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Why Sleep is Key: Poor Sleep Quality is a Mechanism for the Bidirectional Relationship between Major Depressive Disorder and Generalized Anxiety Disorder Across 18 Years

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ARTICLE INFO ABSTRACT Keywords: Background: Generalized anxiety disorder (GAD) and major depressive disorder (MDD) reliably precede and Sleep quality predict one another. However, there is insufficient data on mediators through which the longitudinal GAD-MDD Depression association unfold. Based on insomnia theories, such as the hyperarousal model of sleep, we tested the degree to Anxiety which poor global sleep quality functioned as a mediator of the prospective bidirectional anxiety-depression Longitudinal relationship. Mediator Method: Participants were 3,294 community-dwelling adults who partook in three measurement waves nine Comorbidity years apart. The Composite International Diagnostic Interview-Short Form assessed GAD and MDD in-person at baseline (Time 1 [T1]), Time 2 (T2; nine years after T1), and 18 years later (T3). T2 global sleep quality was measured using the multiple-domain Pittsburgh Sleep Quality Index self-report at T2. We used longitudinal structural equation modeling mediation analyses. Results: Analyses showed that higher T1 MDD and GAD severity individually predicted lower T2 global sleep quality (Cohen's d = -0.561 to -0.480) and less T2 global sleep quality, thereby forecasted both higher T3 MDD and GAD (d = -0.275 to -0.190). Poorer T2 global sleep quality significantly mediated the T1 GAD-T3 MDD relation, explaining 41% of the association. Worse global sleep quality at T2 also significantly mediated the T1 MDD-T3 GAD association, mediating 11% of the T1 MDD-T3 GAD pathway. The results remained similar after controlling for multiple sociodemographic and clinical variables. Conclusions: Findings offer evidence for transdiagnostic theories of sleep and insomnia. Theoretical and clinical implications, such as prioritizing sleep improvement in cognitive-behavioral therapies, are also discussed.

Why Sleep is Key: Poor Sleep Quality is a Mediator for the Bidirectional Relationship between Major Depressive Disorder and Generalized Anxiety Disorder Across 18 Years

Approximately one-fifth of the population suffers from anxiety or depressive disorders in a given year (cf. recent meta-analysis on global prevalence rates of mental disorders; Steel et al., 2014). Further, 49 to 81% of those suffering from a depressive disorder also meet diagnostic criteria for an anxiety disorder in their lifetime, and about 47 to 88% of anxiety-disordered individuals are affected by depressive disorders (Regier et al., 1998). When compared with either diagnosis alone, comorbid diagnoses of major depressive disorder (MDD) and generalized anxiety disorder (GAD) coincided with greater symptom severity, chronicity, and impairment (Kessler et al., 2008). Simultaneously, MDD and GAD were associated with heightened interpersonal distress (Uhmann et al., 2010), lower annual income (Kessler & Heeringa, 2008), and a plethora of physical ailments related to immune, cardiorespiratory, and neurocognitive disorders (Butnoriene et al., 2015; Zainal & Newman, 2018, 2021a, 2021b, 2021, 2022). Due to the consequences of its comorbidity, a better understanding of the MDD-GAD relation is essential.

On top of the wealth of research demonstrating concurrent MDD-GAD relations, abundant evidence suggests that the association holds across multiple time-lags. *Prospective comorbidity* theories have proposed that anxiety can evoke hopelessness and helplessness, prompting future depression (Swendsen, 1997). Similarly, anxiety theorists have posited that higher levels of anxiety result in greater levels of inhibition and

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prolonged behavioral inactivity, which over time evokes depression (Rosellini & Brown, 2011). Supporting those theories, a recent meta-analysis by (Jacobson & Newman, 2017) observed equally large effect sizes for anxiety disorders predicting future disorders of depression and vice versa. However, the mechanisms underlying the longitudinal MDD-GAD comorbidity remain understudied.

One potential mechanism could be sleep. The transdiagnostic cognitive theory of sleep posits that insomnia is a candidate mediator in explaining the longitudinal relation between GAD and MDD across extended timeframes (Harvey, 2008). The theory asserts that over protracted timescales, insomnia can mediate the GAD-MDD association as it decreases quality of life due to economic and physical health consequences, such as work absenteeism and over-reliance on medical services. Moreover, sleep deprivation may reduce one's ability to manage emotions, and acute stress triggers, contributing to the onset and maintenance of psychological disorders over time. Chronic sleep issues could also contribute to emotional difficulties via executive dysfunction (e.g., impaired working memory) and problems focusing, multitasking, and accomplishing tasks (Grima et al., 2019). However, depression and anxiety disorders can also aggravate sleep patterns in the long term (Gregory et al., 2005; Morphy et al., 2007). Collectively, theory and evidence thus far suggest a *reciprocal* prospective connection between insomnia and anxiety or depressive disorders and symptoms (e. g., up to as long as 50 years) (Jansson-Fröjmark & Lindblom, 2008; Kim et al., 2009; Sivertsen et al., 2012).

Further, the hyperarousal model of insomnia (Riemann et al., 2010) postulates that insomnia is a psychobiological disorder involving psychological disturbances and biological imbalances across extended time-points. Psychological disturbances may manifest as maladaptive sleep behaviors, creating associations between sleep and negative mood, excessive worry, rumination, and dysfunctional beliefs and attitudes toward sleep. Such psychological factors tend to interact with physical disharmony of the neuroendocrine and immunological systems (e.g., excessive cortisol, insulin, and pro-inflammatory cytokines such as interleukin-6) (Cho et al., 2015; O'Connor et al., 2014; Stahl et al., 2020; Zainal & Newman, 2021a; in press). It is also plausible that elevated sympathetic tone, reduced heart rate variability (indicative of cognitive rigidity in response to acute stress), and dysregulated hypothalamic-pituitary axis (HPA) could mediate the links between chronic sleep troubles, MDD, and GAD over time (Chalmers et al., 2022; Dodds et al., 2017). On the whole, the model proposes that wear-and-tear of biological systems (e.g., HPA) from poor sleep habits can account for the bidirectional association between poor sleep quality and depression and anxiety symptoms across long periods.

Five longitudinal studies thus far have examined the proposition that poorer sleep quality precedes and predicts anxiety or depressive symptoms. For example, sleep difficulties contributed to the onset, relapse, and maintenance of anxiety and depression disorders following nine years in young adult women (Jackson et al., 2014). Moreover, at one-year follow-up, poor sleep quality at baseline predicted a higher risk of anxiety symptoms among Chinese male college students (Zou et al., 2020). Likewise, more inferior sleep quality forecasted anxiety and depression across time in pregnant women (Yu et al., 2017). Another study found no significant association between sleep problems and higher depressive symptoms 14 months later in depressed cancer survivors (Hsiao et al., 2013). Relatedly, among Swiss adults, there was a prospective link between insomnia and future depressive episodes across 20 years (Buysse et al., 2008). Based on these findings, it is plausible that lower global sleep quality could precede and predict MDD and GAD.

Additionally, four studies thus far investigated if anxiety and depressive disorders predicted various sleep problems at a later time. For instance, higher anxiety severity predicted poorer sleep quality and shorter sleep duration, after 1.5 years, in adolescents who survived the 2008 Wenchuan earthquake (Geng et al., 2018). Similarly, another study found a prospective relationship between depressive symptoms

and sleep disturbance (i.e., shorter vs. longer sleep duration) over four years (Sun et al., 2018); however, this study limited its sleep disturbance measure to sleep duration. Further, among twins, although sleep problems (i.e., difficulties falling or staying asleep, excessive sleep, or issues with experiencing restful sleep) predicted depressive symptoms after two years, the reverse relationship did not occur (Gregory et al., 2005). In addition, state anxiety and depressive symptoms at baseline predicted the incidence of insomnia six months later in patients with Parkinson's Disease (PD) (Rutten et al., 2017). Collectively, these findings support the idea that anxiety and depressive disorders can predict future sleep problems across long durations.

Building on existing research, the current study aimed to investigate if subjective sleep quality problems assessed during mid-point mediated the 18-year longitudinal relations between MDD and GAD severity. The present study adds to the literature in several ways. First, the current literature consists of mostly cross-sectional studies, which preclude causal inferences due to the absence of temporal precedence. Our 18year longitudinal study contributes to a potential cause-effect understanding of the bi-directional relations between sleep problems and MDD or GAD. Second, our study examined community-dwelling adults using a thorough psychiatric diagnostic interview. Previous studies investigating the bidirectional MDD-GAD relationship included scales utilizing limited clinical diagnostic criteria (Jansson-Fröjmark & Lindblom, 2008). Third, we used a measure of global sleep quality that contained different facets of the sleep experience. Fourth, this is the first study to examine if overall sleep quality was a mediator (or mechanism) of the 18-year relation between MDD and GAD severity.

Based on theory and research, we predicted that higher MDD and GAD symptom severity would forecast reduced future global sleep quality (indexed by subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, presence of use of sleep medications, daytime dysfunction) 9 years later. Moreover, we hypothesized that lower global sleep quality would predict greater MDD and GAD symptom severity following nine years. In addition, we hypothesized that global sleep quality measured at mid-point would mediate the 18-year relationship between MDD and GAD symptom severity.

1. Method

1.1. Participants

Participants comprised 3294 community-dwelling adults who consented to take part in the Midlife Development in the United States (MIDUS) project at Time 1 (T1) (1995–1996), T2 (2004–2005), and T3 (2013–2014) (Brim et al., 2019; Ryff et al., 2017, 2019). Participants were aged 45.62 years on average (SD = 11.41, range = 20–74 years) and 92.93% identified as White compared to African American, Hispanic, Asian, Pacific Islander, or others. Concerning gender, 54.61% were women, 44.84% were men, and the remaining 0.55% declined to disclose their gender identity. Since this study is a secondary analysis of a publicly available dataset, it was exempt from institutional review board approval. Table 1 presents the descriptive statistics and correlation matrix of the study variables.

1.2. Procedures

We selected participants who consented to complete in-person clinical interviews to determine their MDD and GAD diagnostic status at T1 and T3. Participants completed in-person clinical interviews at T1, T2, and T3 and a self-report measure of multiple dimensions of sleep quality at T2. Global sleep quality was not assessed at T1 and T3.

Table 1

	1	2	3	4	5	6	7		
1. Age	-								
2. Gender	-0.002	-							
3. T1 MDD	-0.092***	.075***	-						
4. T1 GAD	-0.044*	.075***	.288***	-					
5. T3 MDD	-0.088***	.083***	.279***	.182***	-				
6. T3 GAD	-0.086***	.066***	.159***	.354***	.340***	-			
7. T2 PSQI	-0.041	.144***	.224***	.179***	.291***	.181***	-		
<i>M</i> or %	45.62	54.61	0.69	0.14	0.6	0.13	6.09		
SD	11.41	-	1.82	0.86	1.71	0.92	3.58		
Min	20.00	-	0.00	0.00	0.00	0.00	0.00		
Max	74.00	-	7.00	10.00	7.00	10.00	19.00		
Skewness	0.24	-	2.44	7.47	2.69	7.89	0.93		
Kurtosis	-0.70	-	4.35	60.84	5.74	65.66	0.57		

Note. * p < .05; * * p < .01; * ** p < .001.

GAD = generalized anxiety disorder; PSQI = Pittsburgh Sleep Quality Index; MDD = major depressive disorder; M = mean; Max = maximum; Min = minimum; SD = standard deviation; T1 = time 1; T2 = time 2; T3 = time 3.

1.3. Measures

1.3.1. Major depressive disorder

MDD severity was measured using the Diagnostic and Statistical Manual–Third Edition–Revised (DSM-III-R)–aligned Composite International Diagnostic Interview–Short Form (CIDI-SF) (Kessler et al., 1998). Participants reported if they experienced depression symptoms (7-item; i.e., loss of interest in pleasurable activities, anhedonia, depressed mood, appetite changes, fatigue, suicidal ideation, sleep disturbance) in the past 12months by answering 'Yes' (coded as '1') or 'No' (coded as '0') to each symptom. The MDD symptom severity scale score can thus range from 0 to 7. The CIDI-SF has exhibited good internal consistency (Cronbach's $\alpha = 0.94$ for both T1 and T3 in this study), strong retest reliability, excellent sensitivity (93.9%), and specificity (89.6%) (Wittchen, 1994).

1.3.2. Generalized anxiety disorder

GAD severity was also assessed using the DSM-III-R-consistent CIDI-SF (Kessler et al., 1998). Participants recorded the degree to which they experienced symptoms resulting from their worries for most days in the past year (10-item; i.e., restlessness, feeling keyed up, irritability, trouble sleeping, difficulties focusing, fatigue, muscle tension). The GAD symptom severity score can therefore range from 0 to 10. For GAD, the CIDI-SF has demonstrated good internal consistency ($\alpha = 0.80$ at T1 and .83 at T3 in this study), strong retest reliability, and excellent sensitivity (99.8%) and specificity (89.6%) (Abel & Borkovec, 1995; Wittchen, 1994).

1.3.3. Sleep quality

Past-month sleep quality and disturbances were assessed with the 19item Pittsburgh Sleep Quality Index (PSQI) self-report (Buysse et al., 1989). The PSQI comprises seven components. Subjective sleep quality was assessed with a 1-item overall rating of participants' subjective appraisal of sleep quality (1 = very bad to 4 = very good). Sleep latency (2-item; e.g., "During the past month, how long (in minutes) has it taken you to fall asleep at night?") assessed the average time one takes to fall asleep. Sleep duration (1-item) measured the average number of hours one actually sleeps each night. Habitual sleep efficiency (3-item) assessed the percentage of time in bed that was spent actually sleeping (e.g., time participants went to bed and woke up). Sleep disturbances (9-item) assessed the frequency with which various scenarios interrupted sleep (i. e., coughing and snoring, bad dreams, pain) (1 = Three or more times per the times per tiweek to 4 = Not during the past month). Use of sleeping medication (1-item) assessed how often one consumed prescribed or "over-the-counter" medication to assist with sleep (1 = Three or more times per week to 4 =Not during the past month). Daytime dysfunction (2-item) inquired on the extent of difficulty to stay awake (1 = A very big problem to 4 = No problem at all). Most items were rated on a 0–3 Likert scale and summed to give a global PSQI score, ranging from 0 to 21. Higher scores indicate better global sleep quality. The PSQI has shown good internal consistency for the seven components ($\alpha = 0.83$) and 19 individual items ($\alpha =$ 0.83), high retest reliability (r = 0.85), convergent validity, and discriminant validity (Buysse et al., 1989). In this study, the PSQI had good internal consistency ($\alpha = 0.70$).

2. Data analyses

The R (Version 4.1.0) and RStudio (Version 1.4.1717) (R Core Team. 2021) software were used for data analyses. As part of a series of preprocessing steps, the raw values of the sleep quality and mental health symptom severity variables were inspected to detect highly skewed or kurtotic values. Most of the study variables had acceptable values of skewness $\leq \pm 3$ and kurtosis of $\leq \pm 7$ (Field, 2009) (refer to Table 2, which shows the descriptive statistics of all study variables). To handle missing data (9.512% of the entire dataset), we used full information maximum likelihood (FIML). FIML is an optimal approach to reduce bias in parameter estimates based on simulation studies, given the present data was likely to be missing at random (Lee & Shi, 2021; Savalei & Rhemtulla, 2012). Moreover, the Little's Missing Completely At Random Test (MCAR) was not statistically significant (χ^2 (df = 487) = 39.100, p= .464). A series of longitudinal mediation structural equation models with lavaan R package was conducted to determine if T1 GAD substantially predicted T3 MDD severity (or vice versa) through poorer global sleep quality. All models included MDD and GAD at T1 and T2 as covariates. For example, if T3 GAD was the outcome, we adjusted for GAD at T1 and T2. Maximum likelihood with robust estimators were used to manage any univariate or multivariate non-normality in the data distribution (Rhemtulla et al., 2012). Model fit was determined using the significance of the χ^2 statistic. Nonetheless, as the χ^2 statistic tends to be statistically significant with a large sample size despite a negligible degree of misfit (Bollen & Stine, 1992), other practical fit indices were used to evaluate model fit: confirmatory factor index (CFI; CFI >0.95); root mean squared error of approximation (RMSEA; RMSEA <0.060); and standardized root mean square residual (SRMR; SRMR <0.080) (Maydeu-Olivares, 2017).

To conduct mediation analyses, we used a product-of-coefficients approach. First, a direct effect (*c* path) was signified by a significant connection between the predictor (T1 MDD or GAD severity) and outcome (T3 MDD or GAD severity) (*c*' path). Second, we determined if the predictor (T1 MDD or GAD severity) was significantly related to the mediator (T2 GSQ) (*a* path) and if the mediator (T2 GSQ) was notably associated with the outcome (T3 MDD or GAD severity) (*b* path). A mediation effect would be denoted by a statistically significant multiplication between paths *a* and *b* (indirect effect, $c = a^*b$), above and

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 | | Μ | (<i>SD</i>) | Min | Max | Skewness | Kurtosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Afficial American, n (%) 10" (2,48) - - - Astar American, n (%) 15 (0,354) - - - Astar American, n (%) 15 (0,455) - - - Multiracial, n (%) 23 (0,699) - - - T2 PSQI Singlicatios or missing, n (%) 36 (1,093) - - - T2 PSQI Singlicatios allog efficiency 0,558 (0,664) 0 3 0,872 T2 PSQI Singlicatios efficiency 0,558 (0,663) 0 1 1,815 T2 PSQI Singlicatios efficiency 0,568 (0,663) 0 1 1,835 T2 PSQI Singlicatios efficiency 0,574 (0,641) 0 1 1,835 T1 MDD Los of interest 0,167 (0,253) 0 1 2,334 T1 MDD Singer problems 0,077 (0,264) 0 1 2,345 T1 MDD Los of interest 0,160 (0,347) 0 1 2,357

 | White n (%) | 3061 | (92 927) | | | 5 374 | 20 802 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Native American, at (%) 11 0.339) - - - Other, n (%) 15 (0.455) - - - Other, n (%) 13 (0.457) - - - Declined to disclose or missing, n (%) 36 (0.033) - - - T SPQS Usipe trains 0.949 (1.189) 0 8 2.776 T SPQS Usipe trains 0.792 (0.746) 0 8 2.776 T SPQS Usipe diration 0.782 (0.663) 0 3 0.499 T MDD Loss of interest 0.164 (0.370) 0 1 2.357 T MDD Step problems 0.097 (0.286) 0 1 2.317 T MDD Step problems 0.097 (0.286) 0 1 2.317 T MDD Step problems 0.697 (0.286) 0 1 2.318 T MDD Fargues 0.140 (0.347) 0 1 2.314 T MDD Fargues of dash 0.666 (0

 | African American n (%) | 107 | (3.248) | _ | _ | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Asian of Pacific Islander, n (%)15(0.455)Multinech, n (%)23(0.699)T2 PSQ Sibel dictore anising, n (%)36(0.073)0.033.00.475T2 PSQ Sibel dictore anising, n (%)36(0.674)0.08.22.76T2 PSQ Sibel diarbance0.994(1.189)0.08.22.76T2 PSQ Sibel diarbances1.299(0.641)0.08.22.76T2 PSQ Sibel diarbances1.299(0.641)0.03.10.49T1 MDD Siber disturbances0.722(0.268)0.11.22.257T1 MDD Appetite change0.072(0.289)0.11.22.323T1 MDD Protusing issues0.120(0.325)0.11.22.341T1 MDD Forusing issues0.104(0.347)0.11.22.376T2 MDD Talogitor of death0.078(0.269)0.11.22.376T2 MDD Talogitor of death0.078(0.269)0.11.22.376T3 MDD Forusing issues0.104(0.347)0.11.22.376T3 MDD Talogitor of death0.078(0.269)0.11.22.376T3 MDD Falogitor of death0.064(0.249)0.11.22.376T3 MDD Falogitor of death0.064(0.250)0.12.376T3 MDD Falogitor of death0.064(0.250)0.12.376T3 MDD Falogitor of death0.064(0.250)0.12.376

 | Native American, n (%) | 11 | (0.334) | _ | _ | _ | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| obler, n (%)41(.245)Declined to disclose or nissing, n (%)36(.069)T SPQS Usige transery0.963(.0674)0.030.475T SPQS Usige duration0.972(.0.746)0.030.755T SPQS Usige duration0.722(.0.746)0.082.876T SPQS Usige duration0.782(.0.63)0.011.815T MDD Loss of interest0.164(.0.370)0.013.30T MDD Loss of interest0.123(.0.328)0.11.3235T MDD D parking issues0.072(.0.258)0.11.3245T MDD D parking issues0.072(.0.258)0.11.3455T MDD D parking issues0.078(.0.284)0.11.3455T MDD D parking issues0.078(.0.284)0.11.3455T MDD D parking issues0.064(.0.347)0.11.3455T MDD T oblig issues0.064(.0.347)0.11.3456T MDD D parking issues0.064(.0.240)0.11.3456T MDD D parking issues0.064(.2.40)0.11.3457T MDD D parking issues0.064(.2.40)0.11.3454T MDD D parking issues0.064(.2.40)0.11.3454T MDD D parking issues0.064(.2.40)0.11.3454T MDD D parking issues0.064(.2.40)0.11.3454T MDD D parking issues0.064<

 | Asian or Pacific Islander, n (%) | 15 | (0.455) | - | _ | - | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Multical, n (%)23(0.69)72 PSQ Sibglective sleep quality0.963(0.674)082.76572 PSQ Sibgle duration0.972(0.746)082.76572 PSQ Sibgle duration0.792(0.746)031.60172 PSQ Sibgle disturbances1.299(0.641)082.76572 PSQ Sibgle disturbances0.164(0.370)012.25571 MDD Fatigae0.123(0.328)012.25671 MDD Appetite change0.072(0.256)012.25171 MDD Appetite change0.072(0.256)012.25171 MDD Focusing issues0.120(0.325)012.25171 MDD Tocusing issues0.107(0.266)012.25171 MDD Tocusing issues0.104(0.371)012.25171 MDD Tocusing issues0.104(0.367)012.25171 MDD Tocusing issues0.066(0.367)012.25172 MDD Tocusing issues0.066(0.367)012.25172 MDD Tocusing issues0.100(0.367)012.25172 MDD Tocusing issues0.100(0.367)012.34373 MDD Tocusing issues0.100(0.367)012.35174 MDD Appetite change0.666(0.361)012.35174 MDD Foreusing issues0.100(0.

 | Other, <i>n</i> (%) | 41 | (1.245) | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Decime to disclose or missing, n (%) 36 (1.093) - - - T2 PSQ Silge isclose is leaney 0.963 (0.674) 0 3 0.785 T2 PSQ Silge duration 0.792 (0.746) 0 3 0.785 T2 PSQ Habitinal step efficiency 0.558 (0.969) 0 3 0.672 T2 PSQ Silge duration 0.782 (0.663) 0 3 0.672 T1 MDD Loss of interest 0.164 (0.328) 0 1 2.285 T1 MDD Site problems 0.072 (0.286) 0 1 2.374 T1 MDD Disceproblems 0.076 (0.286) 0 1 2.374 T1 MDD Disceproblems 0.076 (0.286) 0 1 2.374 T1 MDD Disceproblems 0.076 (0.286) 0 1 2.375 T2 MDD Disceproblems 0.064 (0.247) 0 1 2.457 T2 MDD Disceproblems 0.064 (0.247) 0 1 2.457

 | Multiracial, n (%) | 23 | (0.699) | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 PSQ Skep duration0.9630.074)030.475T2 PSQ Skep duration0.7920.740)030.785T2 PSQ Skep duration0.7580.0969)030.601T2 PSQ Skep disturbances1.2990.0411082.276T1 MDD Lass of interest0.1640.370)011.815T1 MDD Appetite change0.0720.258)012.325T1 MDD Appetite change0.0970.296012.325T1 MDD Percusing issues0.1200.325012.334T1 MDD Depresed mood0.0880.2841012.375T2 MDD Thoughts of charh0.7780.2660012.375T2 MDD Appetite change0.1080.3471012.075T2 MDD Appetise of interest0.1080.3471012.375T2 MDD Appetise change0.6640.2491013.373T2 MDD Appetise change0.6640.2491013.243T2 MDD Appetise change0.6660.2801012.451T3 MDD Appetite change0.6660.2801013.433T3 MDD Appetite change0.6660.2801013.433T3 MDD Decusing issues0.6660.2801013.433T3 MDD Decusing issues0.6660.2811041.262T3 MDD Decusing issues0.6660.281104

 | Declined to disclose or missing, n (%) | 36 | (1.093) | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 HSQ Skep latency 0.749 (1.189) 0 8 2.76 12 HSQ Skep latency 0.558 (0.969) 0 3 1.60 12 HSQ Skep latences 1.299 (0.641) 0 8 2.876 12 HSQ Skep latences 1.299 (0.641) 0 8 2.876 12 HSQ Skep latences 0.123 (0.328) 0 1 2.295 11 MDD Deritice Charge 0.072 (0.286) 0 1 2.331 11 MDD Deritig States 0.120 (0.325) 0 1 2.331 11 MDD Deritig States 0.120 (0.326) 0 1 2.341 11 MDD Deritig States 0.140 (0.347) 0 1 2.361 11 MDD Deritig States 0.166 (0.244) 0 1 2.361 12 MDD Partigue 0.164 (0.244) 0 1 2.361 12 MDD Deritig States 0.166 (0.244) 0 1 2.361 12 MDD Deritig States

 | T2 PSQI Subjective sleep quality | 0.963 | (0.674) | 0 | 3 | 0.475 | 0.569 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 IAQ 0.742 0.749 0 3 0.783 12 PAQ 10.558 0.969 0 3 1.601 12 PAQ 1290 0.06411 0 8 2.267 12 PAQ 0.653 0 3 0.499 11 MDD Lass of interest 0.164 0.3701 0 1 1.232 11 MDD Appetite change 0.072 0.2581 0 1 2.295 11 MDD Appetite change 0.077 0.2696 0 1 2.290 11 MDD Decosing issues 0.120 0.3251 0 1 2.310 11 MDD Decosing issues 0.269 0 1 2.451 12 MDD Falges 0.068 0.2811 0 1 2.615 12 MDD Appetite change 0.664 0.2401 0 1 3.243 12 MDD Expersed mood 0.074 0.2541 0 1 3.243 12 MDD Expersed mood 0.664 0.2541 0 1 3.243 <td>T2 PSQI Sleep latency</td> <td>0.949</td> <td>(1.189)</td> <td>0</td> <td>8</td> <td>2.776</td> <td>12.846</td>

 | T2 PSQI Sleep latency | 0.949 | (1.189) | 0 | 8 | 2.776 | 12.846 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 Poy: Intendial step (Planting) 0.589 0 3 1.001 12 Poy: Size distribunces 1.299 (0.41) 0 8 2.876 17 Poy: Size distribunces 0.164 (0.577) 0 1 1.815 11 MDD Desitive dystunction 0.722 (0.528) 0 1 2.295 11 MDD Desitive change 0.072 (0.256) 0 1 2.334 11 MDD Distep problems 0.097 (0.266) 0 1 2.334 11 MDD Distep problems 0.078 (0.266) 0 1 2.334 11 MDD Tonglis of death 0.078 (0.266) 0 1 2.334 12 MDD So of interest 0.140 (0.347) 0 1 2.357 12 MDD So of interest 0.166 (0.244) 0 1 2.357 12 MDD So of interest 0.160 (0.299) 0 1 2.457 12 MDD So of interest 0.666 (0.280) 0 1 3.393 12 MDD Depresi

 | 12 PSQI Sleep duration
T2 PSQI Habitual close officiency | 0.792 | (0.746) | 0 | 3 | 0.785 | 0.486 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 11 body oncy distributions 1.7 body oncy distributions 0.782 0.6471 0 3 0.499 11 MDD lass of interest 0.164 0.3700 0 1 1.815 11 MDD Appetite change 0.072 0.2580 0 1 2.325 11 MDD Stage problems 0.097 0.2580 0 1 2.331 11 MDD Decusing issues 0.120 0.3250 0 1 2.334 11 MDD Decusing issues 0.120 0.3250 0 1 2.340 11 MDD Decusing issues 0.120 0.3250 0 1 2.340 12 MDD Facisting issues 0.108 0.2680 0 1 2.351 12 MDD Appetite change 0.664 0.2690 0 1 2.351 12 MDD Depresting issues 0.100 0.3677 0 1 3.353 13 MDD Loss of interest 0.160 0.6567 0 1 3.433 13 MDD Decusing issues 0.160 0.3677 0 1 3.433 <td>T2 PSQL fleep disturbances</td> <td>1 200</td> <td>(0.909)</td> <td>0</td> <td>8</td> <td>2.876</td> <td>25 301</td>

 | T2 PSQL fleep disturbances | 1 200 | (0.909) | 0 | 8 | 2.876 | 25 301 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Theop 0 0 1 181 TI MDD Loss of interest 0.123 0.328 0 1 2385 TI MDD Step problems 0.072 0.258 0 1 2355 TI MDD Step problems 0.077 0.256 0 1 2351 TI MDD Dopressed mod 0.088 0.264 0 1 2306 TI MDD Dopressed mod 0.078 0.266 0 1 2307 TI MDD Dopressed mod 0.078 0.266 0 1 2354 T MDD Dopressed mod 0.078 0.2477 0 1 2575 T MDD Dopressed mod 0.064 0.2441 0 1 2571 T MDD Deriging isses 0.100 0.299 0 1 2573 T MDD Deriging isses 0.100 0.262 0 1 3373 T MDD Deriging isses 0.100 0.262 0 1 3373 T MDD Deriging is of death 0.066 0.251 0 <

 | T2 PSQL Davtime dysfunction | 0.782 | (0.663) | 0 | 3 | 0.499 | 0.201 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 MDD Parigue 0.123 0.289 0 1 2.295 T1 MDD Sleep problems 0.077 0.2960 0 1 2.371 T1 MDD Depressing issues 0.120 0.3257 0 1 2.334 T1 MDD Depressed mood 0.088 0.2401 0 1 2.934 T1 MDD Depressed mood 0.088 0.2401 0 1 2.935 T1 MDD Depressed mood 0.088 0.2401 0 1 2.935 T2 MDD Farigues 0.108 0.3111 0 1 2.515 T2 MDD Farigue 0.108 0.3111 0 1 2.561 T2 MDD Farigue 0.086 0.2401 0 1 2.571 T2 MDD Farigue 0.100 0.2990 0 1 3.333 T3 MDD Farigue 0.160 0.3671 0 1 3.343 T3 MDD Farigue 0.160 0.3671 0 1 3.343 T3 MDD Farigue 0.160 0.3671 0 1 2.421 T3 MDD Aprite change 0.668 0.2811 <td>T1 MDD Loss of interest</td> <td>0.164</td> <td>(0.370)</td> <td>0</td> <td>1</td> <td>1.815</td> <td>1.293</td>

 | T1 MDD Loss of interest | 0.164 | (0.370) | 0 | 1 | 1.815 | 1.293 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 MDD Appetite change 0.072 0.258) 0 1 3.200 T1 MDD Pocusing issues 0.0120 0.325) 0 1 2.334 T1 MDD Dopressed mood 0.088 0.284) 0 1 2.934 T1 MDD Thoghts of death 0.078 0.2660 0 1 2.934 T1 MDD Thoghts of death 0.140 0.3471 0 1 2.075 T2 MDD Seo finterest 0.164 0.2441 0 1 2.573 T2 MDD Seo finterest 0.066 0.2801 0 1 2.673 T2 MDD Seo finterest 0.160 0.2621 0 1 2.873 T2 MDD Poressed mood 0.074 0.2621 0 1 2.873 T3 MDD Popressed mood 0.066 0.2521 0 1 2.841 T3 MDD Popressed mood 0.075 0.2631 0 1 2.842 T3 MDD Popressed mood 0.075 0.2631 0 1 2.842 T3 MDD Popressed mood 0.075 0.2631 0 1 2.842 T3 MDD Popressed mood 0.075 0.2631 0 1 2.842 T3 MDD Popressed mood 0.075 0.2631 0 1 <td>T1 MDD Fatigue</td> <td>0.123</td> <td>(0.328)</td> <td>0</td> <td>1</td> <td>2.295</td> <td>3.270</td>

 | T1 MDD Fatigue | 0.123 | (0.328) | 0 | 1 | 2.295 | 3.270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 MDD Skep problems 0.097 0.296) 0 1 2.79 T1 MDD Coursing issues 0.120 0.235) 0 1 2.334 T1 MDD Thoughts of death 0.078 0.268) 0 1 2.314 T1 MDD Thoughts of death 0.078 0.268) 0 1 2.515 T2 MDD Fatigue 0.168 0.311 0 1 2.515 T2 MDD Appetite change 0.066 0.280) 0 1 2.561 T2 MDD Facusing issues 0.100 0.299) 0 1 2.573 T2 MDD Procusing issues 0.106 0.3670 0 1 2.547 T2 MDD Procusing issues 0.160 0.3670 0 1 2.547 T3 MDD Fatigue 0.166 0.3670 0 1 2.547 T3 MDD Fatigue 0.086 0.2521 0 1 2.547 T3 MDD Fatigue 0.086 0.2521 0 1 2.347 T3 MDD Fatigue 0.086 0.2521 0 1 2.347 T3 MDD Fatigue 0.086 <td>T1 MDD Appetite change</td> <td>0.072</td> <td>(0.258)</td> <td>0</td> <td>1</td> <td>3.320</td> <td>9.027</td>

 | T1 MDD Appetite change | 0.072 | (0.258) | 0 | 1 | 3.320 | 9.027 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 MDD Pocusing issues0.1200.325)0112.340T1 MDD Dorpseed mood0.0880.284)013.145T1 MDD Dorpseed mood0.0780.268)013.145T2 MDD Loss of interest0.1400.347)012.518T2 MDD Seep problems0.0840.2441013.570T2 MDD Seep problems0.0860.280)012.613T2 MDD Depresed mood0.0740.2621013.343T3 MDD Expersed mood0.0740.2621013.435T3 MDD Expersed mood0.0660.280)013.435T3 MDD Farigue0.1160.3677013.435T3 MDD Appetite change0.1600.3677013.430T3 MDD Appetite change0.0860.2531013.430T3 MDD Appetite change0.0860.2531013.267T3 MDD Appetite change0.0860.2531013.267T3 MDD Appetite change0.0860.2531013.267T3 MDD Appetite change0.0860.2531013.267T3 MDD Appetite change0.1060.367041.327T3 MDD Appetite change0.1060.262013.226T3 MDD Foreised mood0.0750.2631041.137T3 MDD Foreised mood0.0750.2631041.528

 | T1 MDD Sleep problems | 0.097 | (0.296) | 0 | 1 | 2.719 | 5.396 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TI MDD Depresed mood0.0880.284)012.900T MDD Thoughts of death0.078(0.268)013.145T MDD Loss of interest0.104(0.347)012.075T MDD Appetite change0.064(0.244)012.518T MDD Focusing issues0.066(0.244)012.675T MDD Thoughts of death0.066(0.260)012.673T MDD Thoughts of death0.069(0.254)013.393T MDD Thoughts of death0.069(0.254)013.433T MDD Thoughts of death0.068(0.252)012.673T MDD Thoughts of death0.068(0.251)012.421T MDD Thoughts of death0.073(0.260)012.622T MDD Thoughts of death0.073(0.260)012.267T MDD Thoughts of death0.073(0.260)013.232T MDD Thoughts of death0.073(0.260)013.276T G AD Breitensense0.863(1.394)041.622T G AD Breitensense0.863(1.394)041.262T G AD Breitensense0.863(1.394)041.262T G AD Breitensense0.863(1.394)041.262T G AD Breitensense0.863(1.394)041.262T G AD Breitensense0.863(1.394)0

 | T1 MDD Focusing issues | 0.120 | (0.325) | 0 | 1 | 2.334 | 3.451 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 MDD Thoughs of death 0.78 0.268) 0 1 3.145 T2 MDD Los of interest 0.140 0.0347) 0 1 2.575 T2 MDD Partigue 0.108 0.3111 0 1 2.578 T2 MDD Skep problems 0.086 0.2401 0 1 2.571 T2 MDD Doprested mood 0.074 0.2620 0 1 2.673 T2 MDD Doprested mood 0.074 0.2621 0 1 3.343 T3 MDD Daynester fordenth 0.666 0.2691 0 1 3.433 T3 MDD Aprester fordenth 0.666 0.2631 0 1 2.421 T3 MDD Aprester fordenth 0.666 0.2631 0 1 3.430 T3 MDD Seep problems 0.606 0.2631 0 1 3.430 T3 MDD Seep problems 0.606 0.281 0 1 3.267 T3 MDD Poprested mood 0.075 0.2630 0 1 3.267 T3 MDD Poprested mood 0.075 0.2631 0 4 1.262 T3 MDD Poprested mood 0.075 0.2631 0 4 1.262 T3 MDD Fordenth problems 0.863 1.3277 1 6A

 | T1 MDD Depressed mood | 0.088 | (0.284) | 0 | 1 | 2.900 | 6.411 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| M(SD)MinMaxSkevne72 MDD Los of interest0.108(0.347)012.07572 MDD Aptigue0.008(0.311)012.51872 MDD Sheep problems0.066(0.240)012.66172 MDD Dpersesd mood0.074(0.262)012.67372 MDD Thoughts of death0.069(0.254)013.39373 MDD Los of interest0.160(0.367)012.42173 MDD Jos of interest0.166(0.252)012.42173 MDD Jos of interest0.066(0.251)012.42173 MDD Josep problems0.086(0.252)012.66273 MDD Josep problems0.086(0.252)012.66273 MDD Josep problems0.086(0.253)012.66273 MDD Toughts of death0.073(0.260)013.27671 GAD Breitessness0.815(1.327)041.56271 GAD Breitessnes0.863(1.394)041.26271 GAD Breitessnes0.863(1.394)041.26271 GAD Breitessnes0.863(1.394)041.26271 GAD Breitessnes0.863(1.394)041.26271 GAD Breitessnes0.664(1.246)041.26271 GAD Breitessnes0.664(1.263)041.64272 GAD Driventation

 | T1 MDD Thoughts of death | 0.078 | (0.268) | 0 | 1 | 3.145 | 7.895 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 MDD Loss of interest 0.140 (0.347) 0 1 2.075 21 MDD Appetite change 0.064 (0.244) 0 1 3.570 22 MDD Secusing issues 0.000 (0.260) 0 1 2.673 72 MDD Focusing issues 0.100 (0.262) 0 1 3.243 72 MDD Loss of interest 0.160 (0.367) 0 1 3.393 73 MDD Appetite change 0.160 (0.367) 0 1 3.430 73 MDD Appetite change 0.068 (0.252) 0 1 3.430 73 MDD Appetite change 0.068 (0.251) 0 1 3.430 73 MDD Sec problems 0.068 (0.251) 0 1 3.430 73 MDD Focusing issues 0.100 (0.300) 0 1 3.262 73 MDD Focusing issues 0.010 (0.260) 0 1 3.277 71 GAD Enribulity 0.760 (1.274) 0 4 1.197 71 GAD Enribulity 0.760 (1.274) 0 4 1.262 <t< td=""><td></td><td>M</td><td>(SD)</td><td>Min</td><td>Max</td><td>Skewness</td><td>Kurtosis</td></t<>

 | | M | (SD) | Min | Max | Skewness | Kurtosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 MDD Pargué 0.108 0.311 0 1 2.518 12 MDD Sleep problems 0.086 (0.280) 0 1 2.571 12 MDD Depressed mood 0.074 (0.262) 0 1 3.570 12 MDD Toughts of death 0.069 (0.244) 0 1 3.333 13 MDD Dos of interest 0.160 (0.367) 0 1 3.430 13 MDD Partique 0.114 (0.318) 0 1 2.421 13 MDD Sleep problems 0.086 (0.252) 0 1 3.430 13 MDD Focusing issues 0.100 (0.300) 0 1 2.947 13 MDD Thoughts of death 0.075 (0.263) 0 1 3.226 13 MDD Thoughts of death 0.073 (0.260) 0 1 3.227 11 GAD Sleep issues 0.815 (1.334) 0 4 1.264 11 GAD Sleep issues 0.863 (1.395) 0 4 1.264 11 GAD Sleep issues 0.863 (1.394) 0 4 1.254 11 GAD Sleep

 | T2 MDD Loss of interest | 0.140 | (0.347) | 0 | 1 | 2.075 | 2.305 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 MDD Sequence (0.004) 0.044) 0 1 3.576 12 MDD Sequence problems 0.066 0.280) 0 1 2.667 12 MDD Decusing issues 0.100 0.0299) 0 1 3.243 12 MDD Depresed mood 0.074 (0.262) 0 1 3.243 13 MDD Thoughts of death 0.069 (0.254) 0 1 3.243 13 MDD Apetite change 0.114 (0.318) 0 1 2.421 13 MDD Apetite change 0.068 (0.221) 0 1 3.430 13 MDD Depresed mood 0.075 (0.263) 0 1 3.247 13 MDD Thoughts of death 0.073 (0.260) 0 1 3.227 11 GAD Dritability 0.780 (1.374) 0 4 1.208 11 GAD Dritability 0.780 (1.374) 0 4 1.262 11 GAD Concentration problems 0.863 (1.395) 0 4 1.262 11 GAD Concentration problems 0.896 (1.477) 0 4 1.264 12

 | T2 MDD Fatigue | 0.108 | (0.311) | 0 | 1 | 2.518 | 4.344 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 ADD SACP POSING 0.000 0 1 2.673 12 MDD Depressed mood 0.074 (0.262) 0 1 3.243 12 MDD Forughts of death 0.669 (0.254) 0 1 3.33 13 MDD Fatigue 0.114 (0.367) 0 1 2.421 13 MDD Fatigue 0.114 (0.318) 0 1 2.421 13 MDD Fatigue 0.0668 (0.221) 0 1 2.421 13 MDD Sleep problems 0.066 (0.221) 0 1 2.662 13 MDD Depressed mood 0.075 (0.263) 0 1 3.226 13 MDD Thoughts of death 0.073 (0.260) 0 1 3.226 13 MDD Thoughts of death 0.730 (0.260) 0 4 1.208 11 GAD Edversenses 0.815 (1.327) 0 4 1.262 11 GAD Edversenses 0.815 (1.327) 0 4 1.264 11 GAD Edversenses 0.863 (1.394) 0 4 1.264 12 GAD Edversenses 0.701

 | T2 MDD Appente change | 0.004 | (0.244) | 0 | 1 | 2 961 | 6 769 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 MDD Depressed mod 0.074 (0.262) 0 1 3.243 T2 MDD Thoughts of death 0.069 (0.254) 0 1 3.393 T3 MDD Loss of interest 0.160 (0.367) 0 1 3.854 T3 MDD Appetite change 0.068 (0.252) 0 1 2.421 T3 MDD Secting issues 0.066 (0.252) 0 1 2.421 T3 MDD Depressed mood 0.075 (0.260) 0 1 2.622 T3 MDD Depressed mood 0.075 (0.260) 0 1 3.226 T3 MDD Secting issues 0.815 (1.327) 0 4 1.208 T1 GAD Intribubity 0.780 (1.274) 0 4 1.208 T1 GAD Intribubity 0.780 (1.274) 0 4 1.252 T1 GAD Intribubity 0.863 (1.394) 0 4 1.254 T1 GAD Intribubity 0.684 (1.477) 0 4 1.454 T2 GAD Restlessness 0.685 (1.281) 0 4 1.457 T1 GAD In

 | T2 MDD Sicep problems | 0.100 | (0.299) | 0 | 1 | 2.673 | 5.148 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 MDD Thoughts of death0.0690.254)013.393T3 MDD Apset in change0.160(0.367)012.421T3 MDD Appetite change0.068(0.252)012.431T3 MDD Steep problems0.086(0.251)012.947T3 MDD Deressed mood0.075(0.263)013.226T3 MDD Deressed mood0.075(0.263)013.227T1 GAD Restlessness0.815(1.327)041.197T1 GAD Irritability0.780(1.274)041.262T1 GAD Concentration problems0.863(1.395)041.262T1 GAD Concentration problems0.866(1.477)041.254T1 GAD Muscle tension0.896(1.477)041.254T2 GAD Irritability0.684(1.246)041.456T2 GAD Irritability0.684(1.246)041.526T1 GAD Steep issues0.685(1.281)041.566T2 GAD Irritability0.684(1.243)041.526T3 GAD Restlessness0.688(1.271)041.566T2 GAD Irritability0.684(1.243)041.566T2 GAD Irritability0.684(1.243)041.566T3 GAD Restlessness0.674(1.233)041.561T3 GAD Restlessness0.654(1.243)04<

 | T2 MDD Depressed mood | 0.074 | (0.262) | 0 | 1 | 3.243 | 8.518 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 MDD Loss of interest0.160(0.367)011.854T3 MDD Patigue0.0114(0.318)012.421T3 MDD Appetite change0.068(0.252)012.947T3 MDD Focusing issues0.100(0.300)012.662T3 MDD Thoughts of death0.075(0.263)013.226T3 MDD Thoughts of death0.073(0.260)013.227T1 GAD Retsesness0.815(1.327)041.208T1 GAD Step issues0.837(1.384)041.262T1 GAD Step issues0.863(1.395)041.255T1 GAD Low energy0.845(1.394)041.255T1 GAD Low energy0.845(1.394)041.255T1 GAD Step issues0.896(1.477)041.255T1 GAD Step issues0.685(1.261)041.255T1 GAD Step issues0.685(1.261)041.566T2 GAD Step issues0.685(1.261)041.566T2 GAD Step issues0.684(1.267)041.567T2 GAD Step issues0.688(1.267)041.567T2 GAD Step issues0.684(1.267)041.567T2 GAD Step issues0.654(1.243)041.567T3 GAD Step issues0.658(1.267)041.561T3 GAD Step

 | T2 MDD Thoughts of death | 0.069 | (0.254) | 0 | 1 | 3.393 | 9.514 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 MDD Fatigue0.114(0.318)012.421T3 MDD Appetite change0.068(0.252)013.430T3 MDD Sleep problems0.086(0.281)012.947T3 MDD Decusing issues0.100(0.300)013.226T3 MDD Thoughts of death0.073(0.263)013.227T1 GAD Restlessness0.815(1.327)041.197T1 GAD Irritability0.780(1.274)041.262T1 GAD Low centry0.837(1.384)041.262T1 GAD Low centry0.865(1.394)041.255T1 GAD Low centry0.865(1.394)041.254T1 GAD Sleep issues0.701(1.270)041.264T2 GAD Sleep issues0.701(1.270)041.578T2 GAD Sleep issues0.685(1.394)041.566T2 GAD Sleep issues0.685(1.281)041.566T2 GAD Low energy0.694(1.293)041.566T2 GAD Low energy0.694(1.293)041.566T2 GAD Low energy0.688(1.267)041.566T2 GAD Low energy0.688(1.267)041.566T2 GAD Low energy0.688(1.267)041.566T2 GAD Low energy0.688(1.267)041.566T3 GAD Sleep issues<

 | T3 MDD Loss of interest | 0.160 | (0.367) | 0 | 1 | 1.854 | 1.438 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 MDD Apetite change0.068(0.252)013.430T3 MDD Sleep problems0.086(0.281)012.947T3 MDD Focusing issues0.100(0.300)012.662T3 MDD Thoughts of death0.075(0.263)013.277T1 GAD Restlessness0.815(1.327)041.197T1 GAD Irritability0.780(1.274)041.262T1 GAD Sleep issues0.863(1.395)041.262T1 GAD Concentration problems0.863(1.395)041.264T1 GAD Low energy0.845(1.394)041.255T1 GAD Irritability0.686(1.477)041.264T2 GAD Restlessness0.701(1.270)041.461T2 GAD Breip issues0.685(1.281)041.457T2 GAD Low energy0.684(1.246)041.566T2 GAD Low energy0.694(1.293)041.566T2 GAD Low energy0.694(1.275)041.566T2 GAD Low energy0.698(1.267)041.644T3 GAD Sele issues0.688(1.267)041.501T3 GAD Sele issues0.688(1.267)041.646T3 GAD Sele issues0.654(1.243)041.646T3 GAD Sele issues0.658(1.243)041.646T3

 | T3 MDD Fatigue | 0.114 | (0.318) | 0 | 1 | 2.421 | 3.862 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 MDD Sleep problems0.086(0.281)012.947T3 MDD Focusing issues0.100(0.300)013.226T3 MDD Thoughts of death0.075(0.263)013.227T1 GAD Restlessness0.815(1.327)041.208T1 GAD Irritability0.780(1.274)041.208T1 GAD Concentration problems0.863(1.395)041.262T1 GAD Concentration problems0.863(1.394)041.255T1 GAD Nuscle tension0.896(1.477)041.254T2 GAD Irritability0.684(1.276)041.454T2 GAD Irritability0.684(1.276)041.454T2 GAD Irritability0.684(1.276)041.459T2 GAD Irritability0.684(1.246)041.456T2 GAD Concentration problems0.715(1.304)041.556T2 GAD Concentration problems0.715(1.304)041.566T2 GAD Nuscle tension0.744(1.386)041.566T3 GAD Irritability0.654(1.243)041.501T3 GAD Sleep issues0.654(1.243)041.644T3 GAD Nuscle tension0.759(1.413)041.644T3 GAD Nuscle tension0.759(1.413)041.644T3 GAD Nuscle tension0.759(1.413) </td <td>T3 MDD Appetite change</td> <td>0.068</td> <td>(0.252)</td> <td>0</td> <td>1</td> <td>3.430</td> <td>9.771</td>

 | T3 MDD Appetite change | 0.068 | (0.252) | 0 | 1 | 3.430 | 9.771 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 MDD Focusing issues 0.100 (0.300) 0 1 2.662 T3 MDD Depressed mood 0.075 (0.263) 0 1 3.226 T3 MDD Indughts of death 0.073 (0.260) 0 1 3.227 T1 GAD Restlessness 0.815 (1.327) 0 4 1.208 T1 GAD Irritability 0.780 (1.274) 0 4 1.262 T1 GAD concentration problems 0.863 (1.395) 0 4 1.262 T1 GAD we energy 0.845 (1.394) 0 4 1.255 T1 GAD we energy 0.845 (1.394) 0 4 1.234 T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Steep issues 0.685 (1.281) 0 4 1.451 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.566 T2 GAD Muscle tension 0.714 (1.364) 0 4 1.566 T2 GAD Muscle tension 0.774 (1.267) 0 4 1.501 <t< td=""><td>T3 MDD Sleep problems</td><td>0.086</td><td>(0.281)</td><td>0</td><td>1</td><td>2.947</td><td>6.687</td></t<>

 | T3 MDD Sleep problems | 0.086 | (0.281) | 0 | 1 | 2.947 | 6.687 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 13 MDD Depressed mood0.0750.0253013.22613 MDD Thoughts of death0.073(0.260)013.27711 GAD Restlessness0.815(1.327)041.19711 GAD Sleep issues0.837(1.384)041.26211 GAD Sleep issues0.863(1.395)041.6411 GAD Concentration problems0.863(1.395)041.26211 GAD Concentration problems0.863(1.397)041.23412 GAD Restlessness0.701(1.270)041.43912 GAD Restlessness0.664(1.246)041.57812 GAD Concentration problems0.715(1.304)041.56612 GAD Concentration problems0.715(1.304)041.56612 GAD Concentration problems0.744(1.386)041.56613 GAD Restlessness0.6684(1.267)041.50113 GAD Restlessness0.6654(1.255)041.64413 GAD Seep issues0.654(1.255)041.64813 GAD Seep issues0.654(1.251)041.64813 GAD Concentration problems0.759(1.413)041.64813 GAD Seep issues0.658(1.251)041.64813 GAD Concentration problems0.759(1.413)041.64813 GAD Low energy0.658

 | T3 MDD Focusing issues | 0.100 | (0.300) | 0 | 1 | 2.662 | 5.088 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 13 MDD Hologits Ordean0.0730.02001 3.277 11 GAD Restlessness0.815(1.327)041.20811 GAD Sleep issues0.837(1.384)041.26211 GAD Concentration problems0.863(1.395)041.16411 GAD Low energy0.845(1.394)041.23511 GAD Low energy0.845(1.394)041.23521 GAD Initiability0.896(1.477)041.2342 GAD Initiability0.685(1.281)041.46112 GAD Sleep issues0.685(1.281)041.5782 GAD Concentration problems0.715(1.304)041.56622 GAD Muscle tension0.744(1.386)041.5212 GAD Muscle tension0.744(1.386)041.50173 GAD Restlessness0.6654(1.243)041.50173 GAD Sleep issues0.654(1.243)041.50173 GAD Sleep issues0.654(1.255)041.50173 GAD Sleep issues0.759(1.413)041.50173 GAD Low energy0.658(1.251)041.50173 GAD Low energy0.658(1.251)041.50173 GAD Sleep issues0.759(1.413)041.50173 GAD Sleep issues0.759(1.079)2.651

 | T3 MDD Depressed mood | 0.075 | (0.263) | 0 | 1 | 3.226 | 8.410 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| In Order Mitability0.780(1.274)041.208TI GAD Initiability0.863(1.274)041.262TI GAD Concentration problems0.863(1.395)041.164II GAD Low energy0.845(1.394)041.255TI GAD bive energy0.845(1.394)041.2342 GAD Muscle tension0.896(1.477)041.2342 GAD Irritability0.684(1.270)041.4612 GAD Sleep issues0.685(1.281)041.57872 GAD Irritability0.684(1.246)041.46572 GAD Concentration problems0.715(1.304)041.56672 GAD Concentration problems0.715(1.304)041.52973 GAD Restlessness0.6688(1.267)041.52973 GAD Restlessness0.654(1.243)041.50173 GAD Sleep issues0.658(1.231)041.64473 GAD Sleep issues0.703(1.299)041.64873 GAD Nuscle tension0.779(1.413)041.64473 GAD Nuscle tension0.759(1.413)041.64473 GAD Sleep issues0.658(1.251)041.64473 GAD Nuscle tension0.759(1.079)71 Chronic sleep problems, n (%)332(10.079)- <td< td=""><td>T1 GAD Rectlessness</td><td>0.073</td><td>(0.200)</td><td>0</td><td>1</td><td>3.277</td><td>-0.261</td></td<>

 | T1 GAD Rectlessness | 0.073 | (0.200) | 0 | 1 | 3.277 | -0.261 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| The Annulary The Annulary <t< td=""><td>T1 GAD Irritability</td><td>0.780</td><td>(1.274)</td><td>0</td><td>4</td><td>1.208</td><td>-0.233</td></t<>

 | T1 GAD Irritability | 0.780 | (1.274) | 0 | 4 | 1.208 | -0.233 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 GAD Concentration problems 0.863 (1.395) 0 4 1.164 T1 GAD Low energy 0.845 (1.394) 0 4 1.255 T1 GAD Muscle tension 0.896 (1.477) 0 4 1.234 T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Inritability 0.684 (1.246) 0 4 1.461 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.455 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.566 T3 GAD Restlessness 0.668 (1.267) 0 4 1.561 T3 GAD Restlessness 0.6684 (1.243) 0 4 1.501 T3 GAD Steep issues 0.654 (1.243) 0 4 1.501 T3 GAD Nuscle tension 0.703 (1.299) 0 4 1.504 T3 GAD New energy 0.658 (1.251) 0 4 1.504 T3 GAD Nuscle tension 0.703 (1.299) 0 4 1.512 M

 | T1 GAD Sleep issues | 0.837 | (1.384) | 0 | 4 | 1.262 | -0.077 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 GAD Low energy0.845(1.394)041.255T1 GAD Muscle tension0.896(1.477)041.234T2 GAD Restlessness0.701(1.270)041.439T2 GAD Iritability0.684(1.246)041.436T2 GAD Sleep issues0.685(1.281)041.656T2 GAD Concentration problems0.715(1.304)041.566T2 GAD Concentration problems0.715(1.304)041.566T2 GAD Muscle tension0.744(1.293)041.566T3 GAD Restlessness0.688(1.267)041.501T3 GAD Restlessness0.684(1.255)041.501T3 GAD Sleep issues0.654(1.243)041.501T3 GAD Concentration problems0.703(1.299)041.501T3 GAD Low energy0.658(1.251)041.502T3 GAD Muscle tension0.759(1.413)041.512M(SD)MinMaxSkewnesT1 Chronic sleep problems, n (%)332(10.079)2.651T3 Chronic conditions2.133(2.290)0211.707T2 Number of chronic conditions2.638(3.107)0000T1 Number of medications0.000(0.000)000 <tr <tr=""><tr <td="">T1 Number of medications<td< td=""><td>T1 GAD Concentration problems</td><td>0.863</td><td>(1.395)</td><td>0</td><td>4</td><td>1.164</td><td>-0.362</td></td<></tr><tr><td>T1 GAD Muscle tension$0.896$$(1.477)$$0$$4$$1.234$T2 GAD Restlessness$0.701$$(1.270)$$0$$4$$1.439$T2 GAD Irritability$0.684$$(1.246)$$0$$4$$1.461$T2 GAD Sleep issues$0.685$$(1.281)$$0$$4$$1.656$T2 GAD Concentration problems$0.715$$(1.304)$$0$$4$$1.656$T2 GAD Low energy$0.694$$(1.293)$$0$$4$$1.566$T2 GAD Muscle tension$0.744$$(1.386)$$0$$4$$1.647$T3 GAD Restlessness$0.688$$(1.267)$$0$$4$$1.647$T3 GAD Sleep issues$0.654$$(1.243)$$0$$4$$1.644$T3 GAD Concentration problems$0.703$$(1.299)$$0$$4$$1.644$T3 GAD Sleep issues$0.658$$(1.251)$$0$$4$$1.648$T3 GAD Low energy$0.658$$(1.251)$$0$$4$$1.648$T3 GAD Muscle tension$0.759$$(1.413)$$0$$4$$1.648$T2 Chronic sleep problems, n (%)$332$$(10.079)$$-2.651$T1 Number of chronic conditions$2.133$$(2.290)$$0$$21$$1.707$T2 Number of chronic conditions$2.638$$(3.107)$$0$$0$$0$$0$</td><td>T1 GAD Low energy</td><td>0.845</td><td>(1.394)</td><td>0</td><td>4</td><td>1.255</td><td>-0.096</td></tr><tr><td>T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.597 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.658 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Sleep problems, n (%) 332 (10.079) - - 2.651</td><td>T1 GAD Muscle tension</td><td>0.896</td><td>(1.477)</td><td>0</td><td>4</td><td>1.234</td><td>-0.208</td></tr><tr><td>T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Muscle tension 0.744 (1.293) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.267) 0 4 1.644 T3 GAD Concentration problems 0.654 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0</td><td>T2 GAD Restlessness</td><td>0.701</td><td>(1.270)</td><td>0</td><td>4</td><td>1.439</td><td>0.395</td></tr><tr><td>T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0</td><td>T2 GAD Irritability</td><td>0.684</td><td>(1.246)</td><td>0</td><td>4</td><td>1.461</td><td>0.473</td></tr><tr><td>T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.681 (1.267) 0 4 1.501 T3 GAD Steep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.0079) - - - 2.651 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.874 T3 GAD is problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107)</td><td>T2 GAD Sleep issues</td><td>0.685</td><td>(1.281)</td><td>0</td><td>4</td><td>1.578</td><td>0.891</td></tr><tr><td>12 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) -2.651 T2 Chronic sleep problems, n (%) 338 (10.261) -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 20 1.677 T2</td><td>T2 GAD Concentration problems</td><td>0.715</td><td>(1.304)</td><td>0</td><td>4</td><td>1.465</td><td>0.475</td></tr><tr><td>12 GAD Muscle tension 0.744 (1.386) 0 4 1.529 13 GAD Restlessness 0.688 (1.267) 0 4 1.501 13 GAD Irritability 0.681 (1.255) 0 4 1.644 13 GAD Sleep issues 0.654 (1.243) 0 4 1.644 13 GAD Concentration problems 0.703 (1.299) 0 4 1.644 13 GAD Muscle tension 0.759 (1.413) 0 4 1.648 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes 11 Chronic sleep problems, n (%) 332 (10.079) - 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 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.676 T3 Number of chronic conditions 2.638 (3.107) 0 0<!--</td--><td>12 GAD Muscle tension</td><td>0.744</td><td>(1.386)</td><td>0</td><td>4</td><td>1.529</td><td>0.636</td></td></tr><tr><td>IS GAD Sleep issues 0.651 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T3 Number of endications 0.000 (0.000) 0 0 - -</td><td>T3 GAD Resuessiless</td><td>0.681</td><td>(1.207)</td><td>0</td><td>4</td><td>1.497</td><td>0.592</td></tr><tr><td>13 GAD Concentration problems 0.703 (1.299) 0 4 1.500 13 GAD Concentration problems 0.703 (1.299) 0 4 1.648 13 GAD Low energy 0.658 (1.251) 0 4 1.512 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T1 Number of medications 0.000 (0.000) 0 0 - -</td><td>T3 GAD Sleen issues</td><td>0.654</td><td>(1.233)</td><td>0</td><td>4</td><td>1.501</td><td>1 142</td></tr><tr><td>T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.512 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.674 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -</td><td>T3 GAD Concentration problems</td><td>0.703</td><td>(1.299)</td><td>0</td><td>4</td><td>1.500</td><td>0.582</td></tr><tr><td>T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 0 -</td><td>T3 GAD Low energy</td><td>0.658</td><td>(1.251)</td><td>0</td><td>4</td><td>1.648</td><td>1.159</td></tr><tr><td>M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.607</td><td>T3 GAD Muscle tension</td><td>0.759</td><td>(1.413)</td><td>0</td><td>4</td><td>1.512</td><td>0.552</td></tr><tr><td>T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -</td><td></td><td>Μ</td><td>(SD)</td><td>Min</td><td>Max</td><td>Skewness</td><td>Kurtosis</td></tr><tr><td>T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -</td><td>T1 Chronic sleep problems, n (%)</td><td>332</td><td>(10.079)</td><td>-</td><td>-</td><td>-2.651</td><td>5.029</td></tr><tr><td>T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -</td><td>T2 Chronic sleep problems, n (%)</td><td>295</td><td>(8.956)</td><td>-</td><td>-</td><td>-2.874</td><td>6.259</td></tr><tr><td>T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 -</td><td>T3 Chronic sleep problems, <i>n</i> (%)</td><td>338</td><td>(10.261)</td><td>-</td><td>-</td><td>-2.618</td><td>4.855</td></tr><tr><td>12 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -</td><td>T1 Number of chronic conditions</td><td>2.133</td><td>(2.290)</td><td>0</td><td>21</td><td>1.707</td><td>4.733</td></tr><tr><td>15 Number of medications 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 -</td><td>T2 Number of chronic conditions</td><td>2.010</td><td>(2.338)</td><td>0</td><td>30</td><td>2.366</td><td>12.731</td></tr><tr><td>1 NUMPER OF MEDICANONS U U U U U U U U U U U U U U U U U U U</td><td>1.3 Number of modiantiana</td><td>2.638</td><td>(3.107)</td><td>U</td><td>20</td><td>1.677</td><td>3.440</td></tr><tr><td>$\begin{array}{cccc} 1.1 manual of manual manua manual manual manual manual manual manual manual manu$</td><td>11 Number of medications</td><td>0.000</td><td>(0.000)</td><td>U</td><td>U
10</td><td>-</td><td>-</td></tr><tr><td>12 remote of medications 1.215 (1.302) 0 12 1.749</td><td>T3 Number of medications</td><td>1.243</td><td>(1.302)</td><td>0</td><td>12
9</td><td>1.749</td><td>4.910</td></tr><tr><td>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</td><td>T1 Regular physical exercise n (%)</td><td>619</td><td>(18.792)</td><td>-</td><td>_</td><td>-1.597</td><td>0.551</td></tr><tr><td>T2 Regular physical exercise, n (%) 767 (23.285) – – – – – – – – – – – – – – – – – – –</td><td>T2 Regular physical exercise, n (%)</td><td>767</td><td>(23,285)</td><td>_</td><td>-</td><td>-1.264</td><td>-0.403</td></tr><tr><td>T3 Regular physical exercise, n (%) 965 (29.296) – – – -0.909</td><td>T3 Regular physical exercise. <i>n</i> (%)</td><td>965</td><td>(29.296)</td><td>-</td><td>-</td><td>-0.909</td><td>-1.173</td></tr></tr> | T1 GAD Concentration problems | 0.863 | (1.395) | 0 | 4 | 1.164 | -0.362
 | T1 GAD Muscle tension 0.896 (1.477) 0 4 1.234 T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.656 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.647 T3 GAD Restlessness 0.688 (1.267) 0 4 1.647 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Sleep issues 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T2 Chronic sleep problems, n (%) 332 (10.079) $ -2.651$ T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 0 0 0 | T1 GAD Low energy | 0.845 | (1.394) | 0 | 4 | 1.255 | -0.096 | T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.597 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.658 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Sleep problems, n (%) 332 (10.079) - - 2.651 | T1 GAD Muscle tension | 0.896 | (1.477) | 0 | 4 | 1.234 | -0.208 | T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Muscle tension 0.744 (1.293) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.267) 0 4 1.644 T3 GAD Concentration problems 0.654 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 | T2 GAD Restlessness | 0.701 | (1.270) | 0 | 4 | 1.439 | 0.395 | T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 | T2 GAD Irritability | 0.684 | (1.246) | 0 | 4 | 1.461 | 0.473 | T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.681 (1.267) 0 4 1.501 T3 GAD Steep issues 0.654 (1.243) 0 4 1.644 T3 GAD
Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.0079) - - - 2.651 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.874 T3 GAD is problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) | T2 GAD Sleep issues | 0.685 | (1.281) | 0 | 4 | 1.578 | 0.891 | 12 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) $ -2.651$ T2 Chronic sleep problems, n (%) 338 (10.261) $ -2.618$ T1 Number of chronic conditions 2.133 (2.290) 0 20 1.677 T2 | T2 GAD Concentration problems | 0.715 | (1.304) | 0 | 4 | 1.465 | 0.475 | 12 GAD Muscle tension 0.744 (1.386) 0 4 1.529 13 GAD Restlessness 0.688 (1.267) 0 4 1.501 13 GAD Irritability 0.681 (1.255) 0 4 1.644 13 GAD Sleep issues 0.654 (1.243) 0 4 1.644 13 GAD Concentration problems 0.703 (1.299) 0 4 1.644 13 GAD Muscle tension 0.759 (1.413) 0 4 1.648 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes 11 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 12 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 11 Number of chronic conditions 2.133 (2.290) 0 21 1.707 12 Number of chronic conditions 2.638 (3.107) 0 20 1.667 13 Number of chronic conditions 2.638 (3.107) 0 0 - <td>T2 GAD Low energy</td> <td>0.694</td> <td>(1.293)</td> <td>0</td> <td>4</td> <td>1.566</td> <td>0.841</td> | T2 GAD Low energy | 0.694 | (1.293) | 0 | 4 | 1.566 | 0.841 | 13 GAD Restlessions 0.686 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewen T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.676 T3 Number of chronic conditions 2.638 (3.107) 0 0 </td <td>12 GAD Muscle tension</td> <td>0.744</td> <td>(1.386)</td> <td>0</td> <td>4</td> <td>1.529</td> <td>0.636</td> | 12 GAD Muscle tension | 0.744 | (1.386) | 0 | 4 | 1.529 | 0.636 | IS GAD Sleep issues 0.651 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T3 Number of endications 0.000 (0.000) 0 0 - - | T3 GAD Resuessiless | 0.681 | (1.207) | 0 | 4 | 1.497 | 0.592 | 13 GAD Concentration problems 0.703 (1.299) 0 4 1.500 13 GAD Concentration problems 0.703 (1.299) 0 4 1.648
 13 GAD Low energy 0.658 (1.251) 0 4 1.512 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T1 Number of medications 0.000 (0.000) 0 0 - - | T3 GAD Sleen issues | 0.654 | (1.233) | 0 | 4 | 1.501 | 1 142 | T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.512 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.674 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T3 GAD Concentration problems | 0.703 | (1.299) | 0 | 4 | 1.500 | 0.582 | T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 0 - | T3 GAD Low energy | 0.658 | (1.251) | 0 | 4 | 1.648 | 1.159 | M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.607 | T3 GAD Muscle tension | 0.759 | (1.413) | 0 | 4 | 1.512 | 0.552 | T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | | Μ | (SD) | Min | Max | Skewness | Kurtosis | T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T1 Chronic sleep problems, n (%) | 332 | (10.079) | - | - | -2.651 | 5.029 | T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T2 Chronic sleep problems, n (%) | 295 | (8.956) | - | - | -2.874 | 6.259 | T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 - | T3 Chronic sleep problems, <i>n</i> (%) | 338 | (10.261) | - | - | -2.618 | 4.855
 | 12 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T1 Number of chronic conditions | 2.133 | (2.290) | 0 | 21 | 1.707 | 4.733 | 15 Number of medications 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 - | T2 Number of chronic conditions | 2.010 | (2.338) | 0 | 30 | 2.366 | 12.731 | 1 NUMPER OF MEDICANONS U U U U U U U U U U U U U U U U U U U | 1.3 Number of modiantiana | 2.638 | (3.107) | U | 20 | 1.677 | 3.440 | $\begin{array}{cccc} 1.1 manual of manual manua manual manual manual manual manual manual manual manu$ | 11 Number of medications | 0.000 | (0.000) | U | U
10 | - | - | 12 remote of medications 1.215 (1.302) 0 12 1.749 | T3 Number of medications | 1.243 | (1.302) | 0 | 12
9 | 1.749 | 4.910 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | T1 Regular physical exercise n (%) | 619 | (18.792) | - | _ | -1.597 | 0.551 | T2 Regular physical exercise, n (%) 767 (23.285) – – – – – – – – – – – – – – – – – – – | T2 Regular physical exercise, n (%) | 767 | (23,285) | _ | - | -1.264 | -0.403 | T3 Regular physical exercise, n (%) 965 (29.296) – – – -0.909 | T3 Regular physical exercise. <i>n</i> (%) | 965 | (29.296) | - | - | -0.909 | -1.173 |
| T1 GAD Concentration problems

 | 0.863 | (1.395) | 0 | 4 | 1.164 | -0.362 | T1 GAD Muscle tension 0.896 (1.477) 0 4 1.234 T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.656 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.647 T3 GAD Restlessness 0.688 (1.267) 0 4 1.647 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Sleep issues 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T2 Chronic sleep problems, n (%) 332 (10.079) $ -2.651$ T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 0 0 0 | T1 GAD Low energy | 0.845 | (1.394) | 0 | 4 | 1.255 | -0.096 | T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.597 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.658 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Sleep problems, n (%) 332 (10.079) - - 2.651 | T1 GAD Muscle tension | 0.896 | (1.477) | 0 | 4 | 1.234 | -0.208 | T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Muscle tension 0.744 (1.293) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.267) 0 4 1.644 T3 GAD Concentration problems 0.654 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 | T2 GAD Restlessness | 0.701 | (1.270) | 0 | 4 | 1.439 | 0.395 | T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD
Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 | T2 GAD Irritability | 0.684 | (1.246) | 0 | 4 | 1.461 | 0.473 | T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.681 (1.267) 0 4 1.501 T3 GAD Steep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.0079) - - - 2.651 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.874 T3 GAD is problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) | T2 GAD Sleep issues | 0.685 | (1.281) | 0 | 4 | 1.578 | 0.891 | 12 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) $ -2.651$ T2 Chronic sleep problems, n (%) 338 (10.261) $ -2.618$ T1 Number of chronic conditions 2.133 (2.290) 0 20 1.677 T2 | T2 GAD Concentration problems | 0.715 | (1.304) | 0 | 4 | 1.465 | 0.475 | 12 GAD Muscle tension 0.744 (1.386) 0 4 1.529 13 GAD Restlessness 0.688 (1.267) 0 4 1.501 13 GAD Irritability 0.681 (1.255) 0 4 1.644 13 GAD Sleep issues 0.654 (1.243) 0 4 1.644 13 GAD Concentration problems 0.703 (1.299) 0 4 1.644 13 GAD Muscle tension 0.759 (1.413) 0 4 1.648 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes 11 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 12 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 11 Number of chronic conditions 2.133 (2.290) 0 21 1.707 12 Number of chronic conditions 2.638 (3.107) 0 20 1.667 13 Number of chronic conditions 2.638 (3.107) 0 0 - <td>T2 GAD Low energy</td> <td>0.694</td> <td>(1.293)</td> <td>0</td> <td>4</td> <td>1.566</td> <td>0.841</td> | T2 GAD Low energy | 0.694 | (1.293) | 0 | 4 | 1.566 | 0.841 | 13 GAD Restlessions 0.686 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewen T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.676 T3 Number of chronic conditions 2.638 (3.107) 0 0 </td <td>12 GAD Muscle tension</td> <td>0.744</td> <td>(1.386)</td> <td>0</td> <td>4</td> <td>1.529</td> <td>0.636</td> | 12 GAD Muscle tension
 | 0.744 | (1.386) | 0 | 4 | 1.529 | 0.636 | IS GAD Sleep issues 0.651 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T3 Number of endications 0.000 (0.000) 0 0 - - | T3 GAD Resuessiless | 0.681 | (1.207) | 0 | 4 | 1.497 | 0.592 | 13 GAD Concentration problems 0.703 (1.299) 0 4 1.500 13 GAD Concentration problems 0.703 (1.299) 0 4 1.648 13 GAD Low energy 0.658 (1.251) 0 4 1.512 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T1 Number of medications 0.000 (0.000) 0 0 - - | T3 GAD Sleen issues | 0.654 | (1.233) | 0 | 4 | 1.501 | 1 142 | T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.512 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.674 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T3 GAD Concentration problems | 0.703 | (1.299) | 0 | 4 | 1.500 | 0.582 | T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 0 - | T3 GAD Low energy | 0.658 | (1.251) | 0 | 4 | 1.648 | 1.159 | M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.607 | T3 GAD Muscle tension | 0.759 | (1.413) | 0 | 4 | 1.512 | 0.552 | T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000
(0.000) 0 - - | | Μ | (SD) | Min | Max | Skewness | Kurtosis | T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T1 Chronic sleep problems, n (%) | 332 | (10.079) | - | - | -2.651 | 5.029 | T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T2 Chronic sleep problems, n (%) | 295 | (8.956) | - | - | -2.874 | 6.259 | T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 - | T3 Chronic sleep problems, <i>n</i> (%) | 338 | (10.261) | - | - | -2.618 | 4.855 | 12 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - - | T1 Number of chronic conditions | 2.133 | (2.290) | 0 | 21 | 1.707 | 4.733 | 15 Number of medications 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 - | T2 Number of chronic conditions | 2.010 | (2.338) | 0 | 30 | 2.366 | 12.731 | 1 NUMPER OF MEDICANONS U U U U U U U U U U U U U U U U U U U | 1.3 Number of modiantiana | 2.638 | (3.107) | U | 20 | 1.677 | 3.440 | $\begin{array}{cccc} 1.1 manual of manual manua manual manual manual manual manual manual manual manu$ | 11 Number of medications | 0.000 | (0.000) | U | U
10 | - | - | 12 remote of medications 1.215 (1.302) 0 12 1.749 | T3 Number of medications | 1.243 | (1.302) | 0 | 12
9 | 1.749 | 4.910 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | T1 Regular physical exercise n (%) | 619 | (18.792) | - | _ | -1.597 | 0.551 | T2 Regular physical exercise, n (%) 767 (23.285) – – – – – – – – – – – – – – – – – – – | T2 Regular physical exercise, n (%) | 767 | (23,285) | _ | - | -1.264 | -0.403 | T3 Regular physical exercise, n (%) 965 (29.296) – – – -0.909 | T3 Regular physical exercise. <i>n</i> (%) | 965 | (29.296) | - | - | -0.909 | -1.173 | |
| T1 GAD Concentration problems

 | 0.863 | (1.395) | 0 | 4 | 1.164 | -0.362 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 GAD Muscle tension 0.896 (1.477) 0 4 1.234 T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.656 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.647 T3 GAD Restlessness 0.688 (1.267) 0 4 1.647 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Sleep issues 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T2 Chronic sleep problems, n (%) 332 (10.079) $ -2.651$ T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 0 0 0

 | T1 GAD Low energy | 0.845 | (1.394) | 0 | 4 | 1.255 | -0.096 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 GAD Restlessness 0.701 (1.270) 0 4 1.439 T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.597 T3 GAD Restlessness 0.688 (1.267) 0 4 1.597 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.658 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.644 T3 GAD Sleep problems, n (%) 332 (10.079) - - 2.651

 | T1 GAD Muscle tension | 0.896 | (1.477) | 0 | 4 | 1.234 | -0.208 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 GAD Irritability 0.684 (1.246) 0 4 1.461 T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.656 T2 GAD Muscle tension 0.744 (1.293) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.267) 0 4 1.644 T3 GAD Concentration problems 0.654 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0

 | T2 GAD Restlessness | 0.701 | (1.270) | 0 | 4 | 1.439 | 0.395 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 GAD Sleep issues 0.685 (1.281) 0 4 1.578 T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.688 (1.267) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.651 T2 Chronic sleep problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0

 | T2 GAD Irritability | 0.684 | (1.246) | 0 | 4 | 1.461 | 0.473 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 GAD Concentration problems 0.715 (1.304) 0 4 1.465 T2 GAD Low energy 0.694 (1.293) 0 4 1.566 T2 GAD Muscle tension 0.744 (1.386) 0 4 1.529 T3 GAD Restlessness 0.681 (1.267) 0 4 1.501 T3 GAD Steep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.0079) - - - 2.651 T1 Chronic sleep problems, n (%) 332 (10.079) - - - 2.874 T3 GAD is problems, n (%) 338 (10.261) - - - 2.618 T1 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107)

 | T2 GAD Sleep issues | 0.685 | (1.281) | 0 | 4 | 1.578 | 0.891 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | T2 GAD Concentration problems | 0.715 | (1.304) | 0 | 4 | 1.465 | 0.475 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 GAD Muscle tension 0.744 (1.386) 0 4 1.529 13 GAD Restlessness 0.688 (1.267) 0 4 1.501 13 GAD Irritability 0.681 (1.255) 0 4 1.644 13 GAD Sleep issues 0.654 (1.243) 0 4 1.644 13 GAD Concentration problems 0.703 (1.299) 0 4 1.644 13 GAD Muscle tension 0.759 (1.413) 0 4 1.648 13 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes 11 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 12 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 11 Number of chronic conditions 2.133 (2.290) 0 21 1.707 12 Number of chronic conditions 2.638 (3.107) 0 20 1.667 13 Number of chronic conditions 2.638 (3.107) 0 0 - <td>T2 GAD Low energy</td> <td>0.694</td> <td>(1.293)</td> <td>0</td> <td>4</td> <td>1.566</td> <td>0.841</td>

 | T2 GAD Low energy | 0.694 | (1.293) | 0 | 4 | 1.566 | 0.841 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 13 GAD Restlessions 0.686 (1.267) 0 4 1.497 T3 GAD Irritability 0.681 (1.255) 0 4 1.501 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewen T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.676 T3 Number of chronic conditions 2.638 (3.107) 0 0 </td <td>12 GAD Muscle tension</td> <td>0.744</td> <td>(1.386)</td> <td>0</td> <td>4</td> <td>1.529</td> <td>0.636</td>

 | 12 GAD Muscle tension | 0.744 | (1.386) | 0 | 4 | 1.529 | 0.636 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| IS GAD Sleep issues 0.651 (1.243) 0 4 1.644 T3 GAD Sleep issues 0.654 (1.243) 0 4 1.644 T3 GAD Concentration problems 0.703 (1.299) 0 4 1.644 T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.638 (3.107) 0 20 1.667 T3 Number of endications 0.000 (0.000) 0 0 - -

 | T3 GAD Resuessiless | 0.681 | (1.207) | 0 | 4 | 1.497 | 0.592 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | T3 GAD Sleen issues | 0.654 | (1.233) | 0 | 4 | 1.501 | 1 142 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 GAD Low energy 0.658 (1.251) 0 4 1.648 T3 GAD Low energy 0.658 (1.251) 0 4 1.512 T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.674 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -

 | T3 GAD Concentration problems | 0.703 | (1.299) | 0 | 4 | 1.500 | 0.582 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 GAD Muscle tension 0.759 (1.413) 0 4 1.512 M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 0 -

 | T3 GAD Low energy | 0.658 | (1.251) | 0 | 4 | 1.648 | 1.159 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| M (SD) Min Max Skewnes T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.367 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.607

 | T3 GAD Muscle tension | 0.759 | (1.413) | 0 | 4 | 1.512 | 0.552 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 Chronic sleep problems, n (%) 332 (10.079) - - -2.651 T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -

 | | Μ | (SD) | Min | Max | Skewness | Kurtosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 Chronic sleep problems, n (%) 295 (8.956) - - -2.874 T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -

 | T1 Chronic sleep problems, n (%) | 332 | (10.079) | - | - | -2.651 | 5.029 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T3 Chronic sleep problems, n (%) 338 (10.261) - - -2.618 T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -

 | T2 Chronic sleep problems, n (%) | 295 | (8.956) | - | - | -2.874 | 6.259 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T1 Number of chronic conditions 2.133 (2.290) 0 21 1.707 T2 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 -

 | T3 Chronic sleep problems, <i>n</i> (%) | 338 | (10.261) | - | - | -2.618 | 4.855 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 Number of chronic conditions 2.010 (2.338) 0 30 2.366 T3 Number of chronic conditions 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 - -

 | T1 Number of chronic conditions | 2.133 | (2.290) | 0 | 21 | 1.707 | 4.733 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 15 Number of medications 2.638 (3.107) 0 20 1.677 T1 Number of medications 0.000 (0.000) 0 0 -

 | T2 Number of chronic conditions | 2.010 | (2.338) | 0 | 30 | 2.366 | 12.731 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1 NUMPER OF MEDICANONS U U U U U U U U U U U U U U U U U U U

 | 1.3 Number of modiantiana | 2.638 | (3.107) | U | 20 | 1.677 | 3.440 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | 11 Number of medications | 0.000 | (0.000) | U | U
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| 12 remote of medications 1.215 (1.302) 0 12 1.749

 | T3 Number of medications | 1.243 | (1.302) | 0 | 12
9 | 1.749 | 4.910 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | T1 Regular physical exercise n (%) | 619 | (18.792) | - | _ | -1.597 | 0.551 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T2 Regular physical exercise, n (%) 767 (23.285) – – – – – – – – – – – – – – – – – – –

 | T2 Regular physical exercise, n (%) | 767 | (23,285) | _ | - | -1.264 | -0.403 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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 | | | | | | |
| T3 Regular physical exercise, n (%) 965 (29.296) – – – -0.909

 | T3 Regular physical exercise. <i>n</i> (%) | 965 | (29.296) | - | - | -0.909 | -1.173 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Table 2 (continued)

	М	(SD)	Min	Max	Skewness	Kurtosis
T1 Household total income (\$)	76200.516	(64898.144)	0	300000	1.377	1.741
T2 Household total income (\$)	59698.427	(55561.518)	0	298750	1.185	1.563
T3 Household total income (\$)	58966.910	(64082.607)	0	299250	1.249	1.208
T1 Current financial situation	6.008	(2.462)	0	10	-0.848	0.255
T2 Current financial situation	5.709	(2.961)	0	10	-0.773	-0.470
T3 Current financial situation	5.470	(3.308)	0	10	-0.582	-1.001

Note. GAD = generalized anxiety disorder; MDD = major depressive disorder; Max = maximum; Min = minimum; PSQI = Pittsburgh sleep quality index.

Note. GAD = generalized anxiety disorder; MDD = major depressive disorder; Max = maximum; Min = minimum.

Note. The current financial situation was measured on a scale of 0 = the worst possible financial crisis to 10 = the best possible financial situation.

beyond the direct effect. Further, as part of best practices to obtain less unbiased and more efficient, stable, and reliable parameter estimates, particularly in the context of multivariate non-normality, a bootstrapping approach was used with 10,000 iterations (Bollen & Stine, 1992; Yuan et al., 2007). In addition, we computed mediation effect sizes that represented the percentage of the variance of the outcome that was contributed jointly by the predictor and mediator after adjusting for any spurious associations produced by the temporal ordering of the variables (Lachowicz et al., 2018). In addition, effect sizes for all regression parameter estimates were calculated using the formula, d = $2t/\sqrt{(df)}$, wherein *t* referred to the *t*-statistic of the respective parameter and df the degrees of freedom of the error term (Dunst et al., 2004). Moreover, based on the literature, we conducted a sensitivity analysis to test if any observed statistically significant effects remained after controlling for these potential covariates: age (Crowley, 2011), gender (Zeng et al., 2020), presence of chronic sleep problems, past year number of chronic health conditions (i.e., asthma, bronchitis, or emphysema, tuberculosis, other lung problems, joint or bone diseases, sciatica, lumbago, or backache, skin trouble, thyroid disease, hay fever, stomach trouble, urinary or bladder problem, constipation issues, gall bladder trouble, foot problems, varicose veins, AIDS or HIV, lupus or autoimmune disorder, gum or mouth problems, dental problems, hypertension, alcohol or drugs, migraine, diabetes or high blood sugar, neurological disease, stroke, ulcer, hernia, piles or hemorrhoids, or swallowing problems) (Campanini et al., 2021), past year number of prescribed medication consumed (hypertension, diabetes, cholesterol, heart condition, lung problems, ulcer, arthritis, hormone therapy, birth control pills, headaches, anxiety or depression, pain) (Campanini et al., 2021), regular physical exercise (Xie et al., 2021), household total income, and current financial situation (0 = the worst possible financial)crisis to 10 = the best possible financial situation) (Grandner et al., 2016). Furthermore, we controlled for T1 and T2 MDD when T3 MDD severity was the outcome and controlled for T1 and T2 GAD when predicting T3 GAD. Table 2 details descriptive statistics of all study variables. Readers can access the analytic data script from OSF (https://osf.io/qct2y/) and the dataset from the ICPSR repository (https://www.icpsr.umich. edu/web/ICPSR/series/203).

3. Results

Hypothesis 1. T1 GAD \rightarrow T3 MDD mediated by T2 Global Sleep Quality.

First, we examined if the T1 GAD–T3 MDD relation would be mediated by T2 global sleep quality over and above T1 and T2 MDD severity. Based on the practical fit indices, this mediation model showed good fit (χ^2 (df = 487) = 1080.834, p < .001, CFI = .970, TLI = .968, RMSEA = .036, SRMR = .059). Supporting Hypothesis 1, higher T1 GAD symptom severity significantly predicted T2 global sleep quality ($\beta = -0.078$, SE = 0.015, z = -5.293, p < .001, d = -0.480), and less T2 global sleep quality was significantly related to higher T3 MDD severity ($\beta = -0.183$, SE = 0.030, z = -3.039, p < .001, d = -0.275). Simultaneously, the indirect effect (T1 GAD \rightarrow T2 global sleep quality \rightarrow T3 MDD) was significant ($\beta = 0.014$, SE = 0.006, z = 2.478, p = .013, d = -0.18, d = -0.18, d = -0.18, d = -0.18, d = -0.014, SE = 0.006, z = 2.478, p = .013, d = -0.012, d = -0.022, d = -0.012, d = -0.022, d = -0.

0.225). T2 global sleep quality mediated 41.340% of the T1 GAD–T3 MDD association. Fig. 1 presents the full SEM model of Hypothesis 1.

Moreover, the indirect effect remained significant after controlling for these covariates: age (d = 0.208), gender (d = 0.208), past-12-month chronic sleep problems (d = 0.210), number of chronic health conditions (d = 0.210), number of medications taken (d = 0.213), presence of coregular physical exercise (d = 0.206), total household income (d =0.206), and current financial situation (d = 0.209) (ps = .012 to .013). Overall, Hypothesis 1 was fully supported.

Hypothesis 2. T1 MDD \rightarrow T3 GAD mediated by T2 Global Sleep Quality.

Next, we examined if T2 global sleep quality would mediate the T1 MDD–T3 GAD relation above and beyond T1 and T2 GAD severity. Based on the practical fit indices, this mediation model showed good fit (χ^2 (df= 426) = 625.192, p < .001, CFI = .993, TLI = .992, RMSEA = .022, SRMR = .042). Higher T1 MDD symptom severity was significantly associated with lower T2 global sleep quality (β = -0.606, *SE* = 0.105, z= -5.789, p < .001, d = -0.561), and reduced T2 global sleep quality was significantly linked to greater T3 MDD severity (β = -0.214, *SE* = 0.109, z= -1.960, p = .050, d = -0.190). Simultaneously, the indirect effect (T1 MDD \rightarrow T2 global sleep quality \rightarrow T3 GAD) was statistically significant (β = 0.130, *SE* = 0.062, z = 2.104, p = .035, d = 0.204). T2 Global Sleep Quality mediated 10.819% of the T1 MDD–T3 GAD relation. Therefore, Hypothesis 2 was supported (see Fig. 2).¹

Furthermore, the indirect effect stayed statistically significant after adjusting for these covariates: age (d = 0.183), gender (d = 0.197), chronic sleep issues (d = 0.180), number of medications consumed (d = 0.190), regular engagement in physical exercise (d = 0.187), total household income (d = 0.184), and current financial situation (d = 0.178). Collectively, the results were fully consistent with Hypothesis 2.

4. Discussion

To our knowledge, this is the first study to test if poorer global subjective sleep quality mediated the pathway of GAD predicting MDD severity 18 years later and vice versa. We found that poorer global sleep quality mediated the relation between T1 MDD and T3 GAD (controlling for T1 and T2 GAD). Likewise, worse global sleep quality mediated the T1 GAD-T3 MDD association. Specifically, T2 global sleep quality accounted for about 41% of the T1 GAD–T3 MDD association and approximately 11% of the T1 MDD–T3 GAD relation. Collectively, our results thus lend support to the *transdiagnostic theory of sleep* (Harvey, 2008). We provide potential explanations for this pattern of findings.

Why did T1 MDD and GAD predict T2 global subjective sleep quality? One plausible explanation is that sleep issues and MDD and GAD have similar underlying risk factors, such as repetitive negative thinking patterns. Consistent with Riemann's *hyperarousal model*, insomnia could

¹ For both Hypotheses 1 and 2, we determined that the same pattern of findings remained after removing the sleep disturbance symptom items from the MDD and GAD measures in the longitudinal SEM mediation analyses (refer to p. 1 in the online supplementary materials; OSM).



Fig. 1. Longitudinal Structural Equation Mediation Modeling of GAD Severity Predicting MDD Severity. Note. *** p < .001; ** p < .01; *p < .05. GAD = generalized anxiety disorder; MDD = major depressive disorder. This figure shows the unstandardized regression path coefficients and their standard error in parentheses. Bold lines indicate statistically significant effects, whereas dotted lines denote parameter estimates that were not statistically significant.

exacerbate a cycle of pre-sleep negative perseverative cognitions over time, some of which are often implicated in depression and anxiety disorder-prone individuals (e.g., excessive worry rumination, limiting core beliefs). Repetitive negative thinking patterns may hinder the ability to achieve good quality sleep over time (Jansson & Linton, 2007; Mazzer et al., 2019; Norell-Clarke et al., 2014; Riemann et al., 2010).

Findings that greater MDD and GAD symptom severity predicted lower global sleep quality might also be partly explained by scar theories. These theories propose that higher MDD and GAD symptoms may create a "scarring effect" over time by predisposing individuals to poorer sleep quality through various deficient health behaviors, such as unhealthy diet and excessive technology use. Plausibly, those exhibiting elevated anxiety and depressive symptoms predispose themselves to future sleep issues by making poor diet choices (Zhao et al., 2020). There is a growing body of evidence for links between more unhealthy dietary choices and increased anxiety and depressive symptoms in the long term (Daneshzad et al., 2020; Tan et al., 2016). Prolonged Internet, smartphone, and digital tablet overuse (e.g., excessive social media consumption) amongst anxiety and depression-prone individuals may influence the link between T1 MDD and GAD and T2 subjective sleep quality (Kaur et al., 2021; Lam, 2014). These processes could unfold by affecting sleep architecture, altering melatonin levels via excessive exposure to bright lights during bedtime, and inducing cognitive, emotional, and physiological arousal (Dinis & Bragança, 2018). These conjectures warrant testing by future studies.

Why did T2 global subjective sleep quality predict T3 MDD and GAD? Suboptimal stress and coping strategies may mediate the association between poor sleep quality and MDD or GAD 9 years later. Prolonged stress reactivity has been linked to sleep problems, possibly due to fatigue and other physiological markers associated with high stress reactivity (e.g., higher resting heart rate and blood pressure) (Herr et al., 2018). As a result, sleep issues may, over time, increase vulnerability to stress, which has already been identified as a significant risk factor for anxiety and depressive disorder-prone individuals (Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013; Zhang, Yan, Shum, & Deng, 2020). Our findings also extend a recent study that showed poor sleep quality was associated with a larger rise in somatic symptoms of depression (e. g., fatigue) among college students (and vice versa) (Shim et al., 2019). This pattern may be attributed to daytime dysfunction reducing serotonergic and dopaminergic transmission critical for regulating sleep-wake cycle biological rhythms, and the adverse effects of poor sleep on cognitive functions (Harvey et al., 2011; Waller et al., 2016). Future research on sleep-deprived or sleep behavior-disordered individuals could provide insight into the role of dysregulated dopamine on long-term anxiety and depressive symptoms. Specifically, the impact on reward brain circuitry (e.g., nucleus accumbens, orbitofrontal cortex, striatum) may have direct effects on reward processing such that sleep-disturbed individuals demonstrate depression-like behaviors (i.e.,



Fig. 2. Longitudinal Structural Equation Mediation Modeling of MDD Severity Predicting GAD Severity. Note. *** p < .001; ** p < .05. GAD = generalized anxiety disorder; MDD = major depressive disorder. This figure shows the unstandardized regression path coefficients and their standard error in parentheses. Bold lines indicate statistically significant effects, whereas dotted lines denote parameter estimates that were not statistically significant.

helplessness, anhedonia, inability to concentrate) (Auerbach et al., 2014; Blake et al., 2018; Martin-Soelch, 2009). These hypotheses merit empirical testing.

Overall, our findings that T2 global sleep quality mediates the prospective 18-year MDD-GAD bi-directional relation is consistent with some prior longitudinal research. For instance, at least four studies have shown that sleep duration, disturbance, and associated insomnia markers were reciprocally related to depression and anxiety disorder severity in diverse adolescent, pregnant women, and communitydwelling samples (Geng et al., 2018; Goldstone et al., 2020; Liu et al., 2020; van der Zwan et al., 2017). The current paper builds upon these studies by examining suboptimal sleep as a *mechanism* of the longitudinal MDD-GAD comorbidity.

Our study has some limitations. First, we did not use any objective measures of sleep quality (e.g., electroencephalogram, polysomnography). Future studies should consider utilizing multiple sleep latency tests to capture better psychobiological sleep profiles (Brand et al., 2014; Plante et al., 2017; Zhu et al., 2020). Also, given the use of DSM-III-R-defined CIDI-SF interviews, future research can determine if a similar pattern of findings is replicated using DSM-5 measures. In addition, to increase generalizability, it would be optimal for upcoming studies to recruit diverse samples in terms of socioeconomic status and ethnicity, given the sample homogeneity in this study. Indeed, studies suggest racial and ethnic disparities in sleep health (e.g., lower sleep quality and duration among African Americans than other racial groups) (Johnson et al., 2019). Finally, as sleep quality did not fully mediate the 18-year GAD and MDD relations, unexamined third variables may play a mechanistic role in this developmental association, such as coping strategies (Marr et al., 2022) and merit attention.

Nonetheless, our study has several strengths. For instance, the longitudinal nature of our analysis provides more insight into the temporal relation between sleep issues and two common psychiatric disorders. Additionally, the dataset included a wide age range of participants. As sleep issues influence people throughout their lifespan, our research sufficiently captures how sleep difficulties may precede or be a consequence of mental disorders across various developmental stages. Last, since the findings remained similar after removing sleep items from the analyses and adjusting for baseline and mid-time-point MDD and GAD, more inferior sleep quality could be a robust predictor and consequence of these common mental health problems.

If future studies replicate our pattern of findings, some clinical implications merit consideration. For instance, therapies that address sleep issues and psychiatric disorders, such as cognitive-behavioral therapy for insomnia (CBTI), appear to have promising outcomes for improving symptoms. Examples include the effectiveness of CBTI in changing maladaptive thinking and somatic hyperarousal, which are characteristic of both insomnia, depression, and anxiety disorders (Kalmbach et al., 2019). Progressive muscle relaxation and applied relaxation could be beneficial in reducing somatic tension, worries, and related depression and anxiety symptoms, to facilitate better sleep as part of CBTI or as effective standalone treatments (Neuendorf et al., 2015). Another type of therapy that employs this tactic of addressing both sleep and psychiatric issues is mindfulness-based cognitive therapy (MBCT). Research has consistently shown that MBCT effectively reduces anxiety and depressive symptoms and improves subjective sleep quality (Britton et al., 2010). The treatment mechanisms have included modifications in pre-sleep arousal, such as decrements in unhelpful avoidance behaviors and classically conditioned anxious arousal or pathological worry with the bed (Blake et al., 2017). Further, several preliminary studies have demonstrated that music therapy may elicit psychophysiological responses to musical pitch and rhythm, resulting in reductions in depressive symptoms alongside sleep issues (Chan et al., 2010; Chan et al., 2009; Wang et al., 2014).

In closing, our findings further refine the longitudinal betweensubject relationship between MDD and GAD across 18 years. Global subjective sleep quality at T2 mediated the T1 MDD–T3 GAD relation and vice versa. Future studies should consider utilizing objective measures of sleep quality and DSM-5 measures and recruiting culturally diverse samples.

Data availability

We have shared the link to our code and output at the Attach File step.

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References

- Abel, J. L., & Borkovec, T. D. (1995). Generalizability of DSM-III-R generalized anxiety disorders to proposed DSM-IV criteria and cross-validation of proposed changes. *Journal of Anxiety Disorders*, 9(4), 303–315. https://doi.org/10.1016/0887-6185(95) 00011-C
- Auerbach, R. P., Admon, R., & Pizzagalli, D. A. (2014). Adolescent depression: Stress and reward dysfunction. *Harvard Review of Psychiatry*, 22(3), 139–148. https://doi.org/ 10.1097/HRP.00000000000034
- Blake, M., Schwartz, O., Waloszek, J. M., Raniti, M., Simmons, J. G., Murray, G., & Allen, N. B. (2017). The SENSE study: Treatment mechanisms of a cognitive behavioral and mindfulness-based group sleep improvement intervention for at-risk adolescents. *Sleep*, 40(6). https://doi.org/10.1093/sleep/zsx061
- Blake, M. J., Trinder, J. A., & Allen, N. B. (2018). Mechanisms underlying the association between insomnia, anxiety, and depression in adolescence: Implications for behavioral sleep interventions. *Clinical Psychology Review*, 63, 25–40. https://doi. org/10.1016/j.cpr.2018.05.006
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping goodness-of-fit measures in structural equation models. Sociological Methods & Research, 21(2), 205–229. https://doi.org/ 10.1177/0049124192021002004
- Brand, S., Kalak, N., Gerber, M., Kirov, R., Pühse, U., & Holsboer-Trachsler, E. (2014). High self-perceived exercise exertion before bedtime is associated with greater objectively assessed sleep efficiency. *Sleep Medicine*, *15*(9), 1031–1036. https://doi. org/10.1016/j.sleep.2014.05.016
- Brim, O. G., Baltes, P. B., Bumpass, L. L., Cleary, P. D., Featherman, D. L., Hazzard, W. R., & Shweder, R. A. (2019). Midlife in the United States (MIDUS 1). 1995-1996 Inter-University Consortium for Political and Social Research [distributor]. https://doi.org/ 10.3886/ICPSR02760.v18
- Britton, W. B., Haynes, P. L., Fridel, K. W., & Bootzin, R. R. (2010). Polysomnographic and subjective profiles of sleep continuity before and after Mindfulness-Based Cognitive Therapy in partially remitted depression. *Psychosomatic Medicine*, 72(6), 539–548. https://doi.org/10.1097/PSY.0b013e3181dc1bad

Butnoriene, J., Bunevicius, A., Saudargiene, A., Nemeroff, C. B., Norkus, A.,

- Ciceniene, V., & Bunevicius, R. (2015). Metabolic syndrome, major depression, generalized anxiety disorder, and ten-year all-cause and cardiovascular mortality in middle aged and elderly patients. *International Journal of Cardiology, 190*, 360–366. https://doi.org/10.1016/j.ijcard.2015.04.122
- Buysse, D. J., Angst, J., Gamma, A., Ajdacic, V., Eich, D., & Rössler, W. (2008). Prevalence, course, and comorbidity of insomnia and depression in young adults. *Sleep*, 31(4), 473–480. https://doi.org/10.1093/sleep/31.4.473
- Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh sleep quality index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28(2), 193–213. https://doi.org/10.1016/0165-1781 (89)90047-4
- Campanini, M. Z., Gonzalez, A. D., de Andrade, S. M., Girotto, E., Cabrera, M. A. S., Cavero-Redondo, I., & Mesas, A. E. (2021). The association of continuous-use medications and sleep parameters in a sample of working adults. *Sleep and Breathing*, 25(4), 2205–2212. https://doi.org/10.1007/s11325-021-02343-x
- Chalmers, T., Hickey, B. A., Newton, P., Lin, C.-T., Sibbritt, D., McLachlan, C. S., & Lal, S. (2022). Associations between sleep quality and heart rate variability: Implications for a biological model of stress detection using wearable technology. *International Journal of Environmental Research and Public Health*, 19(9). https://doi.org/10.3390/ iierph19095770
- Chan, M. F., Chan, E. A., & Mok, E. (2010). Effects of music on depression and sleep quality in elderly people: A randomised controlled trial. *Complementary Therapies in Medicine*, 18(3–4), 150–159. https://doi.org/10.1016/j.ctim.2010.02.004
- Chan, M. F., Chan, E. A., Mok, E., & Kwan Tse, F. Y. (2009). Effect of music on depression levels and physiological responses in community-based older adults. *International Journal of Mental Health Nursing*, 18(4), 285–294. https://doi.org/10.1111/j.1447-0349.2009.00614.x
- Cho, H. J., Seeman, T. E., Kiefe, C. I., Lauderdale, D. S., & Irwin, M. R. (2015). Sleep disturbance and longitudinal risk of inflammation: Moderating influences of social integration and social isolation in the Coronary Artery Risk Development in Young Adults (CARDIA) study. Brain, Behavior, and Immunity, 46, 319–326. https://doi.org/ 10.1016/j.bbi.2015.02.023
- Crowley, K. (2011). Sleep and sleep disorders in older adults. Neuropsychology Review, 21 (1), 41–53. https://doi.org/10.1007/s11065-010-9154-6
- Daneshzad, E., Keshavarz, S.-A., Qorbani, M., Larijani, B., & Azadbakht, L. (2020). Association between a low-carbohydrate diet and sleep status, depression, anxiety, and stress score. *Journal of the Science of Food and Agriculture*, 100(7), 2946–2952. https://doi.org/10.1002/isfa.10322
- Dinis, J., & Bragança, M. (2018). Quality of sleep and depression in college students: A systematic review. Sleep Science, 11(4), 290–301. https://doi.org/10.5935/1984-0063.20180045
- Dodds, K. L., Miller, C. B., Kyle, S. D., Marshall, N. S., & Gordon, C. J. (2017). Heart rate variability in insomnia patients: A critical review of the literature. *Sleep Medicine Reviews*, 33, 88–100. https://doi.org/10.1016/j.smrv.2016.06.004
- Dunst, C. J., Hamby, D. W., & Trivette, C. M. (2004). Guidelines for calculating effect sizes for practice-based research syntheses. *Centerscope*, 3(1), 1–10.
- Field, A. P. (2009). Discovering statistics using SPSS. SAGE Publications.
- Geng, F., Liu, X., Liang, Y., Shi, X., Chen, S., & Fan, F. (2018). Prospective associations between sleep problems and subtypes of anxiety symptoms among disaster-exposed adolescents. *Sleep Medicine*, 50, 7–13. https://doi.org/10.1016/j.sleep.2018.05.017
- Goldstone, A., Javitz, H. S., Claudatos, S. A., Buysse, D. J., Hasler, B. P., de Zambotti, M., & Baker, F. C. (2020). Sleep disturbance predicts depression symptoms in early adolescence: Initial findings from the adolescent brain cognitive development study. *Journal of Adolescent Health*, 66(5), 567–574. https://doi.org/10.1016/j. iadohealth 2019 12 005
- Grandner, M. A., Williams, N. J., Knutson, K. L., Roberts, D., & Jean-Louis, G. (2016). Sleep disparity, race/ethnicity, and socioeconomic position. *Sleep Medicine*, 18, 7–18. https://doi.org/10.1016/j.sleep.2015.01.020
- Gregory, A. M., Caspi, A., Eley, T. C., Moffitt, T. E., Oconnor, T. G., & Poulton, R. (2005). Prospective longitudinal associations between persistent sleep problems in childhood and anxiety and depression disorders in adulthood. *Journal of Abnormal Child Psychology*, 33(2), 157–163. https://doi.org/10.1007/s10802-005-1824-0
- Grima, N. A., Bei, B., & Mansfield, D. (2019). Insomnia theory and assessment. Australian Journal of General Practice, 48(4), 193–197. https://doi.org/10.31128/ajgp-12-18-4780
- Harvey, A. G. (2008). Insomnia, psychiatric disorders, and the transdiagnostic perspective. *Current Directions in Psychological Science*, 17(5), 299–303. https://doi. org/10.1111/j.1467-8721.2008.00594.x
- Harvey, A. G., Murray, G., Chandler, R. A., & Soehner, A. (2011). Sleep disturbance as transdiagnostic: Consideration of neurobiological mechanisms. *Clinical Psychology Review*, 31(2), 225–235. https://doi.org/10.1016/j.cpr.2010.04.003
- Herr, R. M., Barrech, A., Riedel, N., Gündel, H., Angerer, P., & Li, J. (2018). Long-term effectiveness of stress management at work: Effects of the changes in perceived stress reactivity on mental health and sleep problems seven years later. *International Journal of Environmental Research and Public Health*, 15(2). https://doi.org/10.3390/ ijerph15020255
- Hsiao, F. H., Chang, K. J., Kuo, W. H., Huang, C. S., Liu, Y. F., Lai, Y. M., & Chan, C. L. (2013). A longitudinal study of cortisol responses, sleep problems, and psychological well-being as the predictors of changes in depressive symptoms among breast cancer survivors. *Psychoneuroendocrinology*, 38(3), 356–366. https://doi.org/10.1016/j. psyneuen.2012.06.010
- Jackson, M. L., Sztendur, E. M., Diamond, N. T., Byles, J. E., & Bruck, D. (2014). Sleep difficulties and the development of depression and anxiety: A longitudinal study of young Australian women. Archives of Women's Mental Health, 17(3), 189–198. https://doi.org/10.1007/s00737-014-0417-8

Jacobson, N. C., & Newman, M. G. (2017). Anxiety and depression as bidirectional risk factors for one another: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 143(11), 1155–1200. https://doi.org/10.1037/bul0000111

- Jansson, M., & Linton, S. J. (2007). Psychological mechanisms in the maintenance of insomnia: Arousal, distress, and sleep-related beliefs. *Behaviour Research and Therapy*, 45(3), 511–521. https://doi.org/10.1016/j.brat.2006.04.003
- Jansson-Fröjmark, M., & Lindblom, K. (2008). A bidirectional relationship between anxiety and depression, and insomnia? A prospective study in the general population. *Journal of Psychosomatic Research*, 64(4), 443–449. https://doi.org/ 10.1016/j.jpsychores.2007.10.016

Johnson, D. A., Jackson, C. L., Williams, N. J., & Alcantara, C. (2019). Are sleep patterns influenced by race/ethnicity - A marker of relative advantage or disadvantage? Evidence to date. *Nature and Science of Sleep*, 11, 79–95. https://doi.org/10.2147/ NSS.S169312

Kalmbach, D. A., Cheng, P., Arnedt, J. T., Anderson, J. R., Roth, T., Fellman-Couture, C., & Drake, C. L. (2019). Treating insomnia improves depression, maladaptive thinking, and hyperarousal in postmenopausal women: Comparing cognitivebehavioral therapy for insomnia (CBTI), sleep restriction therapy, and sleep hygiene education. *Sleep Medicine*, 55, 124–134. https://doi.org/10.1016/j. sleep.2018.11.019

Kaur, P., Dhir, A., Alkhalifa, A. K., & Tandon, A. (2021). Social media platforms and sleep problems: A systematic literature review, synthesis and framework for future research. *Internet Research*, 31(4), 1121–1152. https://doi.org/10.1108/intr-04-2020-0187

Kessler, R. C., Gruber, M., Hettema, J. M., Hwang, I., Sampson, N., & Yonkers, K. A. (2008a). Co-morbid major depression and generalized anxiety disorders in the National Comorbidity Survey Follow-Up. *Psychological Medicine*, 38(3), 365–374. https://doi.org/10.1017/S0033291707002012

Kessler, R. C., Heeringa, S., Lakoma, M. D., Petukhova, M., Rupp, A. E., Schoenbaum, M., & Zaslavsky, A. M. (2008b). Individual and societal effects of mental disorders on earnings in the United States: results from the national comorbidity survey replication. *American Journal of Psychiatry*, 165(6), 703–711. https://doi.org/ 10.1176/appi.aip.2008.08010126

Kessler, R. C., Wittchen, H.-U., Abelson, J. M., Mcgonagle, K., Schwarz, N., Kendler, K. S., & Zhao, S. (1998). Methodological studies of the Composite International Diagnostic Interview (CIDI) in the US national comorbidity survey (NCS). *International Journal* of Methods in Psychiatric Research, 7(1), 33–55. https://doi.org/10.1002/mpr.33

Kim, J.-M., Stewart, R., Kim, S.-W., Yang, S.-J., Shin, I., & Yoon, J.-S. (2009). Insomnia, depression, and physical disorders in late life: A 2-year longitudinal community study in Koreans. *Sleep*, 32(9), 1221–1228. https://doi.org/10.1093/sleep/ 32.9.1221

Lachowicz, M. J., Preacher, K. J., & Kelley, K. (2018). A novel measure of effect size for mediation analysis. *Psychological Methods*, 23(2), 244–261. https://doi.org/10.1037/ met0000165

- Lam, L. T. (2014). Internet gaming addiction, problematic use of the internet, and sleep problems: A systematic review. *Current Psychiatry Reports*, 16(4), 444. https://doi. org/10.1007/s11920-014-0444-1
- Lee, T., & Shi, D. (2021). A comparison of full information maximum likelihood and multiple imputation in structural equation modeling with missing data. *Psychological Methods*, 26(4), 466–485. https://doi.org/10.1037/met0000381

Liu, B.-P., Wang, X.-T., Liu, Z.-Z., Wang, Z.-Y., An, D., Wei, Y.-X., & Liu, X. (2020). Depressive symptoms are associated with short and long sleep duration: A longitudinal study of Chinese adolescents. *Journal of Affective Disorders*, 263, 267–273. https://doi.org/10.1016/j.jad.2019.11.113

- Marr, N. S., Zainal, N. H., & Newman, M. G. (2022). Focus on and venting of negative emotion mediates the 18-year bi-directional relations between major depressive disorder and generalized anxiety disorder diagnoses. *Journal of Affective Disorders*, 303, 10–17. https://doi.org/10.1016/j.jad.2022.01.079
- Martin-Soelch, C. (2009). Is depression associated with dysfunction of the central reward system. *Biochemical Society Transactions*, 37(1), 313–317. https://doi.org/10.1042/ bst0370313

Maydeu-Olivares, A. (2017). Assessing the size of model misfit in structural equation models. *Psychometrika*. https://doi.org/10.1007/s11336-016-9552-7

Mazzer, K., Boersma, K., & Linton, S. J. (2019). A longitudinal view of rumination, poor sleep and psychological distress in adolescents. *Journal of Affective Disorders*, 245, 686–696. https://doi.org/10.1016/j.jad.2018.11.053

Michl, L. C., McLaughlin, K. A., Shepherd, K., & Nolen-Hoeksema, S. (2013). Rumination as a mechanism linking stressful life events to symptoms of depression and anxiety: Longitudinal evidence in early adolescents and adults. *Journal of Abnormal Psychology*, 122(2), 339–352. https://doi.org/10.1037/a0031994

Morphy, H., Dunn, K. M., Lewis, M., Boardman, H. F., & Croft, P. R. (2007). Epidemiology of insomnia: a longitudinal study in a UK population. Sleep, 30(3), 274–280. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=Pub Med&dopt=Citation&list_uids=17425223.

Neuendorf, R., Wahbeh, H., Chamine, I., Yu, J., Hutchison, K., & Oken, B. S. (2015). The effects of mind-body interventions on sleep quality: A systematic review. *Evidence-Based Complementary and Alternative Medicine*, 2015, Article 902708. https://doi. org/10.1155/2015/902708

Norell-Clarke, A., Jansson-Fröjmark, M., Tillfors, M., Harvey, A. G., & Linton, S. J. (2014). Cognitive processes and their association with persistence and remission of insomnia: Findings from a longitudinal study in the general population. *Behaviour Research and Therapy*, 54, 38–48. https://doi.org/10.1016/j.brat.2014.01.002

O'Connor, T. G., Tang, W., Gilchrist, M. A., Moynihan, J. A., Pressman, E. K., & Blackmore, E. R. (2014). Diurnal cortisol patterns and psychiatric symptoms in pregnancy: Short-term longitudinal study. *Biological Psychology*, 96, 35–41. https:// doi.org/10.1016/j.biopsycho.2013.11.002 Plante, D. T., Finn, L. A., Hagen, E. W., Mignot, E., & Peppard, P. E. (2017). Longitudinal associations of hypersomnolence and depression in the Wisconsin Sleep Cohort Study. Journal of Affective Disorders, 207, 197–202. https://doi.org/10.1016/j. jad.2016.08.039

R Core Team. (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project. org/.

Regier, D. A., Rae, D. S., Narrow, W. E., Kaelber, C. T., & Schatzberg, A. F. (1998). Prevalence of anxiety disorders and their comorbidity with mood and addictive disorders. *British Journal of Psychiatry*, 173(Suppl. 34), 24–28. https://doi.org/ 10.1192/S0007125000293483

Rhemtulla, M., Brosseau-Liard, P.É., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. *Psychological Methods*, 17(3), 354–373. https://doi.org/10.1037/a0029315

Riemann, D., Spiegelhalder, K., Feige, B., Voderholzer, U., Berger, M., Perlis, M., & Nissen, C. (2010). The hyperarousal model of insomnia: A review of the concept and its evidence. *Sleep Medicine Reviews*, 14(1), 19–31. https://doi.org/10.1016/j. smrv.2009.04.002

Rosellini, A. J., & Brown, T. A. (2011). The NEO Five-Factor Inventory: Latent structure and relationships with dimensions of anxiety and depressive disorders in a large clinical sample. Assessment, 18(1), 27–38. https://doi.org/10.1177/ 10739111032848

Rutten, S., Vriend, C., van der Werf, Y. D., Berendse, H. W., Weintraub, D., & van den Heuvel, O. A. (2017). The bidirectional longitudinal relationship between insomnia, depression and anxiety in patients with early-stage, medication-naïve Parkinson's disease. *Parkinsonism & Related Disorders*, 39, 31–36. https://doi.org/10.1016/j. parkreldis.2017.01.015

Ryff, C., Almeida, D., Ayanian, J., Binkley, N., Carr, D. S., Coe, C., & Williams, D. (2019). Midlife in the United States (MIDUS 3). 2013-2014 Inter-University Consortium for Political and Social Research [distributor]. https://doi.org/10.3886/ICPSR36346.v7

Ryff, C., Almeida, D. M., Ayanian, J., Carr, D. S., Cleary, P. D., Coe, C., & Williams, D. (2017). Midlife in the United States (MIDUS 2). 2004-2006 Inter-University Consortium for Political and Social Research [distributor]. https://doi.org/10.3886/ ICPSR04652.v7

- Savalei, V., & Rhemtulla, M. (2012). On obtaining estimates of the fraction of missing information from full information maximum likelihood. *Structural Equation Modeling*, 19(3), 477–494. https://doi.org/10.1080/10705511.2012.687669
- Shim, E.-J., Noh, H.-L., Yoon, J., Mun, H. S., & Hahm, B.-J. (2019). A longitudinal analysis of the relationships among daytime dysfunction, fatigue, and depression in college students. *Journal of American College Health*, 67(1), 51–58. https://doi.org/ 10.1080/07448481.2018.1462819

Sivertsen, B., Salo, P., Mykletun, A., Hysing, M., Pallesen, S., Krokstad, S., & Øverland, S. (2012). The bidirectional association between depression and insomnia: The HUNT study. *Psychosomatic Medicine*, 74(7), 758–765. https://doi.org/10.1097/ PSY.0b013e3182648619

Stahl, S. T., Smagula, S. F., Rodakowski, J., Dew, M. A., Karp, J. F., Albert, S. M., & Reynolds, C. F. (2020). Subjective Sleep Quality and Trajectories of Interleukin-6 in Older Adults. *The American Journal of Geriatric Psychiatry*. https://doi.org/10.1016/j. jagp.2020.06.019

Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., & Silove, D. (2014). The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. *International Journal of Epidemiology*, 43(2), 476–493. https://doi.org/10.1093/ije/dvu038

Sun, Y., Shi, L., Bao, Y., Sun, Y., Shi, J., & Lu, L. (2018). The bidirectional relationship between sleep duration and depression in community-dwelling middle-aged and elderly individuals: evidence from a longitudinal study. *Sleep Medicine*, 52, 221–229. https://doi.org/10.1016/j.sleep.2018.03.011

Swendsen, J. D. (1997). Anxiety, depression, and their comorbidity: An experience sampling test of the helplessness-hopelessness theory. *Cognitive Therapy and Research*, 21(1), 97–114. https://doi.org/10.1023/A:1021872410824

Tan, X., Alén, M., Wang, K., Tenhunen, J., Wiklund, P., Partinen, M., & Cheng, S. (2016). Effect of six-month diet intervention on sleep among overweight and obese men with chronic insomnia symptoms: A randomized controlled trial. *Nutrients*, 8(11), 751. https://doi.org/10.3390/nu8110751

Uhmann, S., Beesdo-Baum, K., Becker, E. S., & Hoyer, J. (2010). Specificity of interpersonal problems in generalized anxiety disorder versus other anxiety disorders and depression. *Journal of Nervous and Mental Disease*, 198(11), 846–851. https://doi.org/10.1097/NMD.0b013e3181f98063

van der Zwan, J. E., de Vente, W., Tolvanen, M., Karlsson, H., Buil, J. M., Koot, H. M., & Karlsson, L. (2017). Longitudinal associations between sleep and anxiety during pregnancy, and the moderating effect of resilience, using parallel process latent growth curve models. *Sleep Medicine*, 40, 63–68. https://doi.org/10.1016/j. sleep.2017.08.023

Waller, K. L., Mortensen, E. L., Avlund, K., Osler, M., Fagerlund, B., Lauritzen, M., & Jennum, P. (2016). Subjective sleep quality and daytime sleepiness in late midlife and their association with age-related changes in cognition. *Sleep Medicine*, 17, 165–173. https://doi.org/10.1016/j.sleep.2015.01.004

Wang, C. F., Sun, Y. L., & Zang, H. X. (2014). Music therapy improves sleep quality in acute and chronic sleep disorders: A meta-analysis of 10 randomized studies. *International Journal of Nursing Studies*, 51(1), 51–62. https://doi.org/10.1016/j. ijnurstu.2013.03.008

Wittchen, H.-U. (1994). Reliability and validity studies of the WHO-Composite International Diagnostic Interview (CIDI): A critical review. Journal of Psychiatric Research, 28(1), 57–84. https://doi.org/10.1016/0022-3956(94)90036-1

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- Xie, Y., Liu, S., Chen, X. J., Yu, H. H., Yang, Y., & Wang, W. (2021). Effects of exercise on sleep quality and insomnia in adults: A systematic review and meta-analysis of randomized controlled trials. *Frontiers in Psychiatry*, 12, Article 664499. https://doi. org/10.3389/fpsyt.2021.664499
- Yu, Y., Li, M., Pu, L., Wang, S., Wu, J., Ruan, L., & Jiang, W. (2017). Sleep was associated with depression and anxiety status during pregnancy: A prospective longitudinal study. Archives of Women's Mental Health, 20(5), 695–701. https://doi.org/10.1007/ s00737-017-0754-5
- Yuan, K. H., Hayashi, K., & Yanagihara, H. (2007). A class of population covariance matrices in the bootstrap approach to covariance structure analysis. *Multivariate Behavioral Research*, 42(2), 261–281. https://doi.org/10.1080/00273170701360662
- Zainal, N. H., & Newman, M. G. (2018). Executive function and other cognitive deficits are distal risk factors of generalized anxiety disorder 9 years later. *Psychological Medicine*, 48(12), 2045–2053. https://doi.org/10.1017/S0033291717003579
- Zainal, N. H., & Newman, M. G. (2021aaa). Depression and executive functioning bidirectionally impair one another across 9 years: Evidence from within-person latent change and cross-lagged models. *European Psychiatry*, 64(1), Article e43. https://doi.org/10.1192/j.eurpsy.2021.2217
- Zainal, N. H., & Newman, M. G. (2021bbb). Larger increase in trait negative affect is associated with greater future cognitive decline and vice versa across 23 years. *Depression and Anxiety*, 38(2), 146–160. https://doi.org/10.1002/da.23093
- Zainal, N. H., & Newman, M. G. (2021c). Within-person increase in pathological worry predicts future depletion of unique executive functioning domains. *Psychological Medicine*, 51(10), 1676–1686. https://doi.org/10.1017/S0033291720000422
- Zainal, N. H., & Newman, M. G. (2022). Inflammation mediates depression and generalized anxiety symptoms predicting executive function impairment after 18

years. Journal of Affective Disorders, 296, 465–475. https://doi.org/10.1016/j. jad.2021.08.077

- Zainal, N.H., & Newman, M.G. (in press). Depression and worry symptoms predict future executive functioning impairment via inflammation. *Psychological Medicine*. htt ps://doi.org/10.1017/S0033291721000398.
- Zeng, L. N., Zong, Q. Q., Yang, Y., Zhang, L., Xiang, Y. F., Ng, C. H., & Xiang, Y. T. (2020). Gender difference in the prevalence of insomnia: A meta-analysis of observational studies. *Frontiers in Psychiatry*, 11, Article 577429. https://doi.org/10.3389/ fpsyt.2020.577429
- Zhang, W.-j., Yan, C., Shum, D., & Deng, C.-p. (2020). Responses to academic stress mediate the association between sleep difficulties and depressive/anxiety symptoms in Chinese adolescents. *Journal of Affective Disorders*, 263, 89–98. https://doi.org/ 10.1016/j.jad.2019.11.157
- Zhao, M., Tuo, H., Wang, S., & Zhao, L. (2020). The effects of dietary nutrition on sleep and sleep disorders. *Mediators of Inflammation*, 2020, Article 3142874. https://doi. org/10.1155/2020/3142874
- Zhu, D.-m., Zhang, C., Yang, Y., Zhang, Y., Zhao, W., Zhang, B., & Yu, Y. (2020). The relationship between sleep efficiency and clinical symptoms is mediated by brain function in major depressive disorder. *Journal of Affective Disorders*, 266, 327–337. https://doi.org/10.1016/j.jad.2020.01.155
- Zou, P., Wang, X., Sun, L., Liu, K., Hou, G., Yang, W., & Chen, Q. (2020). Poorer sleep quality correlated with mental health problems in college students: A longitudinal observational study among 686 males. *Journal of Psychosomatic Research*, 136, Article 110177. https://doi.org/10.1016/j.jpsychores.2020.110177