

RESFEST
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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

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]

RESEARCH LITERATURE

Focus on improving diagnostic accuracy [9]

- Semiology [9-10]
- Psychosocial 'risk factors' [11-21]
- Combining the two [22]

HISTORY OF UNDERSTANDING NEAD

Observations and descriptions	Risk Factors	Aetiology
Terminology [23-24] Trauma [23,25]	Trauma [15-16] PD [22] Coping styles [20] Family conflict [17]	Prevalence [26] Priority [27] Relationships [28] Chronology [29]

PSYCHOLOGICAL PROCESS MODELS

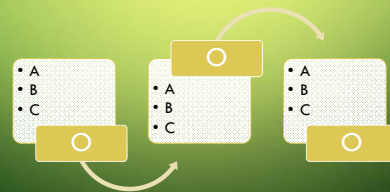
Integrated Cognitive Model of MUS [30-32]	• Low level (routine) attentional processes select rogue representations of the nature of symptoms.
Symptom Modelling [24,33,34]	• Previous experience or observation of seizure/epilepsy with primary and secondary gains
Pathophysiological mechanism model [35]	• 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	Susan	Daisy
• 30 (M)	• 62 (F)	• 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

The findings challenge:

- The importance of trauma in NEAD development
- The concept of NEAD as a means of conversion (emotional expression) [23]

The findings support:

- The role of experiential avoidance [38]
- The concept of symptom modelling [24,33-34]

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 [39]
- Individual reinforcement schedules explaining complex behaviour

QUESTIONS?



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