



Exploring teachers' perceptions and awareness of early behavioural warning signs of adolescent substance use in Kerala

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Abstract

Adolescent substance use is an increasing public health concern in Kerala, often beginning with subtle behavioural changes before severe consequences emerge. Teachers, who observe students daily, play a critical role in identifying early warning signs. This study explores teachers' perceptions and awareness of behavioural indicators associated with adolescent substance use. A mixed-methods design was used, involving structured questionnaires and semi-structured interviews with 150 teachers across Kerala. Findings indicate that although teachers possess basic awareness, significant gaps remain in recognising early and subtle behavioural indicators, particularly those related to newer psychoactive substances. The study recommends targeted training programmes and school-based intervention frameworks to strengthen early detection and prevention.

Keywords: Adolescents, substance use, teachers' awareness, behavioural changes, Kerala

Introduction

Adolescence is a crucial developmental stage associated with biological, psychological, and social changes. It is also a period during which young people frequently experiment with substances such as alcohol, tobacco, MDMA and newer psychoactive agents [4]. Kerala has reported a growing prevalence of adolescent substance use [5], contributing to academic, social and health challenges [6].

Teachers, due to their continuous interaction with students, are strategically positioned to observe behavioural deviations that may signal emerging substance use [7]. These signs may include academic decline, mood fluctuations, absenteeism, peer withdrawal and aggressive behaviour [8]. Early recognition enables timely prevention and reduces long-term consequences.

This study examines teachers' perceptions and awareness of early behavioural warning signs of substance use, while identifying gaps and opportunities for school-based intervention.

Review of Literature

Adolescent substance use: a global and Indian perspective

Adolescence is a high-risk phase for substance experimentation driven by curiosity, peer influence and environmental factors. Substance use in this stage contributes to psychological distress, risky behaviour and academic deterioration [1]. In India, studies report increasing use of tobacco, alcohol and synthetic drugs among adolescents, often driven by social and familial influences [9]. Despite awareness initiatives, many youths continue to

engage in substance use, emphasizing the need for early detection [1].

Behavioural indicators of adolescent substance use

Behavioural changes are often the earliest visible signs of substance use. These include irregular attendance, academic decline, aggression, mood instability and shifting peer groups [8]. Research indicates that teachers in Kerala readily recognise visible indicators such as absenteeism but often overlook subtle signs like irritability or anxiety [7]. Early identification can prevent escalation and chronic dependency [6].

Teachers' knowledge and perceptions

Teachers play an essential role in monitoring student behaviour. Evidence suggests that while teachers possess moderate knowledge about substance use, their understanding of specific behavioural cues remains limited [7]. International literature shows that teachers attribute substance use mainly to peer influence but lack adequate training to detect early behavioural cues [10]. Adolescents also believe teachers are less aware of newer drug trends, delaying early intervention [1].

Training and preparedness of Teachers

Several studies stress the importance of structured training programmes to enhance teachers' ability to identify early signs of substance use. Although teachers are aware of tobacco and alcohol risks, their behavioural detection skills are inadequate [2]. Standardised tools and observation checklists have been recommended to improve detection

accuracy [3]. Teachers with specialised training demonstrate higher confidence and better referral practices.

Objectives

1. To assesses teacher's knowledge of behavioural changes indicating adolescent substance use
2. To explore teacher's perception of the causes and consequences of adolescent substance use
3. To examine teacher's confidence in identifying and responding to early warning signs.
4. To identify gaps in training and resources for teachers regarding substance abuse detection.

Methods and Materials

Research design

This study employed a mixed methods descriptive design. Quantitative data were collected using structured questionnaires and qualitative insight were obtained through semi-structured interview.

Samples

A total of 150 teachers from governmental and private schools in three districts of Kerala participated. Inclusion criteria were teachers with at least three years of teaching experience in high school or higher secondary schools.

Data collection tools

- **Questionnaires:** 25-items tool assessing knowledge, perceptions, and self-efficacy regarding behavioural changes related to substance use.
- **Interview Guide:** Explored teacher's experiences, challenges, and intervention strategies.

Data Analysis

Quantitative data were analyzed using descriptive statistics (frequency, percentage, mean score). Qualitative data were analyzed using thematic analysis to identify common pattern and insight.

Table 2: Teacher's knowledge of behavioural signs (N=150)

Behavioural Sign	Correct Identification (f)	Percentage (%)
Academic decline	120	80%
Frequent absenteeism	110	73%
Mood swings/ Irritability	75	50%
Aggression or delinquent behaviour	60	40%
Social withdrawal/ Isolation	55	37%
Secretive behaviour/ Lying	50	33%

Teachers most frequently identified academic decline (80%) and absenteeism (73%). Fewer recognised subtle indicators such as irritability (50%), aggression (40%), social withdrawal (37%) and secretiveness (33%).

Teachers' perception of causes of Adolescent substance use

Table 3: Teachers' perception of causes (N=150)

Perceived Cause	Frequency (f)	Percentages (%)
Peer influence	120	80%
Family environment	90	60%
Media/ Social influence	65	43%
Academic stress/ Pressure	50	33%
Curiosity / Experimentation	40	27%

Results

The results of the study are presented in two parts: quantitative findings from the structured questionnaire and qualitative findings derived from semi-structured interviews with 20 teachers. Together, these provide a comprehensive understanding of teachers' awareness and perceptions regarding early behavioural warning signs of adolescent substance use in Kerala.

Quantitative Findings

Demographic profile of respondent

A total 150 teachers participated in the study. The majority were females (60%), while 40% were males. Most participant were between 31-40 years of age (45%), followed by 41-50 years (30%) and 21-30 years (25%). Regarding teaching experience, 50% had 6-10 years of experience, 30% had 11-15 years, and 20% more than 15 years.

Table 1: Demographic profile of teachers (N=150)

Demographic Variables	Frequency (f)	Percentage (%)
Gender		
Male	60	40%
Female	90	60%
Age (Years)		
21-30	38	25%
31-40	68	45%
41-50	44	30%
Teaching experience		
1-5 Years	15	10%
6-10 Years	75	50%
11-15 Years	45	30%
>15 Years	15	10%

Teacher's knowledge of early behavioural signs of substance use: Teachers were asked to identify behavioural signs associated with adolescent substance use. The responses are summarised below:

Teachers' believed Peer influence (80%) and family environment (60%) were the most frequently perceived causes. Media exposure, academic stress and curiosity were identified less often.

Teachers' confidence and preparedness

Teachers' self-reported confidence in identifying early behavioural signs was assessed on a 3- point scale (High / Moderate/ Low).

Table 4: Teachers' confidence in early detection (N=150)

Confidence level	Frequency (f)	Percentage (%)
High	60	40%
Moderate	55	37%
Low	35	23%

Only 40% of teachers felt highly confidence in identifying early signs, indicating the need for focusing training programs

Qualitative Findings

Thematic analysis of interview data revealed four major themes that explain teachers' perceptions, challenges, and experiences.

Theme 1: Difficulty Identifying Subtle Behavioural Changes

Many teachers expressed that early sign such as anxiety, irritability, or withdrawal are often mistaken for normal adolescent behaviour.

Theme 2: Limited Training and Lack of Preparedness

Teachers frequently mentioned the absence of formal training in detecting early warning signs.

Theme 3: Influence of Peer Group and Family Environment

Teachers strongly believed that peer pressure is the biggest contributing factor.

Theme 4: Need for School-Based Intervention and Support Systems

Teachers emphasized the need for counselling services, awareness programs, and supportive school policies.

Discussion

The present study examined teachers' understanding and perceptions of early behavioural signs associated with adolescent substance use in Kerala. The findings clearly demonstrate that although teachers are able to recognise obvious behavioural changes, their awareness of subtle psychological and social indicators remains limited. The high identification rates of academic decline and absenteeism reflect teachers' reliance on overt, school-related markers of student functioning. This pattern mirrors earlier research, which suggests that teachers tend to identify performance-based or easily visible disruptions more effectively than internalised or less noticeable changes [7].

However, indicators such as withdrawal, unexplained irritability or sudden changes in peer relationships were poorly recognised. These subtle signs often precede more serious behavioural deterioration and may serve as early red flags for emerging substance use [6]. The under recognition of these cues highlights the need for training that helps teachers differentiate normal developmental fluctuations from early risk behaviours. This gap is particularly significant because adolescents often mask early substance use within routine emotional or social changes, delaying timely intervention.

Teachers in this study strongly attributed substance-use initiation to peer influence and family environment, which aligns with earlier evidence identifying these as primary determinants [9]. While these factors are undeniably important, the limited emphasis placed on academic pressure, media exposure and curiosity suggest an incomplete understanding of the multifactorial nature of adolescent risk. Contemporary research emphasises that

substance use often arises from overlapping psychosocial stressors rather than a single source [1]. An over-reliance on peer-related explanations may therefore hinder comprehensive assessment.

Participants' relatively low confidence levels further indicate that theoretical awareness alone does not translate into practical detection skills. Many teachers expressed uncertainty when interpreting behavioural changes, especially when students presented with mixed emotional and academic indicators. Similar studies note that teachers frequently feel unprepared to assess evolving patterns of adolescent substance use due to insufficient professional development or exposure to real-world case scenarios [10]. This lack of preparedness may also stem from the absence of structured school policies and referral systems, leaving teachers unsure about how to act when suspicions arise.

The results of both quantitative and qualitative analyses reinforce the need for capacity-building initiatives in schools. Evidence supports the use of structured training programmes, scenario-based workshops and standardised screening tools, all of which have been shown to enhance teachers' confidence and detection accuracy [2, 3]. Strengthening the role of school counsellors and establishing clear pathways for referral would further support teachers' efforts.

Overall, the study highlights a significant opportunity for educational institutions to reinforce their preventive role. When adequately trained and supported, teachers can serve as the first line of defence in identifying at-risk adolescents, initiating timely interventions and minimising the long-term consequences of substance use.

Conclusion

The study concludes that while teachers in Kerala demonstrate reasonable awareness of major academic and behavioural indicators of substance use, their ability to recognize subtle early warning signs remains limited. Teachers tend to identify obvious manifestations such as poor academic performance or absenteeism, but their recognition of emotional and social cues-such as withdrawal, irritability, or sudden changes in peer groups-is comparatively weak. Their perceptions highlight peer influence and family environment as major contributors to adolescent substance use, but they may underestimate other important risk factors.

The limited confidence reported by teachers indicates that theoretical knowledge alone is insufficient without hands-on training and practical strategies to observe and respond to early behavioural changes. The study emphasizes the need for capacity-building initiatives within schools to help teachers detect signs early and respond appropriately. Strengthening teacher preparedness, enhancing school counselling services, and promoting collaborative awareness programs can significantly improve substance-use prevention efforts at the school level.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

- 1. Implement teachers training programmes:** Schools should organize periodic training workshops focused on identifying early behavioural indicators, understanding

substance-use patterns, and developing practical skills for early intervention.

2. **Development behavioural observation tools:** User-friendly checklists, monitoring forms, and guidelines should be created to help teachers systematically observe changes in students' behaviour.
3. **Strengthen school counselling services:** Schools should ensure the presence of trained counsellors who can support teachers and handle students showing early risk signs.
4. **Conduct regular awareness programmes:** Awareness sessions for students, teachers, and parents can help promote early recognition of substance use and reinforce preventive strategies.
5. **Encourage collaboration with community resources:** Schools should collaborate with mental health professionals, local health departments, and NGOs to develop comprehensive support and referral mechanisms.
6. **Incorporate life skill education:** Curriculum-based life skills programs focusing on decision-making, peer resistance, stress management, and emotional regulation should be integrated into school activities.
7. **Promote further research:** Additional studies with larger and more diverse samples across Kerala are recommended to assess long-term outcomes of teacher training and school-based interventions.

Conflict of Interest

Not available.

Financial Support

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