

Leadership Practices and Implementation Challenges of Secondary School Administrators in Drug Prevention Education: A Mixed-Methods Study

Mohamad Ziyad Mohd Lazim, and *Abu Bakar Mohd Sheikh

Faculty of Education and Social Sciences, University of Selangor, Kuala Selangor, Malaysia

*Corresponding Author

DOI: <https://dx.doi.org/10.47772/IJRISS.2026.10200560>

Received: 04 March 2026; Accepted: 09 March 2026; Published: 20 March 2026

ABSTRACT

This mixed-methods study explores the leadership practices and challenges encountered by secondary school administrators in implementing drug prevention education in Terengganu, Malaysia. Drawing on Kotter's Change Management Model, the research utilizes quantitative surveys (n=130) and qualitative interviews (n=23) to evaluate administrator engagement, program strategies, and obstacles to effective prevention. Notably, the results demonstrate that administrators perform strongly in student engagement, program monitoring, resource allocation, and fostering community partnerships. However, staff training emerges as an area in need of further development. To address these gaps, administrators are integrating prevention into the curriculum, building partnerships with agencies and parents, and empowering students to act as peer educators. Furthermore, thematic analysis indicates that successful implementation is driven by holistic, collaborative, and student-centered approaches. Although structured management frameworks contribute to program sustainability, the study acknowledges limitations, including resource constraints and the use of self-reported data. Therefore, it is recommended that schools enhance professional development for staff, broaden stakeholder participation, and implement innovative strategies to strengthen drug prevention efforts. Overall, these actionable findings not only inform policy and practice but also support the creation of safer and healthier school environments through sustained and inclusive prevention initiatives.

Keywords: Drug Prevention Education; School Administrators; Kotter's Change Management Model; Staff Training; Community Collaboration

INTRODUCTION

This section is related to *the background of this study*. First, various constraints often hinder the implementation of drug prevention education programs in high schools, including a lack of resources and funds that limit the effectiveness and continuity of the program. In addition, administrators who do not consistently demonstrate commitment and limited professional training opportunities also add to the challenges in managing these programs. In addition, administrators often have difficulty evaluating the program's actual achievements, especially when the community opposes or does not provide adequate support. As a result, program implementation becomes non-uniform, so planning and implementation differ between schools and ultimately affect students' ability to make healthy decisions. Therefore, it is difficult for schools to maintain the sustainability of programs and evaluate results on an ongoing basis. Thus, Árvá et al. (2024) have emphasized the role of organizational capacity and the empowerment of drug prevention education program administrators.

In this regard, the researchers conducted this study because of the urgent need to understand the influence of school administrators in the implementation of drug prevention education programs. It should be emphasized that administrators play an important role as leaders who determine the effectiveness and continuity of programs in high schools. School-based drug sensitization programs to illustrate an understanding of drug-related issues of concern to young people. In this regard, the United Nations has launched a project that

focuses on youth development through the creation of an environment to address the problem of drug abuse. It is to provide an opportunity to create solutions towards a healthy, livable, and sustainable planet (United Nations, 2023). Furthermore, through an analysis of implementation challenges and gaps, the researchers suggest more comprehensive and practical improvement strategies. In addition, the study also strengthened community support and found innovative approaches to overcome resource constraints and increase administrator commitment. Finally, the resulting model can improve the effectiveness of the program and ensure a safer and healthier school environment for the youth.

The purpose of this section is to elaborate on the *problem statement of this study*. Broadly speaking, secondary schools have implemented various drug prevention education programs, but the implementation and impact of these programs still raise big questions. This is because the ongoing lack of resources and funds means that not all schools are able to implement programs consistently and comprehensively, while professional training for administrators and teachers is still limited. In addition, communities often oppose or lack support, thus disrupting the success of programs and raising questions about the best mechanism to proactively engage all parties. In this regard, the United Nations has set its targets to strengthen the prevention and treatment of substance abuse, including the abuse of dangerous narcotic drugs (United Nations Statistics Division, 2025). Therefore, administrators need to implement a coordinated strategy at the international and national levels by using innovative approaches so that the sustainability and effectiveness of programs are guaranteed throughout the country. Thus, administrators, teachers, parents, and communities must work closely together to ensure that drug prevention efforts in secondary schools are truly effective and long-lasting.

Basically, drug prevention education programs in high schools face various constraints such as lack of resources, funds, and professional training. Drug education often operates under the assumption that the decision to use drugs stems from a misunderstanding—that drug use is considered normal (Farrugia, 2023). Despite efforts by administrators to secure the support of the community and parents, acceptance of the program is still low, and implementation is not uniform across schools. In addition, gaps in programming limit program benefits to a handful of students, thus making it difficult for administrators to objectively assess effectiveness. To overcome this problem, administrators are advised to increase funding, provide ongoing professional training, and strengthen communication between schools and communities. If administrators do not adopt a targeted strategy, drug prevention efforts will be in vain, and social problems among at-risk adolescents will continue to recur without a complete solution.

This section aims to clarify *the objectives of the study* and the questions of this study. There are two objectives of this study, namely, (1) to analyze the level of practice among school administrators in the drug prevention program for secondary school students, and (2) to describe the practice of school administrators in relation to drug prevention education for secondary school students. Meanwhile, there are also two *study questions*, namely (1) What is the level of practice among administrators for drug prevention education programs for secondary school students? (2) How do administrators practice drug prevention education in secondary schools?

The purpose of this section is to state the *scope and limitations of this study*. Specifically, this study focuses on the constraints, practices, and strategies that drug prevention education program administrators in Terengganu state secondary schools implement. In this regard, the secretarial teacher was the main respondent in this study, while this study did not involve school counsellors, thus detailing the administrative and management aspects of the program specifically. Researchers conducted this study for six months to enable an in-depth analysis of the challenges as well as the success of program implementation. Thus, the findings of this study are able to help build an effective and holistic model of drug prevention education. In addition, the results of this study can be used as a useful guide to other states that want to strengthen drug prevention efforts in secondary schools.

The purpose of this section is to elaborate on *the importance of this study*. In summary, we examined the main challenges in the implementation of drug prevention education programs in Terengganu state secondary schools, Malaysia, such as lack of funding, limited professional training, and poor communication between schools and communities. Therefore, we propose an integrated strategy by increasing funding, expanding

training to administrators and teachers, and building open communication mechanisms with the community to strengthen program implementation. We also emphasize the importance of coordinating administrative policies at the national level and encouraging the active involvement of communities and students in prevention efforts. As such, the findings of our study benefit policymakers, school administrators, teachers, ministries of education, and community organizations because they build practical and effective intervention models. These efforts indirectly improve the well-being of high-risk students and help shape a healthy and safe young generation.

It is worth elaborating in this section about *the operational definition*. We assessed administrators' involvement in drug prevention education programs in secondary schools through five main areas, namely staff training, parent and community involvement, resource provision, student programs, and monitoring. In particular, we measured constructs using a five-point Likert scale questionnaire that allowed administrators to express their level of agreement with the areas of practice we assessed. After that, we collected and analyzed the data quantitatively using statistical software such as SPSS to obtain the min, frequency, and composite size scores of each construct (Handrianto et al., 2020; Cadri et al., 2024).

To understand the implementation of drug prevention programs by school administrators, researchers used qualitative methods such as semi-structured interviews and open-ended survey questions. The use of this method allows information about the experience and decisions of administrators to be gathered in depth. The data obtained is systematically analyzed using techniques such as thematic analysis and the help of NVivo software. The results of the analysis identified key themes as well as specific insights on the challenges and successful implementation of the program. These findings help suggest improvements in drug prevention policies and practices in schools.

LITERATURE REVIEW

The model underlying this study

Change Management Model (Kotter, 2021). The objectives and questions of this study are closely related and aligned with Kotter's Change Management Model. Analyzing and describing the practices of school administrators in drug prevention directly connects to the model's emphasis on leading organizational change through a structured process. For example, examining the level of practice among administrators reflects the model's initial steps, such as establishing a sense of urgency and building a guiding coalition, which require leaders to assess current practices and mobilize action. Describing how administrators implement drug prevention education parallels steps like communicating the vision, empowering action by removing obstacles, and generating short-term wins, as these are all essential for ensuring effective program delivery and fostering sustainable change within schools. Thus, the study's focus on both the assessment and implementation of drug prevention practices among administrators is inherently linked to the principles and steps outlined in Kotter's framework for successful organizational transformation.

Transitioning to the next stages, generating short-term wins is a key tactic that helps maintain momentum by showcasing early successes and encouraging continued dedication from all involved. These visible achievements not only build confidence in the process but also serve as evidence that change is producing positive results. Finally, to cement these gains and ensure long-term success, the model emphasizes consolidating improvements and embedding new behaviors into the organizational culture. By continuing to drive change, addressing challenges as they arise, and making the new practices standard operating procedures, organizations can achieve lasting and meaningful transformation (Figure 1).

Figure 1 Kotter Change Management Model Used for Drug Prevention Programs in High Schools

Steps	School Drug Prevention App	Key Stakeholders/ Instruments
1. Create Urgent Needs	Present evidence of increased student drug abuse to prompt action.	School leaders, counselors, and data reports

2. Forming a Coalition of Guides	Build a team of teachers, counselors, parents, and students for collective leadership.	Teachers, counselors, parents, students
3. Develop Vision & Strategy	Create a unified vision (e.g., "Make our schools drug-free through education, support, and community engagement").	Leadership team, vision statement, communication materials
4. Convey the Vision	Promote the vision through meetings, flyers, bulletin boards, and digital platforms.	Stakeholders, communication channels
5. Empower Action	Remove barriers (obstacles, limited resources) and provide training and support.	Professional development, support system
6. Short-Term Generation Win	Organize drug awareness campaigns and track incident reductions.	Events, metrics, recognition
7. Consolidate Profits & Generate More Change	Develop and refine programs; introduce peer mentoring.	Program development, mentorship initiatives
8. Anchor New Approaches in Culture	Integrate prevention into curriculum, planning, and daily routines.	Basics, curriculum, and school routines

Past Research Literature Review Related to Research Questions

The Assessment of Administrators’ Engagement and Effectiveness in Implementing Drug Prevention Education. The leadership practices and implementation challenges of secondary school administrators in drug prevention education have been comprehensively examined through a mixed-methods study conducted in Terengganu, Malaysia. The selection of diverse research studies—including quasi-experimental, contextual, and user-centered approaches—demonstrates the multifaceted nature of effective drug prevention. For instance, Rakhshani et al. (2025) provide empirical evidence supporting theory-driven interventions, while Eisman et al. (2022) highlight the necessity of aligning program content with local school contexts and educator challenges. These perspectives collectively underscore the importance of rigorous methodology and adaptability in achieving successful outcomes.

Building on this foundation, the development of the Sideffect GamePlan by Nicholas et al. (2023) illustrates the value of user-centered design, where students, teachers, and parents actively contribute to intervention processes. This engagement ensures higher acceptability and long-term impact, particularly in secondary schools where student motivation is crucial. Similarly, El-Khatib et al. (2021) address the collaboration between school administrators and law enforcement, emphasizing the need for clear guidelines and shared responsibilities. These studies reveal that stakeholder involvement and policy clarity are vital factors in implementing effective drug prevention programs.

Finally, Nguyen et al. (2025) stress the central role of teachers in both the implementation and sustainability of alcohol and other drug (AOD) prevention initiatives. Their comprehensive scoping review synthesizes frontline insights, guiding administrators to prioritize teacher engagement for program success. In summary, the selected studies form a cohesive and practical framework for secondary school leaders, offering evidence-based recommendations and highlighting the interconnected challenges of intervention design, contextual adaptation, and stakeholder collaboration. This body of work ultimately supports administrators in refining leadership practices and overcoming barriers to school-based drug prevention.

The Various Strategies, Actions, And Roles That School Administrators Undertake to Effectively Implement Drug Prevention Education. To begin, in 2024, Shrestha, Velayudhan, Shashidhara, Vani, and Jai studied the "Effectiveness of School-based Substance Abuse Prevention Program (SSPP)" in Pokhara, Nepal. Their main aim was to assess SSPP's impact on adolescents' awareness, attitudes, peer pressure resistance, and life skills to prevent substance use. Using focus group discussions with stakeholders and a cluster randomized controlled trial among over 210 grade 8 and 9 students, they found that the SSPP significantly improved participants' knowledge, attitudes, ability to resist peer pressure, and essential life skills. The study also contributed a new prevention training module for Nepal and supported Sustainable Development Goal 3.5 regarding substance abuse prevention.

Similarly, in 2025, Weng and colleagues studied nine senior high schools to compare an interactive digital intervention (IDI) with traditional teaching for drug prevention. Of 768 students, 651 aged 16–18 completed the study. The IDI group, using a web-based program with videos and quizzes, showed greater improvement in drug knowledge, health literacy, and engagement than the textbook group. However, refusal skills and perceived harmfulness were not significantly improved, and cognitive engagement was similar between groups. These results indicated that while digital interventions were promising, further development was needed to address specific skills and perceptions. Future studies should explore long-term effects and scalability for adolescent substance use prevention.

In contrast, Petersen, Khan, and Daniels (2025) conducted a qualitative study in Cape Town, South Africa, to examine how high schools addressed alcohol and drug use among students. By interviewing 23 staff from 11 schools, they identified three main issues: varied responses due to inconsistent guidelines, a gap between policy and practice, and insufficient educator support. Educators often felt unprepared to help students beyond initial referral, lacking knowledge about aftercare and relapse management. The study highlighted the need for unified guidelines, better training, and stronger support systems to enable effective intervention and sustained student support.

Moving to Europe, Árva, Vokó, Sápi, Cselkó, and Rákossy conducted a 2024 mixed-methods study in Hungary to assess how school characteristics influenced the implementation of universal addiction prevention programs. Using a nationwide survey of 2,892 elementary schools and focus groups with 37 teachers from 21 schools, they found that institutional factors significantly affected program effectiveness. The study emphasized supporting teachers and enhancing organizational capacity to improve prevention outcomes, recommending evidence-based strategies for policymakers and educators to foster healthier school environments.

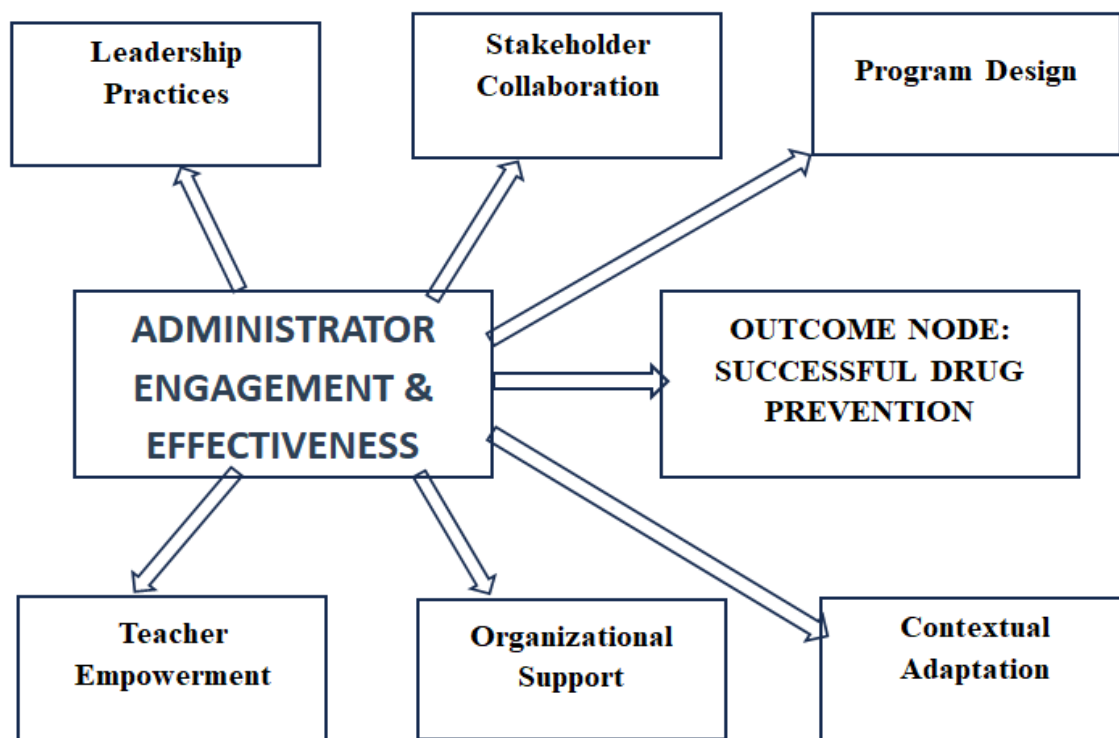
Furthermore, Eisman, Koffkey, Partridge, and colleagues launched a 2025 pilot study, "Rapid Adaptation to Prevent Drug Use (RAPD)," in Michigan middle schools. Using a two-group, cluster randomized controlled trial with ten diverse schools, the protocol aimed to enhance drug use prevention strategies for youth. While results were not yet available, the study sought to improve responsiveness to drug trends and support equitable prevention efforts, ultimately guiding practical interventions.

Taken together, each study reviewed contributed uniquely to the understanding of school-based drug prevention. The Nepalese SSPP study by Shrestha et al. (2024) was notable for its comprehensive approach, addressing awareness, attitude, peer pressure, and life skills in adolescents. The Taiwanese quasi-experimental study by Weng et al. (2025) explored the efficacy of digital interventions compared to traditional methods, reflecting the growing relevance of technology in education. Petersen et al. (2025) in South Africa highlighted the critical need for cohesive guidelines and aftercare in responding to substance use. Árva et al. (2024) in Hungary examined institutional influences and barriers, emphasizing the role of organizational capacity and teacher empowerment. Eisman et al. (2025) in the United States focused on protocol development for rapid adaptation, underscoring the importance of responsiveness to emerging drug trends.

In conclusion, the reviewed studies collectively advanced the field of school-based drug prevention by illuminating the multifaceted requirements for success. Effective programs were those that combined evidence-based educational strategies with robust organizational support, teacher empowerment, and adaptability to local and emerging needs. The rationale for selecting blended, context-sensitive approaches lies in their demonstrated ability to address both immediate and systemic challenges, ensuring sustained impact and

relevance for diverse school environments. Policymakers and researchers should have prioritized interventions that integrated skill development, health literacy, and aftercare, supported by clear guidelines and ongoing evaluation (Figure 2).

Figure 2 A conceptual framework that shows the elements that contribute to drug prevention



METHODOLOGY

This section is related to *the design of the study*. In this regard, this study used a mixed-methods design so that we could comprehensively examine the quantitative aspects and experiences of secondary school administrators' involvement in drug prevention education programs. We assessed the practices of administrators through quantitative surveys and identified patterns of effectiveness of prevention strategies in various schools. We also conducted qualitative interviews to gain in-depth insights into the leadership, contextual challenges, and personal experiences of administrators that cannot be captured through quantitative data alone. The combination of the two approaches results in a rich, narrative-supported statistical analysis. We build practical recommendations based on evidence. This approach is in line with the best practices of educational studies that emphasize triangulation and blended methods to produce findings that are credible and relevant to realities in the field (Handrianto et al., 2020; Cadri et al., 2024; Creswell & Creswell, 2023; Flick, 2022).

This section aims to describe *the variables of the study*. We randomly selected variables in the study design of this mixed method. We ensure that the quantitative and qualitative aspects of the role of secondary school administrators in drug prevention education can be comprehensively studied. We set admin engagement as a non-dependent variable. Such engagement measures the leadership, participation, and support that influence the success of prevention strategies. We included the type of program, frequency of activities, and method of education as leaning variables. These variables provide a broad overview of practical implementation in schools. We combined demographic factors and outcome measures such as perceived effectiveness by administrators as well as student participation rates. Those factors contextualize the findings and help identify patterns across various educational settings. We also included qualitative variables such as administrator perceptions, challenges, and innovative approaches. Qualitative variables enrich the analysis and help uncover the motivations and contextual influences that shape the involvement of administrators in drug prevention efforts (Cadri et al., 2024; Creswell & Creswell, 2022).

The purpose of this section is to explain *the study instruments*. We carefully developed a study instrument to capture aspects of secondary school administrators' involvement in drug prevention education programs. We used structured questionnaires to systematically measure admin participation, leadership, and support. We collected demographic information to identify patterns and trends in a variety of school contexts. We designed semi-structured interview guides and observational techniques to complement quantitative data with in-depth qualitative insights. We unravel the experiences, challenges, and innovative strategies of administrators through these instruments. We formed all instruments based on literature review, expert consultation, and pilot tests. We ensure the high validity and reliability of the study instruments. We use a combined approach that is in line with our main recommendation of education. We emphasize triangulation to produce findings that are relevant to the field reality (Handrianto et al., 2020; Cadri et al., 2024; Creswell & Creswell, 2023; Flick, 2022).

The purpose of this section is to elaborate on the *validity and reliability of this study*. We strengthened the validity of this study by developing a structured instrument based on a literature review and expert consultation. We conducted pilot testing with secondary school administrators to ensure that the instrument accurately measured administrator involvement as well as drug prevention strategies. We performed data triangulation through a combination of survey responses, interview transcripts, and observation notes to improve the credibility of the findings. We also use standardized data collection procedures and detailed documentation to minimize measurement errors. In addition, we assessed reliability by testing the internal consistency of the questionnaire and strengthening the qualitative section through interview guidance and systematic observation protocols.

It is necessary to explain in this section about *the study population, sampling techniques, and sample size*. We highlight the main population of 154 secretaries of secondary school drug prevention education programs in Terengganu, Malaysia, based on official data from the Terengganu Education Department in 2025. We also engage principals, vice-principals, and school leaders who play a key role in the implementation of the program so that the data obtained is sourced from the direct experience and practical expertise of the administrators. By engaging participants from public, private, and charter schools, we were able to capture a variety of approaches and unique challenges in each educational context, in accordance with our education best practices (Creswell & Creswell, 2022). We actively selected high school administrators with hands-on experience in drug prevention education programs as key participants in this study. We also set a minimum sample size of $n = 130$ for the quantitative component of the $N = 154$ population of administrators in order to ensure the statistical power and reliability of the generalization of the study (Kriecjie & Morgan, 1970). We also used 23 respondents for a qualitative component, according to the interview session (Creswell & Creswell, 2022).

This section aims to describe *quantitative data collection procedures and qualitative data collection procedures*. We tested the questionnaire with secondary school administrators to ensure that the instruments used were appropriate and could minimize the ambiguity of the responses. We distribute questionnaires both electronically and in paper, as well as provide clear directions and follow-up alerts to participants to improve the accuracy of answers. We selected participants based on the first-hand experience of principals, vice-principals, and other school leaders in drug prevention programs according to authoritative methodologies, resulting in valid and reliable findings (Flick, 2022; Creswell & Creswell, 2022). We conducted semi-structured interviews with high school administrators directly involved in drug prevention programs. We record the data collection process via audio, make verbatim transcriptions, and maintain confidentiality to improve the integrity and reliability of the data. We compiled an interview guide that covered leadership aspects, challenges, strategies, and perceptions of effectiveness and continued the interview until we reached thematic saturation.

This section relates to *pilot studies*. We conduct pilot studies before starting major data collection to ensure that the study instruments are clear, appropriate, and reliable. In this process, we selected 35 high school administrators to complete a trial questionnaire and provide feedback on word selection, formatting, and question comprehension. Based on their honest feedback, we made improvements so that the questionnaire truly reflected the administrators' experience with drug prevention education programs.

We also tested a qualitative interview guide with a group of qualified administrators to refine the questions, interview arrangement, and implementation logistics. We detail the reliability coefficient of Cronbach's Alpha for the "Level of Practice" construct in this study. We reported that the value of the coefficient is 0.761 with a total of 25 items tested. This value exceeds the minimum threshold of 0.60 commonly used in social research, thus indicating that the instrument for this construct has satisfactory and consistent reliability for use in key data collection. These findings are in line with the recommendation of Pallant (2007), who stated that a coefficient of more than 0.60 is acceptable as an indicator of the reliability of the study instrument. The results of this pilot study allowed us to make final adjustments to strengthen the effectiveness and robustness of the mixed-methods study in examining the involvement and strategies of secondary school administrators.

The purpose of this section is to delve into *data processing and analysis and qualitative data processing and analysis*. We systematically collect and process all survey responses to ensure that the data remains accurate and confidential. Next, we encode each form into a secure database and double-check the data to minimize errors. We analyzed data using descriptive statistics through *SPSS* and then correlated the results with qualitative data to deepen our understanding of drug prevention leadership in schools. We transcribed interview transcripts verbatim and removed all participant identification information to maintain their confidentiality. Qualitative coders frequently discuss and refine themes to keep the interpretation of the analysis results accurate. We manage the data using field notes and *NVivo software* and perform analyses until thematic saturation is achieved before associating qualitative themes with quantitative data.

The purpose of the section is to state *the ethics of the study*, the work schedule, and the duration of the research. We obtained institutional approval and informed consent from school administrators prior to the study. We maintain the confidentiality of participants by anonymizing data and storing information securely. We carry out the reporting of the results carefully so that the identity of the participants is preserved. We compiled a six-month study work schedule, from January to June 2025, in a planned and structured manner. In the early stages, we obtained ethics approval and developed study instruments with the school. Furthermore, we collect quantitative and qualitative data simultaneously to maximize the advantages of the mixed method.

DATA ANALYSIS, RESULTS, AND FINDINGS

Analysis of the Frequency and Percentage of Respondents Demographic Characteristics

Table 1 shows the frequency and percentage analysis of the demographic characteristics of the study respondents.

Table 1 Frequency and percentage of demographic characteristics of study respondents

Aspect	Number	Percent (%)
Gender: Women	83	63.8
Gender: Men	47	36.2
Race: Malay	129	99.2
Race: Chinese	1	0.8
Academic Status: First Degree	117	90.0
Academic Status: Second Degree	13	10.0
Teaching Experience (years): 1-5	9	6.9
Teaching Experience (years): 6-10	5	3.8

Teaching Experience (years): 11-15	27	20.8
Teaching Experience (years): 16-20	38	29.2
Teaching Experience (years): 21-25	51	39.3
Teaching Level: Form 1	47	36.2
Teaching Level: Form 2	20	15.4
Teaching Level: Form 3	14	10.7
Teaching Level: Form 4	7	5.4
Teaching Level: Form 5	41	31.5
Teaching Level: Form 6	1	0.8
Subject: Science/Mathematics	22	16.9
Subject: Humanity	21	16.2
Subject: Technology/Vocational	11	8.5
Subject: Language	19	14.6
Subject: Counselor	57	43.8

In summary, Table 1 showed that the majority of respondents consisted of females (63.8%) and Malays (99.2%), and the majority had a first degree (90%). In terms of teaching experience, the largest group was those with 21-25 years of experience (39.3%), followed by 16-20 years (29.2%) and 11-15 years (20.8%). Most of the respondents taught in Form 1 (36.2%) and Form 5 (31.5%). In terms of subject options, counsellors were the largest group (43.8%), followed by Language (14.6%) and Science/Mathematics (16.9%). This analysis shows the diversity of respondents' backgrounds, but it is clear that the majority are Malay women with a first degree and more than 20 years of experience in the field of education. In this regard, understanding the demographics of respondents is important for a more meaningful assessment of study findings.

Data Analysis For Findings Study Question 1: What is the level of practice among administrators for drug prevention education programs for high school students?

This section presents a practice-level analysis among high school administrators in implementing drug prevention education programs. Evaluation focuses on five key constructs: staff training, parent and community involvement, provision of resources and facilities, establishment of student engagement programs, and program monitoring and evaluation. Data were collected and analyzed to determine the mean score and standard deviation for each construct, providing insight into the consistency and effectiveness of practices across participating schools (Table 2).

Table 2 Results of Construct Stage Analysis

No.	Construct	Min	Standard Deviation	Stages
1	Staff Training	3.26	0.63	Simple

2	Parent and Community Engagement	3.41	0.69	Height
3	Provision of Resources and Facilities	3.43	0.61	Height
4	Establishment of Student Engagement Programs	3.57	0.58	Height
5	Monitoring and Evaluation	3.59	0.70	Height

The report evaluates high school administrators' practices in implementing drug prevention education programs, focusing on five key constructs: staff training, parent and community engagement, resource preparation, student engagement, and program monitoring and evaluation. The findings point to strong and proactive practices among administrators, with community engagement and ongoing monitoring as key factors for successful implementation. Drug prevention education is an important component in high school to address substance abuse among adolescents. Effective implementation depends on the commitment and ability of the school administrator. The report analyzes the level of practice among administrators through five key constructs, providing insights into strengths and areas for improvement in drug prevention efforts. Data analysis was conducted to evaluate administrator practices across five constructs. Mean values and standard deviations are calculated to determine the level and consistency of practice for each build.

Table 2 showed that high school administrators exhibit strong and proactive practices in implementing drug prevention education programs. To begin with, staff training was evaluated at a moderate level (mean = 3.26, SD = 0.63), indicating room for improvement in this area. Going forward, parent and community engagement scored high (mean = 3.41, SD = 0.69), highlighting the importance of collaborative efforts. Additionally, the provision of resources and facilities was also rated at a high level (mean = 3.43, SD = 0.61), ensuring that schools were well equipped to support prevention initiatives. Furthermore, the student engagement program recorded the highest level among all constructs (mean = 3.57, SD = 0.58), emphasizing its importance in fostering a supportive environment. Finally, program monitoring and evaluation was found to be at a high level (mean = 3.59, SD = 0.70), underlining the role of continuous evaluation in maintaining program effectiveness. Overall, the results show that community engagement and continuous monitoring are important contributors to the successful implementation of drug prevention education in secondary schools.

This study found that administrators excelled in student engagement, program monitoring, and resource provision, while staff training may benefit from further improvements. The high level of parental and community involvement reinforces the importance of collaborative efforts in drug prevention. The function of standard deviation in this analysis is to measure the degree of variability or consistency in the response. Lower standard deviations indicate greater consistency, while higher values reflect more variability among respondents, offering insight into the reliability of practices in each construct. The practice of administrators in drug prevention education programs in high schools is generally robust, with particular strength in community engagement and ongoing monitoring. A continued focus on staff training and consistent practices across all constructs will further enhance the effectiveness of the program.

Data Analysis For Findings Study Question 2: How do administrators practice drug prevention education in secondary schools?

Qualitative data analysis according to a general process. These six core steps are used across all methods (Creswell & Creswell, 2023):

Step 1: Data Preparation and Organization—First, all raw data is transcribed, cleaned for inconsistencies, anonymized to protect confidentiality, and imported into MS Excel and NVivo.

Step 2: Introduction and Immersion—We thoroughly read the dataset, noting key impressions and patterns, before beginning coding.

Step 3: Coding—Descriptive codes are assigned to relevant text segments, using inductive reasoning or participants' own words.

Step 4: Theme Development—Related codes are grouped into clear, meaningful themes that capture underlying patterns.

Step 5: Review and Refine Themes—Themes are tested against coded data and adjusted as needed for accuracy and coherence across the dataset.

Step 6: Interpretation and Reporting—Findings are interpreted to generate insights, linking themes back to research questions, theory, or practice. Table 3 shows two interview question items for 23 informants of secondary school administrators.

Table 3 School Administrator Practice Interview Questions in Drug Prevention Education

Number	Interview Items	Item Number
	School Administrators' Practices in Drug Prevention Education	
1	In what ways would you describe the specific strategies or approaches used by administrators to promote drug prevention education among students?	1
2	In what ways do you play a role in supporting teachers and staff in delivering drug prevention programs?	1
	Quantity	2

Interview Item 1: In what way do you describe specific strategies or approaches used by administrators to promote drug prevention education among students?

Step 1: Data Preparation and Organization. Table 4 below shows the results of interviews related to school administrators' practices in drug prevention education.

Table 4 Interview Results Based Specific strategies or approaches used by administrators to promote drug prevention education among students

	In what ways would you describe the specific strategies or approaches used by administrators to promote drug prevention education among students?
Informants	Interview Results
1	Administrators integrate drug prevention education into the school's extracurricular programs.
2	The school has established a collaboration with NADA for periodic lecture sessions.
3	Administrators encourage teachers to include drug prevention elements in the PdP.
4	Drug prevention week programs are organized annually at the school level.
5	The principal places special emphasis in the teachers' meeting on the importance of this program.
6	The use of interactive learning methods such as simulations and group discussions.
7	The administrator appoints a special coordinating teacher for the drug prevention program.
8	Involvement of students as peers to deliver prevention messages.

Table 5 Interview Results Based The role played by administrators in supporting teachers and staff in delivering drug prevention programs

	In what ways do you play a role in supporting teachers and staff in delivering drug prevention programs?
Informants	Interview Results
1	Administrators provide clear direction and vision regarding drug prevention programs.
2	The administration provides moral support to the teachers who are directly involved.
3	Administrators facilitate access to drug prevention-related training and courses.
4	Flexible time scheduling is provided to implement the program.
5	Administrators ensure a fair division of duties among teachers and staff.
6	Support in terms of financial allocation, even in limited amounts.
7	Administrators act as liaisons with external agencies such as NADA.
8	Provision of necessary teaching materials and resources.
9	Administrators provide continuous encouragement and motivation to teachers.
10	Regular monitoring of program implementation.
11	Administrators open a space for discussion and feedback from teachers.
12	Recognition to committed teachers and staff.
13	Support for teachers' innovation and creativity in prevention approaches.
14	Administrators ensure collaboration between teachers, counselors, and support staff.
15	Alignment of drug prevention programs with school policies and policies.
16	Administrators help solve logistical problems during program implementation.
17	Admin support boosts teachers' confidence in delivering prevention messages.
18	Administrators emphasize the importance of a team-based approach.
19	Provision of clear communication channels between administrators and teachers.
20	Administrators reduce the workload of other tasks while the program is running.
21	Support for counseling activities and early intervention for at-risk students.
22	Administrators ensure that the program is implemented consistently and continuously.
23	The administration is an exemplary example in supporting a healthy lifestyle.

Step 2: Introduction and Immersion. During this stage, we take note of our initial impressions, recurring ideas, and any unexpected ones that stand out. An example of initial impressions is recurring administrator support.

Step 3: Coding. We let the data speak for itself, generate code inductively, or even use the participant's own words, such as the Nvivo code. Examples of coding of descriptive roles are facilitator, decision-maker, and resource provider (Figure 5).

change to the collaborative actions necessary for cultivating a healthier, drug-free school environment.

DISCUSSION AND CONCLUSION

Discussion About Results Study Question 1: What is the level of practice among administrators for drug prevention education programs for high school students?

Summary: Data analysis found that high school administrators exhibit strong and proactive practices in implementing drug prevention education programs. Specifically, student engagement, program monitoring and evaluation, and resource provision emerged as key strengths, demonstrating administrators' commitment to fostering effective learning environments. Additionally, community and parental engagement also received high marks, further emphasizing the importance of collaborative partnerships to program success. However, despite these positive findings, staff training was identified as an area needing improvement, with results indicating only moderate performance in this domain. Taken together, these results highlight that while ongoing monitoring and community involvement play a significant role in successful drug prevention efforts, there is a clear need for enhanced professional development to ensure sustained program effectiveness across all areas.

Interpretation: Assessing high school administrators on staff training, parent and community engagement, resource preparation, student engagement, and program monitoring provides an overview of their strengths and areas for improvement. Findings show strong performance in student engagement, program monitoring, resource provision, and collaboration with parents and communities, highlighting commitment to effective drug prevention. However, staff training received moderate ratings, indicating a need for more professional development. Focusing on continuous improvement—especially in staff training—will enhance the effectiveness and sustainability of drug prevention efforts.

Implications: The evaluation highlights key areas for school leaders and policymakers: maintain effective practices in student engagement, program monitoring, and resource provision; further invest in parent and community partnerships; and address moderate staff training with targeted professional development. These steps support sustained and comprehensive substance abuse prevention in high schools.

Limitation: Although high school administrators demonstrate strong practices in drug prevention education, several limitations exist. The findings rely on self-reported data and basic quantitative measures, which may overlook the complexities of implementation and contextual differences among schools. The analysis does not address long-term effects or include perspectives from teachers, students, or the community. As such, these results should be viewed as preliminary insights rather than definitive assessments of program success, underscoring the need for further research.

Recommendation: We recommend future research explore staff training in drug prevention education using qualitative methods like interviews and focus groups with administrators, teachers, and staff. Comparative studies between different school districts can highlight contextual differences and best practices. Longitudinal research should track the outcomes of staff training and community engagement to evaluate their lasting effects on students. Including perspectives from students, parents, and community partners will provide a fuller view of program effectiveness. Investigating innovative strategies for staff development and collaboration can offer practical improvements. These steps will help fill gaps and advance drug prevention education in high schools.

Discussion About Findings Study Question 2: How do administrators practice drug prevention education in secondary schools?

Summary: The analysis reveals that administrators are pivotal in advancing drug prevention education for students by implementing structured change management strategies, with Kotter's Change Management Model serving as a guiding framework. By first establishing a sense of urgency regarding student drug abuse, administrators effectively motivate the school community to recognize the need for immediate action. Building on this foundation, they form collaborative coalitions that foster collective leadership and develop a unified

vision, ensuring that all stakeholders are aligned in their commitment to prevention efforts. Furthermore, administrators sustain program success through ongoing communication and active stakeholder engagement, continually embedding prevention practices within the school's culture. These interconnected strategies not only coordinate efforts but also promote the effectiveness and sustainability of drug prevention initiatives in secondary schools, highlighting the crucial role of administrative leadership in achieving lasting positive outcomes.

Interpretation: The findings show that administrators use Kotter's Change Management Model to structure drug prevention education, emphasizing urgency, coalition-building, and stakeholder engagement. Their collaborative leadership integrates prevention practices into school culture and ensures sustained commitment. By bridging theory and practice, administrators effectively implement and maintain drug prevention programs, demonstrating that structured change management and teamwork are essential for long-term improvements in student health and safety.

Implications: Structured, evidence-based approaches like Kotter's Change Management Model help school administrators create urgency, encourage collaborative leadership, and establish a unified vision for drug prevention. These frameworks guide effective and sustainable programs by emphasizing shared responsibility, accountability, and stakeholder engagement. For school leaders and policymakers, the findings underline the importance of ongoing professional development, communication, and community partnerships to enhance prevention efforts and support safer learning environments. Despite these positive outcomes, it is important to note that structured models and collaborative strategies do not fully address the complexities of diverse school settings. Continued research and evaluation are necessary to adapt drug prevention initiatives to each context and drive ongoing improvement in effectiveness and sustainability.

Limitation: While administrators' use of Kotter's Change Management Model and collaborative strategies offers benefits for drug prevention education, key limitations exist. The findings rely mainly on self-reported practices, which may not represent actual implementation across schools. Emphasis on structured models can miss everyday challenges faced by individual school communities. Additionally, these results do not assess long-term impacts or include direct input from teachers, students, or community members. Thus, the outcomes are not definitive evidence of effectiveness but rather a snapshot of current administrative practices, underscoring the need for further research with broader perspectives. Future studies should use more comprehensive methods, including qualitative feedback, longitudinal data, and input from diverse stakeholders, to better understand what makes drug prevention education effective in various schools. This will help develop stronger strategies and support lasting improvements in student health and safety.

Recommendation: Based on evidence supporting the effectiveness of Kotter's Change Management Model in drug prevention education, we suggest several research directions to strengthen theory and practice:

- Investigate staff training using qualitative methods (interviews and focus groups) to better understand its impact on program implementation.
- Conduct comparative studies across schools and regions to identify best practices related to resources, community involvement, and administrative support.
- Focus on longitudinal research to evaluate lasting effects of stakeholder engagement and the integration of prevention strategies.
- Expand research to include perspectives from students, parents, and community partners for a more comprehensive understanding of program effectiveness.
- Explore innovative approaches like technology and cross-sector partnerships to enhance staff training and community engagement for scalable improvement.

CONCLUSION

Key Research Questions Answered

What is the level of practice among administrators for drug prevention education programs for high school students? Data shows that administrators actively implement drug prevention programs, excelling in

student engagement, program oversight, resource allocation, and community collaboration. However, staff training needs improvement for better program outcomes.

How do administrators practice drug prevention education in secondary schools? Administrators use structured change management, such as Kotter's Model, to address drug issues, build coalitions, set clear visions, and maintain communication with stakeholders, integrating prevention efforts into the school culture.

Summarize and Reflect on Research

The research shows that administrators are crucial in creating and running drug prevention programs in secondary schools, using approaches like Kotter's Change Management Model to boost student engagement, monitor progress, and build partnerships. These strategies embed prevention into school culture for lasting results. Still, staff training needs improvement for greater consistency. Future progress may depend on comprehensive stakeholder involvement and innovative methods like technology integration and cross-sector collaboration. The study supports existing best practices and suggests directions for further research and development in school-based drug prevention.

Make General Recommendations and For Future Work on the Topic

We recommend that secondary school drug prevention programs move beyond traditional methods. To build on this shift, longitudinal studies should assess the impact of genuine stakeholder engagement and integrating prevention practices into school culture. Furthermore, research should include diverse perspectives from students, parents, and community members to better understand program effectiveness. In addition, we also suggest evaluating innovative strategies, such as using technology and forming cross-sector partnerships, to improve staff training and community participation. Taken together, these steps will help create more effective and adaptable prevention programs. Moreover, we recommend enhancing professional development for teachers and administrators to improve staff training. To support these efforts, additional resources and funding are being allocated to make prevention programs standard in all schools. Alongside this, authorities are also strengthening partnerships with health organizations, law enforcement, and NGOs, and integrating drug prevention into the school curriculum to ensure ongoing education. Finally, a systematic monitoring and evaluation framework is being implemented to measure program effectiveness over time.

Show New Knowledge That This Study Contributed

This research adds new insight to drug prevention education in secondary schools, emphasizing the benefits of technology integration, cross-sector partnerships, and structured change management frameworks like Kotter's Model. While many prevention programs are strong, staff training needs improvement through more consistent and effective professional development. The study also highlights the importance of long-term research and broader stakeholder input to enhance school-based drug prevention efforts.

REFERENCES

1. Árva, D., Vokó, Z., Sápi, M., Cselkó, Z., & Rákossy, Z. (2024). The influence of institutional characteristics on implementing school-based universal addiction prevention: A Hungarian mixed-methods nationwide study on the state of implementation, barriers, and facilitators. *Frontiers in Education*, 8, 1240909. <https://www.frontiersin.org/journals/education/articles/10.3389/educ.2023.1240909/full>
2. Cadri, A., Beema, A. N., Schuster, T., Barnett, T., Asampong, E., & Adams, A. M. (2024). School-based interventions targeting substance use among young people in low- and middle-income countries: A scoping review. *Addiction*, 119(12), 2048–2075. <https://doi.org/10.1111/add.16623>
3. Creswell, J. D., & Creswell, J. W. (2023). *Qualitative, quantitative, and mixed-methods approaches* (Sixth Edition). SAGE Publishing. https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

4. Drug use prevention in Brazilian schools: Associated factors affecting implementation. *BMC Public Health* (2018). <https://www.springermedizin.de/drug-use-prevention-factors-associated-with-program-implimentati/15516766>
5. Eisman, A. B., Koffkey, C., Partridge, R. T., et al. (2025). Rapid Adaptation to Prevent Drug Use (RAPD): Protocol of a pilot randomized trial to enhance the impact of an evidence-based intervention for youth. *Pilot and Feasibility Studies*, 11(8). <https://doi.org/10.1186/s40814-024-01581-6>
6. Eisman, A. B., Palinkas, L. A., Brown, S., Lundahl, L., & Kilbourne, A. M. (2022). A mixed-methods investigation of implementation determinants for a school-based universal prevention intervention. *Implementation Research and Practice*, 3. <https://doi.org/10.1177/26334895221124962>
7. El-Khatib, Z., Herrera, C., Campello, G., Mattfeld, E., & Maalouf, W. (2021). The role of law enforcement officers/police in drug prevention within educational settings—Study protocol for the development of a guiding document based on experts’ opinions. *International Journal of Environmental Research and Public Health*, 18(5), 2613. <https://doi.org/10.3390/ijerph18052613>
8. Farrugia, A. (2023). Under pressure: The paradox of autonomy and social norms in drug education. *International Journal of Drug Policy*, 122, 104194. <https://doi.org/10.1016/j.drugpo.2023.104194>.
9. Handrianto, C., Jusoh, A. J., Choo, P. G. S., Abdul Rashid, N., & Rahman, M. A. (2020). The role of teachers in prevention of drug abuse in schools. *International Journal of Academic Research in Business and Social Sciences*, 10(11), 708–716. <http://dx.doi.org/10.6007/IJARBSS/v10-i11/8131>
10. Kotter, J. P. (2021). *Leading Change*. Harvard Business Review Press. <https://www.shortform.com/summary/leading-change-summary-john-p-kotter>
11. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(5), 607–610. file:///C:/Users/Dell/Downloads/DETERMINING_SAMPLE_SIZE_FOR_RESEARCH5b15d.pdf
12. Nguyen, H. T., Yousef, M., Durl, J., Saleme, P., Pendergast, D., & Dietrich, T. (2025). School-Based AOD Prevention: A Scoping Review of Teachers’ Insights into Program Implementation. *Australian Journal of Education*, 0(0). <https://doi.org/10.1177/00049441251403174>
13. Nicholas, J., Mills, B., Hansen, S., Bright, S. J., Scott, J., Ridout, I., Watson, J., Boyd, H., Brook, L., & Hopper, L. (2023). Side Effect Game Plan: Development of a serious game about alcohol and other drugs for high school students using a systematic and iterative user-centered game development framework. *Computers in Human Behavior*, 145, 107774. <https://doi.org/10.1016/j.chb.2023.107774>
14. Pallant, J. (2007). *SPSS Survival Manual: A step-by-step guide to data analysis*. <https://www.taylorfrancis.com/books/mono/10.4324/9781003117452/spss-survival-manual-julie-pallant>
15. Petersen, Z., Khan, G., & Daniels, D. (2025). Looking through the lens of an educator: The role of schools in the management of alcohol and other drug use among high school learners. *International Journal of Health Promotion and Education*, 63(1), 2–13. <https://doi.org/10.1080/14635240.2024.2411594>
16. Rakhshani, T., Kamranpoor, S., Kamyab, A., Yari, A., & Khani Jeihooni, A. (2025). The effect of an educational intervention on the prevention of drug abuse in students. *International Journal of Adolescence and Youth*, 30(1). <https://doi.org/10.1080/02673843.2024.2442026>
17. Shrestha, S., Velayudhan, B., Y. N., S., R., V. L., & Khattri, J. B. (2024). Effectiveness of school-based substance abuse prevention program (SSPP) on awareness, attitude, peer pressure, and life skills among adolescents in selected public schools of Pokhara, Nepal: A cluster randomized trial protocol. *Mental Health & Prevention*, 34, 200342. <https://doi.org/10.1016/j.mhp.2024.200342>
18. United Nations Statistics Division. (2025). Development data and outreach: The Sustainable Development Goals Report 2025. <https://unstats.un.org/sdgs/news/>
19. United Nations. (2023). Solution 17 for good health & wellbeing is the outcome of sensitization on the nature of drug use, drug prevention, treatment & care. <https://sdgs.un.org/partnerships/solution17-good-health-wellbeing-sdg3-target-35-outcome-sensitization-nature-drug-use>
20. Weng, Y., Li, Y., Chang, C., Huang, S., Liao, J., Huang, K., Hsu, H., Huang, C., & Guo, J. L. (2025). Effectiveness of an interactive digital intervention program on knowledge, health literacy, and learner engagement in senior high school students: Intragroup and intergroup comparison of 2 teaching models. *Journal of Medical Internet Research*, 27, e76109. <https://www.jmir.org/2025/1/e76109>