

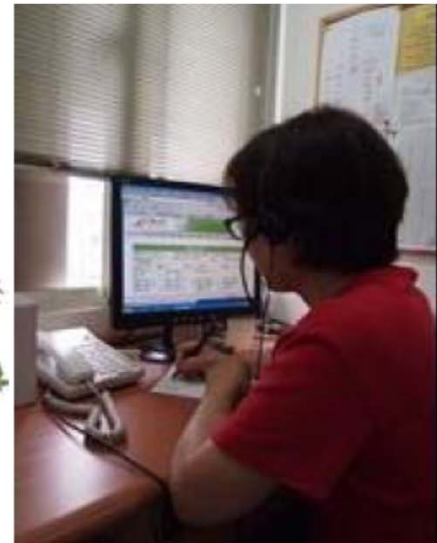
Process and Outcome Evaluation of Taiwan Suicide Prevention Hotline: A Preliminary Study

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The Taiwan's National Suicide Prevention Hotline

- The Taipei Lifeline Association has been undertaking the 24/7 toll-free National Suicide Prevention Hotline (NSPH) from the Department of Health, Taiwan since 2009.
- 61,284 calls to the NSPH in 2009, 71,781 in 2010, and 68,303 in 2011.
- Intervened 143 individuals in the process of a suicide attempt during of right before the call in 2009, 375 in 2010, and 475 in 2011.



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Research Questions

- Would the NSPH service improve callers' mental state and decrease their suicidality during the call?
- Would the NSPH helpers use different types of helping behavior for non-suicidal callers, suicidal callers, and acute suicidal callers?
- Would helpers' helping behaviors be associated with changes in callers' mental state and suicidality?



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Methods

- The *Suicide Risk Assessment of NSPH* was used to classify callers into non-suicidal, suicidal, and acute suicidal groups. A total of 300 anonymous phone records (including 100 acute suicidals, 100 suicidals, and 100 non-suicidals) were drawn from the NSPH 2009 database.
- The *Helper Behavior List*, modified from the Helper's Response List (Daigle & Mishara, 1995; Mishara & Daigle, 1997; Mishara et al, 2007a, Mishara et al., 2007b), was used to code NSPH helper's behaviors.



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Methods

- The *Modified Mental State Rating Scale* (MSRS), based on the works of KaLafat and colleagues (2007), King and colleagues (2003), and Mishara and colleagues (2007b), was used to evaluate callers' level of emotional disturbance at the beginning and at the end of the call.
- The *Modified Suicide Risk Scale* (SRS), based on the work of Gould and colleagues (2007), was used to evaluate callers' suicide risk at the beginning and at the end of the call.

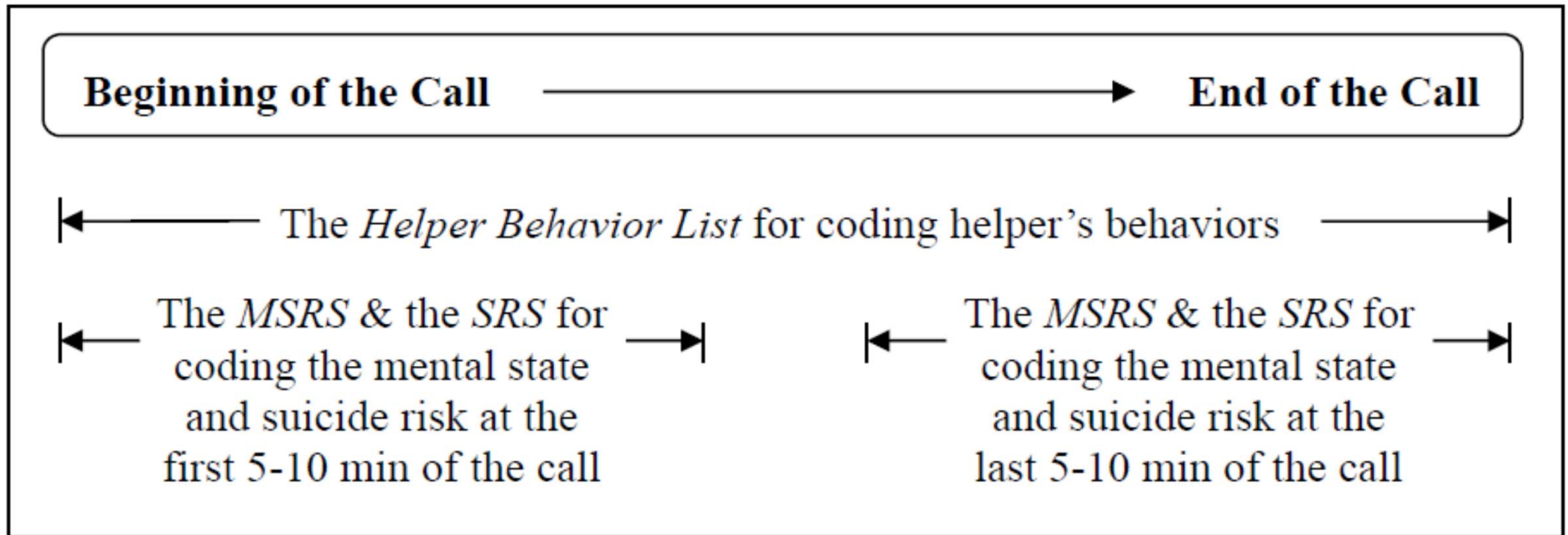


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Methods



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Results

The Group Means and Standard Deviations of MSRS1, MSRS2, SRS1, and SRS2

Scales	MSRS1	MSRS2	SRS1	SRS2
Group	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Non-suicidal	13.72 (2.75)	11.33 (2.80)	10.93 (3.25)	8.88 (2.52)
Suicidal	18.57 (3.39)	14.82 (3.30)	19.87 (5.07)	15.49 (4.52)
Acute-suicidal	16.57 (5.29)	12.77 (5.36)	22.36 (6.11)	16.53 (7.75)
Total	16.29 (4.42)	12.97 (4.21)	17.72 (6.97)	13.63 (6.35)



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Results

Pattern Matrix for Helper Behaviors List

Item	F1	F2	F3	F4	F5	F6	F7
disagreement with callers	.727						
value judgment	.617						
confrontation	.581	.338					
providing personal solution	.442						
anger at callers	.356						
questions on emotion		.679					
reflection		.525					
leading on thinking		.473					
validating solutions		.407					
summarizing		.396					
minor support			.605				
information			.566				
fact question		.329	.469				
moral lecturing				.535			
silence				.494			
emotional validation		.303		.395			
sharing other experience				.389			
comfort				.364			
providing information					.658		
questions on resources-using					.570		
discussing solution					.417		
interpretation						.622	
suggestion on solution						.607	
sharing own experience				.397		.305	
rejected to be manipulated							.703
sharing concern							.446
informing client							.327

Note. Loading of .298 and above were included. Seven factors were extracted.

The Relationship between Helper Behaviors and Caller Groups

<i>Techniques</i>	<i>Caller Types</i>	<i>Mean</i>	<i>η^2</i>	<i>F</i>	<i>p</i>	<i>Post Hoc</i>
F1. Non-Professional Behavior	Acute-suicidal	1.88	.02	3.30	.038	Acute-suicidal = Suicidal > Non-suicidal
	Suicidal	1.85				
	Non-suicidal	1.08				
F2. Active Listening	Acute-suicidal	5.47	.03	4.82	.009	Suicidal = Non-suicidal > Acute-suicidal
	Suicidal	7.33				
	Non-suicidal	6.68				
F3. Facts Gathering	Acute-suicidal	8.68	.12	19.48	< .001	Suicidal > Non-suicidal > Acute-suicidal
	Suicidal	11.84				
	Non-suicidal	10.47				
F4. Consolation	Acute-suicidal	2.28	.01	1.32	.269	
	Suicidal	2.84				
	Non-suicidal	2.39				
F5. Caller-centered Problem Solving	Acute-suicidal	2.34	.08	13.27	< .001	Suicidal = Non-suicidal > Acute-suicidal
	Suicidal	4.13				
	Non-suicidal	3.74				
F6. Helper-centered Problem Solving	Acute-suicidal	2.41	.05	8.57	< .001	Suicidal = Non-suicidal > Acute-suicidal
	Suicidal	3.74				
	Non-suicidal	3.64				
F7. Crisis Response	Acute-suicidal	1.19	.08	12.50	< .001	Acute-suicidal > Suicidal = Non-suicidal
	Suicidal	0.55				
	Non-suicidal	0.37				

The Effect of Helper Behaviors on Callers' Mental Status

	0	1	2
<i>Fixed Effect</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>
MSRS at the End of the Call, γ_{00}	12.97 ***	12.97 ***	12.97 ***
MSRS at the Beginning of the Call, γ_{10}		0.56 ***	0.54 ***
F1. Non-Professional Behaviors, γ_{20}			0.04
F2. Active Listening, γ_{30}			0.05
F3. Facts Gathering, γ_{40}			0.14 *
F4. Consolation, γ_{50}			-0.12
F5. Caller-centered Problem Solving, γ_{60}			-0.13
F6. Helper-centered Problem Solving, γ_{70}			-0.08
F7. Crisis Response, γ_{80}			0.32 ^a
	<i>Variance Component</i>	<i>Variance Component</i>	<i>Variance Component</i>
<i>Random Effect</i>			
MSRS at the End of the Call, u_{0j}	2.92 ***	0.14	0.20
Level-1 Effect, r_{1j}	15.83	11.15	10.88
* $p < .05$. *** $p < .001$. ^a $p = .056$.			

The Effect of Helper Behaviors on Callers' Suicide Risk

	0	1	2
<i>Fixed Effect</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>
SRS at the End of the Call, γ_{00}	13.63 **	13.63 ***	12.97 ***
SRS at the Beginning of the Call, γ_{10}		0.67 ***	0.66 ***
F1. Non-Professional Behaviors, γ_{20}			0.06
F2. Active Listening, γ_{30}			-0.02
F3. Facts Gathering, γ_{40}			0.25 **
F4. Consolation, γ_{50}			-0.05
F5. Caller-centered Problem Solving, γ_{60}			-0.23 *
F6. Helper-centered Problem Solving, γ_{70}			0.05
F7. Crisis Response, γ_{80}			0.54 *
	<i>Variance Component</i>	<i>Variance Component</i>	<i>Variance Component</i>
<i>Random Effect</i>			
SRS at the End of the Call, u_{0j}	16.93 ***	0.01	0.00
Level-1 Effect, r_{1j}	28.96	18.72	17.79
* $p < .05$. ** $p < .01$. *** $p < .001$.			

Comments, suggestions, or feedback?

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