RESPECT 
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**MSFA OF NEAD**

Identifying developmental pathways of Non-Epileptic Attack Disorder (NEAD) using Multiple Sequential Functional Analysis (MSFA)

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**OVERVIEW**

- Background
- Rationale
- Aims
- Method
- Key findings and implications
- Future research
- Limitations

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**NEAD**

"Episodes of altered experience, movement, and/or sensation which resemble epileptic seizures, devoid of ictal electrical discharges in the brain, likely to be underpinned by psychological processes" [1-3]

- 5-25% of patients seen for suspected epilepsy [4-6]
- 2-33 individuals per 100,000 [7]
- Average of 7 years from epilepsy diagnosis to revised NEAD diagnosis [8]

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**RESEARCH LITERATURE**

Focus on improving diagnostic accuracy [9]
- Semiology [9-10]
- Psychosocial 'risk factors' [11-21]
- Combining the two [22]

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**HISTORY OF UNDERSTANDING NEAD**

Observations and descriptions
- Terminology [23-24]
- Trauma [23,25]
- PD [22]
- Coping styles [20]
- Family conflict [17]
- Prevalence [26]
- Priority [27]
- Relationships [28]
- Chronology [29]

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**PSYCHOLOGICAL PROCESS MODELS**

- Integrated Cognitive Model of MUS [20-22]
- Symptom Modelling [24-33,34]
- Pathophysiological mechanism model [35]

- Low-level (routine) attentional processes select rogue representations of the nature of symptoms.
- Previous experience or observation of seizure/epilepsy.
- Dysfunction in areas of the brain responsible for attention and emotional regulation.
RATIONALE

Lack of adequate psychological explanations [32, 36]
Misguided extension of ‘risk factor’ utility
Limitations of structural research

MULTIPLE SEQUENTIAL FUNCTIONAL ANALYSIS

MSFA is a method of functional analysis developed to understand complex presentations and the development of behaviour over time [37]. It generates hypotheses regarding the relationships between behaviour and consequences.

AIM

Undertake a systematic and detailed analysis of multiple case studies, utilising MSFA, to explore how non-epileptic attacks may have developed in individuals diagnosed with NEAD. This will propose a functional understanding of the mechanisms through which NEAD has developed and been maintained.

METHOD

NHS Outpatient Neurology Clinic
Multiple interviews with participants
Interview with family member/friend
Comprehensive file reviews

James  • 30 (M)
Susan  • 62 (F)
Daisy  • 31 (F)

EARLY EXPERIENCES

Childhood was key in producing limited coping behaviours.
- Daisy had limited opportunity to develop coping strategies, working hard in a controlled environment.
- Susan’s adaptive coping strategy (expressing distress to seek care) was punished and less adaptive strategies were adopted and reinforced.
- James’ illness reporting behaviour appeared to be the only behaviour effective in eliciting care.

INITIAL ALTERED STATE(S) OF CONSCIOUSNESS

Concept of symptom modelling extended beyond epileptic seizures
- Daisy collapsed when unwell after over-working
- Susan collapsed during a running race at school
- James was knocked out during a rugby match and experience post-head injury seizures
ONSET AND DEVELOPMENT OF NEAD

In later similar contexts, NEAs mirroring the initial episode(s) were emitted. All three participants’ NEAs appeared to reduce intolerable demands/experiences:
- Daisy – practical/physical
- Susan – emotional
- James – external social and subsequently emotional

Secondary gains for Susan and James of increasing care. Daisy’s NEAs ceased when negative consequences outweighed the positive.

FUTURE RESEARCH

Explore further cases to assess the proposed developmental pathway.
Verify hypotheses made using the MSFA framework in intervention studies.

LIMITATIONS

- Limited access to historical files
- Influence of previous ideas/opinions on participant reporting
- Unable to discuss MSFAs with participants
- Individual reinforcement schedules explaining complex behaviour

REFERENCES

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