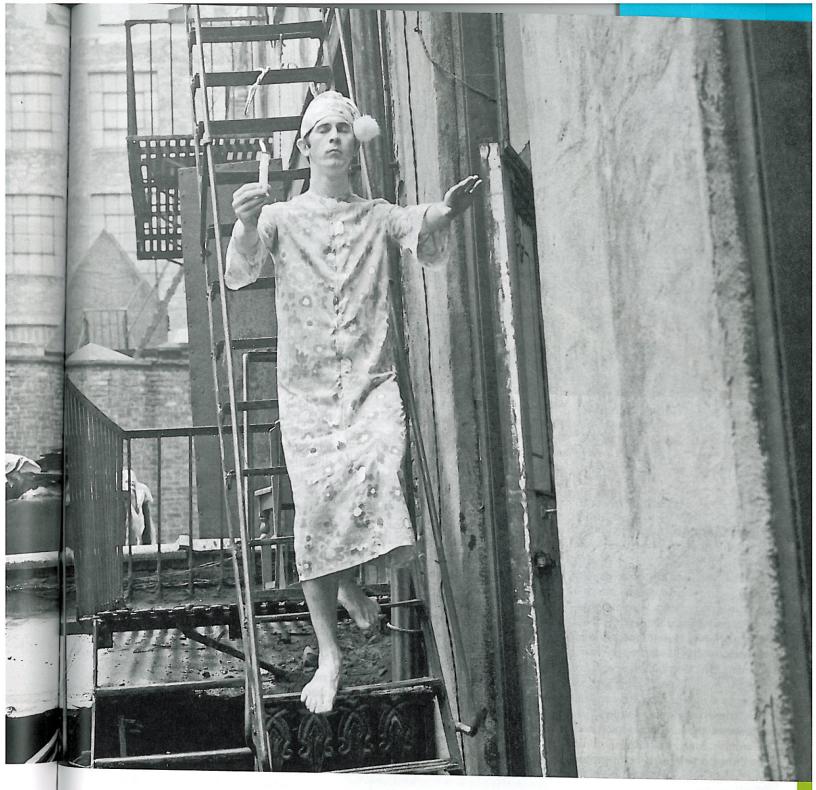
about DE behaviors, social desirability and personality traits (alexithymia, absorption). Study 1 employed a single nonspecific question about DE behaviors; study 2 used the same question with accompanying examples; study 3 used seven questions describing specific behavior subtypes: speaking, crying, smiling/laughing, fear, anger, general movement, and sexual arousal. Study 3 instructions also clearly differentiated DE behaviors from somnambulism and somniloquy (sleep-talking) and assessed frequencies of somnambulism, somniloquy, nightmares and habitual dream recall. Factor analyses were conducted to determine the independence of DE behaviors from other parasomnias and the clustering of DE behavior subtypes.

DE prevalence increased with increasing question specificity (35.9%, 76.7%, and 98.2% for studies 1, 2 and 3, respectively). Gender differences were observed only for the specific questions (studies 2 and 3); females reported more speaking, crying, fear and smiling/laughing than did males; males reported more sexual arousal. Gender differences persisted when somnambulism, somniloquy, nightmares and dream recall were controlled. Factor solutions revealed that DE behaviors were intercorrelated (except for sexual arousal) and independent of other parasomnias and dream recall frequency. A moderate association was noted between dreamtalking and somniloquy. Sexual arousal was related only to age. DE behaviors

Connie Svob, B.A., is a Master's student at the University of Alberta. She is funded by the Social Sciences and Humanities Research Council of Canada for her research on varying forms of dream remembering. svob@ualberta.ca



Don Kuiken is a Professor of Psychology at the University of Alberta. He received his B.A. in Psychology from the University of Iowa (1965) and his Ph.D. in Social Psychology from the University of Texas at Austin (1970). He has published widely in the areas of dreaming and psychological esthetics, with particular attention to the influence of exceptional dreams and exceptional moments of literary reading on subsequent thoughts and feelings. dkuiken@ualberta.ca



were independent of social desirability and alexithymia, but moderately related to absorption.

DE behaviors are very prevalent in healthy subjects and are sensitive to question wording. Their prevalence differs with gender and is independent of other parasomnias. DE behaviors resemble in type and variety those seen routinely in evaluations of REM sleep behavior disorder (RBD), but are much less frequent and severe. Nonetheless,

the findings show that state dissociations, i.e., combinations of, or rapid oscillations between sleep/wake states, occur more commonly in non-clinical populations than is generally appreciated. Moreover, these results suggest that absorption, understood as the disposition to experience focused attention, fantasy, and altered states of consciousness, influences the occurrence of DE behaviors. Future studies should identify sleep physiological markers that accompany

DE behaviors and determine the conditions of stress, fatigue and sleep deprivation that may induce them.

REFERENCES

Nielsen, T., and Paquette, T. (2008). Dream-associated behaviors affecting pregnant and postpartum women. *Sleep* 30, 1162-1169. Nielsen, T., Svob, C., and Kuiken, D. (in press). Dream-enacting behaviors in a normal population. *Sleep*.