Verification of the Integrative Model of Adjustment to Chronic Conditions (IMACC) by mapping it onto the World Health Organisation's (WHO) International Classification of Functioning, Disability and Health (ICF)

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Background

Recent literature relating to WHO's ICF has called for more research into processes relevant to rehabilitation. This project aims to establish the relevance of IMACC, an innovative biopsychosocial model of adjustment to chronic conditions, as a framework for research and a clinical tool in rehabilitation by linking it with the ICF.

Hammond and Hirst-Winthrop (2018) proposed the Integrative Model of Adjustment to Chronic Conditions (IMACC), which is a normative process model following biopsychosocial principles. The original study focused on type 2 diabetes and the model has since been theoretically verified for applicability to adult-onset epilepsy (IMACC-R1, Hammond et al., in review). It has also been applied clinically in pain management.

Pre-condition personality factors (e.g. beliefs and habits) relevant for adjustment feeds into the ongoing adjustment cycle, where they act as either facilitators or barriers (snags) to adjustment. Barriers to adjustment form triggers for the maintenance cycle, which is characterised by a cognitive conflict that needs to be resolved. Once resolved, this constitutes an adaptive change in thinking and behaviours, which in turn feeds into to positive identity changes. If conflicts are not resolved, but rather maintained over time, the identity changes are typically of a negative nature.

The aim of this study was to verify IMACC's theoretical applicability in rehabilitation and chronic long-term conditions, generally.

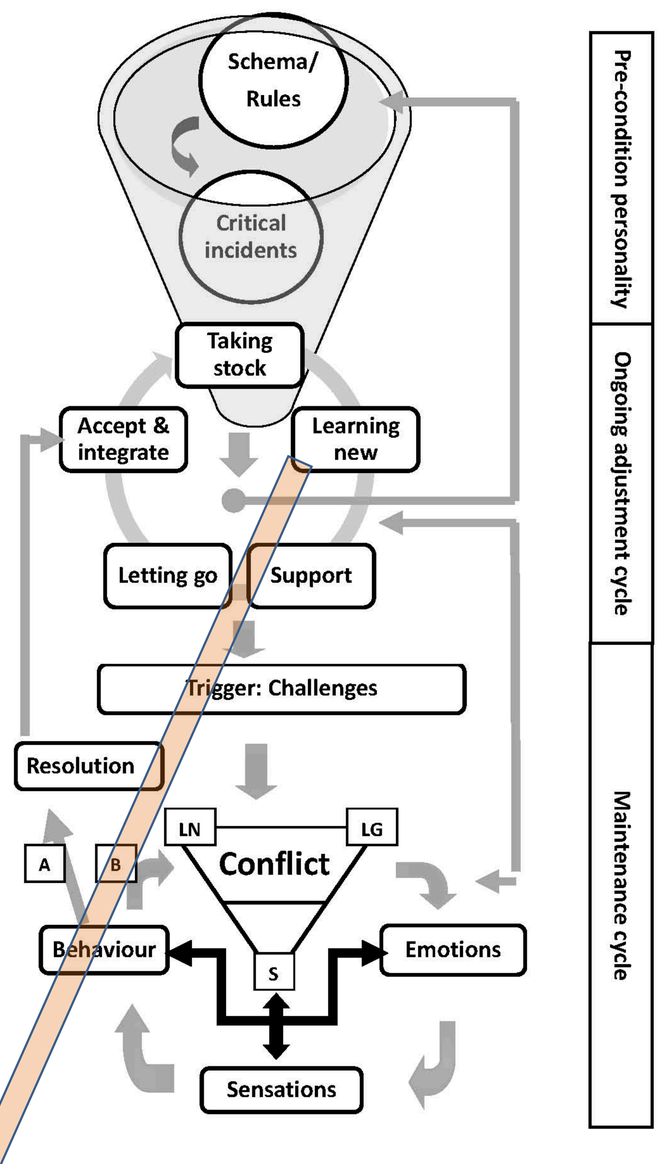

Figure 1: *The latest revised version of the Integrative Model of Adjustment to Chronic Conditions (IMACC-R1).*

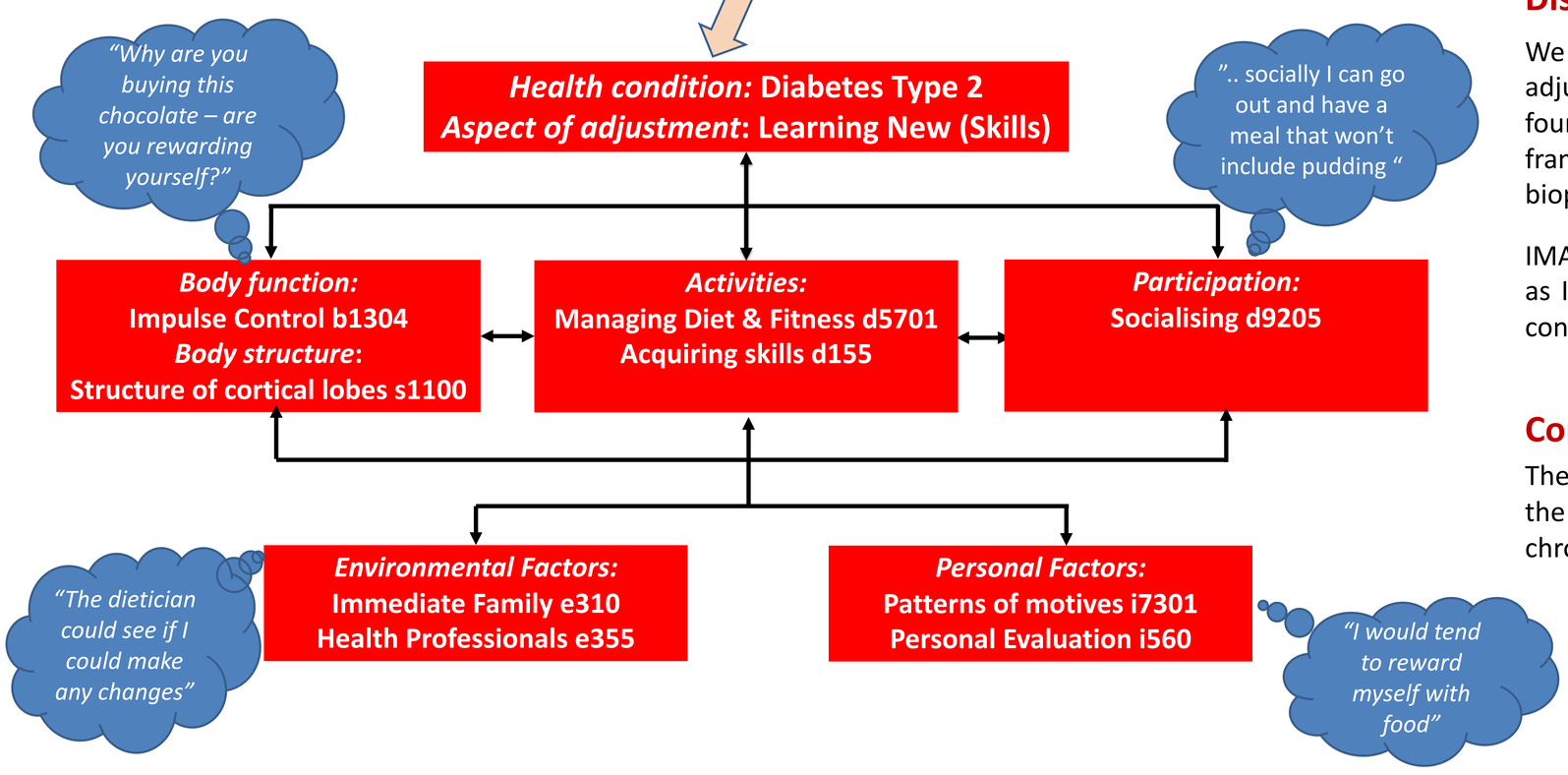

Figure 2: *Mapping data from the Learning New dataset onto the ICF structure – learning impulse control with regards to sugary/fatty food that used to be consumed habitually for reward or as part of socialising.*

Methods

The study employed secondary analysis of data from the original IMACC grounded theory study. The study population consisted of 10 participants with type 2 diabetes mellitus.

IMACC consists of three interconnected parts comprising a total of 12 components. Using a hermeneutic approach, meaningful concepts from each dataset were linked to ICF categories, including the personal factors categories proposed by Geyh et al. (2018), according to the standard ICF linking rules. Analysis and triangulation was done by researchers trained in the use of ICF.

The study had ethical approval from Teesside University.

Results

Preliminary findings suggest that all 12 IMACC components accommodate a range of ICF second and third level categories from all health and health-related domains in patterns consistent with the theoretical conceptualisation of each separate IMACC component.

Figure 1 depicts IMACC-R1 and Figure 2 shows selected key findings for one IMACC component. Meaningful concepts from the dataset underpinning the IMACC component ***Learning New*** were mapped onto the ICF model. This IMACC component is conceptualised as an area of ongoing adjustment, where people learn new knowledge, skills and attitudes to allow them to adapt to living well with their chronic condition. The example mapped concerns the learning of skills and here we see that all ICF domains (body function/structure, life areas, external and internal influences) are relevant. These interact in ways that are relevant to learning new skills in type 2 diabetes, e.g. the skill of impulse control when faced with situations triggering habitual eating behaviours involving unhealthy 'treats'.

Discussion

We believe this to be the first study to map a chronic conditions adjustment process model to the ICF framework and IMACC was found to comprehensively match ICF span. IMACC provides a framework that may be useful for future ICF related research into biopsychosocial processes related to adjustment.

IMACC is currently being implemented clinically in services, such as IAPT (Increasing Access to Psychological Therapies, long-term conditions sections), in the North of England.

Conclusion

The study demonstrated that IMACC maps comprehensively to the ICF framework in relation to psychosocial adjustment in chronic conditions.

For further information about IMACC please go to the website http://meaningandpurpose.co.uk/

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Key references

Geyh, S., Schwegler, U., Peter, C. & Müller, R. (2018). Representing and organizing information to describe the lived experience of health from a personal factors perspective in the light of the International Classification of Functioning, Disability and Health (ICF): a discussion paper, *Disability and Rehabilitation*, DOI: 10.1080/09638288.2018.1445302

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