

Educational Level Among Patients Treated at the Primary Medical Care Unit, Dedunupitiya: A Cross-Sectional Study

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Abstract

This study assessed educational attainment among adult patients attending the Primary Medical Care Unit (PMCU), Dedunupitiya, Sri Lanka, and compared the findings with those from a war-affected rural setting. A cross-sectional descriptive study was conducted in October 2025 among the first 100 consenting adult patients. Data on sociodemographic characteristics and education level were collected and analysed using descriptive statistics in SPSS version 27. The mean age of the participants was 51.65 years (range 19–87), and 70% were female. The majority were Sinhalese (96%), and 89% were married. The literacy rate was 100%. Regarding educational attainment, 29% had primary education, 40% had completed Ordinary Level, 24% had completed Advanced Level, 2% had a diploma, and 5% had a degree, while none had postgraduate education. Comparison with published findings from Kabithigollawa, a conflict-affected rural area, indicated lower educational attainment in that setting. The results suggest that Dedunupitiya, a relatively peaceful rural community, has comparatively higher educational attainment. This finding highlights the potential influence of long-term social stability on educational outcomes and aligns with global priorities on education and health equity. The study emphasizes the importance of tailoring health education materials according to patient literacy levels to improve the effectiveness of non-communicable disease prevention programs in rural primary care settings and to support sustainable community health development in Sri Lanka.

Keywords: Educational attainment, rural health, primary care, Sri Lanka, social determinants of health, literacy, conflict-affected comparison, non-communicable diseases, health education.

Introduction

Sri Lanka is a country rebuilding after a long-term civil war, which lasted nearly 30 years (Kearney (1986); Ministry of Defence - Sri Lanka (n.d.)). The conflict affected the whole country in different ways. Prolonged civil conflict can adversely affect social determinants of health, including education, gender equity, and social cohesion. According to the United Nations (UN) Sustainable Development Goals (SDGs), SDG 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. SDG 16 aims to promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, account-

able, and inclusive institutions at all levels (United Nations (2015)).

The Dedunupitiya Grama Niladhari area, located at the lower margin of the Central Province hill country, is positioned at approximately 7.333° N latitude and 80.433° E longitude. Nearby areas include Godathale, Meddegama, and Rangomuwa. Basic demographic data for Dedunupitiya village are included in Table 1. The village belongs to the Hatharaliyadda Divisional Secretariat area, a rural area that remained minimally affected by direct conflict. The Primary Medical Care Unit, Dedunupitiya, falls under the Regional Director of Health Services, Kandy. The Dedunupitiya area includes specific sub-localities such as Dedunupitiya Ihalagama and Dedunupi-



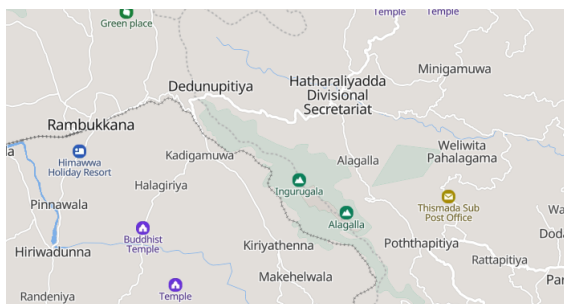


Figure 1: Gender distribution of the study sample

tiya Pahalagama. Dedunupitiya village is served by a local school, Dedunupitiya Maha Vidyalaya.

Source: CIESIN (Centre for International Earth Science Information Network) Satellites.pro (n.d.)

As part of a quality improvement project for non-communicable disease prevention and control, this study aimed to identify the educational level of the population in order to design appropriate health education materials. We included all adult patients who consented to participate at PMCU Dedunupitiya. The study was conducted over 1 month, until the pilot project sample size was reached. This setting provides an opportunity to examine educational attainment and related demographic characteristics in a context of relative harmony, aligned with the United Nations-linked SDGs, particularly SDG 4 (Quality Education) and SDG 16 (Peace, Justice and Strong Institutions) United Nations (2015).

Objectives

The primary objective was to identify the education level of adults receiving treatment at PMCU Dedunupitiya.

The secondary objectives were to design health education materials and tools according to educational level and to compare the educational level of the sample with that of populations in war-border villages in the Kabithigollawa area.

Methodology

A cross-sectional descriptive study was conducted in October 2025 among the first 100 adult individuals attending primary medical care services in Dedunupitiya village over a duration of 1 month. Data were collected on age, sex, ethnicity, educa-

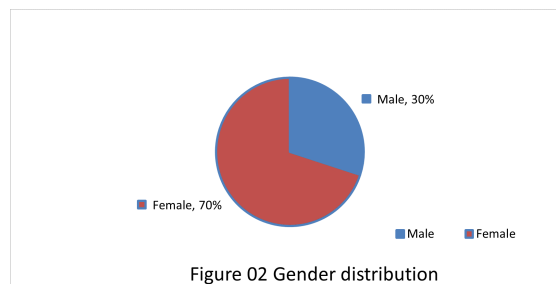


Figure 02 Gender distribution

Figure 2: Gender distribution of the study sample

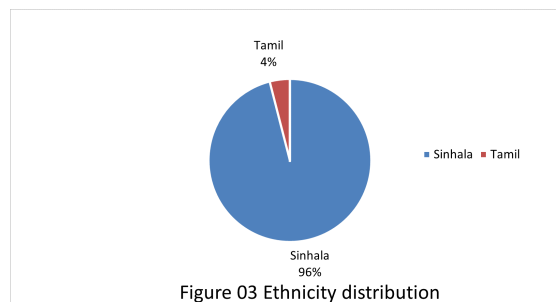


Figure 03 Ethnicity distribution

Figure 3: Ethnicity distribution of the study sample

tion level, and age at marriage. Informed written consent was obtained, and confidentiality of all information was maintained. Data were analysed using descriptive statistics in SPSS version 27.

Results

The mean age of the sample was 51.65 years. Ages ranged from 19 to 87 years. The majority of the sample was in the 51–70-year age group. Age distribution is shown in Table 2. The sample comprised 70% females and 30% males. Gender distribution is shown in Figure 2.

The majority of the study sample was Sinhalese (96%), while Tamil participants accounted for 4%. Ethnicity distribution is shown in Figure 3. The married population of the sample was 89%. Most married females reported an age at marriage of around 25 years. The literacy level of the sample was 100%. When educational level was assessed, 29% had primary education, while 40% had completed Ordinary Level. Another 24% had completed Advanced Level. Regarding higher education, 2% had a diploma, while 5% had a degree. The highest education level attained in the study sample was a degree. None of the participants had postgraduate education. Overall, Ordinary Level education was the most common highest educational attainment.

Table 1: Basic demographic data

Area of Dedunupitiya Ihalagama, Central, Sri Lanka	Value
Area	1.135 km ²
Population	567
Male Population	265 (46.7%)
Female Population	302 (53.3%)
Population changes from 1975 to 2015	+110%
Population changes from 2000 to 2015	+37%
Median Age	34.7 years
Male median age	33.7 years
Female median age	35.6 years
Area of Dedunupitiya Pahalagama, Central, Sri Lanka	Value
Area	0.833 km ²
Population	342
Male population	157 (45.8%)
Female population	185 (54.2%)
Population changes from 1975 to 2015	+63.6%
Population changes from 2000 to 2015	+6.5%
Median age	36.9 years
Male median age	35.9 years
Female median age	37.8 years

Table 2: Age distribution

Age range	Number of patients	Percentage
18–20	1	1%
21–30	1	1%
31–40	16	16%
41–50	16	16%
51–60	23	23%
61–70	27	27%
71–80	14	14%
81–90	2	2%
>90	0	0%

The educational level of the sample is shown in Table 3.

Discussion

Kabithigollawa is a rural village situated in the North Central Province. Kabithigollawa often experienced extreme vulnerability, displacement, and attacks during the three decades of conflict. A few published studies have been conducted in this area on chronic kidney disease and demographic factors, including educational level. We compared our study results with the following two studies.

A study conducted by Weerasekara et al. on socioeconomic factors affecting chronic kidney dis-

ease in the Anuradhapura District, with special reference to Kabithigollawa, included 100 participants in 2017. According to that study, 23% had never attended school, 47% were educated up to Grade 5, 24% were educated up to Grade 10, and only 6% were educated up to Ordinary Level. Most patients had attended school only up to Grade 5 Weerasekara (2017).

Another study, published by Lowe et al. in 2019, identified social and occupational risk factors associated with chronic kidney disease of unknown aetiology among 60 patients living in an agricultural community in Kebithigollewa, Sri Lanka. In that study sample, 40% were educated up to primary education, 26.67% were educated up to Grade 10 or Ordinary Level, and 6.67% were ed-

Table 3: Education category of the study population

Education category	Total percentage
Up to primary education	27%
Up to Grade 8	2%
Up to Ordinary Level	40%
Up to Advanced Level	24%
Up to diploma	2%
Up to degree	5%
Postgraduate	0%

ucated up to Advanced Level. Most individuals had not completed a satisfactory level of school education, and only 25% had gained the minimum accepted school qualifications of Ordinary Level or Advanced Level. Considering participants and their household members, 66.7% of CKDu patients had less than 10 years of schooling, and only 33.33% had gained at least the minimum required school education, Ordinary Level or Advanced Level Lowe and Kumarasinghe (2019).

According to the above two studies, Dedunupitiya has a comparatively higher education level than Kabithigollawa village. A limitation of our study is that we compared our data with previously published data from a war-affected area. If the same study could be conducted directly in a war-affected rural area, the results would be more accurate.

Conclusion

In the Dedunupitiya rural area, relatively minimally affected by civil conflict, educational attainment, particularly up to Ordinary Level, was comparatively favourable, suggesting that long-term social harmony may positively influence access to and continuity of education. These findings support the importance of peace and stability in achieving UN-aligned global goals on education and social development.

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