# DETERMINANTS OF SELF-TREATMENT BEHAVIOUR AMONG YOUNG ADULTS IN INDIA: A SECONDARY ANALYSIS OF NSS 75TH ROUND

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**Abstract:** Self-treatment, commonly referred to as self-medication, is a widely practised form of health-seeking behaviour, particularly in low- and middle-income countries where access to formal healthcare is often limited. In India, existing evidence on self-treatment is largely derived from small-scale regional studies, with limited national-level analysis and minimal focus on young adults. This study aims to estimate the prevalence of self-treatment and identify its determinants among young adults aged 18–29 years using nationally representative data from the National Sample Survey 75th Round (2017–2018). A cross-sectional analytical design was employed using secondary data from Schedule 25.0: Health. The study population included individuals reporting illness during a 15-day reference period. Self-treatment was defined as treatment taken without medical advice. Independent variables were grouped into socio-demographic factors, healthcare access factors, and health-need factors. Descriptive statistics, chi-square tests, and binary logistic regression were applied, with sampling weights used to ensure national representativeness. The findings indicate that 12.5% of young adults engaged in self-treatment. Bivariate analysis showed a significant association between age and self-treatment ($\chi^2 = 36.89$, $p < 0.001$). Multivariate analysis identified age and gender as significant predictors, while education did not show a significant association. Healthcare access and health-need factors demonstrated stronger influence, with hospitalisation emerging as the most important determinant. The study concludes that self-treatment among young adults is shaped primarily by healthcare access and perceived illness severity rather than socio-demographic characteristics alone.

***Index Terms*** - Self-treatment, Self-medication, Young adults, NSS 75th Round, Healthcare access, Health-seeking behaviour, India

## I. INTRODUCTION

Self-treatment, commonly referred to as self-medication, is defined as the selection and use of medicines by individuals to treat self-recognised illnesses or symptoms without consulting a qualified healthcare professional. This practice forms an important part of self-care and is widely observed across both developed and developing countries (Limaye et al., 2018; Narayanan Namboothiri et al., 2023). At the global level, the prevalence of self-treatment varies considerably depending on healthcare systems, regulatory environments, and socio-economic conditions. Evidence suggests that in developed countries, prevalence generally ranges from 20% to 40%, supported by structured healthcare systems and regulated access to medicines. In contrast, developing countries often report prevalence exceeding 60% to 80%, reflecting gaps in healthcare access, affordability, and regulation (Savani et al., 2023).

In India, self-treatment forms an important component of health-seeking behaviour and is widely practised in both urban and rural settings. Existing studies indicate that prevalence varies substantially, typically ranging between 29% and 67%, depending on regional and socio-economic contexts (Aumrin Fathima et al., 2022; Juneja et al., 2024). High out-of-pocket expenditure, limited availability of healthcare services, and the widespread accessibility of over-the-counter medicines contribute significantly to this behaviour. Urban populations often exhibit higher prevalence due to convenience and accessibility, whereas rural populations rely on self-treatment due to limited healthcare infrastructure and higher travel costs.

Although self-treatment can provide quick relief for minor ailments and reduce pressure on healthcare systems, it also raises important public health concerns. These include inappropriate drug use, increased risk of

antimicrobial resistance, adverse drug reactions, and delays in seeking proper medical care. Individuals may misinterpret symptoms and use inappropriate medication, leading to ineffective treatment or worsening of conditions.

Young adults aged 18–29 years represent a particularly important group in the study of self-treatment behaviour. This stage of life is characterised by increasing independence, greater exposure to digital health information, and lifestyle factors such as time constraints and convenience. These factors influence treatment decisions and increase the likelihood of self-treatment. Despite this, most existing studies are limited to small-scale settings and do not focus specifically on young adults or utilise nationally representative datasets. This study addresses these gaps by examining self-treatment behaviour among young adults using NSS 75th Round data.

## II. LITERATURE REVIEW

Self-treatment is widely practised globally and is influenced by a combination of socio-demographic, healthcare access, and health-need factors. In developed countries, self-medication is typically regulated and used for minor ailments within structured healthcare systems. In contrast, developing countries experience higher prevalence due to limited healthcare access, high costs, and weak regulation of pharmaceutical sales (Limaye et al., 2018; Savani et al., 2023).

In India, evidence shows substantial variation in prevalence across regions and populations. Studies conducted in different parts of the country report prevalence ranging from 29% to 67%, reflecting differences in socio-economic conditions, healthcare accessibility, and cultural practices. Urban populations often demonstrate higher prevalence due to easier access to pharmacies and time constraints, while rural populations rely on self-treatment due to inadequate healthcare infrastructure.

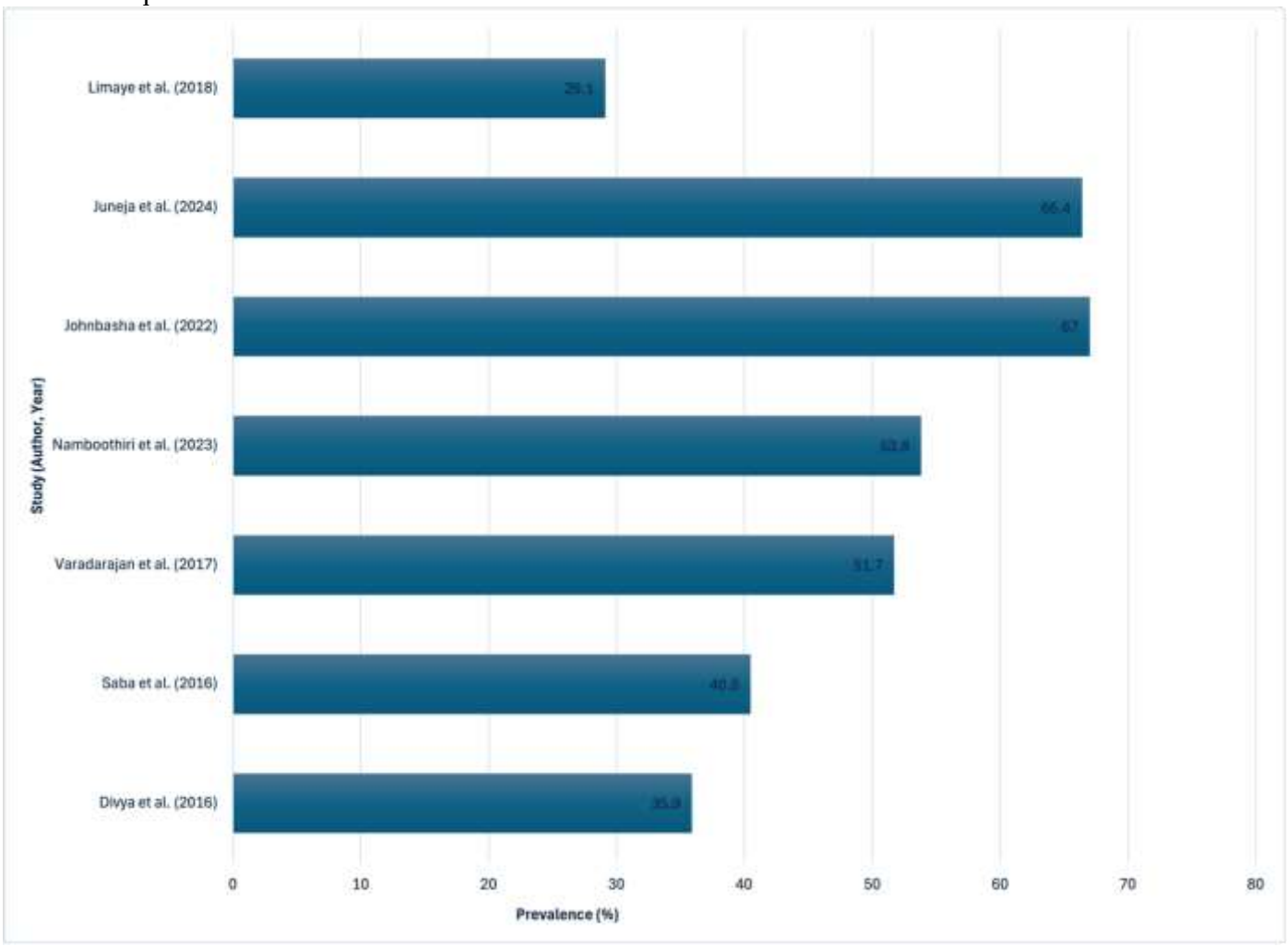


**Figure 2.1:** Prevalence of Self-Treatment Across Selected Studies in India

Socio-demographic factors such as age, gender, and education show mixed associations with self-treatment behaviour. Some studies suggest higher prevalence among younger individuals due to convenience and time constraints, while others indicate variations based on experience and access. Education shows a complex

relationship, with both higher and lower levels associated with increased self-treatment through different pathways.

Healthcare access factors, including affordability, availability, and perceived quality of services, play a crucial role in shaping behaviour. Limited access to formal healthcare services often pushes individuals towards self-treatment. Health-need factors such as severity, type, and duration of illness are also significant, with minor and acute conditions more likely to be self-treated, while severe or chronic conditions prompt formal care.

Despite a growing body of literature, important gaps remain. Most studies are localised and based on small samples, limiting generalisability. There is limited use of nationally representative datasets such as the NSS, and few studies focus specifically on young adults. This study addresses these gaps by providing a comprehensive analysis using NSS data.

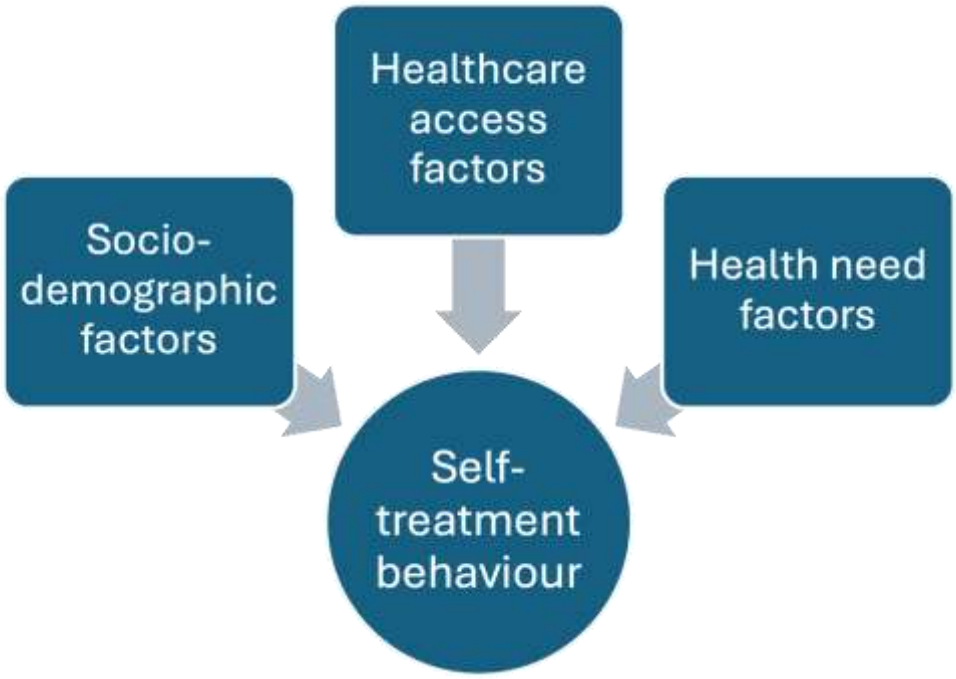


**Figure 2.2:** Conceptual Framework for Determinants of Self-Treatment Behaviour

## III. METHODOLOGY

This study adopted a cross-sectional analytical design using secondary data from the National Sample Survey (NSS) 75th Round (2017–2018), Schedule 25.0: Health. The dataset provides comprehensive information on morbidity, healthcare utilisation, and treatment behaviour across India.

The study population included individuals aged 18–29 years who reported illness during a 15-day reference period. This reference period reduces recall bias and captures recent treatment-seeking behaviour. Individuals without reported illness were excluded.

Self-treatment behaviour was defined as treatment taken without medical advice and was derived from NSS data. Independent variables were grouped into three domains: socio-demographic factors (age, gender, education, marital status), healthcare access factors (hospitalisation), and health-need factors (nature and duration of illness).

Descriptive statistics were used to estimate prevalence, while chi-square tests examined associations between variables. Binary logistic regression analysis was conducted to identify significant determinants of self-treatment. Sampling weights were applied to ensure national representativeness. The cross-sectional design allows for identification of associations but does not establish causal relationships.

## IV. RESULTS AND DISCUSSION

The study included 10,633 young adults aged 18–29 years, as shown in Table 4.1.

**Table 4.1:** Socio-demographic characteristics of the study population (N = 10,633)

| Variable | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Age Group | 18–21 years | 3325 | 30.6 |
| | 22–25 years | 3815 | 35.1 |
| | 26–29 years | 3722 | 34.3 |
| Gender | Male | 4813 | 44.3 |

| | | | |
|---|---|---|---|
| | Female | 6047 | 55.7 |
| Education Level | Low | 2429 | 22.4 |
| | Medium | 5462 | 50.3 |
| | High | 2969 | 27.3 |
| Marital Status | Not married | 4897 | 45.1 |
| | Married | 5963 | 54.9 |

The prevalence of self-treatment was found to be 12.5%, as shown in Table 4.2, indicating that although formal healthcare utilisation remains dominant, self-treatment continues to exist as an alternative pathway.

**Table 4.2:** Prevalence of Self-Treatment

| Treatment Type | Frequency | Percentage (%) |
|---|---|---|
| **Medical advice (0)** | 9306 | 87.5 |
| **Self-treatment (1)** | 1327 | 12.5 |
| **Total** | 10633 | 100 |

Bivariate analysis showed a significant association between age and self-treatment ($\chi^2 = 36.89$, $p < 0.001$), with higher prevalence among younger individuals. Gender was also significantly associated, with males showing higher levels of self-treatment compared to females, as shown in Table 4.3.

**Table 4.3:** Association between explanatory variables and self-treatment (Chi-square analysis)

| Variable | Category | Self-treatment (%) |
|---|---|---|
| **Age Group** | 18–21 | 14.32 |
| | 22–25 | 13.45 |
| | 26–29 | 9.82 |
| **Gender** | Male | 13.48 |
| | Female | 11.69 |
| **Education** | Low | 12.70 |
| | Medium | 12.28 |
| | High | 12.68 |
| **Marital Status** | Not married | 12.59 |
| | Married | 12.39 |
| **Hospitalisation** | Hospitalised | 0.3 |
| | Not hospitalised | 13.3 |
| **Nature of ailment** | Minor | 16.4 |
| | Moderate | 2.0 |
| | Chronic | 4.3 |
| | Serious | 14.0 |
| | Other | 6.7 |

Multivariate analysis revealed that age and gender were significant predictors of self-treatment behaviour. Individuals aged 26–29 years had lower odds of self-treatment compared to younger age groups. Education did not show a statistically significant association. Marital status demonstrated a weak but significant relationship.

Healthcare access and health-need factors showed stronger influence compared to socio-demographic variables. Hospitalisation emerged as the most influential determinant, indicating that interaction with formal healthcare systems significantly reduces the likelihood of self-treatment. Nature and duration of illness were also important predictors, with minor and short-duration illnesses more likely to be self-treated, as shown in Table 4.4.

**Table 4.4:** Multivariate logistic regression analysis of determinants of self-treatment

| Variable | Category | Odds Ratio (OR) | 95% CI | p-value |
|---|---|---|---|---|
| **Age** | 22–25 vs 18–21 | 0.894 | 0.791–1.042 | 0.115 |
| | 26–29 vs 18–21 | 0.613 | 0.533–0.723 | <0.001 |
| **Gender** | Female vs Male | 0.809 | 0.717–0.915 | <0.001 |
| **Education** | Ref: Low | — | — | Not significant |

| | | | | |
|---|---|---|---|---|
| **Marital status** | Married vs Not married | 1.154 | 1.017–1.309 | 0.027 |
| **Nature of ailment** | Group 2 | 0.114 | 0.028–0.462 | 0.002 |
| | Group 3 | 0.282 | 0.201–0.396 | <0.001 |
| | Group 4 | 0.944 | 0.823–1.082 | 0.405 |
| | Group 5 | 0.471 | 0.392–0.567 | <0.001 |
| **Duration of ailment** | Continuous | 1.000 | 0.999–1.000 | <0.001 |
| **Hospitalisation** | Hospitalised vs Not hospitalised | 35.62 | 8.858–143.256 | <0.001 |

These findings are consistent with previous studies that highlight the importance of healthcare access and perceived illness severity in determining treatment behaviour (Limaye et al., 2018; Savani et al., 2023). The results suggest that structural and contextual factors play a more significant role than individual socio-demographic characteristics.

## V. CONCLUSION

This study highlights that self-treatment among young adults is influenced primarily by healthcare access and perceived illness severity rather than socio-demographic characteristics alone. The findings emphasise the importance of strengthening primary healthcare services, improving affordability, and enhancing accessibility to reduce reliance on self-treatment. Public health interventions focusing on awareness of safe self-care practices and timely healthcare seeking are essential. Targeted strategies for young adults can help reduce inappropriate self-treatment behaviour and improve health outcomes. However, the cross-sectional nature of the study limits causal interpretation, and reliance on self-reported data may introduce reporting bias.

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