Unveiling the Curtain of Cancer Delay: Understanding Factors Influencing Presentation Interval in Malaysia

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Introduction

- Cancer is a global public health burden, with significant disparities in survival rates and access to care between high-income and low- and middle-income countries (LMICs).[1]
- In Malaysia, it is the fourth leading cause of death. [2]
- Early detection and prompt presentation are crucial for better cancer outcomes. [3]
- This study aims to assess factors associated with prolonged symptom onset to seeking care for common cancers mainly breast, colorectal, nasopharyngeal, and cervical in Malaysia.

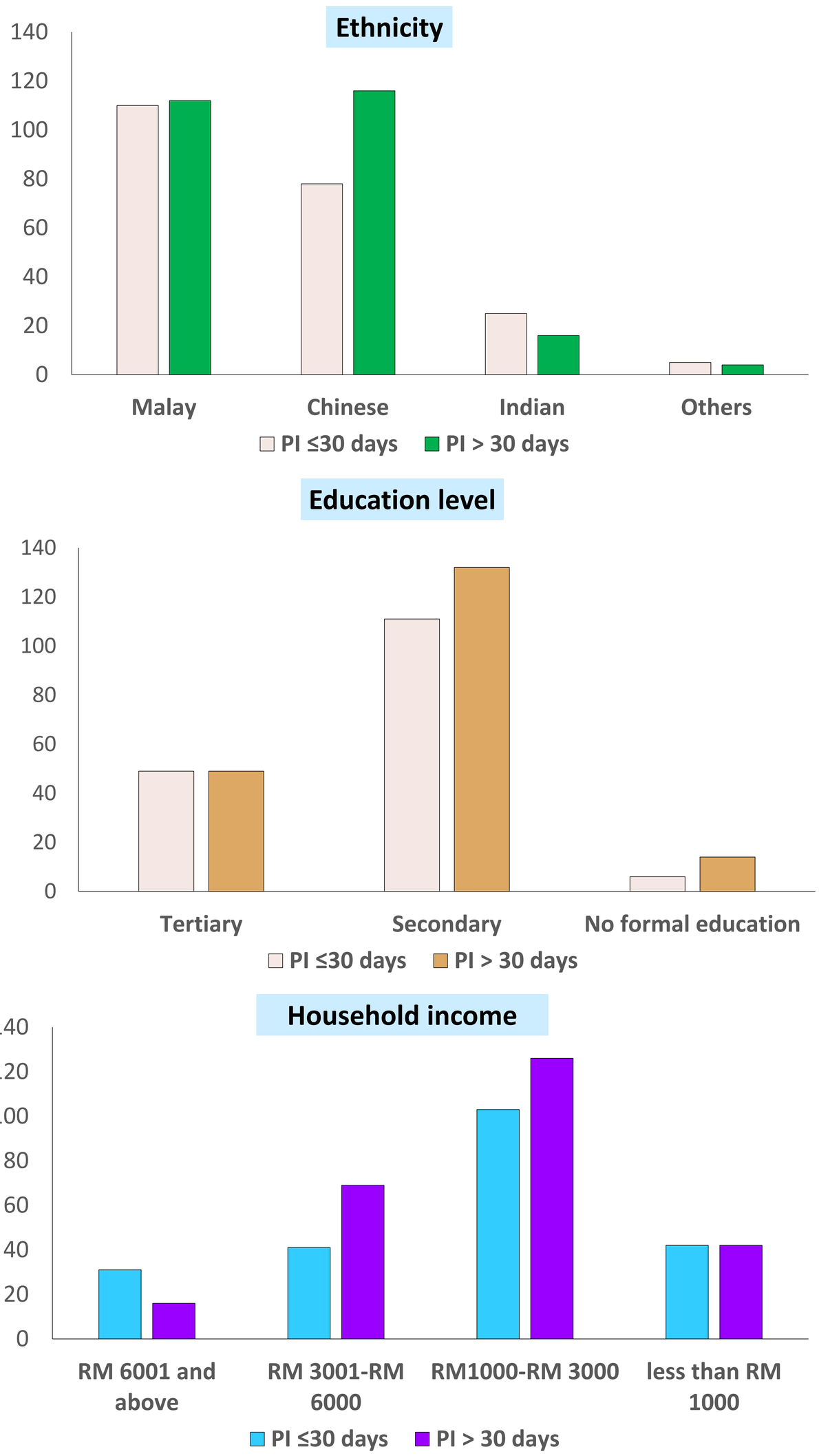
Methodology

- A multicentre, cross-sectional study across seven public hospitals in Malaysia.
- Involves Malaysian adult patients diagnosed with the following primary tumours of either breast, cervical, colorectal or nasopharyngeal cancer.
- Data collection through self-administered questionnaires and medical records.
- Prolonged symptom onset to seeking care is defined as an interval of > 30 days.
- Sociodemographic characteristics, comorbidities, and health-seeking behaviours were analysed with descriptive statistics and multivariable logistic regression.

Results

- Among 476 participants, breast cancer was the most prevalent (41.6%), followed by colorectal (26.9%), nasopharyngeal (22.1%), and cervical (9.5%) cancers.
- The mean age was 55.2 years ± 12.33.

Figure 1. Presentation delay by patient characteristics (N=476)



- The overall median presentation interval was 66 days (Interquartile range, IQR: 14 – 180). Increasing age was associated with a lower odds of presentation delay (OR = 0.95, 95% CI: 0.93 – 0.98).
- Compared to Malay, Chinese patients had 2.34 times higher odds of delay in presentation (95% CI: 1.24 – 4.55).
- Patients with secondary or tertiary education were less likely to experience presentation delay compared to those without formal education (OR = 0.21, 95% CI: 0.04 – 0.79) and (OR = 0.19, 95% CI: 0.03 – 0.88) respectively.
- Individuals earning between RM 3,001 – RM 6,000 had 4.01 times higher odds of presentation delay compared to those earning more than RM 6,000. (95% CI: 1.46 – 11.6)

Table 1. The distribution of Presentation Interval by patient characteristics

Characteristics	Odds Ratio (OR)	95% CI	P-value
Age, years	0.95	0.93 – 0.98	<0.001
Ethnicity			
Malay	-	-	-
Chinese	2.34	1.24 – 4.55	0.010
Indian	1.50	0.48 – 4.79	0.500
Others	0.63	0.11 – 3.24	0.600
Education level			
Tertiary education	0.19	0.03 – 0.88	0.044
Secondary education	0.21	0.04 – 0.79	0.032
No formal education	-	-	-
Household income			
RM 6,001 and above	-	-	-
RM 3,001 – RM 6,000	4.01	1.46 – 11.6	0.008
RM 1,000 – RM 3,000	1.91	0.71 – 5.33	0.200
RM 0 – RM 999	1.71	0.55 – 5.54	0.400

Discussion and Conclusions

- This study identifies age, ethnicity and education level as potential factors affecting delay in cancer presentation.
- Understanding these factors is crucial for implementing effective interventions, reducing healthcare burden, and enhancing cancer care in Malaysia.
- Targeted interventions, including awareness campaigns are crucial to address prompt symptom presentation barriers and improve cancer recognition particularly among high-risk groups such as younger individuals and specific ethnic communities.

Acknowledgement

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