

Frequency of erotic dreams and relationship status: An online study

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Summary. So far, the association between relationship status and the frequency of erotic dreaming has rarely been studied. Within this survey, 823 participants (467 females, 356 males; mean age: 49.24 ± 13.45 years) completed a retrospective question about the percentage of erotic dreams in relation to all remembered dreams. The findings indicated that relationship status (single vs. having a stable partnership) was not related to the percentage of erotic dreams. Solely, widowed persons dreamed relatively seldom about erotic topics. Future studies eliciting erotic activities during the day, including indulging in erotic fantasies, could help to clarify whether the findings of the present study can be explained by the hypothesis that erotic dreams more likely reflect erotic fantasizing during the day than actual sexual activities.

Keywords: Erotic dreams, continuity hypothesis, relationship status

1. Introduction

Sexuality is an important part of human life (Lehmiller, 2018); so the findings indicating that most persons have experiences sexual dreams (Griffith, Miyagi, & Tago, 1958; Nielsen et al., 2003; Schredl, Ciric, Götz, & Wittmann, 2004; Yu, 2008) fits in with the continuity hypothesis of dreaming stating that emotionally relevant waking life topics are reflected in dreams (Schredl, 2003). Dream content analytic studies of diary dreams or most recent dreams showed that about 4.9% to 9.1% of the dreams contain some sexual and/or erotic content like intercourse, petting, (non-platonic) kissing, sexual overtures, fantasies or thoughts (Hall & Van de Castle, 1966; Maggiolini, Cagnin, Crippa, Persico, & Rizzi, 2010; Rainville & Rush, 2009; Schredl, Paul, Lahl, & Göritz, 2010-2011; Schredl, Sahin, & Schäfer, 1998; Zadra & Gervais, 2011). Interestingly, studies (Schredl, Desch, Röming, & Spachmann, 2009; Schredl, Geißler, & Göritz, 2019) asking retrospectively for an estimate of the percentage of erotic dreams in relation to all remembered dreams without asking for specific contents showed higher percentages of dreams containing erotic motifs (about 20%) – indicated that recording explicit erotic dreams might be uncomfortable for many participants.

Socio-demographic factors that are associated with the frequency of erotic dreams are gender with men report more erotic dreams than women (Hall & Van de Castle, 1966; Schredl et al., 2019) and age with older persons (age range in this sample was 16 yrs. to 92 yrs. with a mean age of 45.88 ± 14.38 yrs.) report less often erotic dreams (Schredl et al., 2019). Interestingly, Schredl et al. (2009) showed that the frequency of erotic dreams is related to the time spent with waking sexual fantasies but not to the frequency of

sexual activities (masturbation, intercourse) in waking life. So far, only two studies with student samples (Schredl, 2001; Schredl et al., 2009) had studied the association of relationship status (single vs. stable partnership) with the frequency of erotic dreams and found no effects. One might speculate that less sexual activity in singles (Schneidewind-Skibbe, Hayes, Koochaki, Meyer, & Dennerstein, 2008) might result in a lower frequency of erotic dreams; however, if erotic dreams predominantly reflect time spent with erotic fantasies in waking there might be not a difference – given that erotic fantasy frequencies did not differ between singles and persons with partnership. Interestingly, this was found for women (Erotic dreams in singles: 7.4% vs. 14.6% in women with partnership) but not for men (Erotic dreams in singles: 30.8% vs. 9.1% in women with partnership) but the male samples were quite small with $N = 13$ (Schredl, 2001). However, these findings were not replicated by Schredl et al. (2009).

The purpose of the present study is to determine a possible association of relationship status with the frequency of dreams with erotic content using a subsample of the Schredl et al. (2019) study. It was expected that persons without stable relationship experience erotic dreams less often.

2. Method

2.1. Participants

Overall, 823 participants (467 females, 356 males) were included in the study after completing an online survey between April 18, 2014 and April 29, 2014 and a second survey after three years eliciting the relationship status. The sample's mean age was 49.24 years \pm 13.45; range: 20 to 90 years. The distribution regarding education was the following: not finished school ($N = 2$), 9 years ('Hauptschule'; $N = 98$), 10 years ('Mittlere Reife'; $N = 250$), 12-13 years ('Fach)Hochschulreife'; $N = 185$), 16-18 years ('(Fach)Hochschulstudium'; $N = 266$), doctoral degree ($N = 22$). The relationship status was distributed as follows: relationship and living together ($N = 493$), relationship but living not together ($N = 63$), single ($N = 225$), and widowed ($N = 42$).

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2.2. Research Instruments

Dream frequency was assessed with a 7-point scale (coded as 0 = never, 1 = less than once a month, 2 = about once a month, 3 = about 2 to 3 times a month, 4 = about once a week, 5 = several times a week, 6 = almost every morning). The scale's retest reliability was $r = .756$ (Schredl, Berres, Klingauf, Schellhaas, & Göritz, 2014). The participants were asked to estimate the percentage of erotic dreams with regard to all of their remembered dreams. The following definition was used: 'An erotic dream element can be any occurrence of sexually motivated actions such as flirting, kissing, intercourse or masturbation as well as watching sexual actions.' No specific time interval for the retrospective estimation was specified. This item had a reliability for a two-week retest of $r = .729$ ($N = 2292$) (Schredl et al., 2019).

2.3. Procedure

The survey was conducted on the online panel www.wisopanel.net. Within this panel, persons with heterogenic demographic backgrounds sharing a common interest in online studies are registered. For some surveys, prizes or money are offered for study participation; these studies however were completely voluntary and unpaid.

Statistical procedures were computed with the SAS 9.4 software package for Windows. An ordinal regression (cumulative logit analyses) was used for analyzing the categorized erotic dream percentage variable.

3. Results

The distribution of the dream recall frequency scale is depicted in Table 1. The mean of the percentage for having erotic dreams in the total sample was about 17% (see Table 3). Erotic dreams have been experienced by the majority of participants (82.87%); 43% of the sample reported erotic motifs in more than 10 percent of their dreams (see Table 2). The ordinal regression analysis for percentage of erotic dreams showed a negative association for age and a positive for dream recall frequency (Table 4). Male participants reported more erotic dreams than female participants. The singles did not differ from the participants with stable partnerships living together (see Table 3) but the widowed persons reported a lower percentage of erotic dreams compared to persons with stable partnership living together.

4. Discussion

Whereas the percentage of erotic dreams did not differ between singles and persons with stable partnerships

Table 2. Estimates of categorized erotic dream percentage estimates within the sample ($N = 818$)

Category	Percentage
> 40%	11.86%
20.01% to 40%	12.22%
10.01% to 20%	19.19%
5.01% to 10%	16.99%
0.01% to 5%	21.15%
0%	18.58%

(see Table 4), widowed persons reported less often erotic dreams compared to the other groups (age was statistically controlled). The age and gender effects in this subsample ($N = 818$) were similar to the effects in the original sample ($N = 2907$).

From a methodological viewpoint it has to be considered that the persons registered in the panel and participating in a dream study are recalling on average their dreams more often than representative samples (Schredl et al., 2014). As erotic dream percentage was related to dream recall frequency, one would expect lower figures in representative samples (less than 18%). On the other hand, for the regression analysis we controlled for dream recall frequency so the findings should not be affected. As mentioned above the retrospective measure yielded higher percentage of erotic dreams compared to dream content analytic studies (Schredl et al., 2019). Although one might speculate that retrospective measures might be prone to memory biases (in this case forgetting mundane dreams more easily), one can also argue that writing down an explicit erotic dream might be hampered by privacy issues. Another methodological problem is that relationship status was measured three years later than erotic dream percentage, that is, there might have been changes in-between. Fortunately, the sample (mean age about 49 years) consisted of persons with relatively stable relationship patterns, and changes in status (single vs. relationship) most likely would not have affected the result as the erotic dream percentages of these groups were very similar. And the expected difference for widowed persons would also suggest that this time delay might not have affected the results in a marked way.

The finding that there were no differences in erotic dream percentage between singles and persons with stable partnerships would support the hypothesis that erotic dreams more likely reflect erotic phantasies (e.g., during masturbation) as a previous study (Schredl et al., 2009) has shown the time spent with erotic fantasies was comparable between this two groups. Singles, however, reported less frequent sexual activities that person with stable partnership (Schredl et al., 2009). That is, the findings that sexual activity is typically lower in singles compared to committed relationships (Schneidewind-Skibbe et al., 2008) suggest that not finding less erotic dreams in singles might be explained by similar amount of erotic fantasies. To pursue this line of thinking, it would be very interesting to elicit frequency of sexual activities (intercourse, non-platonic kissing, masturbation), time spend with erotic fantasies, and consumption of pornography. As the Schredl et al. (2009) study did not specify erotic fantasies, it would be interesting to elicit the frequency of erotic fantasies in different situation, e.g. masturbation-

Table 1. Dream recall frequency ($N = 823$)

Category	Frequency	Percentage
Almost every morning	98	11.19%
Several times a week	225	27.34%
About once a week	149	18.10%
About 2 to 3 times a month	107	13.00%
About once a month	61	7.41%
Less than once a month	119	14.46%
Never	64	7.78%

Table 3. Percentage of erotic dreams for the total sample and grouped for relationship status

Group	Total sample Mean ± SD	Women Mean ± SD	Men Mean ± SD
Total Sample	16.84 ± 19.23% (818)	14.55 ± 17.34% (465)	19.86 ± 21.11% (353)
Single	16.52 ± 18.78% (223)	14.88 ± 17.73% (133)	18.94 ± 20.10% (90)
Relationship, living together	17.29 ± 19.19% (491)	14.59 ± 17.22% (252)	20.38 ± 20.84% (229)
Relationship, not living together	20.06 ± 22.57% (63)	17.58 ± 17.69% (40)	24.39 ± 29.15% (23)
Widowed	8.27 ± 13.95% (41)	8.63 ± 15.51% (30)	7.27 ± 8.90% (11)

SD = Standard Deviation

related, during intercourse, during daydreaming. The lower erotic dream frequency in widowed persons cannot be explained by age as it was statistically controlled. One might speculate that the bereavement process might interfere with erotic dreaming (Black, Belicki, Piro, & Hughes, 2020).

The finding of the previous study (Schredl, 2001) that especially single men dream more often about erotic topics than single women or men within a stable partnership could not be replicated in this larger sample with a broad age range. As mentioned above, it would be very interesting to elicit time spent with erotic activities, pornography, and fantasies in this group to test whether the high percentage of erotic dreams is indeed related to heightened engagement in erotic activities during the day.

To summarize, the present study indicated that relationship status (single vs. having a stable partnership) was not related to the percentage of erotic dreams. Solely, widowed persons dreamed relatively rarely about erotic. Future studies eliciting erotic activities during the day, including indulging in erotic fantasies, could help to clarify whether the findings of the present study can be explained by the fact that erotic dreams more likely reflect erotic fantasizing than actual sexual activities.

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Table 4. Ordinal regression analysis for the categorized erotic dream percentage variable (N = 818)

	SE	χ ²	P
Age	-.2128	33.0	<.0001
Gender (1 = female, 0 = male)	-.2189	36.7	<.0001
Education	-.0196	0.3	.5752
Single vs. relationship together	.0435	0.5	.7534 ¹
Relationship apart vs. relationship together	.0662	1.0	.3140
Widowed vs relationship together	-.1365	3.3	.03511
Dream recall frequency	.3556	91.7	<.0001

SE = Standardized estimates, ¹one-tailed

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