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| **Supplemental Table 1** | | | |
| **Treatment Studies in Pediatric FND over the Past Decade** | | | |
| **Study** | **n** | **Description** | **Key points** |
| **Randomized controlled treatment studies** | | | |
| Fobian et al. (2020)15 | 29 | Randomized, controlled trial of retraining and control therapy (ReACT) vs. supportive therapy control  *Duration and setting*: 8 sessions of outpatient ReACT or supportive therapy  *Outcome measures*: number of functional seizures; resolution of functional seizures; anxiety; depression | All children had functional seizures; 10% had comorbid epilepsy  52% had clinically significant scores for anxiety, depression, or both  Children in ReACT had significantly improved frequency of functional seizures at 7 days posttreatment compared to supportive therapy, with 100% of patients experiencing no functional seizures in the 7 days after ReACT; additionally, 82% remained free of functional seizures for 60 days after ReACT  Significant improvements in functional seizures occurred after ReACT, independently of changes in anxiety or depression |
| **Multidisciplinary rehabilitation studies (prospective)** | | | |
| Butz et al. (2019)16 | 100 | Prospective cohort study of pediatric multidisciplinary rehabilitation  *Duration and setting*: 10.5 days (mean; range, 2−103 days), inpatient  *Outcome measure*: WeeFIM | All children had motor FND; 94/100 (94%) completed the program  Treatment included physiotherapy, occupational therapy, recreational therapy, schooling support, and psychotherapy  85% of children reached the maximum WeeFIM score at discharge (full recovery sustained at 2 months)  Return to school rates were not reported  Comorbid mental health conditions were not reported |
| Kozlowska et al. (2021)17 | 57  60  25 | Three prospective cohort studies of multidisciplinary rehabilitation  *Duration and setting*: 1−3 weeks, inpatient  *Outcome measures*: GAF, resolution of FND, return to school, comorbid DSM-5 diagnoses  *Comorbid mental health conditions and outcomes*  *Factors associated with outcome*: early diagnosis | Children with mixed FND (cohort 1), functional seizures ± other FND symptoms (cohort 2), and mixed FND (cohort 3)  Treatment included physiotherapy, psychotherapy (individual and family), attendance at hospital school, and reintegration to home school post discharge  FND symptoms resolved in 54/57 (95%), 51/60 (85%), and 22/25 (88%), respectively  45/57 (78.9%), 39/60 (65%) and 14/25 (56%), respectively, returned to full-time school  On presentation 41/57 (72%), 38/60 (69%), and 20/25 (80%), respectively had mental health disorders (mostly anxiety and depression)  Children whose existing mental health disorders did not resolve and children who developed chronic mental health disorders later (after their FND had resolved)—11/57 (19%), 22/60 (37%), and 10/25 (40%), respectively—had poorer global functional outcomes  Early diagnosis of functional seizures (<3 months from onset) in cohort 2 was associated with better outcomes [32] |
| **Multidisciplinary rehabilitation studies (retrospective)** | | | |
| Kozlowska et al. (2013)18 | 56 | Retrospective cohort study of multidisciplinary rehabilitation  *Duration and setting*: 2−3 weeks, inpatient  *Outcome measures*: resolution of FND, return to school  *Comorbid mental health conditions* | Children with mixed FND (± pain)  Treatment included physiotherapy, psychotherapy (individual and family), attendance at hospital school, and reintegration to home school post discharge  FND symptoms resolved in 35/56 (63%), relapsed temporarily with stress in 10/56 (18%), became chronic in 7/56 (13%), and were unknown in 4/56 (7%)  47/56 (84%) returned to school; one transferred to distance education; one dropped out of school; and data were missing for 4  Anxiety was present in 27/56 (48%), depression in 8/56 (14%), and mixed anxiety and depression in 8/56 (14%)  Outcomes for comorbid mental health conditions were not reported |
| Bolger et al. (2018)19 | 30 | Retrospective cohort study of pediatric multidisciplinary rehabilitation  *Duration and setting*: 8.4 ± 4.2 days, inpatient  *Outcome measures*: WeeFIM, return to school | 25/30 (83%) children had motor FND as part of their clinical presentations  Treatment included physiotherapy, occupational, recreational, and music therapy, and psychological support  WeeFIM score change of 30 ± 11.9 (p < .001), maintained at 3 months  20/30 (66.6%) of children had returned to school at 3 months (2 had subsequent psychiatric admissions precluding return to school, and data were missing for 5)  Comorbid mental health conditions were not reported |
| **Cognitive-behavioral therapy studies (+ multimodal multidisciplinary interventions as needed)** | | | |
| Sawchuk & Buchhalter (2015)20 | 29 | Retrospective cohort study  *Duration and setting*: hospital-based neurology/psychology service (consecutive referrals over 6 years)  *Outcome measures*: full or partial remission (≥50% reduction in events)  *Comorbid mental health conditions and concerns*  *Factors associated with outcome*: acceptance of diagnosis | Children with functional seizures  27/29 (93%) had outpatient psychological treatment that included education around diagnosis (all patients) and CBT (25/29 [86%]), ±psychiatric medication or family therapy; length of treatment ranged 1−12 months  17/29 (59%) had full remission, and 6/29 (21%) had partial remission, of their functional seizures on discharge from service  15/29 (52%) had comorbid depression, 6/29 (21%) had comorbid anxiety, and 11/29 (38%) had attention, speech, or learning disorders; 17/20 (85%) evidenced maladaptive personality patterns consistent with passive/avoidant coping strategies  Acceptance of the diagnosis at point of assessment by the psychological service |
| Sawchuk et al. (2020)21 | 43 | Retrospective cohort study  *Duration and setting*: hospital-based neurology/psychology service (consecutive referrals over 5 years)  *Outcome measures*: full or partial remission (≥50% reduction in events)  *Comorbid mental health conditions*  *Factors associated with outcome*: early diagnosis | Children with functional seizures  Psychological treatment was stepped: *Level 1*: education regarding diagnosis and management recommendations (all patients); *Level 2*: standardized CBT and biofeedback (16/43 [37%]); *Level 3*: multidisciplinary outpatient intervention (22/43 [51%]); *Level 4*: multidisciplinary inpatient intervention (2/43 [5%]  Length of treatment ranged from 1−24 months  17/43 (59%) had full remission; 6/43 (21%) had partial remission; and 2/43 had a chronic course  >50% had comorbid mental health disorders, with anxiety, depression, learning difficulties, and self-harm/suicidality being the most common  Time to diagnosis >12 months was associated with lower remission rates |
| **Treatment as usual (unspecified)** | | | |
| Ani et al. (2013)22 | 204 | Epidemiology study via  British Paediatric Surveillance Unit  *Duration and setting*: 161/204 (79%) children were treated as inpatients, and 147/204 (72%) had data at 1-year follow-up  *Outcome measures*:improvement, no improvement, or worsening of symptoms  *Comorbid mental health conditions and outcomes* | Children with mixed FND  Treatment via inpatient admission (interventions generally involved a multidisciplinary team) for 161/204 (79%) children  At 1-year follow-up, data for 240/469 (51%) symptoms were available; most FND symptoms 217/240 (90%) had improved, 17/240 (7%) had not improved, and 6/240 (3%) were worse; an overall FND remission rate of >75% was given  On presentation, 44/204 (22%) children had mental health disorders (mostly anxiety and depression)  On follow-up, 32/115 (28%) children with completed data had been diagnosed with new psychiatric disorders (mostly anxiety and depression) during the follow-up period |
| Yadav et al. (2015)23 | 90 | Retrospective cohort study  *Duration and setting*: 2-year outpatient follow-up with neurology and psychiatry (treatment unspecified)  *Outcome measure:* resolution of FND  *Comorbid mental health conditions*  *Factors associated with outcome*: early diagnosis, early remission post diagnosis, comorbid diagnosis of epilepsy | Children with functional seizures  Treatment was not specified  At 2-year follow-up, functional seizures had completely resolved in 32/90 (36%), were generally resolved but with some relapse in 28/90 (31%), and were chronic in 30/90 (33%)  On presentation, 60/90 (67%) had mental health disorders (mostly anxiety and depression)  Outcomes for comorbid mental health conditions were not reported  Early diagnosis (before symptoms were chronic) and early remission were associated with resolution of functional seizures; late diagnosis (when symptoms were becoming chronic) and comorbid diagnosis of epilepsy were associated with chronic functional seizures |
| Raper et al. (2019)24 | 124 | Retrospective cohort study  *Duration and setting*: 8-year (median) follow-up at transition to adult medical services  *Outcome measure*: diagnosis of FND at transition (FND relapse)  *Comorbid mental health conditions*  *Factors associated with outcome* | Children with mixed FND; 114 reached age 16 years by study census date and transitioned to adult medical services  On entrance to adult medical services, 26/114 (23%) sought treatment for FND (relapsing FND); 18/26 (69%) presented with relapses of the same symptom(s) exhibited in their childhood; and 8/26 (31%) presented with different functional neurological symptoms  33/122 (27%) had mental health disorders on presentation to the pediatric service (anxiety and learning disability being the most common)  Outcomes for comorbid mental health conditions on transition to adult services were not reported  No factors that associated with FND relapse were identified |

CBT, cognitive-behavioral therapy; ReACT, retraining and control therapy; WeeFIM, Functional Independence Measure for Children.

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