

## Development of Diabetes Affective Message System (DAMS)

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Diabetes mellitus or diabetes is a major cause of death worldwide and ranks amongst cancer and cardiovascular diseases. Among the non-clinical intervention programs, scholarly articles suggest that emotion-based health messages can be a powerful driver to promote health preservation attitudes and behaviors. The objective of this research is to develop a set of stimuli known as the Diabetes Affective Message System (DAMS), which is relevant for emotion-related studies in the diabetes health context. The two emotions explored for this study is fear and enthusiasm. All the patients recruited for Phase 1 and Phase 2 of the study were diagnosed with type 2 diabetes and seek treatment in a large public hospital in Singapore. In Phase 1 of the research, eighty stimuli were curated. Four patients with diabetes and eight healthcare providers took part in two separate focus group discussions to determine the appropriateness of the stimuli curated in diabetes related studies. After

replacing the stimuli based on the patients and healthcare providers' inputs, four patients were recruited for a one-to-one interview regarding the appropriateness of the stimuli. In Phase 2, 100 patients were recruited and were asked to rank the stimuli according to three emotion metrics, namely valence, arousal and dominance. The metrics were derived from a standard known as Self-Assessment-Manikin (SAM). A better understanding of emotional-based messages for diabetes patients may have the potential to sway patients towards prudent behaviors in managing their condition.

### Speaker Biography

Mohamed Ariffin Bin Mohamed Kawaja Kamaludin is currently a PhD student in Nanyang Technological University (NTU) in Singapore. His area of study is on emotion-based messages as a behavioral intervention for diabetes patient in Singapore. Prior to his PhD, he ran a startup which curates abstracts from the US Medical Library and categorize them based on researchers' profile using machine learning. He has 3 publications, a patent and a technology disclosure filed under NTU.

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