

An Analytical Study of Emotional Intelligence and Risk-taking Behavior of Adolescents

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Abstract: The main purpose of this study is to investigate emotional intelligence and risk-taking behavior of adolescents. Quantitative approach was used in this study. A total of 850 students participated. The required sample was selected by using simple random sampling technique and were examined by using a questionnaire survey method. After data analysis, the results showed that adolescents in this study were high in emotional intelligence and low in risk-taking behavior. Independent samples t-test results revealed that there were significant differences in emotional intelligence and risk-taking behavior by gender. Moreover, there was a significant difference in risk-taking behavior by age group but no significant difference was found in emotional intelligence. Then, ANOVA results pointed out that there was no significant difference in emotional intelligence of adolescents by education level. But, in risk-taking behavior, there is a significant difference by educational level. Pearson's correlation revealed that there was a significant negative correlation between emotional intelligence and risk-taking behavior of adolescents. Next, regression analysis showed that risk-taking behavior was a significant predictor of emotional intelligence in negative direction.

Keywords: Adolescent, Emotional intelligence, Risk-taking behavior.

1. Introduction

Adolescence is a critical period of human development characterized by significant physical, cognitive, emotional, and psychosocial changes. The World Health Organization (WHO) defines adolescents as individuals between the ages of 10 and 19 years (World Health Organization [WHO], 2024). During this developmental stage, young people establish their personal identity, develop emotional competencies, strengthen social relationships, and acquire increasing independence. Although adolescence provides opportunities for healthy growth and development, it is also associated with increased vulnerability to emotional difficulties and engagement in various forms of risk-taking behavior (Sawyer et al., 2018).

Risk-taking behavior refers to behaviors that expose individuals to potential physical, psychological, social, or legal harm while offering perceived immediate rewards (Byrnes et al., 1999). Adolescents commonly engage in behaviors such as substance use, reckless driving, unsafe sexual practices, gambling, school violence, cyber-risk activities, delinquency, and excessive internet use (Steinberg, 2014). Developmental neuroscience suggests that adolescents are particularly prone to

risk-taking because the brain's socio-emotional reward system develops earlier than the cognitive control system responsible for impulse regulation and decision-making (Casey et al., 2019; Steinberg, 2014).

One psychological factor that may influence adolescent risk-taking behavior is emotional intelligence. Emotional intelligence generally refers to the ability to recognize, understand, express, and regulate one's own emotions and to understand and respond appropriately to the emotions of others. Adolescents with well-developed emotional intelligence may be better able to manage anger, frustration, anxiety, and peer pressure. They may also be more capable of considering the consequences of their actions before making decisions. In contrast, difficulties in recognizing and regulating emotions may contribute to impulsive responses and maladaptive coping strategies.

Myanmar adolescents currently face numerous social and psychological challenges resulting from rapid technological advancement, increased internet accessibility, educational disruptions, social changes, and mental health concerns. Adolescents are increasingly exposed to online risks, cyberbullying, substance use, gambling, school violence, and emotional stress. Despite these growing concerns, empirical research investigating the psychological determinants of adolescent risk-taking behavior in Myanmar remains limited. In particular, few studies have examined emotional intelligence as a protective factor against risk-taking behavior among Myanmar adolescents.

By investigating these variables, the study may contribute to a better understanding of adolescent behavioral development and provide evidence that can be used to design appropriate educational, counseling, and preventive interventions.

Therefore, this study aims to investigate emotional intelligence and risk-taking behavior of adolescents. The specific purposes of this study are:

- To determine the differences in emotional intelligence and risk-taking behavior of adolescents by gender, age and education level.
- To find out the relationship between emotional intelligence and risk-taking behavior of adolescents.
- To explore whether risk-taking behavior predict emotional intelligence of adolescents.

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2. Literature Review

A. Emotional Intelligence

Emotional intelligence (EI) was introduced by Salovey and Mayer (1990), who defined it as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions. Goleman (1995) expanded the concept by arguing that emotional intelligence is more influential than intelligence quotient (IQ) in predicting life success, workplace performance, and interpersonal relationships. Mayer, Caruso, and Salovey (2016) further refined the ability model by describing emotional intelligence as a set of cognitive abilities related to processing emotional information.

Salovey and Mayer (1997) proposed that individuals possessing higher emotional intelligence process emotional information more effectively and consequently make better decisions. Mayer and Salovey (1997) proposed that the four branches are organized hierarchically:

1. Perceiving emotions
2. Using emotions to facilitate thinking
3. Understanding emotions
4. Managing emotions

The lower branches involve relatively simple emotional processing skills, whereas the higher branches require more advanced emotional reasoning and self-regulation. Successful emotion management depends upon the development of the preceding emotional abilities.

Emotional intelligence is also important in peer relationships. Adolescents generally become increasingly influenced by their peers, and social acceptance can become highly significant. Skills such as empathy, perspective-taking, communication, and emotional regulation can help adolescents manage interpersonal conflicts and resist inappropriate social pressure. Higher emotional intelligence may therefore support healthier relationships and more constructive social decision-making.

Goleman suggested that emotional competence develops through learning and experience and predicts leadership, academic achievement, and psychological adjustment. Emotional Competence Theory proposes that emotional competencies are not fixed traits but can be developed through education, training, social interaction, and life experiences. Individuals with strong emotional competencies are better able to recognize and regulate their own emotions, understand the emotions of others, establish positive relationships, make responsible decisions, and cope effectively with stress and adversity (Goleman, 1998).

In educational settings, emotional competence is considered an essential component of students' social-emotional development. Adolescents who possess higher emotional competence are more likely to demonstrate positive interpersonal relationships, academic engagement, psychological well-being, and responsible behavior. Conversely, poor emotional competence has been associated with impulsivity, aggression, emotional distress, and various forms of risk-taking behavior (Brackett et al., 2011).

B. Risk-taking Behavior

Risk-taking behavior refers to behaviors involving uncertainty that may lead to harmful physical, psychological, social, or legal consequences while offering perceived rewards (Byrnes et al., 1999). Leather (2009) argued that moderate risk-taking is developmentally normative during adolescence, but persistent or extreme risk-taking increases vulnerability to negative health and social outcomes.

Risk-taking behavior generally refers to voluntary behavior undertaken in situations where the outcome is uncertain and where the possibility of negative consequences exists. During adolescence, risk-taking can occur across several domains, including substance use, sexual behavior, driving, delinquency, aggression, and sensation-seeking activities. Research also emphasizes that not all adolescent risk-taking is necessarily harmful. Some risk-taking can contribute to exploration, independence, social development, and learning. Therefore, researchers increasingly distinguish between adaptive exploration and behaviors that place adolescents or others at substantial risk.

Risk-taking during adolescence has important implications for health and development. Substance use, risky sexual behavior, delinquency, and dangerous driving are among the behaviors that have received substantial research attention. Some of these behaviors can persist into adulthood and are associated with adverse physical, psychological, and social outcomes.

The Dual Systems Theory explains adolescent risk-taking through an imbalance between: Socio-emotional reward system and Cognitive control system. Since the reward system develops earlier than cognitive control, adolescents become more impulsive and sensation seeking. Steinberg (2014) argued that this imbalance reaches its peak during middle adolescence.

Bandura's Social Learning Theory suggests that adolescents learn risky behaviors through

- Observation
- Modeling
- Reinforcement
- Peer influence

Family members, friends, and media all influence adolescents' behavioral choices.

C. Emotional Intelligence and Risk-taking Behavior

Researchers consistently report that emotional intelligence functions as a protective factor against many forms of adolescent problem behavior. Adolescents with higher emotional intelligence are more capable of regulating emotions, resisting peer pressure, and making thoughtful decisions, thereby reducing engagement in risky behaviors. A comprehensive systematic review and meta-analysis concluded that emotional intelligence is negatively associated with health-related risk behaviors across diverse populations, supporting its role as a protective factor.

Although emotional intelligence (EI) has become an important topic in educational psychology worldwide, empirical research on emotional intelligence among adolescents in Myanmar remains limited. Most available

studies have focused on emotional intelligence as a determinant of academic adjustment, aggression, or demographic differences rather than its relationship with risk-taking behavior. Similarly, research on adolescent risk-taking behavior in Myanmar has mainly been conducted from public health and mental health perspectives, emphasizing substance use, violence, bullying, and psychological well-being rather than emotional competencies. Consequently, little is known about whether emotional intelligence functions as a protective factor against risk-taking behavior among Myanmar adolescents.

One of the earliest studies on emotional intelligence in Myanmar was conducted by Htar Htar Khin (2013), who compared emotional intelligence between adolescents living with their families and those residing in institutional care. Using the General Trait Emotional Intelligence Inventory, the researcher reported that adolescents living with their families demonstrated significantly higher emotional intelligence than adolescents living in institutions. The study concluded that supportive family environments play an important role in developing adolescents' emotional competencies. These findings suggest that emotional intelligence is influenced not only by individual characteristics but also by environmental and family factors.

For research purposes, emotional intelligence among adolescents can therefore be understood as the capacity to perceive and understand emotions, regulate emotional responses, empathize with others, and use emotional information to guide adaptive thinking and behavior. This concept provides an important theoretical basis for examining whether differences in emotional intelligence are associated with adolescents' willingness to engage in risk-taking behaviors.

Overall, the existing literature demonstrates that emotional intelligence has been associated with positive psychological adjustment and reduced aggression among Myanmar adolescents, while separate public health studies have documented the prevalence of various adolescent risk behaviors. However, no published empirical study has directly examined the relationship between emotional intelligence and multidimensional risk-taking behavior among Myanmar adolescents. Consequently, whether emotional intelligence serves as a protective factor against adolescents' engagement in risky behaviors remains unclear within the Myanmar context.

This gap is particularly important because Myanmar adolescents currently face increasing exposure to psychosocial stressors, digital media, peer influence, educational disruptions, and mental health challenges. Investigating the relationship between emotional intelligence and risk-taking behavior may therefore provide valuable evidence for designing school-based social-emotional learning programs, counseling services, and preventive interventions that promote healthy adolescent development. Accordingly, the present study seeks to address this gap by examining the relationship between emotional intelligence and risk-taking behavior among Myanmar adolescents.

3. Methodology

The descriptive survey method and quantitative research design were used in this present study. The sample was chosen from the population by using simple random sampling technique.

A. Sample of the Study

The population of the study comprised of Grade Nine, Grade Ten and Grade Eleven students from Bago Region (East). A total of 850 participants (13-18 years old) from Shwegyin Township participated in this study.

B. Instruments of the Study

Emotional Intelligence Scale (Schutte et al., 1998) which consisted of 37 items to measure emotional intelligence of adolescents and Adolescent Risk-taking Questionnaire (Gullone, Moore, Moss & Boyd, 2000) which consisted of 22 items to investigate the risk-taking behavior of adolescents were used in this study.

C. Data Collection Procedure

First, the relevant information was gathered for literature review from the libraries and internet sources. Next, the instruments required for the study were prepared under the guidance of supervisor. Then, expert review was conducted to validate the items. Pilot study was done before the field test to find out the internal consistency, item clarity and allocated time to answer. After preparing the finalized questionnaire, test administration was conducted to collect data. The sample of three groups, i.e., Grade Nine, Grade Ten and Grade Eleven students from Shwegyin Township of Bago Region (East) were selected by using simple random sampling method. Participants were provided necessary explanations and instructions on how to complete the instruments and warned not to leave any empty items before administering.

D. Data Analysis

After the required data were collected, descriptive statistics were applied to the data set in order to interpret and report the results. In order to predict emotional intelligence and risk-taking behavior of adolescents, the data analysis was carried out by the Statistical Package for Social Science (SPSS) software, version 25 for quantitative data. The detailed description of data analysis, discussion of the study, findings and interpretation would be presented in the next chapter.

4. Findings

A. Emotional Intelligence

According to the descriptive statistics, the mean value of emotional intelligence pointed out that adolescents in this study have high emotional intelligence.

The result of independent samples *t*-test showed that there was significant difference emotional intelligence between male and female adolescents at 0.001 level. The female students' mean scores for all subscales of emotional intelligence were higher than that of male. It can be said that female students had more emotional intelligence than male students.

According to the results of independent samples *t*-test, it was found that there was no significant difference in adolescents' emotional intelligence by age group. Therefore, it can be concluded that adolescents were equally mature in all fields of emotional intelligence.

ANOVA results showed that there was no significant difference in emotional intelligence of adolescents according to their education level. It was found that there was no significant difference among Grade Nine, Grade Ten and Grade Eleven students in emotional intelligence.

B. Risk-taking Behavior

According to the descriptive statistics, the mean value of risk-taking behavior was below average. The results pointed out that adolescents in this study were low in risk-taking behavior.

The result of independent samples *t*-test showed that there was significant difference in risk-taking behavior between male and female adolescents at 0.001 level. It can be concluded that male students were more engaged in risk-taking behavior than female students.

The result of independent samples *t*-test showed that there was significant difference in risk-taking behavior between age groups at 0.001 level. So, 16-18 age group students were more engaged in risk-taking behavior than the adolescents who were at 13-15 age group.

The result indicated that significant difference was found at 0.001 level in risk-taking behavior by education level. In risk-taking behavior, Grade Nine students were less engaged than Grade Ten and Grade Eleven students.

C. Emotional Intelligence and Risk-taking Behavior

Moreover, the coefficient of correlation value ($r = -0.403$) showed that there was a significant negative correlation between emotional intelligence and risk-taking behavior at 0.001 level. This meant that the adolescents who had high emotional intelligence were less engaged in risk-taking behavior.

Regression analysis revealed that the results were statistically significant $R^2 = 0.161$, $F(1,848) = 66.996$, $p < 0.001$. The adjusted R^2 was 0.159. This indicated that 15.9% of the variance in emotional intelligence was explained by risk-taking behavior. Risk-taking behavior was a significant predictor of emotional intelligence in negative direction ($\beta = -0.402$, $p < 0.001$). Therefore, the more engaged in risk-taking behavior, the lower risk-taking behavior of adolescents. The model equation to predict adolescents' emotional intelligence from risk-taking behavior was Emotional Intelligence = $101.379 - 1.877$ Risk-taking Behavior.

5. Conclusion

Based on the findings of the study, it was found out that adolescents in this study had high emotional intelligence. The high level of emotional intelligence among adolescents may be associated with the developmental and social experiences they encounter during adolescence. Adolescents increasingly interact with parents, teachers, peers, and other members of the community, providing opportunities to develop emotional

awareness, empathy, communication, and emotional regulation. In the Myanmar context, family relationships, social connectedness, cultural values, and expectations regarding interpersonal harmony may also contribute to adolescents' ability to manage emotions and maintain positive relationships.

The finding from the independent samples *t*-test indicates that there was a statistically significant difference in emotional intelligence by gender. This result suggests that gender may be associated with differences in the development or expression of emotional intelligence among the adolescents included in the study. The finding may also be related to differences in social relationships. During adolescence, girls may place greater emphasis on close interpersonal relationships and emotional communication with friends and family. These experiences may provide more opportunities to develop skills such as empathy, understanding others' emotions, and managing interpersonal situations. Lawrence and Jesudoss (2011) in which girls were found to have more emotional intelligence than boys. Thus, it can be said that the emotional intelligence of adolescents in this study was influenced by gender.

According to the results of the independent samples *t*-test, there was no statistically significant difference in emotional intelligence among adolescents according to age group. This finding suggests that adolescents in the different age groups included in the study had relatively similar levels of emotional intelligence. In other words, age alone may not be a major factor influencing emotional intelligence during the adolescent period. This finding also indicates that emotional intelligence should not necessarily be expected to increase automatically as adolescents become older. Emotional intelligence may require appropriate guidance, practice, and supportive environments to develop. Therefore, educational and psychosocial interventions may be beneficial for adolescents across all age groups. This finding was not consistent with the previous research of Ei Han Ni (2015) in which students' social maturity for the age groups of 14+ year old was higher than the students for the age groups of 11+, 12+ and 13+ year old.

The ANOVA results showed that there was no statistically significant difference in adolescents' emotional intelligence according to their education level. This finding suggests that adolescents at different levels of education in the present study had relatively similar levels of emotional intelligence. Therefore, educational level alone may not be a major factor influencing the development of emotional intelligence among adolescents. Emotional intelligence is not necessarily developed through academic learning. Although education can provide opportunities for social and emotional development, emotional intelligence may be more strongly influenced by the quality of relationships, family environment, parenting practices, peer relationships, personality, and exposure to different life experiences. Thus, adolescents with different educational levels may still demonstrate similar emotional competencies. This finding confirmed with the findings of Myo Nilar Aung (2018).

The findings of the present study revealed that the mean score of risk-taking behavior among adolescents was below the average level. This finding indicates that the adolescents who

participated in the study generally demonstrated a relatively low tendency to engage in risky behaviors. In other words, most of the adolescents appeared to be cautious in making decisions and were less likely to involve themselves in behaviors that could result in negative or harmful consequences.

The result of the independent samples *t*-test indicated that there was a statistically significant difference in risk-taking behavior between male and female adolescents at the 0.001 significance level. This finding suggests that gender was significantly associated with adolescents' risk-taking behavior in the present study. Therefore, the null hypothesis stating that there is no significant difference in risk-taking behavior between male and female adolescents was rejected. During adolescence, males and females may experience and respond to social pressures differently. In many cultural contexts, boys may be given greater freedom to explore, take challenges, and demonstrate independence, whereas girls may receive stronger expectations regarding caution, self-control, and socially acceptable behavior. This finding was consistent with the past research by Sigh and Sain (2016) in which the risk-taking behavior of tribal boys were significantly higher than the risk-taking behavior of tribal girls.

The result of the independent samples *t*-test revealed a statistically significant difference in risk-taking behavior between the two age groups at the 0.001 significance level. This finding may be explained by the developmental changes that occur during adolescence. As adolescents become older, they generally experience increasing independence from parents and greater opportunities to make decisions on their own. Older adolescents may therefore encounter more situations in which they can make independent choices, including choices that involve greater levels of risk. Increased autonomy and social freedom may contribute to the higher level of risk-taking observed among the 16–18 age group.

The result indicated that there was a statistically significant difference in risk-taking behavior according to education level at the 0.001 significance level. The finding may also be associated with developmental changes during adolescence. Students in Grade Ten and Grade Eleven are generally at a later stage of adolescence than Grade Nine students. During this period, adolescents may experience stronger desires for independence, novelty, and new experiences. Although their cognitive abilities continue to develop, their decisions may still be influenced by peer pressure, emotions, and the attraction of immediate rewards. These factors may contribute to the higher level of risk-taking observed among students in the higher grades.

The magnitude of the correlation ($r = -0.403$) can be interpreted as a moderate negative relationship. This suggests that emotional intelligence may play an important role in adolescents' behavioral choices. Adolescents with higher emotional intelligence may be better able to recognize, understand, and regulate their emotions. These abilities may help them control impulsive reactions, evaluate situations more carefully, and consider the possible consequences of their actions before engaging in risky behaviors. In addition, emotional intelligence may help adolescents understand the

emotions of others and respond appropriately to social situations. This ability may enable them to recognize negative peer influence and resist pressure to participate in risky activities. Therefore, the significant negative correlation suggests that emotional intelligence may be an important psychological factor associated with lower risk-taking behavior among adolescents.

The negative direction of the regression coefficient suggests that adolescents who demonstrated greater risk-taking behavior tended to have lower levels of emotional intelligence. This finding is consistent with the previous correlation result ($r = -0.403$), which also showed a significant negative relationship between emotional intelligence and risk-taking behavior. The regression result further indicates that this relationship remains statistically significant when risk-taking behavior is considered as a predictor of emotional intelligence. Adolescents with higher emotional intelligence may be better able to recognize and regulate their emotional states before making decisions. Emotional awareness and regulation can help adolescents control impulsive responses, evaluate potential consequences, and respond more appropriately to challenging situations. Consequently, adolescents with lower emotional intelligence may be more vulnerable to emotional impulsivity, peer pressure, or immediate rewards, which may be associated with greater risk-taking behavior.

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