

# Adolescent suicidal behaviour profiles

## Comparing unplanned attempts, planned attempts and ideation

### Results from the HBSCLuxembourg study

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### Introduction

- Adolescents are one of the most susceptible groups for suicidal ideation and self-harm, and suicide is the second leading cause of death among young people worldwide (1).
- Suicide is often regarded as a pathway, starting with suicidal ideation that progresses in seriousness and ending with a suicidal act. However, previous studies have indicated that a significant proportion of suicide attempts are unplanned, meaning that they occur with little to no forethought (2, 3).
- Research on unplanned suicide attempts among adolescents is limited, and often presents mixed results (3).
- This study aims to characterize and compare three suicide behaviour profiles among adolescents:** planned attempts, unplanned attempts and ideation without attempt.

### Methods

- Data from the Health Behaviour in School-aged Children study in Luxembourg was used.
- Data was collected in 2014 using paper questionnaires.
- 879 students (aged 12 to 18 years old) are included in this study.
- Based on answers to 2 dichotomous suicidal ideation and behaviour items, adolescents were categorized in the following groups; ideators (plan + no attempt), planned attempters (plan + attempt) and non-planned attempters (no plan + attempt). These groups within the suicide behaviour variable made up the dependent variable.
- 18 independent variables were included.
- ANOVAs with Games-Howell post-hoc tests were conducted to compare the groups.

### Results

- 296 adolescents indicated a planned suicide attempt, 117 adolescents indicated an unplanned suicide attempt, and 459 adolescents indicated ideation only.
- Compared to ideators, planned attempters report significantly lower life satisfaction, more health complaints, more physical fighting, more substance use, more difficult communication with their father and mother, less school related parental support, less classmate support, a worse body image (too fat) and younger age.
- Compared to unplanned attempters, ideators report significantly lower life satisfaction, less physical activity, less physical fighting, less substance use, more screen time, lower perceived academic achievement and older age.
- Compared to planned attempters, unplanned attempters report less health complaints, more physical activity, less screen time, higher academic achievement, more school related parental support, more classmate support and a worse body image (too fat and too thin).

### Conclusion

- Adolescents that indicated an unplanned suicide attempt report more beneficial scores on most variables. The possibility of attempt impulsivity can be considered, as previous research has indicated that persons with impulsive attempts were less depressed than persons with planned attempts (4). More research on impulsive suicide attempts among adolescents is needed for clarification.
- 28% of suicide attempts were not planned, providing support for the statement that suicidal ideation does not always follow a linear pathway. Awareness on unplanned attempts needs to be increased and further integrated in suicide prevention.
- Prevention efforts should be mindful of the shared and differentiating characteristics of the suicide behaviour profiles, and identify and address adolescents at risk accordingly.

Independent variable	Planned attempts (P)	Unplanned attempts (U)	Ideators (I)	Significant differences
Life satisfaction (0 – 10, 0 = worst)	5.06 (σ = 2.67)	6.10 (σ = 2.38)	5.97 (σ = 2.20)	I – U * P – I ***
Number of health complaints (0 – 8)	4.34 (σ = 2.40)	3.02 (σ = 2.39)	3.03 (σ = 2.23)	P – U *** P – I ***
Physical activity (past 7 days) (0 – 7)	3.61 (σ = 2.31)	4.29 (σ = 2.05)	3.64 (σ = 2.08)	P – U * U – I **
Perceived wealth (1 – 5, 5 = very well off)	2.77 (σ = 1.13)	2.59 (σ = 1.17)	2.73 (σ = 0.88)	
Physical fighting (1 – 5, 1 = none)	2.29 (σ = 1.57)	2.08 (σ = 1.43)	1.58 (σ = 1.13)	U – I ** P – I ***
Number of substances used (tobacco, cannabis, alcohol) (0 – 3)	0.95 (σ = 1.09)	0.87 (σ = 1.04)	0.60 (σ = 0.88)	U – I * P – I ***
Screen time (1 – 3, 1 = low)	2.07 (σ = 1.12)	1.71 (σ = 1.20)	2.0 (σ = 1.05)	P – U * U – I *
Academic achievement (1 – 4, 1 = very good)	2.60 (σ = 0.93)	2.37 (σ = 0.85)	2.58 (σ = 0.83)	P – U * U – I *
Pressure by school work (1 – 4, 1 = not at all)	2.84 (σ = 1.13)	2.77 (σ = 1.05)	2.82 (σ = 1.01)	
Repeating a school year (1 – 3, 1 = 0 times)	1.54 (σ = 0.67)	1.54 (σ = 0.64)	1.44 (σ = 0.60)	
Communication mother (1 – 5, 1 = very easy)	2.82 (σ = 1.37)	2.60 (σ = 1.33)	2.48 (σ = 1.16)	P – I **
Communication father (1 – 5, 1 = very easy)	3.34 (σ = 1.28)	3.21 (σ = 1.38)	3.04 (σ = 1.26)	P – I **
School-related parental support (1 – 5, 1 = high support)	2.39 (σ = 1.22)	1.96 (σ = 1.13)	2.05 (σ = 0.96)	P – U ** P – I ***
Classmate support (1 – 5, 1 = high support)	2.60 (σ = 1.10)	2.22 (σ = 0.98)	2.32 (σ = 0.90)	P – U ** P – I **
Teacher support (1 – 5, 1 = high support)	2.87 (σ = 1.18)	2.60 (σ = 1.17)	2.81 (σ = 1.03)	
Body image (too fat) (0 – 3, 3 = much too fat)	1.82 (σ = 1.03)	1.49 (σ = 0.88)	1.54 (σ = 0.90)	P – U *** P – I ***
Body image (too thin) (0 – 3, 3 = much too thin)	0.55 (σ = 0.93)	0.69 (σ = 0.81)	0.64 (σ = 0.81)	P – U *
Age in years (12 – 18)	15.2 (σ = 1.64)	15.1 (σ = 1.68)	15.6 (σ = 1.64)	U – I * P – I **

**References:** (1) World Health Organization (2018): Adolescent mental health. Key facts. World Health Organization. (2) Beckman, K., Lindh, A. U., Waern, M., Stromsten, L., Renberg, E. S., Runeson, B., & Dahlin, M. (2019). Impulsive suicide attempts among young people—A prospective multicentre cohort study in Sweden. *Journal of affective disorders*, 243, 421–426. (3) Rimkeviciene, Jurgita; O’Gorman, John; Leo, Diego de (2015): Impulsive suicide attempts. A systematic literature review of definitions, characteristics and risk factors. In *Journal of affective disorders* 171, pp. 93–104. DOI: 10.1016/j.jad.2014.08.044. (4) Spokas, M., Wenzel, A., Brown, G. K., & Beck, A. T. (2012). Characteristics of individuals who make impulsive suicide attempts. *Journal of affective disorders*, 136(3), 1121–1125. doi:10.1016/j.jad.2011.10.034