Going beyond knowledge & skills when assessing the impact of an immersive learning program in Myasthenia Gravis (MG) utilizing Virtual Reality (VR) – the ENGAGE research design

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Introduction

- In the context of unmet patient needs and the lack of standards for shared decision making in the field of rare disease[1,2] we have designed a research based innovative educational project for physicians to improve patient-physician interaction and communication in Myasthenia Gravis (MG).
- The educational program will apply virtual reality to provide an immersive learning experience to physicians in order to step into the shoes of the patient and experience life with MG from the perspective of a person living with MG.
- Following the EFPIA framework for lifelong learning, this educational intervention is based on an in-depth assessment of the current reality of physicians and patients. Its impact will be determined by a comprehensive outcomes evaluation combining traditional KSA – assessments with behavioral analytics in order to better understand what drives current behavior and how can we stimulate change.

KSA; Knowledge, Skills & Attitudes.

Ref.: 1. Rieckmann P, et al (2018) Unmet needs, burden of treatment, and patient engagement in multiple sclerosis: a combined perspective from the MS in the 21st century steering group. Multiple sclerosis and related disorders, 19, 153-160. 2. Slade M (2017). Implementing shared decision making in routine mental health care. World psychiatry, 16(2), 146-153.

Research framework

- The set up is driven by a seamless integration of the research tools (needs assessment and outcomes evaluation) and the educational intervention.
- Access to all research data/outcomes will be through our Needs & Outcomes Assessment platform (NOA), allowing for real-time assessments throughout the program and presentation on a dashboard.

Needs Assessment Knowledge & Skills +	Needs Assessment Behavioral Analytics =	Intervention ⟷	Outcomes
Identification of the problem – what do we need to change	Root-cause Analysis - Why do we think this happens?	Informed development based on current reality of physicians and of people living with MG	Identification of the impact – how can we improve?

Research Objectives

- Establish a picture of the current reality of physician-patient dialogue and shared decision making in MG.
- Demonstrate that immersive experience changes knowledge and intended behaviour of HCPs in relation to physician-patient dialogue and shared decision making.
- Provide recommendations on how immersive learning experiences targets CME (Continuing Medical Education) barriers and enhances shared decision-making processes.

Data Collection Instruments

We will implement a combined quantitative & qualitative evaluation.
Qualitative evaluation: 20 Interviews with physicians, 10 Interviews with patients
Quantitative evaluation: Survey with 80 - 100 participants through our NOA platform

Applied Frameworks

- Moore Model
  We will determine the (changed) behavior of the learner (up to Moore level 4 (competence)/5 (performance)
- COM-B Model
  We will measure why physicians show a certain behavior (motivations, opportunities & capabilities) and change in behavior
- Normalization Process Theory (NPT) Model

Conclusions: With our project we strive to go beyond traditional CME evaluation approaches focusing on knowledge and skills gaps in physicians by complementing our gap analysis with behavioral analytics. This will allow us to better address the reasons why learners show certain behaviors and develop appropriate measures. We will further move from a learner-centric assessment approach to a patient-centric approach, identifying knowledge and practice gaps in the learner group through the eyes of the patient.

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