

List of Queries for testing the Ecological Model of Mental Functioning (EMMF)

These questions were asked by clinicians when the EMMF was presented

Query	Answer
Where does resilience go?	Part of Personal factors – unique to each individual. Resilience is adaptive in the face of challenges.
What about automatic responses – like slapping a bee on your arm?	Mental functioning is reflected as mind-directed behaviors that are within the individual's voluntary and conscious control, therefore we exclude any automatic or reflexive responses. Output in this model refers to volitional mind-directed actions.
How does past experience relate to output?	Experiences relates to Output as they influence how one sees the world and the decisions one takes to act. For example, an experience of being bitten by a dog may influence how a person might act around other dogs in the future, or a person who hears firecrackers might react fearfully based on experience of war and gunfire.
What determines if something is adaptive or not adaptive?	There can be two different perspectives: the person's perspective, and the perspective of others in the person's social environment. Adaptive responses produce favorable outcomes, and maladaptive responses produce poor or less-favorable outcomes. However, what is considered adaptive or not is dependent upon who's perspective one takes. For example, from the person of focus perspective, avoiding other persons and isolating socially may produce a favorable outcome such as less anxiety and therefore adaptive; but from the perspective of others in the social environment, such as family, this response can seem maladaptive in the context of family cohesion.
Where does volition and motivation fit in?	Volition and motivation are considered Person Psychological Factors. Person factors are a part of Throughput as they are internal to the person. Motivation involves the wanting or desire to do something, while volition involves acting upon that motivation to see the decision through.

Where do social expectations and social norms go?	Social expectations come from other people. Other people are part of the person's Social Environment. Social norms are considered a Contextual Factor and include cultural factors such, social norms, practices and ideologies
Is motivation and persistence captured here?	Motivation is considered an “energy and drive” body function in the ICF and defined as a mental function that produces the incentive to act; the conscious or unconscious driving force for action. Persistence, sticking with a task, can be attributed to ICF body functions of energy level, stamina, and also personality functions of conscientiousness – being hard-working. Sticking with a task involves a decision and commitment to do so – despite whether one is motivated or not to stick to and complete the task. A commitment to act within one's volition to carry out a goal is considered a Psychological Person Factor.
Do we consider hallucination throughput?	Yes. Hallucinations are false sensory perceptions experienced as real by the person but are created by the mind. Hallucinations are considered a perceptual Body Function of sensory stimuli that is internal to the person.
Where does illusion go?	Illusion is a distorted, misleading, or false perception of a sensory stimulus (Input) from the sensory organs (nose, ears, skin, eyes, etc.). This is considered a perceptual Body Function (part of Throughput).
The brain and its milieu is dependent on other systems like the endocrine system, elements of immunity, and irritability and inflammation. Is that a part of the model that requires the internal milieu as context for the internal organ of the brain?	Though the term “context” makes sense when considering the brain does not function in a vacuum and of course depends on other bodily systems to function effectively (heart, lungs etc.), In the EMMF we have defined Context in the EMMF as the world that is external to the Person. However, The model recognizes the “internal world” of the Person from the skin inward. These are considered Person Factors of Body Structures, Body Functions and one's Health Condition.
Where do morals or ethics belong under person factors? Or under context? MeSH puts Conscience under Morals. Aren't morals externally imposed?	Both morals and ethics guide behavior of what is right or wrong. Morals are a person's internal beliefs of right and wrong and therefore considered a Psychological Person Factor.

	Ethics are external standardized principles that come from groups, professions, or societies and are considered Contextual Factors that influence behavior.
What about conscience? - person factors?	Consciousness is a feeling of the moral goodness or moral bankruptcy of one's own conduct. These are cognitive processes that elicit emotions based on a person's moral compass and value systems. For example, feeling guilt, or mental angst when one acts against their own morality. Having a conscience is a Psychological Person Factor and also an emotional Body Function.
Where is reality orientation?	Reality orientation to time, place, self, others, objects and space is considered a Mental orientation Body Function. However, orientation to one's context and situation is considered a higher-level cognitive function that informs appropriate decisions and behavior.
How do past experiences of trauma (in childhood, physical/emotional/psychological/sexual abuse, PTSD) affect mental functioning?	Experiences in life are very individualistic and shape who we are, how we see the world, and ultimately how we respond in the world. Past experiences, especially those in childhood, have a very significant impact on the psyche in adulthood. Subsequently, this affects the mental functioning of how one perceives and interprets the world which ultimately drives behavior.
How do past experiences of trauma (in childhood, physical/emotional/psychological/sexual abuse, PTSD) affect mental functioning?	Past experiences affect the psyche and are considered Psychological Person Factors. Please see below for a more detailed answer to this question.
How is mental functioning affected by traumatic brain injury?	The key word here is "traumatic" meaning the event itself is a trauma and affects the psyche. These become a life experience that is part of one's Psychological Person Factors. Mental Functioning is to a great part dependent on the integrity of Mental Body functions (i.e., visual perception) that are themselves dependent to some extent, on the integrity of body structures of the brain. The brain is a Body Structure and injury to the brain causes organic changes to its structure. The parts of the brain that control global and specific mental functions can be affected such as cognition, attention, memory, etc.

Other notes:

Insider or outsider perspective.

The notion of adaptive or non-adaptive functioning is relative to the perspective taken – that of the person or the *insider perspective*, or that of the other who is the observer or the *outsider perspective*. For example, whose perspective is adopted for understanding addictive behaviors has meaning for whether they are judged to be adaptive or maladaptive. Arguments have been made by behavioral health professionals (van der Kolk, 2014) that from the perspective of the person, addiction is actually an adaptive response – a way to numb feelings and detach from psychologically painful situations the person lacks skills to deal with.

Past experiences

Studies have shown that psychological trauma can have lasting effects on the mind and body and mental functioning with significant impacts in interpersonal interactions and relationships, such as being triggered to act fearfully, cowardly, or aggressively toward certain types of individuals or in certain types of situations.

Life experiences actually cause organic changes in the brain and change the neurocircuitry and neuroanatomy. For example, the amygdala (the part of the limbic system that controls arousal and emotion) is found to be abnormally large in persons with PTSD whose behavior of over arousal causes overreactions and fear responses in situations most others do not perceive that way. The change in the brain affects the mind and ultimately the mental functioning that affects behaviors.

Changing paradigms of mental functioning

As our understanding of mental health conditions evolves, so do the paradigms we have about health, illness, and disease. For example, alcoholism was once blamed on the person as a personality disorder, but now recognized as a disease. Soldiers in the early 20th century were court marshalled and shot for refusing to continue fighting due to “shell shock”. We now understand these soldiers were suffering from a condition we now recognize and name as severe PTSD.

Reference

Van der Kolk, B. A. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Viking/Penguin Books.