
Supplemental Data

Supplementary Table s1. Priority major categories of governmental "General Principles of Suicide Prevention Policy" (GPSPP) in 1st (2007-2012), 2nd (2012-2017) and 3rd (2017-2022) periods

Supplementary Table s2. Suicide numbers of high school students disaggregated by motives and gender during 2007-2022.

Supplementary Table s3: Suicide numbers of university students disaggregated by motives and gender during 2007-2022.

Supplementary Table s4: Suicide numbers of special vocational school students disaggregated by motives and gender during 2007-2022.

Supplementary Fig.s1: SMRs caused by suicidal motives of high school, university and special vocational school students of males and females during 2007–2022.

Supplementary Fig.s2: Trends of SMRs caused by 6 major suicidal motives during 2007-2022.

Supplementary Fig.s3: Trends of SMRs caused by suicidal motives in school-, health- and family-related problems during 2007-2022.

Supplementary Table s5: : Effects of grade repetitions on SMRs of university students caused by suicidal motives

Supplementary Table s1: Priority major categories of governmental "General Principles of Suicide Prevention Policy" (GPSPP) in 1st (2007-2012), 2nd (2012-2017) and 3rd (2017-2022) periods

1st PSPP (2007-2012)	2nd PSPP (2012-2017)	3rd PSPP (2017-2022)
<p>1. Clarify the actual situation of the suicide</p> <p>Investigation of the actual situation of suicide Enhancement of information of reporting system Survey about the actual situation and the support for suicide attempter, bereaved family Survey about the suicide prevention of student Investigations of pathophysiology of mood disorder promotion of utilization of existing materials</p>	<p>1. Clarify the actual situation of the suicide</p> <p>Investigation of the actual situation of suicide Enhancement of information of reporting system</p> <p>Survey about the suicide prevention of student Investigations of pathophysiology of mood disorder</p>	<p>1. Clarify the actual situation of the suicide</p> <p>Innovative suicide research promotion programme (investigative research, verification and utilization of survey findings) Collection, organization and provision of information on advanced initiatives Survey of children/adolescent suicides Coordination with the cause-of-death investigation system Accumulation, organization and analysis of information related to suicide prevention</p>
<p>2. Promoting awareness and observation by each individual</p> <p>Enlightenment of suicide prevention programme week Implementation of education about suicide prevention among student Enlightenment of mood disorder</p>	<p>2. Promoting awareness and observation by each individual</p> <p>Enlightenment of suicide prevention programme week Implementation of education about suicide prevention among student Enlightenment of mood disorder Dissemination of knowledge about suicide and suicide-related events</p>	<p>2. Promoting awareness and observation by each individual</p> <p>Enlightenment of suicide prevention programme week Implementation of education about suicide prevention among student Enlightenment of mood disorder Dissemination of knowledge about suicide and suicide-related events Enlightenment of importance about SOS</p>
<p>3. Development of Professionals for suicide prevention</p> <p>Psychiatric education for general physicians Enlightenment of suicide and suicide prevention programme to educationists Implementation of training for long-term care support specialists Improving the quality of community/occupational health staffs Implementation of training for regional welfare officers and children's commissioners Development of regional leaders Improving the quality of counsellors related to social Improving the quality of public staffs who contact with bereaved families. Development of mental health supportive system for staffs of suicide prevention programme Developing training materials</p>	<p>3. Development of Professionals for suicide prevention</p> <p>Psychiatric education for general physicians Enlightenment of suicide and suicide prevention programme to educationists Implementation of training for long-term care support specialists</p> <p>Improving the quality of counsellors related to overloaded debts, unemployment and economic hardship Development of gatekeeper</p>	<p>3. Development of Professionals for suicide prevention</p> <p>Psychiatric education for general physicians</p> <p>Improving the quality of community/occupational health staffs</p> <p>Development of gatekeepers Support for supporters including family members and acquaintances Promotion of education of suicide prevention in university</p>
<p>4. Promoting mental health</p> <p>Promotion of occupational mental health supports Development of mental health support system in community Development of mental health support service in schools</p>	<p>4. Promoting mental health</p> <p>Promotion of occupational mental health supports Development of mental health support system in community Development of mental health support service in schools Enhancement of mental care for victims of disasters and support their life reconstruction</p>	<p>4. Promoting mental health</p> <p>Promotion of occupational mental health supports Development of mental health support system in community Development of mental health support service in schools Enhancement of mental care for victims of disasters and support their life reconstruction</p>
<p>5. Enhancement of psychiatric care system</p> <p>Development of psychiatric co-medical staffs Increasing consultation rate of depression Enhancement of measures for high-risk individuals with mental illnesses other than depression Support for patients with chronic diseases Development of mental health support system for children/adolescences</p>	<p>5. Enhancement of psychiatric care system</p> <p>Development of psychiatric co-medical staffs Increasing consultation rate of depression</p> <p>Enhancement of measures for high-risk individuals with mental illnesses other than depression Support for patients with chronic diseases</p>	<p>5. Enhancement of psychiatric care system</p> <p>Enhancement of measures for high-risk individuals with mental illnesses other than depression Enhancement of measures for high-risk individuals with mental illnesses, including depression, schizophrenia, several dependencies Development of human resources responsible for mental health medical welfare services</p>
<p>6. Preventing suicide through social cooperation</p> <p>Enhancement of consultation system in community Enhancement of consultation system for overloaded debts Enhancement of counselling system for unemployed people Enhanced support for caregivers</p>	<p>6. Preventing suicide through social cooperation</p> <p>Enhancement of consultation system in community Enhancement of consultation system for overloaded debts Enhancement of counselling system for unemployed people Enhanced support for caregivers</p>	<p>6. Preventing suicide through social cooperation</p> <p>Enhancement of consultation system in community Enhancement of consultation system for overloaded debts Enhancement of counselling system for unemployed people Enhanced support for caregivers</p>

Disseminate WHO guideline to the mass media Preventing suicide in bullied children Preventing threats of suicide in Internet Enhancement of information provision for solving legal problems Restrictions about hazardous places and chemicals Consultation for management	Disseminate WHO guideline to the mass media Preventing suicide in bullied children Enhancement of for telephone counselling service for bullying children Preventing threats of suicide in Internet Responding to suicide notice using Internet Enhancement of support systems for victims of child abuse and sex crime Enhancement of support system for economic hardship	Disseminate WHO guideline to the mass media Preventing suicide in bullied children Enhancement of for telephone counselling service for bullying children Preventing threats of suicide in Internet Responding to suicide notice using Internet Enhancement of support systems for victims of child abuse and sex crime Enhancement of support system for economic hardship Enhancement of consultation services using internet and SNS Development of diverse consultations and strengthening outreach Disseminate information sharing necessary for cooperation among related organizations Promoting of places for stay contributing to suicide prevention Enhancement of support for expectant and nursing mothers Enhancement of support for LGBT
7. Preventing repeated suicidal behaviours in suicide attempters Improving the liaison consultation psychiatric system in medical facilities Support for observation/protection by family members	7. Preventing repeated suicidal behaviours in suicide attempters Improving the liaison consultation psychiatric system in medical facilities Support for observation/protection by family members	7. Preventing repeated suicidal behaviours in suicide attempters Enhancement of comprehensive support systems for suicidal attempters via collaboration among medical and community Development of regional medical centre for prevention repeated suicide attempt behaviours Development of safety places Development of supporting systems in schools and workplaces
8. Enhancement of support for bereaved families of suicide victim Supporting the self-help groups for bereaved families of suicide victims Development of supporting systems for bereaved families of suicide victim Development of brochure for bereaved families of suicide victim Enhancement of support for bereaved children of suicide victim	8. Enhancement of support for bereaved families of suicide victim Supporting the self-help groups for bereaved families of suicide victims Development of supporting systems for bereaved families of suicide victim Development of brochure for bereaved families of suicide victim	8. Enhancement of support for bereaved families of suicide victim Supporting the self-help groups for bereaved families of suicide victims Development of brochure for bereaved families of suicide victim Enhancement of support for bereaved children of suicide victim Improving the quality of governmental staffs contact with bereaved families Enhancement of provision of information for comprehensive support bereaved families of suicide victims Development of supporting systems for bereaved families of suicide victims in schools and workplaces
9. Enhancement of cooperation with private organizations Development of human resource for suicide prevention Establishment of regional cooperation system Support for telephone counselling service of private organizations Support for pioneering/trial efforts by private organizations	9. Enhancement of cooperation with private organizations Development of human resource for suicide prevention Establishment of regional cooperation system Support for telephone counselling service of private organizations Support for pioneering/trial efforts by private organizations	9. Enhancement of cooperation with private organizations Development of human resource for suicide prevention Establishment of regional cooperation system Support for telephone counselling service of private organizations Support for pioneering/trial efforts by private organizations 10. Development of suicide prevention programme for child/adolescent Enhancement of suicide prevention of suicide among bullying children Enhancement of support for students Education how to request supports Enhancement of support system for children Enhancement of support system for adolescents Enhancement of support young generation based on their specific features Support for acquaintances 11. Enhancement of prevention of suicide caused by employment-related causes Enhancement of long working hours promotion of mental health in workplace Harassment prevention measures 12. Enhancement of regional suicide prevention programmes Development of regional suicidal profile and political package for regional suicide prevention programmes Development of guidelines for regional suicide prevention programmes Enhancement of regional suicide prevention centres Promoting the establishment of dedicated departments and professional staffs for suicide prevention programmes in regional governments

Red painted lists were newly added priority categories.

Supplementary Table s2: Suicide numbers of high school students disaggregated by motives and gender during 2007-2022.

	Males			Females		
	Total	(min	/ max	Total	(min	/ max
Total	2376	(249	/ 123	1566	(185	/ 66
Family problems	369	(38	/ 15	270	(29	/ 6
Conflict with parent	153	(15	/ 4	113	(14	/ 2
Marital conflict	0	(0	/ 0	2	(1	/ 0
Conflict with other family members	35	(7	/ 0	43	(5	/ 0
Death of family	16	(2	/ 0	15	(3	/ 0
Hopeless for family	16	(3	/ 0	10	(3	/ 0
Severe verbal reprimand	95	(15	/ 2	58	(8	/ 1
Stress of raising children	0	(0	/ 0	0	(0	/ 0
Physical and/or verbal abuse	4	(1	/ 0	4	(2	/ 0
Exhaustion from caring for infirm family	0	(0	/ 0	0	(0	/ 0
Other family-related problems	50	(7	/ 1	25	(3	/ 0
Health problems	430	(36	/ 17	523	(66	/ 18
Physical illness	52	(6	/ 1	31	(5	/ 0
Depression	155	(18	/ 0	224	(29	/ 5
Schizophrenia	54	(8	/ 0	75	(8	/ 1
Alcoholism	0	(0	/ 0	0	(0	/ 0
Drug abuse	3	(2	/ 0	3	(1	/ 0
Other mental illness	132	(18	/ 2	168	(31	/ 3
Physical disability	8	(3	/ 0	7	(2	/ 0
Other health-related problems	26	(6	/ 0	15	(3	/ 0
Economic problems	34	(6	/ 0	14	(2	/ 0
Bankruptcy	0	(0	/ 0	0	(0	/ 0
Business struggling	0	(0	/ 0	0	(0	/ 0
Unemployment	0	(0	/ 0	0	(0	/ 0
Inability to find employment	14	(4	/ 0	4	(2	/ 0
Economic hardships	4	(2	/ 0	4	(1	/ 0
Overloaded with debt	1	(1	/ 0	0	(0	/ 0
Assumption of excessive debt	0	(0	/ 0	0	(0	/ 0
Debt (other)	4	(2	/ 0	0	(0	/ 0
Harassment by debt-collectors	1	(1	/ 0	0	(0	/ 0
Suicide for death benefit	0	(0	/ 0	0	(0	/ 0
Other economic-related problems	52	(44	/ 0	48	(44	/ 0
Employment problems	9	(2	/ 0	7	(1	/ 0
Failure at work	1	(1	/ 0	1	(1	/ 0
Inter-personal relations at work	2	(1	/ 0	3	(1	/ 0
Trouble adjusting to changing work environment	0	(0	/ 0	1	(1	/ 0
Work-related fatigue	0	(0	/ 0	0	(0	/ 0
Other employment-related problems	6	(1	/ 0	2	(1	/ 0
Romantic problems	206	(18	/ 8	137	(14	/ 4
Marital problems	0	(0	/ 0	0	(0	/ 0
Heartbreak	136	(14	/ 4	64	(8	/ 1
Extra-marital affair	1	(1	/ 0	2	(1	/ 0
Conflict in relationship	56	(7	/ 0	58	(8	/ 0
Other romantic-related problems	13	(3	/ 0	13	(4	/ 0
School problems	1089	(125	/ 48	493	(64	/ 19
Entrance examination problems	139	(15	/ 3	52	(6	/ 0
Worrying about the future	306	(29	/ 13	126	(20	/ 4
Underachievement	343	(43	/ 14	92	(15	/ 3
Inter-personal relations with teachers	22	(5	/ 0	14	(3	/ 0
Bullying	16	(3	/ 0	20	(4	/ 0
Conflict with classmate	111	(16	/ 4	103	(19	/ 3
Other school-related problems	152	(19	/ 6	86	(10	/ 2
Others problems	239	(26	/ 8	122	(15	/ 1
Public disclosure of crime	23	(4	/ 0	9	(4	/ 0
Crime victim	1	(1	/ 0	4	(1	/ 0
Copycat suicide	4	(1	/ 0	7	(2	/ 0
Loneliness	66	(7	/ 1	43	(5	/ 0
Neighborhood problems	0	(0	/ 0	1	(1	/ 0
Others	145	(17	/ 4	58	(8	/ 0

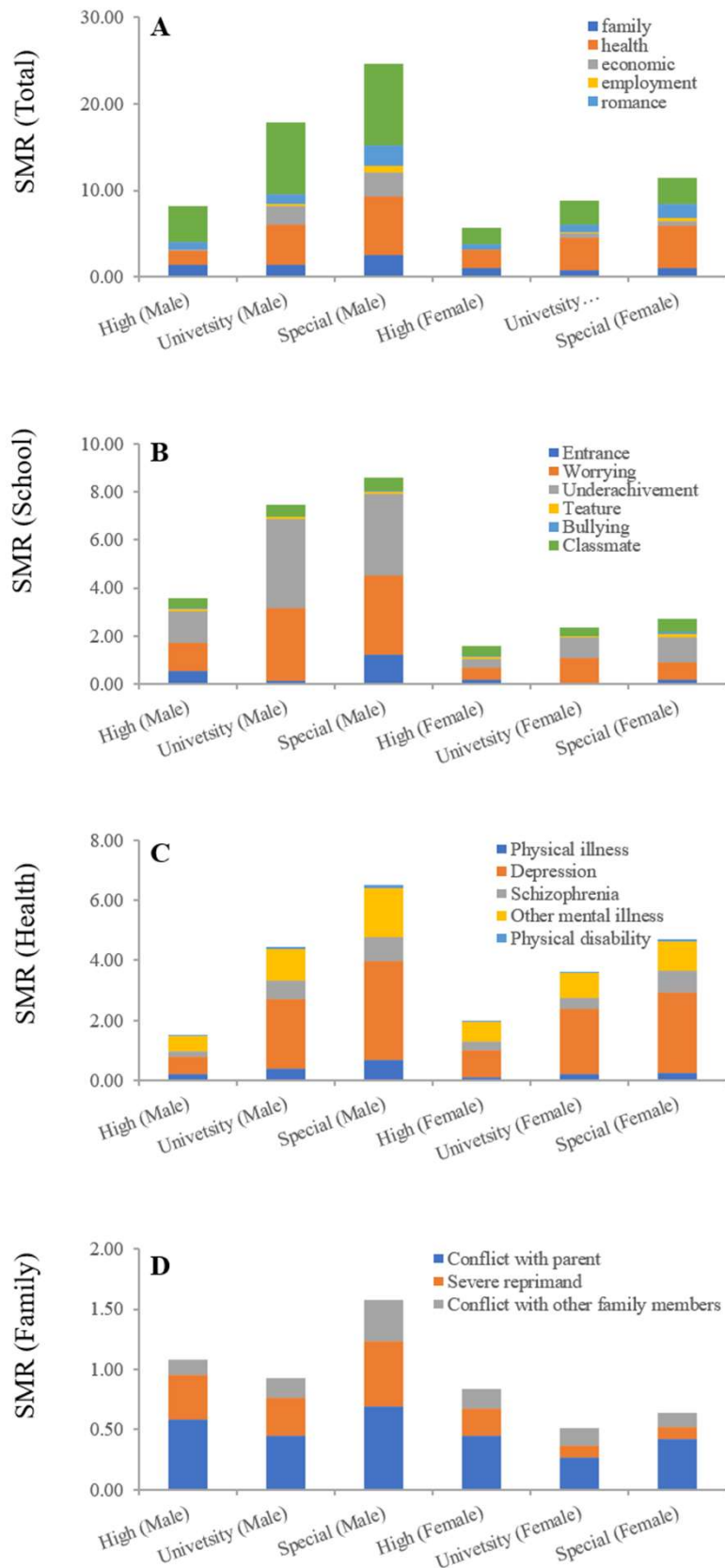
Supplementary Table s3: Suicide numbers of university students disaggregated by motives and gender during 2007-2022.

	Males			Females		
	Total	(min / max)		Total	(min / max)	
Total	5179	(397 / 221)		1880	(158 / 86)	
Family problems	378	(33 / 13)		157	(13 / 4)	
Conflict with parent	118	(16 / 3)		53	(6 / 1)	
Marital conflict	5	(1 / 0)		4	(1 / 0)	
Conflict with other family members	43	(6 / 1)		30	(4 / 0)	
Death of family	23	(4 / 0)		13	(3 / 0)	
Hopeless for family	41	(6 / 0)		20	(3 / 0)	
Severe verbal reprimand	83	(11 / 2)		19	(4 / 0)	
Stress of raising children	1	(1 / 0)		4	(1 / 0)	
Physical and/or verbal abuse	1	(1 / 0)		0	(0 / 0)	
Exhaustion from caring for infirm family	2	(1 / 0)		0	(0 / 0)	
Other family-related problems	61	(9 / 1)		14	(3 / 0)	
Health problems	1233	(123 / 44)		725	(60 / 32)	
Physical illness	101	(13 / 2)		44	(4 / 1)	
Depression	624	(73 / 18)		416	(45 / 15)	
Schizophrenia	155	(19 / 4)		72	(8 / 2)	
Alcoholism	2	(1 / 0)		1	(1 / 0)	
Drug abuse	3	(1 / 0)		4	(1 / 0)	
Other mental illness	282	(25 / 11)		165	(17 / 6)	
Physical disability	17	(4 / 0)		3	(1 / 0)	
Other health-related problems	49	(9 / 0)		20	(3 / 0)	
Economic problems	553	(59 / 19)		105	(13 / 1)	
Bankruptcy	0	(0 / 0)		0	(0 / 0)	
Business struggling	2	(1 / 0)		0	(0 / 0)	
Unemployment	0	(0 / 0)		0	(0 / 0)	
Inability to find employment	345	(42 / 10)		75	(10 / 0)	
Economic hardships	43	(6 / 0)		5	(1 / 0)	
Overloaded with debt	26	(4 / 0)		2	(1 / 0)	
Assumption of excessive debt	0	(0 / 0)		0	(0 / 0)	
Debt (other)	32	(6 / 0)		3	(2 / 0)	
Harassment by debt-collectors	0	(0 / 0)		0	(0 / 0)	
Suicide for death benefit	0	(0 / 0)		0	(0 / 0)	
Other economic-related problems	145	(53 / 2)		72	(53 / 0)	
Employment problems	55	(8 / 0)		14	(3 / 0)	
Failure at work	10	(2 / 0)		1	(1 / 0)	
Inter-personal relations at work	11	(3 / 0)		5	(2 / 0)	
Trouble adjusting to changing work environment	5	(1 / 0)		0	(0 / 0)	
Work-related fatigue	5	(2 / 0)		6	(2 / 0)	
Other employment-related problems	24	(7 / 0)		2	(2 / 0)	
Romantic problems	325	(34 / 8)		196	(21 / 7)	
Marital problems	12	(4 / 0)		4	(1 / 0)	
Heartbreak	203	(20 / 4)		85	(8 / 3)	
Extra-marital affair	3	(2 / 0)		10	(3 / 0)	
Conflict in relationship	91	(12 / 0)		84	(8 / 0)	
Other romantic-related problems	16	(4 / 0)		13	(3 / 0)	
School problems	2193	(177 / 105)		541	(57 / 21)	
Entrance examination problems	35	(6 / 0)		6	(2 / 0)	
Worrying about the future	801	(67 / 33)		207	(24 / 6)	
Underachievement	977	(76 / 43)		174	(20 / 3)	
Inter-personal relations with teachers	26	(6 / 0)		8	(3 / 0)	
Bullying	8	(2 / 0)		1	(1 / 0)	
Conflict with classmate	125	(17 / 4)		68	(9 / 1)	
Other school-related problems	221	(22 / 7)		77	(9 / 1)	
Others problems	442	(45 / 17)		142	(15 / 2)	
Public disclosure of crime	35	(4 / 1)		1	(1 / 0)	
Crime victim	2	(1 / 0)		0	(0 / 0)	
Copycat suicide	7	(1 / 0)		5	(1 / 0)	
Loneliness	116	(20 / 2)		42	(9 / 0)	
Neighborhood problems	2	(1 / 0)		1	(1 / 0)	
Others	280	(26 / 12)		93	(9 / 2)	

Supplementary Table s4: Suicide numbers of special vocational school students disaggregated by motives and gender during 2007-2022.

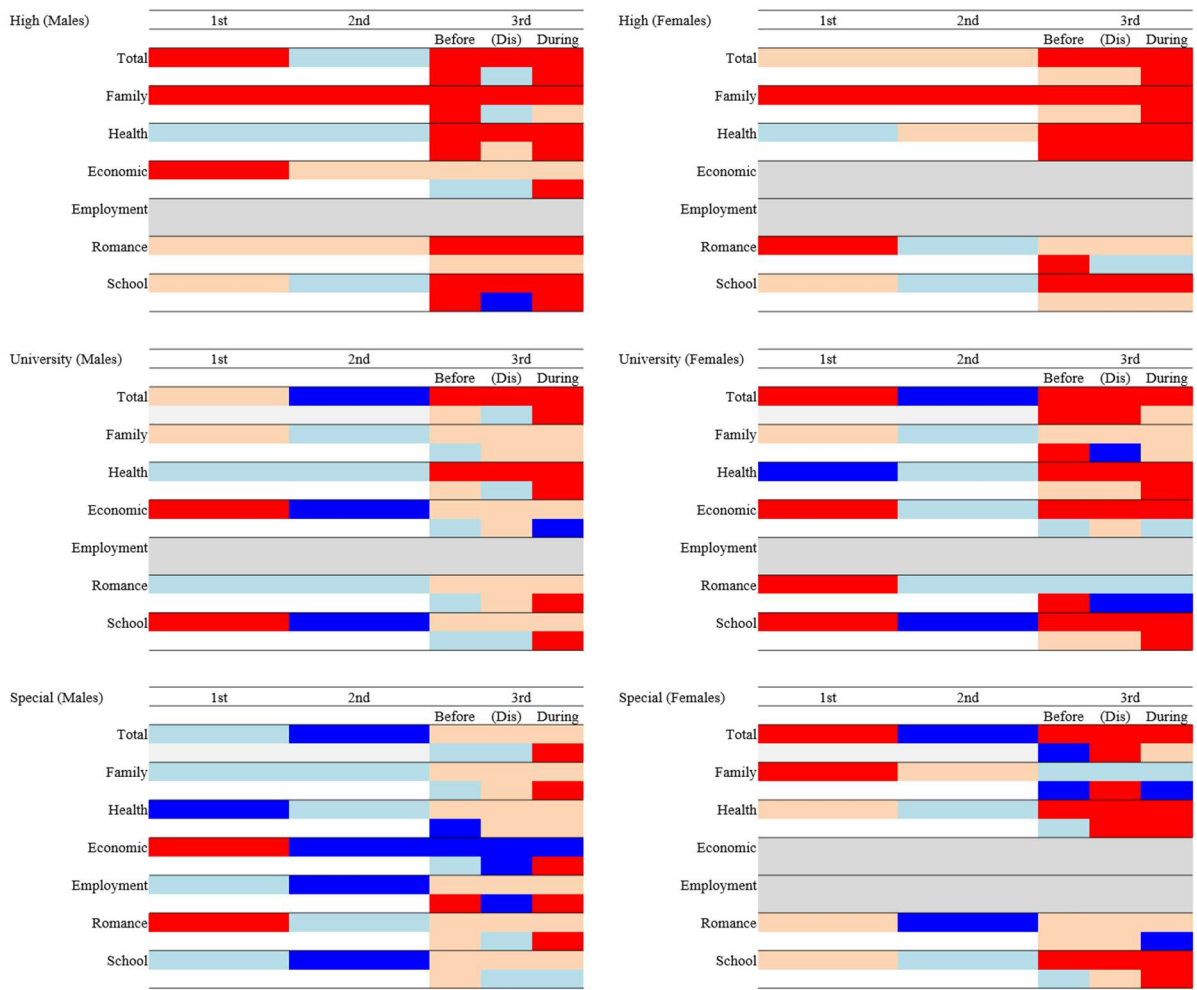
	Males			Females		
	Total	(min	/ max	Total	(min	/ max
Total	1233	(102	/ 58	690	(60	/ 27
Family problems	116	(12	/ 4	60	(7	/ 1
Conflict with parent	32	(5	/ 0	24	(4	/ 0
Marital conflict	2	(1	/ 0	7	(2	/ 0
Conflict with other family members	16	(3	/ 0	7	(2	/ 0
Death of family	7	(2	/ 0	2	(1	/ 0
Hopeless for family	12	(2	/ 0	4	(2	/ 0
Severe verbal reprimand	25	(4	/ 0	6	(3	/ 0
Stress of raising children	0	(0	/ 0	3	(1	/ 0
Physical and/or verbal abuse	0	(0	/ 0	0	(0	/ 0
Exhaustion from caring for infirm family	0	(0	/ 0	0	(0	/ 0
Other family-related problems	22	(4	/ 0	7	(2	/ 0
Health problems	310	(29	/ 11	278	(30	/ 6
Physical illness	31	(4	/ 0	14	(2	/ 0
Depression	152	(15	/ 3	151	(20	/ 2
Schizophrenia	37	(5	/ 0	40	(6	/ 0
Alcoholism	1	(1	/ 0	1	(1	/ 0
Drug abuse	1	(1	/ 0	1	(1	/ 0
Other mental illness	75	(9	/ 1	57	(11	/ 1
Physical disability	5	(1	/ 0	4	(1	/ 0
Other health-related problems	8	(2	/ 0	10	(3	/ 0
Economic problems	130	(12	/ 4	25	(4	/ 0
Bankruptcy	0	(0	/ 0	0	(0	/ 0
Business struggling	0	(0	/ 0	0	(0	/ 0
Unemployment	4	(2	/ 0	0	(0	/ 0
Inability to find employment	67	(8	/ 1	8	(2	/ 0
Economic hardships	20	(3	/ 0	5	(2	/ 0
Overloaded with debt	4	(1	/ 0	2	(1	/ 0
Assumption of excessive debt	0	(0	/ 0	0	(0	/ 0
Debt (other)	17	(3	/ 0	6	(2	/ 0
Harassment by debt-collectors	0	(0	/ 0	0	(0	/ 0
Suicide for death benefit	0	(0	/ 0	0	(0	/ 0
Other economic-related problems	60	(42	/ 0	46	(42	/ 0
Employment problems	35	(4	/ 0	21	(4	/ 0
Failure at work	1	(1	/ 0	1	(1	/ 0
Inter-personal relations at work	10	(2	/ 0	6	(2	/ 0
Trouble adjusting to changing work environment	3	(1	/ 0	1	(1	/ 0
Work-related fatigue	5	(2	/ 0	7	(2	/ 0
Other employment-related problems	16	(2	/ 0	6	(3	/ 0
Romantic problems	110	(10	/ 3	95	(14	/ 3
Marital problems	1	(1	/ 0	2	(1	/ 0
Heartbreak	74	(8	/ 2	48	(8	/ 0
Extra-marital affair	2	(1	/ 0	6	(1	/ 0
Conflict in relationship	28	(5	/ 0	31	(3	/ 0
Other romantic-related problems	5	(2	/ 0	8	(2	/ 0
School problems	434	(40	/ 18	175	(18	/ 6
Entrance examination problems	57	(8	/ 1	10	(2	/ 0
Worrying about the future	153	(17	/ 3	41	(5	/ 0
Underachievement	155	(16	/ 5	61	(8	/ 1
Inter-personal relations with teachers	4	(2	/ 0	7	(1	/ 0
Bullying	3	(1	/ 0	5	(1	/ 0
Conflict with classmate	25	(5	/ 0	33	(6	/ 0
Other school-related problems	37	(5	/ 0	18	(5	/ 0
Others problems	98	(11	/ 3	36	(6	/ 0
Public disclosure of crime	6	(2	/ 0	0	(0	/ 0
Crime victim	1	(1	/ 0	0	(0	/ 0
Copycat suicide	3	(1	/ 0	2	(1	/ 0
Loneliness	22	(4	/ 0	18	(4	/ 0
Neighborhood problems	0	(0	/ 0	0	(0	/ 0
Others	66	(7	/ 2	16	(3	/ 0

Supplementary Fig.s1: SMRs caused by suicidal motives of high school, university and special vocational school students of males and females during 2007–2022.



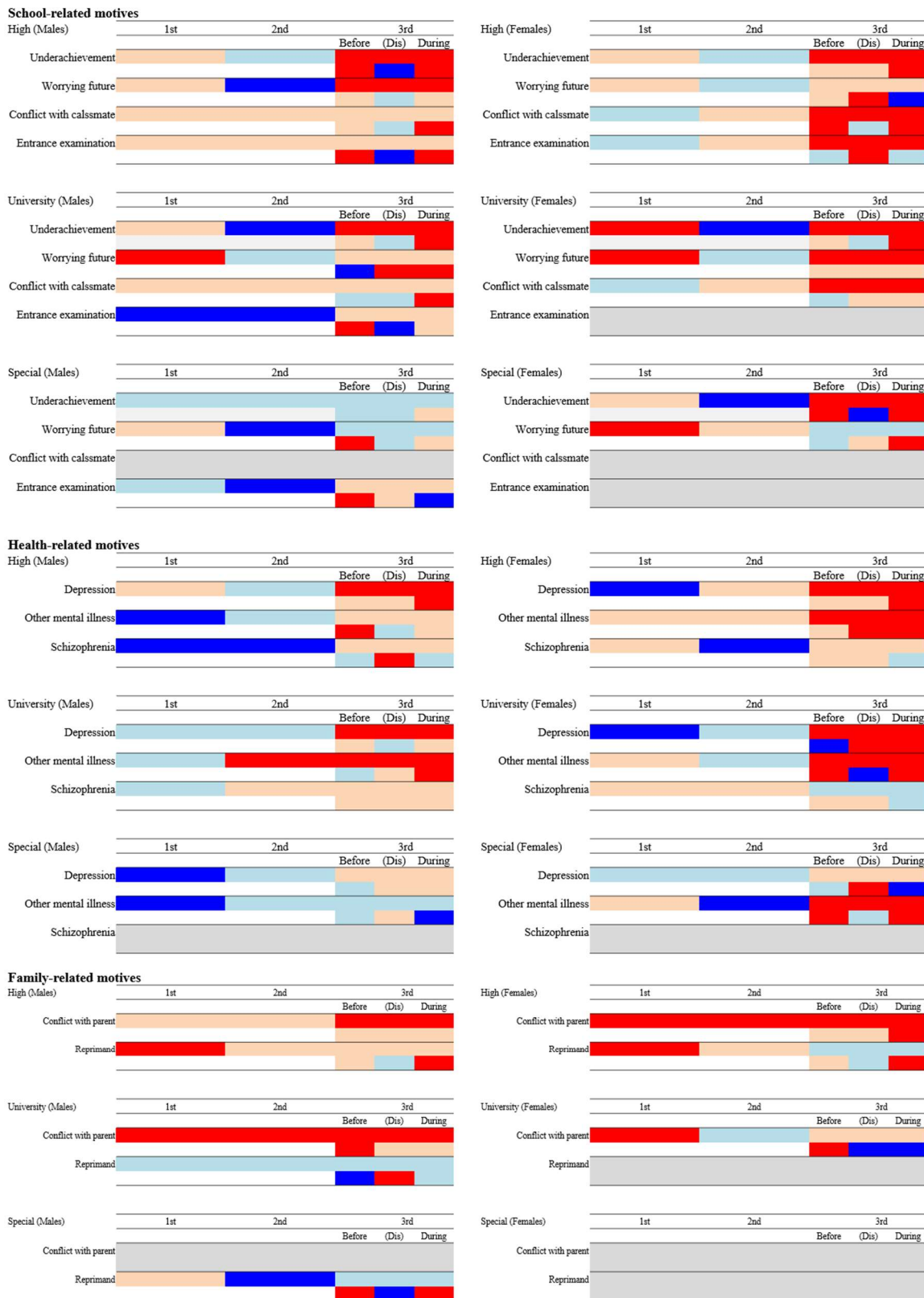
Average of SMRs of high school, university and special vocational school students of males and females during 2007–2022 caused by major 6 suicidal motives (A), subcategories in school-related motives (B), health-related motives (C) and family-related motives (D) were represented. The ordinates indicate the mean of SMRs (per 100,000 population) during 2007-2022.

Supplementary Fig.s2: Trends of SMRs caused by 6 major suicidal motives during 2007-2022.



Trends of SMRs of high school (High), university and special vocational school (Special) students of males and females disaggregated by 6 major motives (total, family-, health-, economic-, employment-, romance- and school-related motives) during 1st (2007-2012), 2nd (2012-2017) and 3rd GPSPP (2017-2022) were indicated in upper columns. Especially, to analyse the impacts of the COVID-19 pandemic, trends and discontinuity (Dis) of SMRs between before (2017-2020) and after (2020-2022) the pandemic outbreak were lower columns. Blue and red columns indicate significant ($p < 0.05$) decreasing and increasing trends of SMR detected by ITSA. Light blue and red columns indicate significant decreasing and increasing trends detected by ITSA. Grey columns indicated the excluded categories. Actual trends of SMRs detected by ITSA were indicated in Supplementary Fig.2.

Supplementary Fig.s3: Trends of SMRs caused by suicidal motives in school-, health- and family-related problems during 2007-2022.



Trends of SMRs of high school (High), university and special vocational school (Special) students of males and females disaggregated by suicidal motives (in family-, health- and school-related motives) during 1st (2007-2012), 2nd (2012-2017) and 3rd GPSPP (2017-2022) were indicated in upper columns. Especially, to analyse the impacts of the COVID-19 pandemic, trends and discontinuity (Dis) of SMRs between before (2017-2020) and after (2020-2022) the pandemic outbreak were lower columns. Blue and red columns indicate significant ($p < 0.05$) decreasing and increasing trends of SMR detected by ITSA. Light blue and red columns indicate significant decreasing and increasing trends detected by ITSA. Grey columns indicated the excluded categories. Actual trends of SMRs caused school-, health- and family-related motives by detected by ITSA were indicated in Figs.3-4.

Table: Effects of grade repetitions on SMRs of university students caused by suicidal motives

Factor	(Subcategory)	Male				Female								
		Adjusted R ²	F value	P value	Year	β	P value	Adjusted R ²	F value	P value	Year	β	P value	
Total		0.541	12.760	0.001 **	R1	-1.91	0.72	0.710	5.268	0.015 *	R1	-17.31	0.580	
					R2	43.14	0.11				R2	90.08	0.309	
					R3	3.08	0.92				R3	-185.08	0.400	
					R4<	-125.83	0.11				R4<	-207.76	0.269	
Family		-0.177	1.308	0.331	R1	0.67	0.518	0.304	3.484	0.050 *	R1	-2.02	0.101	
					R2	-2.51	0.493				R2	15.37	0.005 **	
					R3	-1.58	0.862				R3	-32.30	0.051	
					R4<	14.71	0.174				R4<	23.07	0.122	
	Conflict with parent		-0.029	1.633	0.248	R1	-0.584	0.228	-0.156	1.793	0.207	R1	0.037	0.981
						R2	2.806	0.094				R2	2.178	0.631
						R3	-4.293	0.293				R3	-16.280	0.280
						R4<	-0.993	0.791				R4<	-0.406	0.947
	Reprimand		-0.273	0.785	0.560	R1	0.358	0.234	-0.292	2.647	0.097	R1	-0.283	0.057
						R2	-1.819	0.233				R2	3.278	0.072
						R3	0.992	0.661				R3	-4.774	0.576
						R4<	4.157	0.410				R4<	6.180	0.511
Health		0.243	3.612	0.045 *	R1	-5.587	0.010 *	0.603	25.779	0.000 **	R1	2.83	0.716	
					R2	19.832	0.048 *				R2	-24.66	0.240	
					R3	32.011	0.062				R3	-51.85	0.499	
					R4<	-111.059	0.009 **				R4<	-199.39	0.005 **	
	physical		0.690	7.433	0.005 **	R1	-1.34	0.000 **				R1		
						R2	1.00	0.559				R2		
						R3	10.42	0.084				R3		
						R4<	-10.67	0.111				R4<		
	depression		0.316	3.774	0.040 *	R1	-4.166	0.063	0.506	7.929	0.004 **	R1	-1.30	0.873
						R2	20.405	0.043 *				R2	-19.34	0.451
						R3	11.411	0.651				R3	-3.25	0.961
						R4<	-79.193	0.036 *				R4<	-170.59	0.016 *
	schizophrenia		0.101	3.946	0.036 *	R1	-0.41	0.272	-0.037	3.532	0.048 *	R1	3.03	0.020 *
						R2	2.21	0.258				R2	-4.34	0.337
						R3	4.95	0.234				R3	-29.28	0.104
						R4<	-18.97	0.036 *				R4<	-16.57	0.205
	Other mental illness		-0.114	1.402	0.302	R1	0.370	0.451	-0.351	0.750	0.581	R1	-0.282	0.929
						R2	-2.171	0.338				R2	-2.312	0.782
						R3	2.424	0.681				R3	3.266	0.913
						R4<	-3.441	0.574				R4<	-5.642	0.795
Economic		0.091	2.567	0.103	R1	2.74	0.278	0.035	0.915	0.492	R1	0.27	0.950	
					R2	3.17	0.732				R2	11.09	0.508	
					R3	-16.75	0.198				R3	-45.59	0.096	
					R4<	-1.61	0.930				R4<	1.43	0.957	
Employment		0.136	5.669	0.012 *	R1	0.12	0.726	-0.303	0.433	0.782	R1	1.27	0.329	
					R2	1.42	0.291				R2	-1.52	0.665	
					R3	-1.00	0.816				R3	-10.84	0.356	
					R4<	-2.56	0.516				R4<	-5.33	0.447	
Romance		0.177	1.438	0.291	R1	-0.69	0.757	0.162	1.399	0.303	R1	3.40	0.324	
					R2	2.95	0.738				R2	3.61	0.773	
					R3	9.93	0.489				R3	-74.40	0.061	
					R4<	-27.71	0.164				R4<	-17.20	0.589	
	conflict with partner		-0.065	1.311	0.330	R1	-0.506	0.164	0.816	81.958	0.000 **	R1	2.24	0.000 **
						R2	-0.817	0.604				R2	2.86	0.255
						R3	7.482	0.084				R3	-44.70	0.000 **
						R4<	-6.643	0.118				R4<	-7.60	0.205
School		0.225	11.652	0.001 **	R1	-4.78	0.203	0.274	3.569	0.047 *	R1	-8.12	0.066	
					R2	16.37	0.140				R2	43.54	0.025 *	
					R3	32.09	0.049 *				R3	-41.82	0.456	
					R4<	-66.15	0.108				R4<	-34.17	0.605	
	worrying about the future		0.660	16.295	0.000 **	R1	2.80	0.007 **	0.131	3.935	0.036 *	R1	-3.56	0.011 *
						R2	0.35	0.933				R2	4.24	0.594
						R3	-5.23	0.551				R3	46.30	0.036 *
						R4<	-5.65	0.561				R4<	-19.41	0.469
	underachievement		0.387	6.851	0.006 **	R1	-3.39	0.058	0.171	3.789	0.040 *	R1	-2.46	0.576
						R2	13.37	0.047 *				R2	29.29	0.049 *
						R3	7.90	0.514				R3	-75.21	0.060
						R4<	-30.03	0.059				R4<	13.01	0.755
	Conflict with classmate		0.481	2.859	0.081	R1	-0.251	0.811	-0.049	3.629	0.045 *	R1	0.747	0.783
						R2	-0.417	0.909				R2	9.058	0.273
						R3	2.701	0.452				R3	-25.506	0.325
						R4<	5.354	0.329				R4<	-12.362	0.377

*: p<0.05, **:p<0.01: analysed by multiple regression analysis with robust standard error.

R1: repeat the same grad for one year, R2: repeat the same grad for two year, R3: repeat the same grad for three year, R4<: repeat the same grad for more than four years.