

Examining the Limits of Social Contagion: Suicide Suggestion in Early Adulthood

Anna S. Mueller
Seth Abrutyn
Cynthia Stockton
The University of Memphis

EXTENDED ABSTRACT

INTRODUCTION

Understanding suicide has been central to the sociological enterprise since Durkheim (1897 [1951]) wrote his famous monograph. Though Durkheimian mechanisms remain central to the sociology of suicide (cf. Pescosolido and Georgianna 1989; Thorlindsson and Bjarnason 1998; Maimon and Kuhl 2008), emphasis on *suicide suggestion* or the role social learning, imitation/copycatting, and social influence plays in the suicide process has become increasingly important in explaining many cases of suicide (Phillips 1974, 1979; Stack 1987; Bjarnason and Thorlindsson 1994; Baller and Richardson 2002; Romer, Jamieson, and Jamieson 2006). A limit to this current literature is that studies have generally focused on whether suicides are contagious among adolescents. While this is a question of intense relevance preventing adolescent suicide, restricting the analysis to adolescents limits our ability to evaluate whether or not suicide suggestion is a meaningful sociological trigger for suicide behaviors in all populations.

Adolescence is a unique stage of the life course, where social relationships, particularly among peers, are intense and generally focused around the school context. Does the suicide of a friend, if experienced in early adulthood, have the same impact as it does for adolescents when social life is divorced from the potentially intensifying impact of adolescence and schools?

With this paper, we employ data from Waves III and IV of the National Longitudinal Study of Adolescent Health to investigate the role of suicide suggestion – or the suicide attempts of friends – in suicidal thoughts and attempts in early adulthood. We also tease out important nuances related to the suicide process and suggestion by analyzing potential gender differences and whether the effect fades with time. By using two waves of data, we are able to investigate aspects of the temporality of suicide suggestion while also controlling for other relevant factors, such as prior suicidal thoughts, emotional distress, and social support. This allows us to evaluate the fundamental question of whether the suicide attempt of a friend can serve as a trigger for new suicidal thoughts or whether observed associations are simply artifacts of similarity of personality or circumstances of friends.

METHODS

Data

This study employs data from Waves III & IV of the National Longitudinal Study of Adolescent Health (Add Health). Add Health contains a nationally-representative sample of U.S. adolescents in grades 7-12 in 132 middle and high schools in 80 different communities. From a list of all schools containing an eleventh grade in the U.S., Add Health selected a nationally-representative sample of schools using a school-based, cluster sampling design, with the sample stratified by region, urbanicity, school type, ethnic composition, and size. Wave III was collected in 2001-2002 when respondents were approximately ages 18-23. Wave IV was collected in

2007-2008, when respondents were ages 24-32. Additional information about Add Health can be found in Harris et al. (2009).

Measures

Dependent Variables

We analyze two dependent variables: *Suicidal Ideation* and *Suicide Attempts* at both Wave II and Wave III. Suicidal Ideation is based on adolescents' responses to the question: "During the past 12 months, did you ever seriously think about committing suicide?" Adolescents who answered "yes" were coded as 1 on a dichotomous outcome indicating suicidal ideation. Adolescents who reported having suicidal thoughts were then asked, "During the past 12 months, how many times did you actually attempt suicide?" Answers ranged from 0 (0 times) to 4 (6 or more times). Adolescents' responses were recoded into a dichotomous variable where 1 indicates a report of at least one suicide attempt in the past 12 months and 0 indicates no attempts. Adolescents who reported no suicidal thoughts were also coded as 0 on this variable.

Independent Variables

Our first key independent variable is *Friend Suicide Attempt* and is based on adolescents' responses to the question: "Have any of your friends tried to kill themselves during the past 12 months?" Adolescents who responded "yes" are coded as 1 on a dichotomous variable. Our models also control for risk and protective factors for suicide suggested by prior research. These include respondents' identity as gay, lesbian or bisexual, emotional distress (measured by a nineteen item abridged Center for Epidemiological Studies – Depression (CESD) scale (Cronbachs alpha=0.87)), college attendance, marital status, religious attendance, and age, race, childhood family structure, parents' education level, and current economic and employment circumstances and alcohol use.

Analytic Plan

Our goal is to investigate whether the suicide attempt of a friend (at Wave 3) significantly influences young adults' reports of suicidal thoughts or attempts contemporaneously (at Wave 3) or approximately six years later (W4), above and beyond other known risk factors for suicide. Importantly, we evaluate this in a sample of young adults with no history of suicidal thoughts during adolescence (at Waves I or II). In essence, this allows us to establish, to the extent possible with survey data, whether a causal relationship exists between a friend's suicide and an individual's own suicide risk. Because we expect gender differences in what leads adolescents to contemplate suicide, we estimate all models separately by gender. Because very few boys develop new suicide attempts (in general boys are less likely than girls to attempt suicide) we only investigate suicidal thoughts among boys. In the interest of space, only our full saturated models are presented in this extended abstract, though what is shown is only a part of a much larger analysis. Importantly, we estimate all models using the SAS SurveyLogistic Procedure (An 2002) to account for the complex sampling frame of the Add Health data. Additionally, all models include normalized sample weights to compensate for Add Health's sampling design and for sample attrition. These weights render our analyses more representative of the U.S. population than analyses that do not correct for oversampled populations in Add Health.

RESULTS

Table 1 presents odds ratios from models estimating the effect of a friend's suicide attempt on the suicidal thoughts and attempts of young adults. Models 1 & 2 reveals that a friend's suicide attempt significantly increases girls' likelihood of reporting both suicidal thoughts (Model 1) and suicide attempts (Model 2). Girls whose friends attempted suicide at 2.9

times more likely to report experiencing suicidal thoughts, net of a substantial amount of controls for other factors related to suicide (such as emotional distress), than girls who did not experience a friend’s suicide attempt (Model 1). Model 2 shows a similar pattern. On average, girls who experienced a friend’s attempted suicide are 2.4 times more likely than their otherwise similar peers to report attempting suicide at Wave III. At Wave III, boys’ suicidal thoughts appear quite similar to girls. Model 5 reveals that boys who report having a friend attempt suicide are, on average, 4.78 times more likely than their otherwise similar peers to report experiencing new thoughts of suicide, net of all other variables. Interestingly, Models 3 & 4 (for girls) and Model 6 (for boys) suggest that the impact of suicide suggestion fades with time. By Wave IV there is no discernable effect of experiencing a friend’s suicide attempt at Wave III on Wave IV suicidal behaviors for either gender.

Table 1: Odds Ratios from Models Predicting Suicidal Thoughts and Attempts Among Young Adults

	Girls							
	Wave 3				Wave 4			
	Suicidal Thoughts		Suicide Attempts		Suicidal Thoughts		Suicide Attempts	
	Model 1	Model 2	Model 3	Model 4				
Friend Suicide Attempt (W3)	2.909	*	2.372	*	1.178		1.213	
N	3835				3835			
	Boys							
	Wave 3				Wave 4			
	Suicidal Thoughts				Suicidal Thoughts			
	Model 5		Model 6					
Friend Suicide Attempt (W3)	4.777	*			1.697			
N	3463				3463			
<i>Note.</i> *p < .05 (Two-tailed tests)								
<i>All models include control for: Race/Ethnicity, Parents' Education Level, GLB Identity, Age, Degree Attainment, Family Structure (Childhood), Marital Status (Adulthood) Employment Status, Religious Attendance, Depression, Life Dissatisfaction and Alcohol Use</i>								
<i>Source: National Longitudinal Study of Adolescent Health</i>								

DISCUSSION & CONCLUSION

Like studies linking suicide rates to media exposure of publicized suicides, we found that suicidal thoughts, though not attempts, could indeed be contagious even among a sample of young adults with no history of suicidal thoughts. With this study, we provide three new contributions to the existing literature on suicide suggestion. First, though individuals are known to choose friends who are similar to themselves, including in terms of levels of emotional distress (Cairns et al. 1988; Joyner and Kao 2000; Giordano 2003), we find that suicide suggestion is relevant to the suicide process above and beyond young adults’ prior suicidal tendencies. Interestingly, and in contradiction with the literature on suicide suggestion in adolescence (which finds that both attempts and thoughts can be contagious, particularly among girls (Abrutyn and Mueller 2012), our findings suggest that suicidal thoughts, but not attempts, are socially contagious. Thus, while suicide suggestion is perhaps not quite as salient a social force driving suicidal behaviors in young adulthood as compared to adolescence, it still is a potential trigger for the development of new suicidal thoughts (if not behaviors).

Second, research on suicide rates and media coverage of suicides suggests that there is an element of temporality in the social spread of suicide. With our study, we also find evidence of a short-term, but not a long-term impact of a friend's suicide attempts.

Third, in young adulthood, the role of suicide suggestion in young adults' suicidal thoughts looks surprisingly similar between young men and women. Though research has established that men and women experience social relationships differently (Crosnoe 2000; Van Houtte 2004; Crosnoe et al. 2008), the suicide attempt of a friend in early adulthood appears similarly risky for both genders. This is different from the role of suicide suggestion in adolescence. Research has found in adolescence the attempts of friends places girls at higher risk than boys for new suicidal thoughts and attempts.

Though this study is not without its limitations, the findings above add to the growing chorus of scholars who have revived Tarde's suicide imitation thesis and continue to challenge Durkheim's century old assumptions.

REFERENCES

- An, Anthony. 2002. Performing Logistic Regression on Survey Data with the New SURVEYLOGISTIC Procedure. Paper 258-27. Proceedings of the 27th Annual SAS Users Group International Conference (SUGI 27); Orlando, FL. April 14-17; 2002. pp. 1-9.
- Baller, Robert D., and Kelly K. Richardson. 2002. "Social Integration, Imitation, and the Geographic Patterning of Suicide." *American Sociological Review* 67(6):873-88.
- Bjarnason, Thoroddur, and Thorolfur Thorlindsson. 1994. "Manifest Predictors of Past Suicide Attempts in a Population of Icelandic Adolescents." *Suicide and Life Threatening Behavior* 24:350-58.
- Cairns, Robert B., Beverly D. Cairns, Holly J. Neckerman, Scott D. Gest, and Jean-Louis Gariépy. 1988. "Social Networks and Aggressive Behavior: Peer Support or Peer Rejection?" *Developmental Psychology* 61:157-68.
- Crosnoe, Robert. 2000. "Friendships in Childhood and Adolescence: The Life Course and New Directions." *Social Psychology Quarterly* 63:377-91.
- Crosnoe, Robert, Kenneth Frank, and Anna Strassmann Mueller. 2008. "Gender, Body Size, and Social Relations in American High Schools." *Social Forces* 86(3): 1189-1216.
- Durkheim, Emile. 1897 [1951]. *Suicide: A Study in Sociology*. Glencoe, Ill.: Free Press.
- Giordano, Peggy C. 2003. "Relationships in Adolescence." *Annual Review of Sociology* 29:252-81.
- Harris, K.M., C.T. Halpern, E. Whitsel, J. Hussey, J. Tabor, Entzel P., and J.R. Udry. 2009. "The National Longitudinal Study of Adolescent Health: Research Design." URL: <http://www.cpc.unc.edu/projects/addhealth/design>.
- Joyner, Kara, and Grace Kao. 2000. "School Racial Composition and Adolescent Racial Homophily." *Social Science Quarterly* 81(3): 810-25.
- Maimon, David, and Danielle C. Kuhl. 2008. "Social Control and Youth Suicidality: Situating Durkheim's Ideas in a Multilevel Framework." *American Sociological Review* 73(6):921-43.
- Pescosolido, Bernice, and Sharon Georgianna. 1989. "Durkheim, Suicide, and Religion: Toward a Network Theory of Suicide." *American Sociological Review* 54(1):33-48.
- Phillips, David P. 1974. "The Influence of Suggestion on Suicide: Substantive and Theoretical Implications of the Werther Effect." *American Sociological Review* 39:340-54.
- . 1979. "Suicide, Motor Vehicle Fatalities, and the Mass Media: Evidence toward a Theory of Suggestion." *American Journal of Sociology* 84(5):1150-74.
- Romer, Daniel, Patrick E. Jamieson, and Kathleen H. Jamieson. 2006. "Are News Reports of Suicide Contagious? A Stringent Test in Six U.S. Cities." *Journal of Communication* 56:253-70.
- Stack, Steven. 1987. "Celebrities and Suicide: A Taxonomy and Analysis, 1948-1983." *American Sociological Review* 52(3):401-12.
- Van Houtte, M. 2004. "Why Boys Achieve Less at School Than Girls." *Educational Studies* 30:159-79.