EDITORIAL

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Adopting the Information-knowledge-attitude-practice Model for Transforming Health Behaviors in Medical Practice

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In recent decades, the field of lifestyle medicine has gained a significant momentum due to a growing recognition that lifestyle choices and habits can profoundly impact health outcomes.[1] However, many physicians miss the opportunity to induce healthy behavioral changes in their patients during routine clinical consultations,[1] probably due to a lack of training in communication skills in this area and practical constraints inherent in busy clinical practice. This article explores how physicians can learn the information-knowledge-attitude-practice (IKAP) communication model in clinical practice to promote healthy lifestyle behaviors in their patients, expanding its use beyond its traditional role in nursing care.

Historically, the IKAP model is a clinical adaptation of Mayo's model of knowledge-attitude-belief-practice (KABP) of the 1950s–1960s that was used in behavioral health research.[2] It describes a close and dynamic interplay of one's knowledge, attitudes, and beliefs, leading to appropriate behavior.[3] The IKAP model has become a significant communication model in the nursing field, which is used to promote patient education, positive health behavior, and reinforcement of medication compliance, with downstream clinical benefits.[4–7] Nurses are encouraged to engage in intentional information collection (understanding patient perspectives, concerns, and health background), provide targeted knowledge to patients (disease-specific education and behavioral interventions), inculcate positive attitudes (encourage and motivate change), and support practice formation (providing practical strategies to facilitate lifestyle changes).[4]

In my opinion, the key strength of the IKAP model lies in its ability to effectively target the psychological underpinnings of human cognition and decision-making. The dual-process theory of cognition, often referred to as 'thinking fast and slow,' describes two main cognitive systems involved in human decision-making: (a) an intuitive, unconscious, fast, and emotion-driven system and (b) an analytical, deliberate, slow, and rational system.[8] To illustrate the interplay of the two, the social psychologist Jonathan Haidt[9] used the metaphor of 'the Elephant and the Rider,' where the elephant represents the intuitive and emotional mind while the rider represents the rational mind. Thus, the elephant (powerful emotions and instincts) often ends up getting what it desires, while the rider (logic and reason) either complies or struggles to guide the elephant in a different direction. To be effective, any behavioral intervention should not only convince the rational mind with well-reasoned arguments, but also successfully appeal to emotions, align with underlying motivations, foster positive attitudes, and create a practical path to effect change.[10]

The IKAP model achieves this through its four steps: information, knowledge, attitude, and practice. First, the *information*-gathering step seeks to assess the patient's understanding of their disease condition and the rationale for clinical recommendations. This allows the provider to evaluate the patient's health literacy, disease knowledge, misconceptions, attitudes, and potential barriers to change.

Second, the *knowledge* provision step directly engages the patient's analytical mind by providing clear and well-reasoned explanations of their disease condition, linking to underlying pathophysiological mechanisms, and relating these to the rationale for the recommended treatment and lifestyle modifications. This process can be further tailored to address

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knowledge deficits and clarifying misconceptions, using techniques like teach-back,[11] communication aids, and minimizing medical jargon.[12]

Third, the *attitude* of the patient is targeted using various strategies to appeal to their natural intuition or preferences to improve the palatability of suggested interventions. These include techniques such as behavioral nudges—facilitating desired patient behaviors by leveraging their habits, proclivities, and biases (e.g., framing of choices and presenting the healthier ones as the default).[13] In addition, positive role modelling of healthy behavior to maintain cognitive congruency,[14] as well as demonstration of empathy, genuine patient care, and commitment, help establish rapport and trust.[15]

The final step, developing *practice,* involves creating small, actionable steps with close partnership, support, and follow-ups to help the patient make the necessary changes.[15] For example, in smoking cessation, both pharmacological (e.g., nicotine replacement therapy) and non-pharmacological methods (e.g., avoiding temptations, rehearsing for at-risk situations, smoking cessation support groups) can be adopted, with close follow-up and helping the patient to get the required social support to sustain the change.

In conclusion, the IKAP model, with its strong psychological foundation and demonstrated success in the nursing field, has great potential to be incorporated into the modern clinician's communication toolkit to influence behavior change in patients. Further studies would be beneficial to evaluate pedagogical training strategies on the IKAP model for physicians in primary and tertiary ambulatory care settings and assess how such interventions may impact patient behavior outcomes.

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