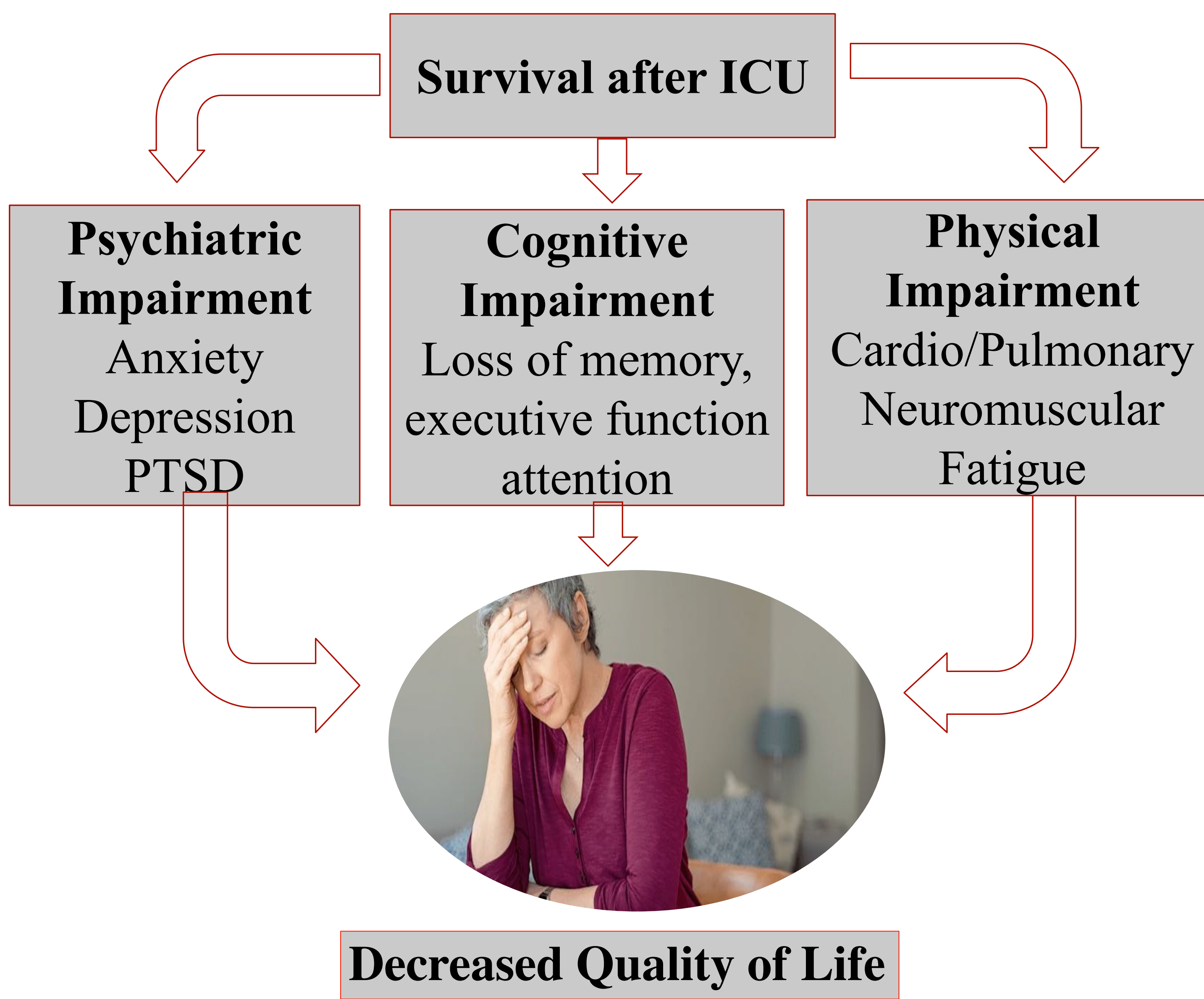# Using the Iowa Model of Evidence Based Practice to Guide a Pilot Post Intensive Care Syndrome (PICS) Education Project for Community Healthcare Providers

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Step 1: Identify Trigger(s)

- **Post Intensive Care Syndrome (PICS)** is a significant clinical issue for ICU survivors and their families.
- This problem is projected to increase substantially due to many thousands of recent COVID-19 ICU survivors.

Survival after ICU

Psychiatric Impairment
Anxiety
Depression
PTSD

Cognitive Impairment
Loss of memory, executive function attention

Physical Impairment
Cardio/Pulmonary
Neuromuscular
Fatigue

Decreased Quality of Life

Step 2: Consider Organizational Priorities

- Organization values high quality, evidenced-based healthcare that promotes optimal patient and family health outcomes after ICU discharge.
- Leaders approved creation of PICS work group with designated time to work on PICS-related initiatives.

Step 3: Form a Team of Stakeholders

PICS Stakeholders Committee formed:
  - Nurses (BS, MS, DNP)   - Physicians
  - Respiratory therapists   - APPs
  - Palliative care providers   - Physical therapists

Step 4: Conduct Lit Search, Appraisal, & Synthesis

- ICU follow-up care to mitigate PICS is necessary
- There is a lack of knowledge regarding the recognition and treatment of PICS among non-critical care clinicians; consequently, PICS symptoms that develop as a result of patients' ICU stay often go unrecognized, and if they are identified, are often not properly evaluated or treated.

PICO Question:
Does an online education module increase PICS knowledge and positively influence behavioral intent to integrate PICS assessment into clinical practice in community health care providers compared to no education?

Step 5: Pilot the Project

- Pilot sample of community HCPs employed by a health system in the Midwest ($N = 129$) invited to complete pre-education survey developed based on TPB

Theory of Planned Behavior(TPB)
Behavioral beliefs
Normative beliefs → Intention
Control beliefs → Behavior

- Survey results used to inform development of a brief online PICS education module targeted toward community HCPs.
- Participants completed post-survey after viewing PICS module.
- Chi square and 2-tailed t test statistics were applied to compare results between the pre-education group ($n = 24$) and the post-education group ($n = 32$).

Step 6: Evaluate and Disseminate

- **Results**: A brief, online PICS education module is an efficient and cost-effective way to improve PICS knowledge among community HCPs and may motivate them to integrate PICS assessment into their practice, resulting in improved ICU follow-up care and early symptom recognition and referral to mitigate the impact of PICS in ICU survivors.
- Project findings were disseminated to organizational leaders, with plans to make the online PICS education module available to a wider audience of community HCPs in the service region. Further study is needed to determine if findings can be generalized.

PICS Survey Tool

Knowledge
1. I am knowledgeable about post intensive care syndrome (PICS).

Behavioral Beliefs
2. Screening and assessment for PICS-related symptoms will benefit my patients who have been discharged from the ICU.
3. Performing screening and assessment for PICS does not/will not interfere with my workflow.
4. Early recognition of PICS-related symptoms promotes timely treatment and improved patient health outcomes.
5. It is important to be knowledgeable related to PICS identification and treatment.

Control Beliefs
6. I feel confident about available screening tools to identify PICS symptoms in my patients.
7. I feel confident regarding the treatment plan for my patients who exhibit PICS-related symptoms.
8. I feel confident I can refer patients who exhibit PICS symptoms to appropriate specialty health care resources in the community.

Normative Beliefs
9. My employer and colleagues expect me to screen for and assess my patients who have been discharged from the ICU for PICS.
10. My employer and colleagues expect me to provide high quality care for patients I care for who have been discharged from the ICU.

Chart showing pre/post-education survey results for items 1–10 with p-values: $p = .007$, $p < .001$, $p < .001$, $p = .003$, $p = .047$.