



# Patient Satisfaction with Virtual Clinic Services in Melaka 2022-2023

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## INTRODUCTION

- COVID-19 pandemic has led to healthcare responses aimed at mitigating the effects.
- VC was one of the initiatives taken by MOH in overcoming barriers to optimal patient care .
- VC aimed to prevent disease transmission, reduce congestion, and minimize patient waiting time.
- There were 19 clinics implementing VC services in Melaka in 2022 and 2023.
- Patient's satisfaction was a major concern.VC should be evaluated before further expansion.
- Our aim was to evaluate patient's satisfaction with VC services and identify the factors associated with it.

## METHOD

- Cross-sectional questionnaire-based study.
- Patients aged 18 years and above who attended the VC at Primary Healthcare clinics in Melaka.
- Sample size was 290 patients. Systematic random sampling was used.
- Questionnaire contained questions with 5 Likert scales answers (strongly agree, agree, neutral, disagree, strongly disagree).
- Binary logistic regression was used to identify the associated factors with the patient's satisfaction and reported odds ratios.
- The outcome was patients' satisfaction towards the VC services.
- Data were analyzed using SPSS version 22.0.

## RESULTS

Figure 1: Gender of the patients (n=277)

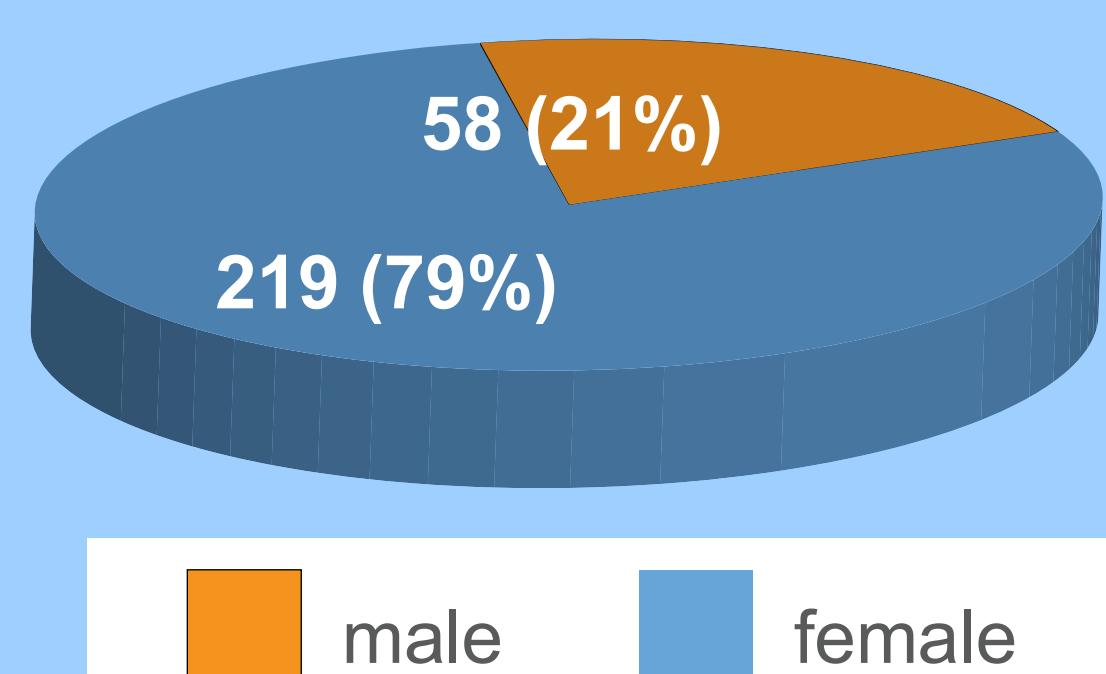


Figure 2: Number of patient's according to age group (n=277)

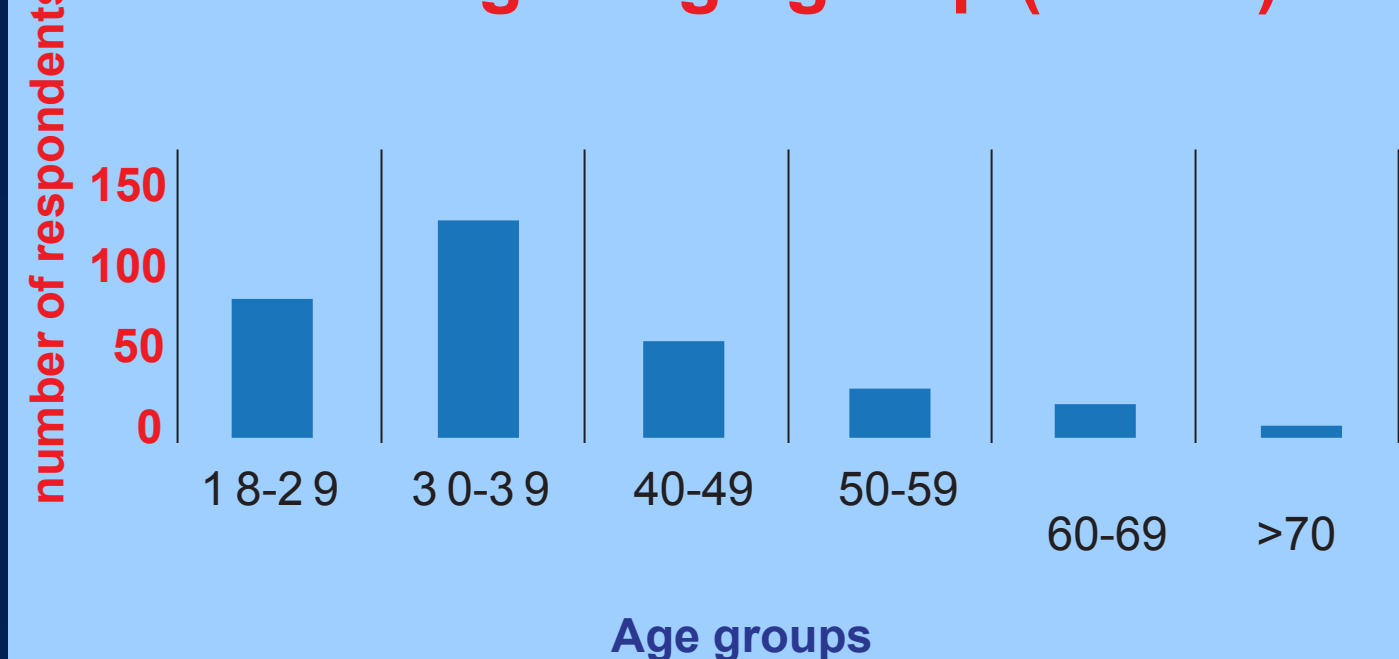


Figure 3: Patient's level of education (n=277)

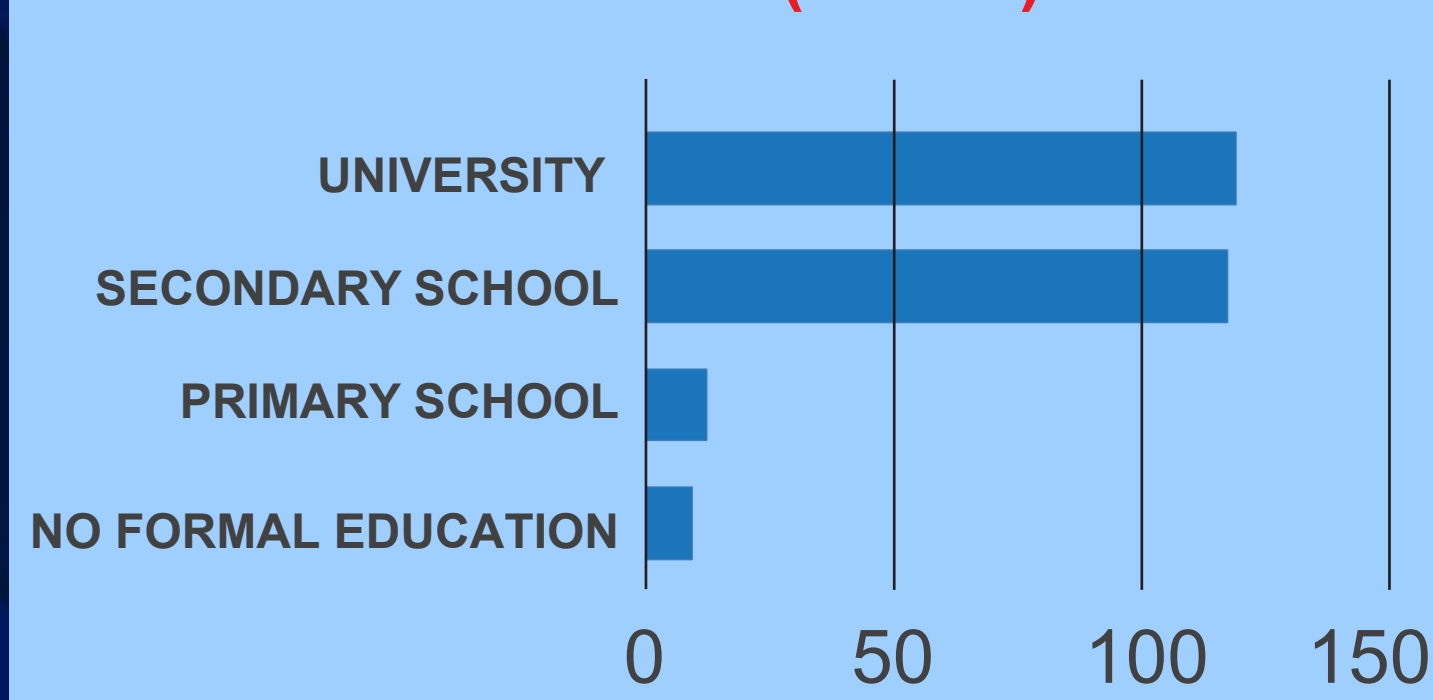


Figure 4: Method of referral to virtual clinic (n=277)

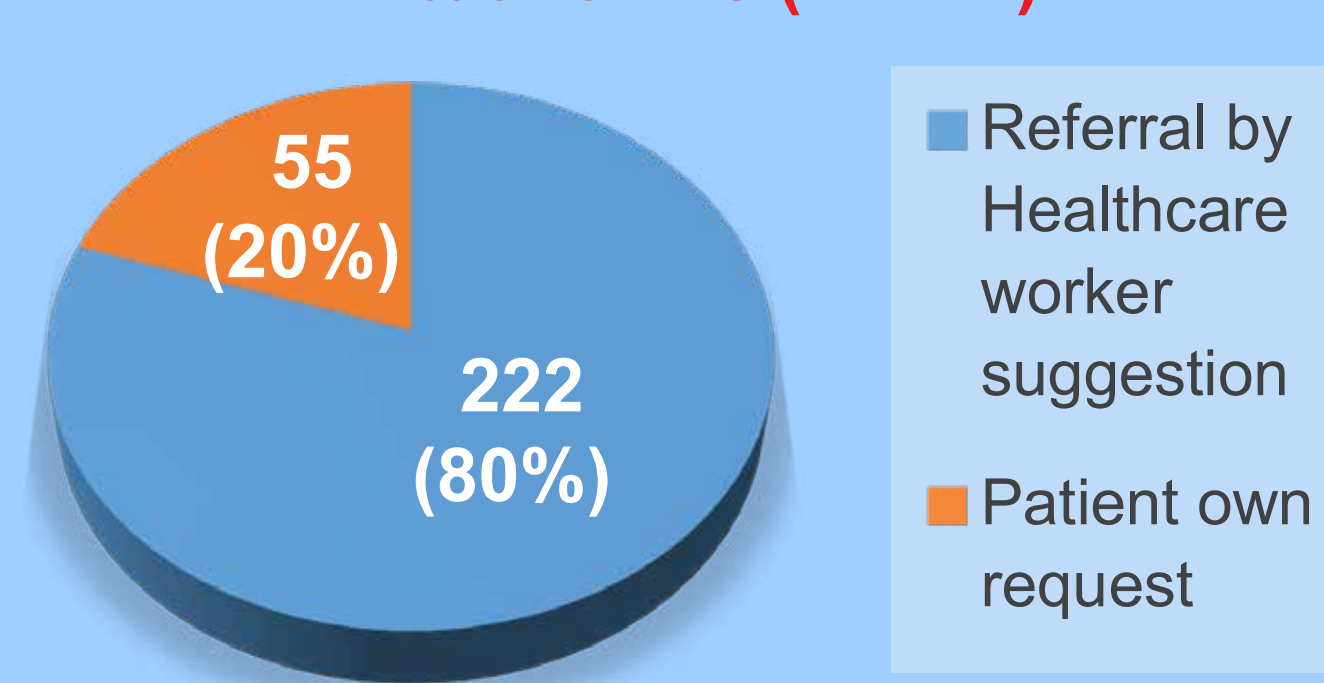


Table 1: Patient's opinion about the virtual clinic in Melaka (n=277).

Question	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
Did you received clear instruction before enrolmen to Virtual Clinic?	7 (2.53)	5 (1.81)	30 (10.83)	91 (32.85)	144 (51.99)
Do you agree that the virtual clinic can replace the normal physical clinic?	22 (7.49)	16 (5.78)	51 (18.41)	89 (32.13)	99 (35.74)
Do you agree that Virtual Clinic can help to reduce the risk of infection transmission?	6 (2.17)	4 (1.44)	22 (7.94)	73 (26.35)	172 (62.09)
Do you agree that Virtual Clinic can reduce the congestion in clinic?	5 (1.81)	6 (2.17)	22 (7.94)	58 (20.94)	186 (67.15)
Did you feel reassured with your health during COVID-19 pandemic because of Virtual Clinic?	7(2.53)	2 (0.72)	27 (9.75)	74 (26.71)	167 (60.29)

Figure 5: Patient's satisfaction towards virtual clinic (n=277)

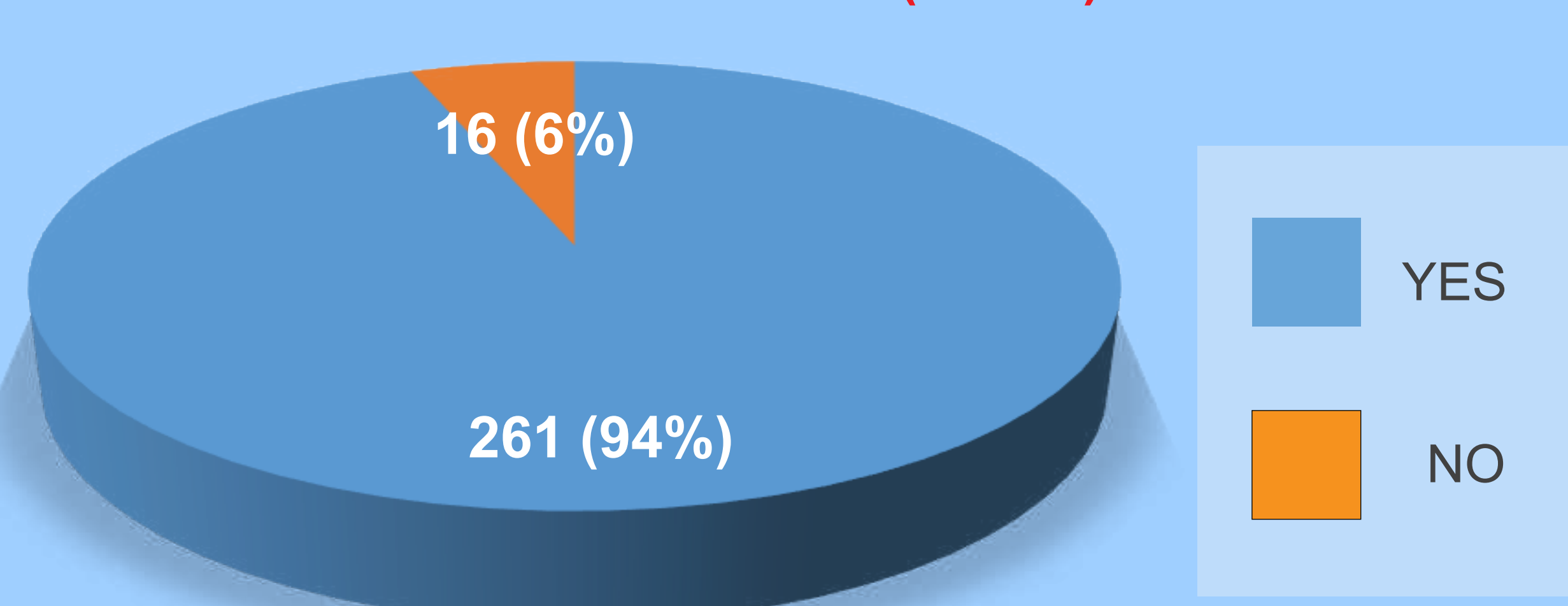


Table 2: Associated factor for Virtual Clinic satisfaction by Multiple Logistic Regression analysis (n=277)

Variable	Adjusted OR	95% CI	P-Value
*VC referral by Healthcare worker suggestion			
Yes	7.103	1.42, 35.50	0.017

\*Adjusted for gender, age and level of education

## DISCUSSION

- Other previous studies reported lower level of satisfaction among patients who used VC [3].
- Patient's satisfaction with the VC services varied widely in different settings [3].
- This study found that the age, gender and level of education did not associated with satisfaction, contrary to what was reported by other studies [1].
- Method of referral to VC was significantly associated with patient's satisfaction in this study.
- Satisfaction was significantly higher in patients enrolled to the VC service by HCW suggestion compared to those enrolled by their own request.
- Patients enrolled to the VC based on their request had lower satisfaction, contrary to what was reported by Alahmari et al., 2022.
- This probably due to incomplete explanation given by attended HCW as they might presumed that the patient already had all the needed information.
- Thorough information by HCW could improve satisfaction.
- Further research is needed to clarify our understanding of the factors affecting patient's satisfaction towards VC program.

## CONCLUSION

- The patients were generally satisfied with the VC services (94%).
- Method of referral to VC was significantly associated with patient's satisfaction.
- Satisfaction was significantly higher in patients enrolled to the VC by HCW suggestion compared to those enrolled by their own request.
- Thorough information should be given to all patients, particularly to those who request for the service of their own accord.

## LIMITATION

- This was a cross-sectional study and therefore not as strong as a cohort or intervention study.
- Covariates in this study are based on self-reported responses. Self-reported information can be affected by recall bias and social desirability bias.

## REFERENCES

1. Abdulwahab SA, Zedan HS (2021) Factors Affecting Patient Perceptions and Satisfaction with Telemedicine in Outpatient Clinics. J Patient Exp 8: 23743735211063780.
2. Alahmari A, Alenazi A, Alrabiah AM, Albattal S, Kofi M (2022) Patients' Experience of the Newly Implemented Virtual Clinic during the COVID-19 Pandemic in PHCs, Riyadh, Saudi Arabia. J Family Med Prim Care Open Acc 6: 181. DOI: 10.29011/2688-7460.10008.
3. O'Reilly D, Carroll H, Lucas M, Sui J, Al Sendi M, et al. (2021) Virtual oncology clinics during the COVID-19 pandemic. Ir J Med Sci 190: 1295-1301