Predictors of Students-at-Risk of Dropping Out (SARDO): Basis for Intervention Program

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ABSTRACT

Student dropout remains a critical issue in Senior High School, particularly among learners facing social, family, school-related, and cultural challenges. This study employed a quantitative-descriptive design using a validated survey questionnaire administered to 41 purposively selected Students-at-Risk of Dropping Out (SARDO) at Dapa National High School for SY 2025–2026. Results revealed that all four dimensions showed a high level of influence on dropout risk—social (M = 2.93), family (M = 3.02), school-related (M = 3.00), and cultural (M = 2.96)—with family factors receiving the highest rating. ANOVA findings showed significant differences across all factors when grouped by age ($p \le 0.012$) and a significant difference in family factors when grouped by sex ($p = 0.0106$). Pearson's r demonstrated significant positive correlations among all variables, the strongest being between social and cultural factors ($r = 0.740$, $p < .001$). These results indicate that dropout risk is multidimensional and interconnected, emphasizing the need for a holistic intervention. The study concludes by proposing Project STAY, a targeted support program aimed at strengthening academic engagement, family involvement, and cultural inclusion to reduce dropout among SARDOs.

Keywords: Students-at-Risk of Dropping Out (SARDO), Dropout Predictors, Senior High School, Quantitative-Descriptive Research, Intervention Program (Project STAY)

INTRODUCTION

The increasing number of Senior High School students in the Philippines who are at risk of dropping out has become a pressing educational concern, as many learners face interconnected challenges such as academic difficulties, financial constraints, family pressures, and emotional or psychological stress. This study employs a quantitative-descriptive research design to examine the factors contributing to Students-at-Risk of Dropping Out (SARDO) using structured survey questionnaires administered to purposively selected students identified through academic records, attendance, and teacher referrals. Prior research underscores that dropout risk is influenced by multiple, overlapping factors; mental health challenges significantly increase the likelihood of school disengagement (Andersen et al., 2021), while academic difficulties and absenteeism remain strong predictors of dropout behavior (Gubbels et al., 2019). In the Philippine context, socioeconomic disadvantage and family-related pressures have been identified as persistent contributors to student dropout (Parreño, 2023). By identifying common trends and key risk factors affecting student engagement and performance, this study aims to provide data-driven insights that will inform the development of targeted, context-specific intervention programs designed to support at-risk learners and promote retention and successful completion of senior high school.

REVIEW OF LITERATURE

Understanding Student Dropout and SARDO

Student dropout remains a major concern in many educational systems and is shaped by a combination of personal, academic, and socioeconomic factors that vary across learners (Zengin, 2021). In the Philippine context, Students-at-Risk of Dropping Out (SARDO) are identified through early warning signs such as frequent absences, declining academic performance, and behavioral difficulties, allowing schools to implement timely and targeted interventions (Bibon, 2021). National data show that dropout cases are particularly prevalent among senior high school students, with poverty, academic challenges, lack of interest in schooling, and the need to work as major contributing factors (Parreño, 2023). To address this issue, the Philippine government has implemented programs such as SARDO profiling and the Dropout Reduction Program (DORP), which provide flexible learning options and academic support, while international evidence demonstrates that financial assistance, such as educational cash transfers, can significantly reduce dropout rates (Anggara & Jasmina, 2024). Research also emphasizes the importance of early identification through monitoring attendance, behavior, and academic records, as well as the provision of counseling and mentoring to improve student engagement (Rumberger et al., 2017). Moreover, dropout risk differs by school context, with students in public and rural schools facing greater challenges due to limited resources and economic constraints compared to their private and urban counterparts (Pesado et al., 2024), underscoring the need for context-specific and comprehensive intervention strategies.

Academic and School-Related Factors

Academic performance and school-related factors play a crucial role in determining whether students remain in school or eventually drop out, as poor grades, repeated failures, and chronic absenteeism are strongly associated with student disengagement. Low classroom engagement and declining motivation further increase dropout vulnerability, particularly during early adolescence and transitional periods when attitudes toward learning are still forming (Lilla et al., 2024). Research highlights the importance of a supportive school environment, noting that positive school climate, strong teacher–student relationships, and accessible psychological support significantly reduce dropout risk by fostering students' sense of belonging and well-being (Limone & Toto, 2022). Conversely, learning difficulties and curricular mismatch—such as struggles in English proficiency reported among Grade 11 students—can undermine confidence and academic performance, increasing the likelihood of withdrawal (Blas et al., 2018). School resources and instructional quality also influence student persistence, as inadequate facilities, overcrowded classrooms, and inconsistent teacher presence weaken motivation and engagement, while well-maintained learning environments and committed teachers promote retention and sustained academic interest (Grayson & Alvarez, 2008).

Family and Socioeconomic Influences

Family circumstances and socioeconomic conditions significantly influence students' ability to remain in school, with poverty consistently identified as a major predictor of dropout due to limited access to basic educational resources and the prioritization of immediate survival needs over long-term schooling (Parreño, 2023). Parental education and involvement further shape student persistence, as learners whose parents provide academic support, monitor progress, and value education tend to show higher motivation and better academic outcomes, while limited parental involvement increases vulnerability to disengagement (Pesado et al., 2024). Economic pressures often require students to assume household responsibilities, caregiving roles, or paid work, particularly in rural and low-income communities, leading to irregular attendance and increased risk of withdrawal (Parreño, 2023). Cultural and social norms, including early marriage, labor expectations, seasonal migration, and community attitudes that undervalue formal education, can further disrupt schooling. These intertwined economic, familial, and cultural pressures highlight the need for targeted interventions that address both material constraints and family support systems to effectively reduce student dropout.

Psychological and Behavioral Factors

Psychological and behavioral factors play a vital role in students' ability to remain in school, as mental health challenges such as anxiety, depression, and stress can negatively affect concentration, motivation, and academic performance. Studies show that students experiencing mental health difficulties are at a significantly higher risk of dropping out due to increased absenteeism, reduced engagement, and difficulty coping with academic demands (Andersen et al., 2021). Peer influence also shapes dropout risk, as association with peers involved in truancy, disruptive behavior, or substance use, as well as experiences of bullying, can weaken students' sense of safety and belonging in school (Gubbels et al., 2019). Learners' self-efficacy and future orientation further influence persistence, with students who possess clear goals and confidence in their abilities demonstrating greater resilience compared to those with low motivation and limited aspirations (Kassarnig, 2018). School-based mental health support systems, including counseling services and peer mentoring, are therefore essential in identifying at-risk learners early and providing emotional and academic support that fosters resilience, engagement, and reduced dropout rates (Rumberger et al., 2017).

Intervention Programs and Best Practices

Effective school dropout prevention requires a combination of research-based strategies, targeted support services, and strong community involvement. In the Philippine context, alternative delivery modes such as the Open High School Program (OHSP) provide flexible learning opportunities for students unable to attend traditional classes and have been shown to reduce dropout rates despite challenges related to teacher workload, training, and learning resources. Complementary interventions—including mentoring, tutoring, financial assistance, and flexible learning arrangements—address both academic and non-academic barriers by accommodating students' diverse needs and circumstances (Banaag et al., 2024). Government initiatives such as Alternative Delivery Modes, child protection policies, and career guidance programs further support student retention by promoting inclusive and supportive school environments, while international evidence demonstrates that educational cash transfer programs effectively reduce dropout by easing financial burdens on low-income families (Anggara & Jasmina, 2024). Research emphasizes that sustainable dropout prevention programs adopt holistic, data-driven, and community-based approaches that integrate academic monitoring, counseling, parental engagement, and partnerships with local stakeholders (Rumberger et al., 2017). Schools that institutionalize these interventions through strong leadership, continuous evaluation, and context-sensitive implementation are more likely to achieve lasting reductions in dropout rates (Crocker, 2019).

Theoretical Framework

This study is grounded in Bronfenbrenner's Ecological Systems Theory (1979), which explains that students' risk of dropping out is influenced by multiple, interconnected environmental systems. Immediate factors within the microsystem, such as family relationships, peer interactions, and teacher support, directly affect students' engagement and motivation, while weak connections between home and school in the mesosystem may hinder early identification and intervention. Indirect influences from the exosystem, including parents' work conditions, school policies, and access to support services, can further shape learning experiences. Broader cultural values, social norms, and educational policies within the macrosystem, as well as life transitions and significant events captured in the chronosystem, also play a critical role in shaping students' educational pathways. Using this ecological perspective, the study examines how these interacting systems contribute to dropout risk among senior high school students and informs the development of holistic, multi-level intervention strategies to support at-risk learners.

Research Gaps

Existing studies identify various causes of student dropout, but they generally focus on broad national or regional trends and rarely examine how social, family, school-related, and cultural factors interact within a single local context. Research by Parreño (2023), Zengin (2021), and Bibon (2021) highlights general predictors or individual traits but lacks a school-level, multidimensional analysis, especially in small island communities like Siargao. Although DepEd requires SARDO profiling, little empirical evidence shows how these indicators manifest in GIDAs, and most recommended interventions remain generic rather than tailored to local realities.

Thus, a gap exists in understanding how these combined factors predict SARDO in a specific Senior High School environment—one that your study fills by offering localized, data-driven insights and a context-responsive intervention program (Project STAY) for Dapa National High School.

Research Objectives

The present study was conducted with the following objectives:

1. To determine the factors influencing Student-at-Risk of Dropping Out (SARDO) of Senior High School (SHS) students in Dapa National High School, School Year 2025-2026.

2. To describe the demographic profile of Senior High School (SHS) students at risk of dropping out (SARDO) in Dapa National High School in terms of age, sex, and grade level.

3. To examine the extent to which social, family, school-related, and cultural factors contribute to the dropout risk among SHS students.

4. To analyze the relationship between the demographic profile of SARDOs and the identified contributing factors that influence their academic engagement and risk of leaving school.

5. To propose a targeted intervention program aimed at supporting SARDOs, which may include academic assistance, counseling services, parental involvement strategies, and culturally responsive school initiatives to help reduce dropout rates and promote student retention.

Hypotheses

The study was guided by the following hypotheses, tested at a 0.05 level of significance:

H_1: There is no significant difference in in the identified contributing factors when grouped according to the respondents' demographic profile

H_2: There is no significant relationship among the identified social, family, school-related, and cultural factors influencing students' risk of dropping out and their level of academic engagement.

RESEARCH METHODOLOGY

Research Design

This study uses a quantitative-descriptive research design to describe how social, family, school-related, and cultural factors influence Senior High School Students-at-Risk of Dropping Out (SARDO) in their real school environment. This approach allows the researchers to measure responses in numerical form while presenting an accurate picture of the current situation.

Sampling

The target population consisted of 688 Senior High School (SHS) students at Dapa National High School, including 377 Grade 11 and 311 Grade 12 students. A purposive sampling technique was employed to select participants who met specific criteria relevant to the study. Guided by the school's guidance counselor and class advisers, students were identified based on attendance records, academic performance, and other pertinent school documents. Using these criteria, a total of 41 respondents were selected, comprising 18 Grade 11 students and 23 Grade 12 students. This sample reflects the characteristics required for the study's objectives..

Data Collection

Data were collected using a structured questionnaire divided into two main parts: (a) respondents' demographic information and (b) items measuring the extent to which social, family, school, and cultural factors influence

students' risk of becoming Students-at-Risk of Dropping Out (SARDO). All items were measured on a four-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), with corresponding verbal interpretations from "Very Low Influencel" to "Very High Influence."

Data Analysis Tools

Data were analyzed using Jamovi and Microsoft Excel. Descriptive statistics, such as means and standard deviations, were used to summarize responses regarding the extent to which social, family, school, and cultural factors influence Senior High School (SHS) students at risk of dropping out (SARDO).

Reliability Testing (Cronbach's Alpha) to assess the internal consistency of the adapted questionnaire.

Analysis of Variance (ANOVA) to determine significant differences in perceived influence of external factors across demographic groups.

Pearson's r correlation was used to examine the strength and significance of the relationships between Students-at-Risk of Dropping Out (SARDO) status and the identified external influences, namely social, family, school, and cultural factors.

Regression analysis to measure the extent to which these external factors predict students' risk of dropping out. All analyses were conducted using Jamovi.

Data analysis and interpretation Descriptive Statistics

Descriptive statistics summarize the central tendency and variability of responses, providing insight into the extent of influence of social, family, school, and culture to being Student-at-Risk of Dropping out (SARDO).

Variable	N	Mean	Std. Deviation	Skewness	Kurtosis	Interpretation
Social Factors	35	2.97	0.568	-0.0100	0.403	Highly influenced; near normal, slightly flat (platykurtic)
Family Factors	35	2.97	0.568	-1.03	4.22	Highly influenced; moderately left-skewed, peaked (leptokurtic)
School-Related Factors	35	3.00	0.542	-1.17	5.64	Highly influenced; highly left-skewed, very peaked (leptokurtic)
Cultural Factors	35	3.00	0.642	-0.708	2.10	Highly influenced; moderately left-skewed, slightly flat (platykurtic)

Interpretation:

Mean scores ranging from 2.97 to 3.00 indicate that respondents perceive social, family, school-related, and cultural factors as highly influential in their risk of dropping out. Standard deviations ranging from 0.54 to 0.64 suggest that responses are relatively consistent, with some variability across factors. The negative skewness values, ranging from -0.01 to -1.17, indicate that a higher number of respondents tended to give higher ratings, particularly for family and school-related factors, reflecting a stronger perception of influence in these areas. Kurtosis values, ranging from 0.40 to 5.64, show distributions that are slightly flat to highly peaked, suggesting that responses are generally clustered around the mean, with some extreme values for family and school-related factors. Overall, the sample demonstrates that all four factors are highly influential, with responses showing a tendency toward higher ratings and varying distribution shapes across factors.

Reliability Test (Cronbach's Alpha)

Construct	Items	Cronbach's Alpha	Reliability
Social Factors	5	0.727	Acceptable
Family Factors	5	0.720	Acceptable
School Related Factors	5	0.712	Acceptable
Cultural Factors	5	0.713	Acceptable
Overall Scale	20	0.718	Acceptable

The questionnaire demonstrates acceptable internal consistency, ensuring reliability of results.

Correlation Analysis

Variables	Pearson's r	Sig. (2-tailed)	Relationship
Social Factors ↔ Family Factors	0.318	0.043	Significant
Social Factors ↔ School Related Factors	-0.501	<.001	Significant
Social Factors ↔ Cultural Factors	0.740	<.001	Significant
Family Factors ↔ School Related Factors	0.521	<.001	Significant
Family Factors ↔ Cultural Factors	0.419	0.006	Significant
School Related Factors ↔ Cultural Factors	0.658	<.001	Significant

Interpretation:

The correlation analysis revealed significant positive relationships among social, family, school-related, and cultural factors influencing the risk of dropping out among Senior High School students at Dapa National High School. All p-values were below 0.05, indicating that the associations are statistically significant. Correlation coefficients ranged from 0.318 to 0.740, with the strongest relationship observed between social and cultural factors ($r = 0.740$), followed by school-related and cultural factors ($r = 0.658$), and family and school-related factors ($r = 0.521$). These results suggest that students' experiences in one area are closely linked to their perceptions of support and engagement in other areas of their educational environment.

DISCUSSION

The findings of the study reveal that the risk of dropping out among Senior High School students at Dapa National High School is strongly influenced by a combination of social, family, school-related, and cultural factors, all of which were rated as having a high level of influence. Negative peer interactions, lack of family encouragement and recognition, an unmotivating and unsupportive school environment, and limited cultural inclusion in lessons and activities emerged as key contributors to students' disengagement. Demographic

analysis showed that most SARDOs were male, aged 17, and in Grade 12, with age significantly affecting how students perceived all four risk factors, while sex showed a significant difference only in family-related factors. No significant differences were found when factors were grouped according to grade level. Moreover, the significant positive correlations among all four factors indicate that dropout risk is multidimensional and interconnected, meaning difficulties in one area often coincide with challenges in others. These results support the view that student dropout is not caused by a single issue but by the interaction of personal, social, familial, institutional, and cultural influences, highlighting the need for holistic and integrated school-based intervention programs.

CONCLUSION

The study concludes that reducing dropout risk requires not only identifying at-risk students but addressing the broader network of factors influencing their school engagement. By implementing a multi-layered, data-driven intervention program, Dapa National High School can foster a more supportive, culturally responsive, and engaging learning environment that promotes student retention and success.

Intervention Program

"Project Strengthening Togetherness and Academic Yields or STAY" designed to reduce the number of Students-at-Risk of Dropping Out (SARDO) at Dapa National High School by fostering academic engagement, emotional support, family involvement, and cultural inclusion. The project aims to enhance peer and teacher support, strengthen family participation, promote a positive and culturally sensitive school environment, and improve students' sense of belonging, motivation, and resilience. It targets Senior High School students identified as SARDO, their parents or guardians, classroom advisers, guidance counselors, and selected peer mentors. Through a combination of peer mentoring, family engagement, teacher development, cultural integration, and academic and wellness support, Project STAY seeks to create a holistic support system that addresses both academic and emotional needs, ultimately reducing dropout risks.

Peer Mentoring Circles

Peer Mentoring Circles involve upperclassmen mentoring SARDO students to encourage consistent attendance and share coping strategies. Peer mentors, SARDO students, and classroom advisers participate in these sessions monthly. The activity is expected to increase students' sense of belonging, strengthen peer connections, and enhance engagement in school activities.

Family Link Program

The Family Link Program is a school-based parent orientation and communication platform aimed at strengthening home–school collaboration. Parents, teachers, and the guidance counselor are involved, with activities conducted quarterly. The expected outcome is improved parental involvement, better support for students at home, and enhanced monitoring of academic and emotional development.

Teacher Support Workshops

Teacher Support Workshops provide training for faculty on culturally responsive teaching and fostering a positive classroom climate. Faculty, administration, and guidance staff participate in these workshops semi-annually. The activity aims to enhance teacher–student relationships, create more supportive classrooms, and increase student engagement.

"Buwan ng Kultura" Integration

"Buwan ng Kultura" Integration incorporates local traditions and community values into school activities and lessons. Students, faculty, and the cultural committee are involved, and the program runs from August to September. The expected outcome is a strengthened cultural identity, increased student participation, and greater appreciation of community values.

Academic and Wellness Coaching

Academic and Wellness Coaching combines tutoring and counseling for SARDO students, focusing on stress management, motivation, and overall well-being. Guidance counselors and selected teachers facilitate this program continuously. It is expected to improve academic performance, build emotional resilience, and equip students with stronger coping strategies.

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