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## PREVENTIVE HEALTH IN A CHANGING WORLD

### HOPE, BIAS AND SURVIVAL EXPECTATIONS OF ADVANCED CANCER PATIENTS IN SINGAPORE

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#### **Background**

Many patients with terminal illnesses have unrealistic expectations of treatment benefits. We hypothesize that these biases are more likely for patients with higher levels of hope. Specifically, we hypothesize that patients with higher levels of hope are more likely to (a) believe that their illness is curable; (b) state a longer expected survival duration (optimism bias) and (c) believe that their prognosis is better than that of the average patient with the same condition (illusory superiority).

#### **Methods**

We test these hypotheses among a convenience sample of advanced cancer patients with a physician-estimated prognosis of 1 year or less. Patients responded to survey that included questions on prognostic beliefs and hope (measured using Herth Hope Index). Multivariable regressions were used to test hypotheses.

#### **Results**

Patients (n=200) held overly optimistic prognostic beliefs: over a third (40%) believed that their illness was curable and mean length of expected survival was 9.7 years (SD=9.23). Patient's hope scores were high (mean=39.7) and dispersed (SD=7.44). Patients with higher hope scores were more likely to (incorrectly) believe their illness was curable (OR=1.06; p<0.01) and to believe that their survival outcomes were better than those of the average patient (OR=1.06; p<0.01). Each one-point increase in patient's hope scores was associated with an approximately 4-month longer estimate of expected survival (p<0.01).

#### **Conclusion**

Many patients with advanced cancer who had a high level of hope are unrealistically optimistic about their prognoses. As this could contribute to overtreatment, future research should identify strategies to improve patients' acceptance and understanding of their prognosis so they can make informed treatment decisions.

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