Suicide Studies, 2024, 5(3)
ISSN: 2771-3415

www.drdavidlester.net
www.researchgate.net

Suicide Studies, 2024, 5(3), 2-63

A REVIEW OF RESEARCH ON SUICIDE IN 1999

David Lester
Stockton University

From 1897 (the date of the publication of Durkheim's book on suicide) until 1997, I read every article in English on suicidal behavior. I had many boxes of 3.5 index cards, one for each article, chapter and book. I used every abstracting service available to locate these scholarly works. I reviewed the research in four books called *Why People Kill Themselves*, published by Charles Thomas.

At that point, the volume of scholarly work on suicidal behavior was too great. Locating and reviewing the articles was taking up too much of my time (I did have a full-time job as a professor), and so I stopped. One hundred years seemed like a great achievement.

No-one took up this task. Of course, reviews of selected topics appeared, but no comprehensive review. I am now retired, and hence this is an attempt to do a reasonably thorough review, although it will not be comprehensive. I do not have access to all the abstracting services that existed in the 20th century. Furthermore, articles in the predatory journals (those that developed to help scholars publish their work for a fee) are not typically included in the abstracting services. Therefore, many, possibly important, ideas are difficult to locate.

My goal is to see whether there have been important research and theoretical findings in the more recent literature. I have not included reviews of the literature in this essay but, of course, those reviews of the literature on specific topics may be valuable to researchers. I have also not cited qualitative reports. These may throw light on suicides in certain people or in specific instances, but qualitative reports are difficult to incorporate into an essay such as the present one.[1]

The review of scholarly research published in 1998 is published (Lester, 2014). This is the review for 1999. To indicate where I searched, here is a list of abstracting services used.

[1] My positive opinion of qualitative essays is illustrated by the essays I have written on more than 75 famous suicides (www.drdavidlester.net).

	1998	1999
Sociological Abstracts	93 items	106
Criminology Abstracts	78 items	94
Psychological Abstracts	401 items	460

Studies of Suicide Rates and Suicidality

Methodological Issues

Connolly, et al. (1999) compared suicides in two Irish counties, and they differed in method used and other distal variables. Of more interest is the fact that Connolly et al identified 203 suicides but official records showed only 157, an official underestimate of 23%.

Rockett and Thomas (1999) tried to estimate the reliability of suicide rates in 20 industrialized countries by examining the rates of death from unintentional poisoning, unintentional drowning and other violence. This type of research is not as effective as looking at samples of deaths individually in a region or a country (or the whole country).

Madge and Harvey (1999) looked at coroner records of suicides by those under the age of 20 in London (England) and found that 67% of the suicides were **not** recorded as suicides, confirming other research on the inaccuracy of suicides rates in England (Lester, 2002).

Squires, et al. (1999) documented that the reduction in official suicides in Scotland in the 1990s was most likely a result of changes in the coding of death, particularly from suicide to drug dependence and use of drugs as causes of death.

In contrast, Jonasson, et al. (1999) found that suicides may be overreported and accidents underreported among fatalities due to dextropropoxyphene in Sweden, mostly a result of insufficient data available to medical examiners during autopsies.

Theory

Lester (1999-2000) examined problems with Durkheim's theory:

1. Two dimensions (social regulation and social integration) result in nine possibilities (with each variable categorized as low, moderate and high), not the four categories that sociologists talk of.
2. Researchers have never measured the four types of Durkheimian theory separately (e.g., the rate of egoistic suicide, etc.).
3. There is disagreement as to whether theory applies to individuals as well as groups.
4. Taylor (1990) and Moksony (1990) have argued that research studying the association of, for example, divorce rates with suicide rates miss the point. What are needed are more global measures of social disintegration that could impact everyone in the society.

Regional Studies

Countries

For a sample of 14 Caribbean countries in the 1970s, Lester (1999d) found that the suicide rate was lower the greater the proportion of citizens of African descent. In a backward multiple regression, the percentage of the population of African descent, the gross national product per capita, male and female participation in the labor force, and the divorce rate all contributed significantly to the prediction of the suicide rates.

In a sample of 62 nations, Lester (1999j) found that suicide rates were associated with latitude, humidity, and days of rain positively and elevation and temperature negatively. After controls for gross domestic product per capita by means of partial correlation coefficients, suicide rates were associated only with latitude and days of rain (positively) and temperature (negatively). Thus, suicide rates were higher in the more northern, cooler nations with more days of rain.

In a sample of 24 countries, Fernquist (1999) found that the male age-standardized suicide rate was predicted by occupational segregation (the sum of occupation-specific deviations from proportional representation of the sexes), gender egalitarianism and divorce rates; the age-standardized female suicide rate was predicted by the same three variables plus the percentage annual change in the GDP per capita. Occupational segregation also predicted the female/male suicide rate and the female suicide rate/(female+male suicide rates).

Viren (1999) studied 45 countries and found that suicide rates for men are much higher than for women (the unweighted averages for 1992 are 24.0 and 8.1, respectively). Suicide rates increase almost monotonically with age for both sexes. There is a negative relationship between income and suicide, but this result is largely a result of the very high suicide rate in the former Soviet republics which were then independent. For high-income countries, the relationship between suicide and income is positive rather than negative. There was little association between suicides rates and the catholic religion, civil liberties or unemployment.

Smaller Samples of Countries

Booth (1999) found wide differences in the estimated suicide rate in the Pacific Islands, and there appeared to be an impact of ethnicity/religion (which are variables that are often confounded) both between islands and within islands.

Regions within a Country

Birckmayer and Hemenway (1999) conducted a study of youth suicide and minimum-age drinking laws in the American states over a 20-year period. The suicide rate of 18-20-year-olds was 8% higher in states where the minimum drinking age was 18 compared to states where the minimum age was 21.

Burr, et al. (1999) studied 305 metropolitan areas in the United States. They used the number of black male suicides (not the rate) and found that this was positively associated with marital disruption, racial inequality (income and occupation) and the percentage of the urban population and negatively with church membership. The results were similar for black males aged 15-24. Residential segregation did not play a role once the other variables were controlled for. Despite the presentation of mathematical models, the measurement of the variables is poor and often unclear, making the results of the research appear to be more reliable and valid than may be the case.

In a study of national data on suicides over the age of 65 in the United States, Coren and Hewitt (1999) found that correlates of state suicide rates differed by sex. Poor financial and social status variables predicted male rates of suicide for eight of the nine variables listed (such as poverty and annual income). Older females were more insensitive to these variables with only three significant correlations. Female suicide rates were more reliably associated with variables

measuring social stress and environmental stability (such as homelessness, immigrants and crime rates).

Preti and Miotto (1999c) studied the correlates of the suicide rate in 20 regions of Italy. Many variables were significantly associated with both male and female suicide rates, such as divorce rates and expenditures on welfare. However, multiple regressions showed that expenditures on welfare and the crime rate predicted the male suicide rates while expenditures on welfare and the infant mortality rate in the first year predicted the female suicide rate.

Cutchin and Churchill (1999) studied the variation of suicide rates over the states of America, counties in New England and townships in Vermont with 46 socio-economic variables. The principal components extracted differed at the three levels of analysis. Using these principal component scores, multiple regressions were good predictors at the state level (R^2=0.78), moderately good at the county level (R^2=0.68) and useless at the township level (R^2=0.05).

For the 95 French departments, Lester and Surault (1999) found that the suicide rate was negatively associated with the marriage rate, positively with the divorce rate and not with the birth rate. The associations were stronger for the male suicide rate.

Lester, et al. (1999) found very few correlates of suicide rates over the 25 regions in India. The regional suicide rate was predicted by population density (positively) opposite to that found for the United States. Population, percentage urban, percentage in poverty, per capita income and the homicide rate did not predict the suicide rate in either Idia or the United States.

In a study of 21 American cities, Lester (1999b) found that a measure of the pace of life was negatively correlated with the suicide rate.

Lester (1999g) found that states with a relatively higher proportion of men to women had a higher male suicide rate even after controls for other social correlates of suicide rates. This association was not for the female suicide rate.

Kaplan and Geling (1999) studied the use firearms versus other methods for suicide in the United States omitting to define precisely how this was measured. The odds of using firearms (the author's' words) increased with age for men and decreased for women. Widowed men and married women had the highest odds of

using firearms. The odds were highest among those without college education, in nonmetropolitan areas and in the East South Central and West South Central geographic divisions.

In a study of 29 American states, Lester 1999s) found that the youth serious suicide attempt rate was significantly associated with lifetime cocaine use, current cocaine use, lifetime crack use, lifetime illegal steroid use, lifetime use of injected drugs, and lifetime marijuana use but not with other risky behaviors involving alcohol use (lifetime, current, or episodic heavy drinking), current marijuana use, tobacco use, risky sexual behavior, eating behavior, physical activity, driving behavior, ever carried a weapon, or ever in a physical fight.

Regions within a State or Province

Kennedy, et al. (1999) studied the 32 boroughs of London (England). Suicide rates were associated with population density, an underprivileged score, a mental illness needs score, poor housing, poverty, unemployment, the proportion of population 25-34, the homicide rate and the interpersonal violence rate.

Kryzhanovskaya and Pilyagina (1999) found that suicide rates in the Ukraine were higher in the industrialized regions, in rural areas and in the eastern regions.

Malmström, et al. (1999) studied 33 municipalities in Skåne (Sweden) and found that sales of analgesics (such as paracetamol and codeine) and an underprivileged score were correlated with the suicide rate.

In London (England). Neeleman and Wessely (1999) found that small regions with larger minority populations had higher white suicide rates and lower ethnic minority suicide rates, both for Afro-Caribbeans and for Asians, supporting Lester's (1987) social deviancy theory of suicide.

Lester (1999f) found that suicide rates were not significantly associated with the prevalence of noninsulin-dependent diabetes in 16 Pueblo communities in the Rio Grande area,

Lester (1999m) found that suicide rates were positively associated with acculturation stress and negatively with traditional integration (larger groups with a fixed social structure and sedentary) in 18 Native American tribes.

In Poland, Jarosz (1999) documented higher suicide rates after the break-up of the Soviet empire and higher rates in villages and rural areas and lower rates in urban areas.

Time-Series Studies

Carlsten, et al. (1999) studied suicides over time in Sweden. The suicide rate using benzodiazepines increased despite decreasing prescription sales. In contrast, decreasing tricyclic antidepressant sales and increasing SSRI (selective serotonin reuptake inhibitors) sales were accompanied by a decreasing suicide rate using antidepressants.

Kelly and Rafferty (1999) found that the suicide rate did not decline in Northern Ireland from 1989 to 1996 even though the prescribing of antidepressants tripled.

Lester (1995) took 18 social indicators for the period 1933-1985 for the United States and identified by means of factor analysis five orthogonal (independent) factors which he named year, military involvement, marriage, social threat, and business failures based on the social indicators loading most strongly on the factors. Lester reported that the total American suicide rate was predicted by the factor scores for military involvement and business failures. Suicide rates for those aged 5 to 14 years by sex and race were available for 1933 to 1980. Factor scores for the five independent factors were entered into time-series regressions to predict suicide rates of those aged 5 to 14 by sex and race (Lester, 1999q). The suicide rates for white boys, white girls, and nonwhite girls were significantly associated with the factor scores for year, rising consistently over the period 1933-1980. In addition, the scores for the factor measuring marriage rates were significantly associated with the suicide rates for white girls and nonwhite boys. The five factor scores were most successful in predicting the suicide rate of white boys, then white girls, nonwhite girls, and nonwhite boys (R^2=0.71, 0.53, 0.29, and 0.27, respectively).

Kelleher, et al. (1999) documented the rising suicide rate in Ireland over a time period when religious beliefs and activities were declining. However, the rise in suicide rates was found only for men and was stronger in rural areas than in urban areas. Kelleher, et al. thought that the decline in religiosity did not account

for the rising male suicide rate, but their statistical analyses were weak and the data (for religious activity) not ideal.

In Italy, Preti and Miotto (1999a) found that the unemployed had higher suicide rates than the employed and, over the period 1982-1994, the unemployment rose and so did the male and female suicide rates.

Gunnell, et al. (1999) found that the suicide rate of 15-44-year-olds in England Wales from 1921-1995 was associated with the unemployment rate for men and for the younger women.

Carrington (1999) commented on a paper by Leenaars and Lester (1996) that had concluded that the passage of gun control law in Canada had a positive impact only on female suicides with no evidence of displacement to other methods for suicide. Carrington re-analyzed the relevant data and concluded that the enactment of the 1977 Canadian gun control legislation was followed by significant downward changes in the suicide rate for both men and women, with no evidence of displacement to other methods for suicide. Leenaars and Lester (1999a) noted that, in multiple regression, passage of the legislation was accompanied by a decrease in the percentage of suicide using firearms, an increase in the suicide rate using other methods and no change in the suicide rate using firearms. Divorce and unemployment rates had no impact on these variables.

In a study of the suicide rate in Finish prisons over time, Lester (1999a) found that the rate was predicted by marriage, divorce and birth rates in same manner as was the Finnish male suicide rate.

Leenaars and Lester (1999b) found that time series regression of the suicide rate of each Canadian province with divorce and birth rates produced consistent and strong associations (positive and negative, respectively), whereas marriage rates were largely unassociated with suicide rates. The results were similar for both male and female suicide rates.

For the United State from 1958-1992, Yang and Lester (1999) found that the traditional Misery Index (inflation plus unemployment) predicted the suicide rate better than did the revised Misery Index (inflation plus twice the unemployment rate).

For the period 1969 to 1988 in India, Lester, et al. (1999) found that the suicide rate was predicted by a lower fertility rate and higher female participation in the labor force. The same two variables also predicted the suicide rate in the United States but in the reverse directions.

In a sample of 30 nations with available data, Lester (1999c) found that those with higher proportion of' the population under the age of 15 had national suicide rates showing greater variation over the period 1960-1990.

Lester (1999n) found that, after the legalization of strong beer in 1989 in Iceland, the decrease in consumption of spirits was accompanied by a decrease in the suicide rate.

In Finland from 1878-1994, Viren (1999) concluded from his regression equations that, if the future looks much worse economically than people are accustomed to and if this also shows up in individual disasters (bankruptcies, unemployment, loss of property, etc.), then suicide rates decline.

Research on Distal Variables

Climate

In Israel, Stoupel, et al. (1999) documented a higher correlation between the number of monthly suicides with the geomagnetic activity index, maximal radio wave propagation, and space proton flux at one or two months *before* the fatal events than in the month of the suicides themselves.

Season

Altamura, et al. (1999), for a small region in Italy, found a February and a June/July peak in suicides. There was no variation by day of the week, but peaks occurred from 8:30 am to 12:30 pm with a low from 8:30 pm to 8: 30 am.

In one region of Sweden, Chotai, et al. (1999) found that the suicides under 45 years of age were more likely than older suicides to have been born during February to April compared to October to January, especially for later birth cohorts (born after 1930). Those who used hanging rather than poisoning or gasoline (perhaps they mean car exhaust) were significantly more likely to be born during February to April. Those who preferred poisoning rather than hanging were

significantly more likely born during October to January, especially for the later birth-year cohort. The results were stronger for male suicides. Chotai interpreted their results as consistent with season of birth variation in CSF monoamine metabolites.

In one county in Hungary, Zonda (1999) found that suicides peaked in April and were high in May and June. The suicide rate was higher in the villages than in the towns.

In a sample of 16 countries, Lester (1999e) found that the Spring peak in nations was greater the higher the percentage of suicides using hanging/strangulation and jumping and the lower the percentage using poisoning by solids or liquids and gas other than domestic gas. A seasonality index was associated only with the percentage of females using poisoning by solids or liquids.

Disasters

Shioiri, et al. (1999) found that the male suicide rate in Kobe (Japan) declined in the year after the earthquake.

Occupation

Schmidtke, et al. (1999a) found higher suicide rates for police officers in Germany in comparison to rates of the comparable age group (25 per 100,000 vs 20 per 100,000). The most commonly used suicide method was firearms. Schmidtke, et al. suggested that the higher suicide rate may be a result of higher work stress than in other professions, psychiatric Illnesses, alcoholism, and interpersonal and marital problems.

Noting that farmers in England and Wales have a high suicide rate, Hawton, et al. (1999b) found that county farming suicide rates did not appear to be related to the local general population suicide rates, the density of farmers or the type of farm holding.

Stack (1999) found that farmers had a high suicide in the United States, but not after controls for gender, race, marital status, and other sociodemographic variables.

Other Distal Variables

Phillips, et al. (1999) reviewed the facts about suicide in China where females had a higher suicide rate than males. Rural suicide rates were higher than urban rates. Phillips, et al. speculated that the high suicide rates in China may be a result of untreated depressive disorders and economic changes in the 1990s.

Jessen and Jensen (1999) found that Denmark had lower rates of suicide before major national holidays (Christmas, Easter and Whitsun) and higher rates afterwards, suggesting a *postponement effect*. There was a postponement effect around birthdays, but it was not statistically significant. Suicides were more common in the Spring, on the first of the month and on Mondays.

Jessen, et al. (1999a) looked at data on attempted suicide on public holidays from 13 centers in a multi-national study of attempted suicide in 11 European countries. Before Christmas there were fewer suicide attempts than expected, and after Christmas there were more attempts than expected. The results were similar for Whitsun, but depended on whether Whitsun was a working day or a non-working day. More attempts than expected were registered on New Year's Day.

Using the same sample, Jessen, et al. (1999b) found that attempted suicides peaked in the Spring only for females and on Sundays again for females, and in the late evening. The trends for time of day and day of week differ from those found for suicides.

Krug, et al. (1999) retracted their study of natural disasters and suicide published in 1998 because of computer errors.

Lester (1999r) examined the impact on the suicide rates of 6 states after removing the state monopoly on wine sales. Four states reported an increase in the suicide rate: Iowa a mean increase of 1.24 per 100,000 per year, Idaho 1.50, Maine 1.06, and West Virginia 0.52. For two states a decrease was noted: Montana -0.44 and New Hampshire -1.56. There was, therefore, no consistency in the impact.

Schmidtke, et al. (1999b) found that the suicide rate in East Germany declined by about a third after the reunification of Germany, while the suicide rate in West Germany declined by a quarter. Schmidtke, et al. suggested that possible reasons for these findings were political liberation and healthier lifestyles, at least for East Germany.

Morrell, et al. (1999) studied suicides in New South Wales (Australia). Focusing on immigrants, they found that male immigrants from Northern Europe and Eastern Europe/former USSR, compared to Australian-born males, had a higher risk of suicide, while males from Southern Europe, the Middle East and Asia had a lower risk. For female immigrants, those from UK/Eire, Northern Europe, Eastern Europe/former USSR and New Zealand had a higher risk of suicide compared to Australian-born females, while females from the Middle East had a lower risk. They also found urban-rural differences in suicide rates for male and female immigrants that differed from those for those Australian-born.

In Sweden Bayard-Burfield, et al. (1999) found that attempted suicide was more common among the foreign-born than among Swedes. Attempted suicide was also more common in women and those living alone.

Discussion

There appears to be no ground-breaking research on suicide rates in 1999. What is most notable is Lester's critique of sociological research purporting to test Durkheim's theory of suicide. No researcher has ever attempted to measure rates of anomic, egoistic, fatalistic and altruistic suicide *separately*.

Studies of Suicides

Theories of Suicide

Golden, et al. (1996) proposed that violent behavior in many individuals was associated with two neuropsychological factors, prefrontal brain damage and temporal lobe dysfunction. Lester (1999h) reviewed evidence that many suicidal individuals also display violent behavior and suggested that these two neuropsychological factors may also play a role in the appearance of suicidal behavior, at least for some individuals.

Physiological Research and Medical Issues

Brain

Baumann, et al. (1999) compared the brains of suicides with those dying from natural causes and concluded that suicide is **not** related to decreased noradrenergic function.

Pandey, et al. (1999) compared the brain of teenage suicides with the brains of those dead from murder or accidents. The suicides had significantly lower levels of the enzyme phosphoinositide-specific phospholipase C (PI-PLC) activity and immunolabeling of the specific PLC β1 isozyme in both membrane and cytosol fractions of Brodmann's areas 8 and 9 combined (prefrontal cortex).

Reiach, et al. (1999) compared the brains of depressed suicides with normal controls and found reduced adenylyl cyclase immunolabeling and activity in the postmortem temporal cortex of the suicides. It is unclear, therefore, the relevance of this to suicide as opposed to depression.

Turecki, et al. (1999) found that the brains of suicides had greater serotonin receptor 2A ($HTR_{2A)}$ binding in the prefrontal cortex as compared to controls.

Du, et al. (1999) found a significantly higher frequency of the 5-HT transporter gene long (L) allele in depressed suicides than in controls. No significant differences between suicides and controls were observed for the 102T/C polymorphism and His_{452}Tyr polymorphism of the $5\text{-}HT_{2A}$ receptor gene.

Gurguis, et al. (1999) studied abnormal b-adrenergic receptor (bAR) density the brains of suicides, alcoholics and controls and found no differences in bAR density in either the frontal cortex or hippocampus. There was indications of bAR supercoupling in suicides in both brain regions and uncoupling in alcoholic subjects in the frontal cortex.

Underwood, et al. (1999) found that suicides (versus controls) had a higher number of serotonin neurons and density in the brainstem dorsal raphe nucleus (DRN). The DRN volume did not differ between groups. [2]

McNamara, et al. (1999) compared the brains of suicides and controls. Neither myristoylated alanine-rich C kinase substrate (MARCKS) nor MARCKS-related protein mRNA expression (MRP mRNA) expression levels differed significantly in the granule cell layer, CA3, hilus, or CA1 in suicides relative to normal controls, nor in the gray and white matter regions of the dorsal prefrontal cortex.

[2] It is interesting that physiological studies of suicides typically refer to them as *suicide victims.*

Blood

Partonen, et al. (1999) followed up a large sample of men for 5-8 years and found that low serum total cholesterol predicted subsequent suicide.

Zonda, et al. (1999) looked at the blood types of completed suicides and attempted suicides in Budapest (Hungary). The suicides were more often Type O than the attempted suicides and the general population. Zonda, et al. noted that those with bipolar affective disorder also tend to be Type O more often.

Other

In a study of depressed patients who later died by suicide, Wolfersdorf, et al. (1999) found that those using violent methods had a reduced electrodermal activity in their habituation response to acoustic stimuli.

Suicide Notes

Leenaars (1999) compared suicide notes from young, middle-aged and elderly suicides and found that the notes of young suicides showed greater unbearable pain, weakened ego, and an inability to cope, but less poverty of thought. The notes of older adults indicated less ambivalence in their relationships and less often anticipated a positive development to change their painful life. There was a much greater wish to die. No sex differences were found.

Canetto and Lester (1999) compared the suicide notes of men and women for mentions of love/romance/marital problems and work/career/job problems and found no differences.

Leenaars, et al. (1999) found no differences in the content of suicides from alcoholics and those from non-alcoholics.

O'Connor, et al. (1999b) compared the suicide notes of depressed and non-depressed suicides and found that depressed suicides were more likely to communicate feelings of overwhelming emotion and to exhibit constricted logic and perception than nondepressed note writers. Those with a history of attempted suicide more often had signs of aggression turned inward, a serious adjustment disorder, aggression toward another and a reduced ability to stand the pain of loss.

Youth Suicides

Grøholt, et al. (1999) looked at suicides under the age of 20 in Norway. The females used hanging more often and the males firearms and car exhaust. The females more often left a suicide note and had previously attempted suicide. Precipitating events and romantic conflicts were equally common, but the females had more conflicts with parents. The males and females did not differ in psychiatric diagnosis or in receiving treatment. Compared to community controls, the suicides were more often not living with their family of origin, more often had affective disorders and disruptive disorders, and had past suicide attempts. For males, substance misuse was also more common.

Brent, et al. (1999) compared adolescent suicides with community controls and looked at differences by sex and age (<16 versus > 16 years of age). All four sex-by-age suicide groups differed from the controls in having a psychiatric disorder, parental psychopathology, lifetime history of abuse, availability of a gun, and past suicide attempts. Psychiatric disorder, particularly substance abuse (alone and comorbid with mood disorder) was more common in the older versus the younger adolescents. Conduct disorder was more prevalent in the male suicides.

Hawton, et al. (1999a) studied a sample of suicides under the age of 25 in England and found more unemployment and more lower-class individuals than in the general population.

Renaud, et al. (1999) found that adolescent suicides with disruptive disorders had higher rates of current substance abuse, past suicide attempts, family history of substance abuse, and family history of mood disorder compared with disruptive community controls.

Pirkola, et al. (1999a) studied Finnish adolescent suicides, of whom 42% had an alcohol use disorder. The suicides with alcohol use disorder more often had comorbid disorders, antisocial behavior, disturbed family backgrounds, precipitating stressors and psychosocial impairment. They were more often intoxicated at the time of their suicide which occurred more often on weekends.

In Alberta (Canada), Thompson, et al. (1999a) for that those under the age of 20 who died by suicide, found that a disproportionate number of the suicides were born in the second half of the "school eligibility" criterion and so were younger than their classmates.

Adult Suicides

In a large sample of psychiatric outpatients, Beck, et al. (1999) measured their current suicidal ideation and their suicidal ideation at the worst point in their lives. They found that suicidal ideation at the worst point in their lives predicted eventual suicide in the sample along with their hopelessness score.

In a study of inpatient suicides, Shah and Ganesvaran (1999) developed a classification of suicidal intent: ambivalent (36%), concealed (12%), mixed (45%) and continuous (6%).

Rossow, et al. (1999) followed up Swedish military conscripts. Alcohol abusers had higher rates of attempted suicide and, to a lesser extent, completed suicide. Attempting suicide predicted subsequent completed suicide, especially for alcohol abusers.

O'Connor et al. (1999a) studied Irish suicides and identified three clusters based on an analysis of 20 variables (such as alcoholism and living alone): (1) moderate in depression and employment, living alone and little health care contact; (2) depression and other mental illness, a history of self-harm, hospitalization, and not living alone; (3) depressed, with a psychiatric history, had visited their GP in the prior 6 months, and living alone. This typology does not appear to be related to psychodynamic issues perhaps because the variables used were distal variables.

Boardman, et al. (1999) compared suicides in one part of England with deaths from other causes investigated by the coroner. Eight of the 28 variables entered into a multiple regression distinguished the two groups: recent separation, past criminal charges/police arrest, recent bereavement, financial difficulties, relationship difficulties, past history of deliberate self-harm, on psychotropic medication, and bipolar affective disorder.

Cavanagh, et al. (1999a) compared suicides in Scotland with living psychiatric controls. The two groups did not differ in the severity of psychiatric disorder, but the suicides had experienced more adverse interpersonal events (family/social as well as health).

Comparing attempted suicides with suicides in one county in Washington State, Simmons, et al. (1999) found that the attempters were more often female, less educated and between the ages of 15 and 44.

Appleby, et al. (1999) compared suicides in England under the age of 35 with community controls. The groups differed on a large number of variables that formed 6 factors: acute and severe mental disorder; chronic disorder of behavior (e.g., past self-harm and substance abuse); rootlessness; social withdrawal; chronic interpersonal problems; and recent interpersonal problems. The suicides were more often single, unemployed, living alone, with no known friends, living in rental places, and for less than a year. The suicides had experienced more recent stressors, interpersonal and in the prior week and criminal justice involvement (such as arrests) in the prior 6 months. The suicides had more often experienced parental separations and childhood abuse, and they more often had a mental illness. Appleby, et al. distinguished two main groups (those with severe mental illness and those with personality disorders) with slightly differencing social characteristics. For example, the suicides with personality disorders more often had alcohol/substance misuse and prior suicidal behavior.

Cavanagh, et al. (1999b) matched suicides with living controls for age, sex and psychiatric diagnosis. The suicides had more often a history of deliberate self-harm, physical ill health and use of mental health services.

Foster, et al. (1999) compared suicides in Northern Ireland with community controls. The suicides more often had an Axis II (personality) disorder (particularly antisocial, avoidant and dependent); at least one of 12 life events during the previous year or 4 weeks (especially a serious problem with a close friend, neighbor or relative), current unemployment; previous history of deliberate self-harm; and contact with a GP within the prior 26 weeks.

In a study of suicides by Marines, Hourani, et al. (1999) found some evidence for clustering, particularly using a two-week interval. There were fewer suicides than expected (but the authors note that a proper comparison group would those employed in the civilian population). Suicides was more common in Hispanic and other ethnic groups than expected.

Preti and Miotto (1999b) collected a list of eminent artists in the 1800s and 1900s Poets and writers seemed more likely to die by suicide than were painters

and architects. Artists also died at a younger age than those dying of other causes means (44 versus 65).

In a study of suicides in Slovenia, Marušič (1999) found that the groups at higher suicide risk were older, male, divorced, widowed and people without formal education. The Slovenes were at a higher risk of dying by suicide than other nationality groups in Slovenia.

Olson, et al. (1999), in a study of female suicides in New Mexico, found ethnic differences with non-Hispanic white women over-represented compared to Hispanic and Native American women. Hispanic suicides were more likely to use hanging. The Native American women were somewhat more likely to have alcohol present in their systems, but their blood alcohol level was significantly higher.

Elderly Suicides

In Alberta, Quan and Arboleda-Flórez (1999) found that elderly male suicides more often used guns, were single, lived in rural areas, and less often had made prior suicide attempts. Men were motivated more by physical illness and financial problems while the elderly women more often had mental illness.

Vijayakumar and Rajkumar (1999) compared suicides with living control in India. The suicides more often had an Axis-I disorder, a family history of psychopathology, stressful life events in the past month, death of parents prior to age 16, medical illness, prior attempts, personality disorder and divorce.

People with Psychopathology

Heilä, et al. (1999a) compared Finnish suicides with and without schizophrenia. Adverse life events were less common in the schizophrenic suicides, especially for the psychiatric inpatients. These differences may be a result of fewer social contacts, more unemployment and less alcohol misuse for the schizophrenic suicides. Life events dependent on the suicides themselves were less common in the schizophrenic suicides, but not life events independent of the person.

In a study of patients with schizophrenia, Heilä, et al. (1999b) found that those who died by suicide recently after discharge (< 3 months) had the highest prevalence of comorbid alcoholism, paranoid subtype, and recent suicidal behavior

or communication, as well as the highest number of hospitalizations during their illness course and shortest last hospitalization as compared to inpatient suicides and suicides later after discharge.

Sharma (1999) found that psychiatric patients who died by suicide had not been administered ECT more often than psychiatric patients who had not died by suicide in the three months prior to discharge.

Baxter and Appleby (1999) followed up psychiatric patients in England and found that suicide subsequently was highest in those diagnosed with schizophrenia, affective disorders, personality disorders and, for males, substance dependence and, in addition, recent initial contact and number of admissions, but not comorbidity.

In Australia, Blair-West, et al. (1999) found that the risk of suicide for individuals with major depression was higher for men than for women. Since the suicide rate for men in general is higher than the suicide rate for women, this result is not surprising.

Connor, et al. (1999) studied male suicides who were alcoholics. Those in their 20s and 30s were motivated more often by unemployment and separation from a partner, where the older suicides were motivated more often by serious medical problems and mood disorders. Living alone, active alcoholism and suicidal communication were similar in the different age groups.

Corcoran and Walsh (1999) looked at suicides by psychiatric patients in Ireland. The rate was higher in the first year after admission than later. The suicide rate was highest in those with schizophrenia and affective disorders but did not differ from expectations for those with personality disorders.

Steblaj, et al. (1999) studied all suicides occurring while a psychiatric inpatient. The suicides mostly had schizophrenia and affective disorder. Suicide was predicted by depression and lack of insight and, for those diagnosed with schizophrenia, previous suicidal behavior and poor relationships with family members.

Pirkola, et al. (1999b) compared Finnish male and female suicides who were substance dependent. Females were more likely to have abused or been dependent on prescribed medication. Females under the age of 40 had a relatively high

frequency of borderline personality disorder, frequent previous suicide attempts, and made suicidal communication, whereas older females were more like older males. The onset of a comorbid Axis I disorder preceded substance dependence more often among females. The male and female suicides differed in previous suicidality (females more), age-related variation in personality disorders (younger females more often), and type of substance used (prescription medications versus alcohol).

Tatarelli, et al. (1999) found that suicide among Italian prisoners was associated with mental disorders, drug addiction, previous incarceration, convicted legal status, first month of imprisonment, and, for the foreign prisoners, isolation.

In an 11-year follow-up student of schizophrenic patients, Stephens, et al. (1999) found that suicide was predicted by previous suicide attempts, depressive symptoms, affective illness in close relatives, poor premorbid social and work history, sexual worries, and psychomotor agitation. Marital status, gender, age at onset, age at admission, number of previous admissions, condition at discharge, length of hospitalization, the presence of any type of delusions or hallucinations, alcohol problems, paranoid or catatonic features, and utilization of shock therapies were not significantly correlated with subsequent suicide.

Suicide Pacts

Brown and Barraclough (1999) described 62 suicide pacts in England and Wales, by age, sex, relationship, method of suicide used and the motive for the suicides.

Discussion

Most of the results reported above are not surprising, and no new insights into suicide have appeared. Comparing suicides with community controls produces less interesting results because, of course, the two groups differ in psychiatric disturbance.

Murder-Suicide

Palermo and Ross (1999) noted that mass murderers often die by suicide, but juveniles who commit mass murders rarely die by suicide or attempt suicide, perhaps indicating their lack of moral development (and, therefore, a conscience).

Van Wormer and Odiah (1999) reported examples of individuals who committed murders with the apparent aim also of being executed. They suggested calling these cases suicide-murder.

Studies of Attempted Suicides

Methodological Considerations

Magne-Ingvar and Öjehagen (1999) compared information obtained from attempted suicides with that obtained from their significant others. Problems such as loneliness and lack of self-confidence were mentioned more often by significant others, who also reported that more of the attempters were repeat attempters.

Suominen, et al. (1999) compared the psychiatric diagnoses given to patients in the emergency room prior to admission after attempting suicide and by researchers recruiting the patients. They found that depressive syndromes and alcohol dependence or abuse were diagnosed significantly more often after the research interview than at the routine emergency consultation.

In a sample of attempted suicides, Schnyder, et al. (1999) compared the responses of clinicians and patients for reasons for the attempt and their emotions. Loss of control as a reason for the attempt was chosen significantly more often by patients than by nurses and doctors. The patients also reported significantly more often feelings of anxiety/panic and emptiness (mental vacuum), whereas feelings of despair and powerlessness/hopelessness were mentioned more often by nurses and doctors.

Physiological Research

Engström, et al. (1999a) compared hospitalized suicide attempters and healthy controls. The attempters showed significantly lower HVA levels, HVA/5HIAA ratios and HVA/MHPG ratios than the controls. The correlations between the monoamine metabolites were lower in attempters than in controls. There were no differences in CSF 5-HIAA or between violent and non-violent attempters. The monoamine metabolites showed no significant differences by diagnosis or between survivors and patients who subsequently died by suicide.

In a sample of attempted suicides, Engström and Träskman-Bendz (1999) found that neither blood folate nor serum B12 levels correlated significantly with Suicide Assessment Scale scores after controlling for age.

In a study of hospitalized attempted suicides, using lumbar CSF, Engström, et al. (1999c) found no relationship between neuroticism and corticotropin releasing hormone (CRH) or neuropeptide Y (NPY). Psychoticism and impulsiveness correlated positively and significantly with gamma-melanocyte stimulating hormone (g2-MSH), a peptide associated with increased sympathetic drive. The other neuropeptides (somatostatin, peptide YY and delta-sleep inducing peptide [DSIP]) showed no significant associations with temperament.

In a study of patients with major depression, Tsai, et al. (1999a) found that the tryptophan hydroxylase gene polymorphism (TPH A218C polymorphism) was associated with major depression, and the association was stronger in those patients who attempted suicide.

Cremniter, et al. (1999) found that those making violent suicide attempts had lower CSF 5-HIAA (5-hydroxyindolacetic acid) concentrations compared to patients in the hospital for surgery. The difference was found only for those making impulsive suicide attempts. There were no differences in CSF-HVA (homovanillic acid.).

Kunugi, et al. (1999) found no significant genotypic or allelic association of the A218C polymorphism with bipolar disorder, unipolar depression, or history of attempted suicide. In nearly 100% of the subjects, genotypes for the A779C were identical to those for the A218C.

Soreni, et al. (1999) measured [^{3}H] PK 11195 binding to platelet membrane in adolescents with a history of at least three suicidal attempts and adolescent psychiatric inpatients with no history of suicide attempts. Suicide Risk Scale scores were significantly higher in the suicidal group as were overt aggression scores. The groups did not differ in depression anger, impulsivity or state-trait anxiety, but the sample sizes were small. The suicidal group showed a significant decrease in platelet PBR density compared to the controls.

Persson, et al. (1999a) found no association between attempting suicide and the 48 bp-repeat polymorphism in the gene coding for dopamine receptor D4 gene.

Claude, et al. (1999) compared suicide attempters using violent methods with healthy controls. Serum cholesterol and platelet 5-HT levels in the suicide attempters were significantly lower than in the controls. There was no difference in cholesterol and platelet 5-HT levels between impulsive and non-impulsive patients.

Westrin, et al. (1999) found that cortisol was high and corticotropin releasing hormone (CRH) and neuropeptide Y (NPY) appeared to be low in patients who had recently attempted suicide compared to healthy controls. Patients who had repeatedly attempted suicide had the lowest NPY. This suggested stress system alterations in suicidal patients.

Roy (1999) found that depressed patients who had attempted suicide in their lives had a greater apparent Michaelis constant (Km) of platelet serotonin uptake than either depressed patients who had never attempted suicide or normal controls (but no differences in V_{max}). Patients rated higher for current suicidal ideation on admission had significantly higher Km values. Patients who reattempted or died by suicide during a 5-year follow-up period had significantly higher Km values than controls. For women patients who had attempted suicide there was a significant correlation between extrapunitive hostility scores and Km values.

In a sample of patients with depression or panic disorder, Dannon, et al. (1999) found no association between a history of attempted suicide and cholesterol levels.

Youths

Fitzgerald (1999) studied Irish children (aged 9 to 16) attending a family clinic. Suicidal behavior (suicidal ideation and attempts) was not associated with the mother's anxiety, depression or neighborliness. Suicidal behavior was associated with the child knowing someone who had attempted suicide, especially those children who had attempted suicide.

Yoder (1999) studied runaway and homeless youths. Those who had attempted suicide were more likely to have experience physical and sexual abuse by a caretaker, sexual victimization while on their own, and a friend who had attempted suicide. The variables distinguishing the attempters, ideators and nonsuicidal youths were self-esteem, depression, physical abuse, sexual abuse, and a friend who had attempted suicide, but the groups also differed in drug abuse by themselves and by their families, and by sex and race.

Olsson (1999) studied three groups of Swedish adolescents: attempted suicides, depressed adolescents and normal controls. Family problems (parental alcohol abuse, serious illness, economic problems) were more common among the attempters and depressed adolescents, but family violence (physical abuse of the adolescent and others) was more common for the attempters. Violent acts, conduct disorder and alcohol abuse were also more common in the attempters.

Dori and Overholser (1999) studied depressed adolescents who had attempted suicide more than once, attempted suicide once or who had never attempted suicide. The attempters had higher scores for hopelessness and depression than the non-attempters but did not differ in self-esteem. One-time and multiple attempters did not appear to differ. The results are confounded by the fact that the non-attempters and attempters were not similar in sex (the attempters were more often female).

Brown, et al. (1999) followed up a sample of children aged 1-10 for 17 years. Attempting suicide was predicted by child abuse and neglect, especially sexual abuse, for both attempting suicide and making many attempts.

Cavaiola and Lavender (1999) compared chemically dependent adolescents who had attempted suicide with chemically dependent controls and community controls. On the Symptom Checklist-90, the attempted suicides scored higher on all of the scales than the other two groups (including depression, anxiety, paranoia, etc.).

In a study of 13-14-year-old school students, Pilowsky, et al. (1999) found that adolescents with panic attacks were 3 times more likely to have suicidal ideation and approximately 2 times more likely to have attempted suicide than were adolescents without panic attacks after controlling for demographic factors, major depression, the use of alcohol and the use of illicit drugs.

Pawlak, et al. (1999) compared adolescent suicide attempters with control patients not presenting after attempted suicide. Anxiety disorders were equally common in both groups, but the attempters had a higher incidence of affective disorders, especially comorbid with anxiety disorder.

In a group of adolescent psychiatric inpatients, West, et al. (1999) compared the suicidal (attempts and ideation) with the nonsuicidal patients. Suicidality was

predicted by age and sex (more females and older adolescents), and depression, angry distress with parents, and unavailability of support from parents.

Johnson, et al. (1999) followed a sample of adolescents for 15 years. Cluster C personality disorders (avoidant personality disorder, dependent personality disorder, and obsessive-compulsive personality disorder) in adolescence predicted suicidal ideation/attempts in young adulthood, even after controlling for Axis I disorders and suicidality in adolescence.

Goldston, et al. (1999) followed up adolescent psychiatric inpatients for five years. Attempting suicide during the follow-up was predicted by having attempted suicide in the past and the number of these attempts, depression, and trait anxiety. For those with suicide attempts prior to hospitalization, affective disorders predicted subsequent attempts.

Klimes-Dougan, et al. (1999) followed up sibling pairs for 12 years whose mothers had a major depressive disorder, bipolar disorder or no disorder. Children whose mother had an affective disorder of either type were more likely to report suicidal ideation and attempts during the follow-up, but only for the older one of the sibling pairs. Mood problems (such as hypomania), internalizing coping strategies, rejection by a parent (usually the father), and the mother attempting suicide and abuse contributed to suicidality during the follow-up.

Nasser and Overholser, (1999) found that the lethality of suicide attempts in adolescents was not associated with depression, hopelessness, self-esteem or substance abuse or in diagnoses of major depression, bipolar depression, adjustment disorder or substance abuse. High lethality was associated with suicidal intent.

Orbach, et al. (1999). Devised a scale to measure subjective experience of problem irresolvability (SEPI): unattainable goals, commitment to parental happiness, need to be problematic and no individuality. In a sample of adolescents scores on all four factors of the scale were associated with attraction to life, attraction to death and repulsion by life but not by repulsion by death. Adolescent attempted suicides differed from normal adolescents on all four factors of the SEPI but only for unattainable goals from the nonsuicidal adolescents in psychiatric care.

In a study of incarcerated adolescents, McGarvey, et al. (1999) found that suicidal ideation or attempts by the boys were not related to the adolescent's bonding with the mother. However, suicidal behavior was more common in adolescents whose bonding style with the father was affectionless control. There were too few girls in the sample for meaningful results.

In Singapore, Wai, et al. (1999) found that attempted suicide in young adults (< 21 years of age) was more common in those of Indian origin (especially females) than those of Chinese or Malaysian origin. The three ethnic groups did not differ in the methods employed, common problems that precipitated the suicide or psychiatric diagnosis.

In a sample of Swiss adolescent attempted suicides, Laederach, et al. (1999) found that the boys more often had a friend or family member attempt suicide whereas the girls more often had been the victims of sexual violence. The boys and girls did not differ in previous attempts, school problems or having a friend or family member die by suicide.

In a study of Slovenian adolescents, Tomori (1999) found that attempted suicides more often had divorced parents, personal problems, poorer health, feeling overburdened at school, less physical activity, dissatisfaction with their personal appearance, and suicide attempts and suicides in families or close circles. The attempters also had worse coping mechanisms (such as "closing in upon myself" and "turning to alcohol").

In a sample of adolescent psychiatric patients, Lipschitz, et al. (1999) found that those who had attempted suicide were more likely to be female, Latino, to report sexual, physical, emotional abuse, and emotional neglect. In multivariate analyses, female gender, sexual abuse, and emotional neglect remained significant predictors of self-mutilation and suicidal ideation. Female gender and sexual abuse remained significant predictors of suicide attempts.

Eskin (1999) compared Swedish and Turkish high school students. The incidence of suicidal ideation in the past year was similar in both groups, but the Turkish students had a higher incidence of current suicidal ideation. More Turkish students reported attempting suicide in the past year. The two groups differed in the reasons for attempting suicide and the methods used (the Swedish youths used jumping more often and tablets less often). On the whole, ideation and attempts were more common in the girls.

Adults

In a sample of American college students, Lester and Abdel-Khalek (1999) found that previous suicide attempts (but not prior suicidal ideation) were associated with manic scores, while the checking subscale score on a measure of obsessive-compulsive tendencies was associated with both prior ideation and attempts.

In a sample of people under the age of 25 making serious suicide attempts, Beautrais, et al. (1999b) found that the attempters had higher scores for hopelessness, neuroticism, introversion, impulsiveness and external locus of control and lower scores for self-esteem compared to community controls.

Becker, et al. (1999) compared attempted suicides with nonsuicidal controls. On a modified Stroop Test, the attempters took longer to identify the colors of suicide-related words compared to other words, whereas the controls did not do so, suggesting an attentional bias in the attempters. For the attempters, suicidal ideation was associated with this bias, whereas hopelessness, depression and anxiety were not.

In a study by Frank and Dingle (1999) of American female physicians, past attempted suicide was more common in those who were born in the United States, were not Asian, had histories of cigarette smoking, alcohol abuse or dependence, sexual abuse and domestic violence, had poor current mental health, more severe harassment in the workplace, and a family history of psychiatric disorders. Medical specialty was not a factor.

In a study of young male conscripts in Sweden, Jiang, et al. (1999) found that attempting suicide in a 2-yerar follow-up was predicted by short stature, suitability for becoming an officer, and score on a logic test.

Bhugra, et al. (1999b) found that Asian women had a higher rate of attempting suicide in west London (UK) than white women and Asian men, especially so for younger Asian women.

Bhugra, et al. (1999a) compared Asian female attempters in England with Asian females presenting at a GP for surgery. The attempters more often had prior suicidal behavior, a psychiatric diagnosis and to be unemployed, to be in an inter-

racial relationship, to have changed religions and have parents who emigrated to England at an older age. Compared to white attempters, the Asian attempers less often had a psychiatric disorder or to use alcohol during the attempt, but more often had relationship problems, took fewer tablets and expressed regret at not succeeding in their attempt.

De Moore and Robertson (1999) compared attempted suicides using jumping versus shooting in Australia. The jumpers were more often single, unemployed and psychotic. Those who used firearms were more often male, abuse alcohol, to have a criminal history, and an antisocial or borderline personality disorder.

In a male-male twin study, Herrell, et al. (1999) found that those pairs that in which one or both had had same sex partners after the age of 18 had a higher incidence of suicidal ideation and attempted suicide. In discordant twin pairs, the twin who had had same sex partners had a higher incidence of suicidal ideation and attempted suicide than their heterosexual co-twin.

Engström, et al. (1999b) compared male attempted suicides with violent male offenders. They differed significantly on 3 of the 15 scales administered. The two groups were similar in high trait anxiety and low socialization, and both were normal for impulsiveness, verbal aggression, and inhibition of aggression. The attempters had higher indirect aggression and monotony avoidance scores, and the violent offenders had higher social desirability scores.

Pendse, et al. (1999) compared attempted suicides with major depression with nonsuicidal patients with major depression and seasonal affective disorder and healthy controls. The rationale for this is unclear unless the group with seasonal affective disorder was the focus of another study. The attempters had higher scores than the other two groups for somatic anxiety, psychic anxiety, and muscular tension. The attempters had higher scores than the healthy controls for irritability, suspicion, guilt, inhibition of aggression, detachment and psychasthenia, and lower socialization.

In a sample of 21-year-olds, Fergusson, et al. (1999) found that gay, lesbian and bisexual individuals more often reported attempting suicide and suicidal ideation in the past, as well as most psychiatric disorders and substance abuse.

Beautrais, et al. (1999a) compared those making serious suicide attempts with community controls and found that the use of cannabis was more common in the attempted suicides, even after adjustment for socio-demographic factors (e.g., low social class), childhood factors (e.g., childhood sexual abuse) and psychiatric comorbidity factors.

Tejedor, et al. (1999) followed up attempted suicides for 10 years and compared the suicides, attempters and survivors. The groups differed in Global Assessment of Functioning (GAF) scores, previous attempts and the number of previous attempts.

Persson, et al. (1999b) compared male and female attempted suicides in Sweden on all elements of DSM-V. The only sex difference was that the female attempters more often had a borderline personality disorder.

Manetta (1999) studied the association between a history of abuse and suicidal behavior in African American women aged 40-64 who were discharged psychiatric patients. Those women who had attempted suicide more often reported childhood physical abuse, but not sexual abuse, rape, or being battered.

Mann, et al. (1999) compared psychiatric inpatients who had attempted suicide with those who had not done so. The attempters scored higher for depression and suicidal ideation and lower on reasons for living. The attempters had higher lifetime aggression and impulsivity, and more often had comorbid borderline personality disorder, smoking, past substance use disorder or alcoholism, a family history of suicidal acts, head injury, and childhood abuse. They did not differ in the severity of their formal psychiatric diagnosis (depressive disorder or psychosis). Mann, et al. interpreted their results with their stress-diathesis model.

Kessler, et al. (1999) used a national survey in the United States to explore the incidence of suicidal ideation and attempted suicide in those aged 15-54. The results are best summarized by the authors.

> Of the respondents, 13.5% reported lifetime ideation, 3.9% a plan, and 4.6% an attempt. Cumulative probabilities were 34% for the transition from ideation to a plan, 72% from a plan to an attempt, and 26% from ideation to an unplanned attempt. About 90% of unplanned and 60% of planned first attempts occurred within 1 year of the onset of ideation. All significant risk

> factors (female, previously married, age less than 25 years, in a recent cohort, poorly educated, and having 1 or more of the *DSM-III-R* disorders assessed in the survey) were more strongly related to ideation than to progression from ideation to a plan or an attempt. (p. 617)

In a survey of one region in Ethiopia, Alem, et al. (1999) found that a greater percentage of Christians had attempted suicide than Muslims. Past suicide attempts were also more common in those with alcohol problems and those reporting current mental distress. In a different region of Ethiopia, Kebede and Alem (1999) found no differences by ethnicity or religion in the presence of suicidal ideation or a history of attempted suicide.

In a sample of inner-city low-income women, Thompson, et al. (1999b) found that suicide attempters more often had suffered physical and sexual abuse and PTSD and that PTSD was critical in the link between experience of abuse and attempted suicide.

Ruiz-Doblado (1999) studied attempted suicides in a rural area of southern Spain. The male attempters had less possibility for rescue, less self-criticism after the attempt, used more violent methods, were more often schizophrenic and with drug disorders and less often had personality, adjustment and neurotic disorders.

Hendin (1969) gave the Buss-Durkee Hostility Inventory to a sample of African Americans who had attempted suicide. Analyzing Hendin's data, Lester (1999i) found that the men scored lower than did women on Irritability and Negativism but did not differ in Intelligence test scores.

In a sample of college students, Lester (1999k) found that only depression scores predicted current suicide ideation and past suicidal ideation and attempts. Scores on locus of control, hopelessness, masculinity, and femininity did not add any significant components to the multiple regressions.

Adults with Psychopathology

Harkavy-Friedman, et al. (1999) compared schizophrenic and schizoaffective patients who attempted suicide with those who had not. The attempters had an earlier age of onset of first affective episode and more hospitalizations, but did not differ in age, sex, race, education, marital status, living arrangement, drug abuse, or alcohol abuse.

Pirkis, et al. (1999) studied psychiatric patients in various settings and found that attempting suicide was predicted by the patients having personality disorders. The researchers acknowledge that they were not able to study comorbidity.

Alexopoulos, et al. (1999) studied geriatric patients with depression. Current suicidal ideation was predicted by previous attempts with serious intent, severity of depression and poor social support. Suicide attempts in the prior year were predicted by severe depression at the index episode.

In a sample of patients presenting after self-harm, Taylor, et al. (1999) found that the heavy alcohol users (compared to the lesser alcohol users) were more often male, living alone, unemployed (and also unemployed long-term), with previous self-harm and previous psychiatric treatment, and more often currently suicidal.

In a sample of psychiatric admissions for suicide risk, Russ et al. (1999) found that some were free of suicidal ideation after 24 hours. These transient patients were more likely to have attempted suicide in the prior week and less likely to have psychotic symptoms and a family history of psychiatric problems.

Friedman, et al. (1999) found no differences in suicidal ideation or suicide attempts in the prior year in patients with panic disorder, other anxiety disorders, schizophrenia and major depression. However, the panic disorder and anxiety disorder patients had made fewer lifetime suicide attempts than the schizophrenic and major depression patients. Attempting suicide in panic disorder patients was predicted by current depression and substance abuse, but not by sex, childhood physical abuse or childhood sexual abuse.

Upadbyaya, et al. (1999) studied elderly depressed psychiatric patients and found that cognitive functioning, assessed using the Mini Mental State Exam (MMSE), was not associated with admission for an attempted suicide. The MMSE score was negatively associated with suicidal intent but not with the lethality or violence of the attempt.

Iancu, et al. (1999) compared suicidal depressed patients (attempters or with strong suicidal ideation) with nonsuicidal depressed patients and normal controls. The two depressed groups did not differ in the narrowness of their range of emotions, alexithymia or their affect intensity, but both groups differed from

healthy controls. The suicidal patients did have higher scores for depression and hopelessness than the nonsuicidal patients.

Bulik, et al. (1999) compared anorexic, bulimic and depressed patients. The groups did not differ in their history of suicide attempts (about one-third in each group). The attempted suicides reported lower self-directiveness and higher self-transcendence and higher persistence on the Temperament and Character Inventory. The attempted suicides in the two groups with eating disorders (but not the depression group) had higher harm-avoidance scores.

Corruble, et al. (1999) compared depressed inpatients with and without a history of attempted suicide. The groups did not differ in depression scores, but the attempters scored higher on impulsivity.

In a study of male veterans, Waller, et al. (1999) found that suicidal behavior (ideation and attempts) was associated with affective disorder (both major depression and bipolar depression). Alcohol use disorder increased the presence of suicidality.

In a study of psychiatric inpatients, Osman, er al. (1999), in a reliability and validity study of the Adult Suicidal Ideation Scale and the Reasons for Living Scale, found that scores on these scales differentiated attempted suicides from those who had not attempted suicide (as well as hopelessness and negative affect) and predicted subsequent attempts during a three-month follow-up.

In a study of low-income women with alcohol abuse (primarily unmarried, unemployed and African-American), Kingree, et al. (1999) found that those who attempted suicide scored higher in psychological distress and hopelessness and more often had drug abuse interpersonal loss, physical abuse, childhood trauma and worse conflict resolution skills, and less social support.

Duberstein, et al. (1999) compared depressed older (>50 years) psychiatric inpatients with major depression who had attempted prior to admission with those who had not done so. In both groups, suicidal ideation was less in the older patients in the sample.

Kaplan and Harrow (1999) followed up patients diagnosed with schizophrenia or schizoaffective disorder for 7½ years. Suicidal ideation or attempts during the follow-up period were predicted by positive symptoms for both

groups (psychotic activity, hallucinations and delusions) but not thought disorder. Poor post-hospital functioning predicted suicidal behavior only for the schizophrenic patients.

In a study of Norwegian drug addicts, Rossow and Lauritzen (1999) found that suicide attempts were more often reported among those who had overdosed, and the number of life-threatening overdoses and number of suicide attempts were positively associated. The common causal factors seem to be heavy drug use and poor social integration. Current suicidal ideation was associated with the number of suicide attempts but not with the number of life-threatening overdoses.

In a sample of alcoholic inpatients, Smyth, et al. (1999) found that predictors of suicidal ideation were psychiatric symptom severity and social dysfunction, while predictors of attempted suicide were younger alcohol problem onset, more alcoholism symptoms, greater social dysfunction, and greater psychiatric symptom severity.

In a sample of patients with bipolar disorder, Tsai, et al. (1999b) found that patients with a history of suicide attempt were more likely to have interpersonal problems with a spouse or romantic partner, occupational problems (maladjustment and frequently changing jobs), and an earlier age of onset.

In a sample of psychiatric inpatients with affective disorders, Tondo, et al. (1999) found that having attempted suicide was more common in bipolar 2 disorder, major depressive disorder, bipolar 1 mixed episodes, substance abuse disorder and age < 30. The strength of these associations differed for men and women.

Comparing alcoholics with health controls, Moussas, et al. (1999) found that the alcoholics scored higher on impulsivity, risk of violence and suicide risk. Impulsivity and risk of violence were associated with suicide risk in both the alcoholics and, weakly, in the control group.

In a study of female prisoners in Quebec (Canada), Daigle, et al. (1999) found that a history of attempted suicide was more common in women in provincial prisons than in the federal prison. The female provincial prisoners were also rated at higher risk for suicide than the federal prisoners and at higher risk than male inmates. Of course, the crimes and sentences for the two types of female prisoners differed considerably.

Malingering

Rissmiller, et al. (1999) found that 12% of psychiatric patients admitted for suicidality admitted malingering. Malingering was not predicted by scores on the MMPI's three validity scores.

Discussion

I have often suggested that an interesting comparison group for suicides would be murderers. It was, therefore, interesting to see that Engström, et al. (1999b) compared male attempted suicides with violent male offenders. This had never been done before.

Studies of Suicidal Ideation

Methodological Issues

Joiner, et al. (1999) compared clinician ratings and self-ratings of suicidality and found that clinicians gave the patients higher ratings than did the patients themselves.

Theoretical Consideration

Sivak, et al. (1999) introduced the concept of *counter-cognitions* for suicidal ideation, similar to what was earlier called *reasons for living* by Linehan, et al. (1983). They listed (1) thoughts of family and close friends, (2) thoughts about their faith, and (3) thoughts of work and financial responsibilities.

Physiological Studies

In a study of adolescent psychiatric inpatients, Apter, et al. (1999) found that suicidal adolescents had higher serum cholesterol levels. For the suicidal group only serum cholesterol correlated negatively with the degree of suicidal behavior which Apter, et al. noted as being a discrepant result. There were no associations between serum cholesterol levels and depression, violence, and impulsivity or with psychiatric diagnosis.

In a study of psychiatric inpatients, Papassotiropouios, et al. (1999) found that acute suicidality decreased with increasing total cholesterol levels irrespective of age, gender, and nutritional status (i.e., body mass index).

Children

Grilo, et al. (1999) compared adolescent inpatients with a history of abuse with non-abused adolescent inpatients. The abused adolescents were more self-critical on a depression scale and had more alcohol abuse/involvement. For the abused adolescents, suicide risk (mainly suicidal ideation) was associated with depression, self-criticism, alcohol involvement and past feelings and acts of violence. For the non-abused adolescents, suicide risk was associated with depression, hopelessness and self-criticism.

Ceral, et al. (1999) found no differences in the subsequent 2 years in suicidality in children and adolescents bereaved by the suicide of a parent and those whose parent died of other causes.

Youths

Ponizovsky, et al. (1999) compared adolescents in Russia, adolescent immigrants to Israel from Rusia and Israeli adolescents. The immigrants had higher rates of suicidal ideation and attempts in the past 6 months than adolescents in Russia, but not significantly higher than Israeli adolescents. For the immigrants to Israel, suicidal ideation was association with language barrier, lack of money, health problems, personality traits, family problems, and hostility from Israelis. Again, for the immigrants, suicidal ideation was predicted for the girls by obsessiveness, anxiety, somatic complaints and anxious/depressed and for the boys by depression, anxiety, paranoid ideation, anxious/depressed and thought problems.

Thompson and Eggert (1999) studied a large sample of potential high school dropouts. The risk of suicide measured by standardized scales was predicted by prior suicide attempts, suicidal ideation, suicidal ideation related to drugs, direct threats, indirect threats, depression and drug involvement and, to a lesser extent, by family support and risky behaviors.

Novins, et al. (1999) studied suicidal ideation in three tribes of Native Americans and found that the predictors of suicidal ideation differed for each tribe:

Pueblo – a friend attempting suicide, poor social support and depression; Southwest – a friend attempting suicide, both biological parents at home (negatively) and antisocial behavior; Northern Plains – low self-esteem and depression.

Safran and Heimberg (1999) compared 18-year-old LGB youths with heterosexual youths. Present suicidality was predicted by depression scores but not by sexual orientation. Past suicidality was predicted by depression scores and sexual orientation.

In a poorly reported study, Kaplan, et al. (1999) found that adolescents physically abused by a parent or step-parent scored higher on a suicide probability scale than matched non-abused adolescents.

Scheel and Westefeld (1999) found that high school students who liked heavy metal music were more likely to report suicidal ideation and scored lower on a reasons for living scale.

In a study of 14-17-year-olds in Hong Kong, Stewart, et al. (1999) found that suicidal ideation was predicted by sex, depression score, religiosity, and a variety of stressors (e.g., conflict with parents and acceptance by friends). For males, depression was the major predictor. For females, depression and relations with parents were the major predictors.

Gutierrez (1999) studied adolescents who were bereaved by the death of a parent. Suicidal ideation was associated with depression, exposure to suicidality in others (family members, friends and acquaintances), and negative perceptions of the deceased parent.

Mazza and Reynolds (1999) studied a group of inner-city youths. Suicidal ideation was associated with exposure to violence, post-traumatic stress and depression for both boys and girls. However, in multiple regressions, exposure to violence no longer contributed significantly to predicting suicidal ideation.

Rigby and Slee (1999) looked at bullies and victims in a sample of Australian adolescents. Both bullying and victimization were associated with suicidal ideation in both boys and girls, as were lack of social support, overall and from friends, parents and teachers. These results were replicated in a study in

which bullies and victims were nominated by classmates (instead of scoring themselves for bullying and being a victim).

Archer and Slesinger (1999) noted that three items on the MMPI tap suicidality. Adolescent psychiatric patients who were suicidal on these three items had higher scores for the scales of Hs, D, Pd, Pa, Pt and Sc.

In a sample of high school students, Bensley, et al. (1999) found that suicidal ideation and attempts were associated with abuse and with sexual molestation. The association was strongest for abuse plus sexual molestation.

In a sample of high school students, Huff (1999) found that the recency and degree of suicidal ideation was predicted by the recency and the degree of stress.

In Canadian high school students, de Man (1999) found that depression was a strong correlate of suicidal ideation. For 11 other variables, such as self-esteem and external locus of control, and age and sex, controlling for depression eliminated most of the associations with suicidal ideation or weakened them. In multiple regressions, for English speakers, suicidal ideation was predicted by depression, alcohol use and health. For French speakers, suicidal ideation was predicted by depression, stress, self-esteem, drug use, alcohol use and support. No reasons were advanced for the ethnic differences in the results.

Marcenko, et al. (1999) compared suicidal ideation in high school students. Suicidal ideation was more common in girls but did not differ in frequency between white, African Americans and Hispanic Americans. Predictors of suicidal ideation were drug and alcohol use, low self-esteem, high tolerance toward suicide, and poor family coping skills. Hopelessness and a family history of suicidal behavior did not play a role. Marcenko, et al. identified three ideator profiles:

High self-esteem; high family coping; high tolerance
Low self-esteem; low family coping; low tolerance
Low self-esteem; low family coping; high tolerance

Adults

In a study of university students, Hopes and Williams (1999) found that depression and self-defeating behaviors predicted females' suicidal ideation, and self-destructive behaviors predicted males' suicidal ideation.

In a sample of college students, Velting (1999) found that current suicidal ideation was positively associated with neuroticism and negatively with conscientiousness for females and negatively with conscientiousness for males. Regarding the components of neuroticism, for females angry hostility and depression were important, whereas for males self-discipline was important.

Tassava and Ruderman (1999) classified college women into binge eaters (yes-no) and suicidal ideation (yes-no). The suicidal women had lower self-esteem, more negative affect and less rational thinking. Those who both had suicidal ideation and engaged in binge eating had lower self-esteem, more negative affect, less rational thinking and more weight concern.

In a national sample of American college students, Brener, et al. (1999) found that suicidal ideation in the past year was associated with smoking tobacco, episodic heavy drinking and use of marihuana, cocaine and other illegal drugs.

Ponizovsky and Ritsner (1999) compared Russian Jews with immigrants to Israel from Rusia. The immigrants scored high for suicidal ideation and had made more prior suicide attempts. Suicidal ideation in the immigrants was associated with age, marital status and time in Israel, and higher scores on all scales of a psychological distress inventory (e.g., depression, anxiety, paranoid ideation, etc.). In a multiple regression, suicidal ideation was predicted by younger age, pre-immigration location, total number of distress symptoms, hostility, depression and paranoid ideation.

Weissman et al. (1999) looked at suicidal ideation and attempts in surveys in 9 countries. The incidences varied by country, but sex and marital status were associated with the incidence in most of the countries.

In a sample of Latin American immigrants, Hovey (1999a) found no relationship between religious affiliation and suicidal ideation, but self-perception of religiosity, the influence of religion, and church attendance were negatively associated with suicidal ideation, but only the self-rated influence of religion predicted suicidal ideation in a multiple regression.

In a sample of Scottish prisoners aged 16-21, Biggam and Power (1999a) found that prisoners placed in suicide supervision had higher depression scores than victims of bullying, those placed in protection and adjusted prisoners, while both those placed in suicide supervision and victims of bullying had the highest

hopelessness scores. The prisoners placed in suicide supervision had the most severe deficits in problem-solving ability.

Using the same sample, Biggam and Power (1999b) first compared those who were not currently suicidal but differed in a history of attempted suicide. The attempters were more anxious, hopeless and depressed but did not differ in means-end problem solving scores. Next, focusing on those with a history of attempted suicide, they compared those currently suicidal with those not currently suicidal. Those currently suicidal had worse problem-solving skills, were more depressed, but not more anxious or hopeless. Biggam and Power suggested that psychological distress was both a state and a trait factor while problem-solving deficits was a state factor.

In a random telephone survey in the United States, Crosby, et al. (1999) found that suicidal ideation was highest in those aged 18-24, the never married, the unemployed, and the poor.

In a study of alcohol drinkers, Grant and Hasin (1999) found that suicidal ideation was predicted by major depressive disorder, alcohol dependence, recent physical illness and not being married. For men, family history of alcoholism and unemployment predicted suicidal ideation and, for women, the use of non-medical drugs.

Eshun (1999) found that Ghanian students had lower scores for hopelessness and suicidal ideation than American students and higher scores for optimism. In both sample hopelessness and optimism predicted suicidal ideation.

Heisel and Fusé (1999) found that Japanese college students more often reported suicidal ideation and past suicide attempts than did Canadian college students. Hopelessness and depression were stronger correlates of suicidal ideation in the Canadian students, but poor coping strategies was a stronger correlate of suicidal ideation in the Japanese students. The association of stress level with suicidal ideation was similar in both samples. The authors did not, however, carry out multiple regressions.

Lall, et al. (1999) compared military personnel reporting to an outpatient mental health clinic, comparing those with suicidal ideation and those none on the Millon clinical Multiaxial Inventory. Those with suicidal ideation scored higher on the scales for disclosure, debasement, schizoid, avoidant, passive-aggressive, self-

defeating, schizotypal, borderline, dysthymic disorder, thought disorder and major depression, anxiety disorder, and lower on desirability and histrionic,

Prigerson and Slimack (1999) followed-up young adult friends of an adolescent suicide six years after the suicide. Suicidal ideation in the men was predicted by scores for aggressive interpersonal style and in the women by depression and PTSD. Anxiety, self-esteem and belonging (part of a social support scale) did not play a role.

In a sample of Mexican immigrants, Hovey (1999b) found that suicidal ideation was associated with depression and low social support.

Lester and Akande (1999) found that Xhosa, Zulu and Colored college students in South Africa did not differ in total depression scores on the Beck Depression Inventory, nor on scores for the suicidal ideation item.

In a sample of undergraduates, Lester (1999p) found that current depression scores predicted current suicidal ideation while depressive personality scores predicted prior suicidal ideation (a state-trait difference in associations).

In a sample of young adults who had lost a friend to suicide, Prigerson, et al. (1999) found that those with traumatic grief more often reported suicidal ideation, even after controls for depression, sex and time since the loss.

Patients with Psychopathology

In a sample of psychiatric outpatients, Dean and Range (1999) found that suicidal ideation was predicted by hopelessness, reasons for living and self-rated depression.

Goldberg, et al. (1999) studied a sample of patients with dysphoric mania (diagnosis Bipolar 1) and found that suicidal ideation was associated with Caucasian race, taking antidepressant medication in the week prior to admission, a history of alcohol abuse/dependence and prior attempted suicide.

In a sample of geriatric depressed individuals (both inpatients and outpatients, aged 60-90), Lynch, et al. (1999a) found that suicidal ideation was associated with psychomotor retardation, a history of dysthymia, a previous psychiatric in-patient stay, and being a ‘younger’ elder (undefined).

In a similar sample, Lynch, et al. (1999b) found that pessimism at baseline predicted suicidal ideation one year later, as did a younger age at the onset of depression.

In a sample of psychiatric outpatients with panic disorder with agoraphobia (PDA), Starcevic, et al. (1999) found that suicidal ideation was associated with more severe PDA and having a personality disorder. The predictors of suicidal ideation were any DSM-IV Cluster C personality disorder, any DSM-IV Cluster B personality disorder, any comorbid mood disorder, and severity of PDA.

In a study of psychotic inpatients, Verdoux, et al. (1999) found those with a history of attempted suicide more often had a history of drug misuse, particularly polysubstance misuse.

Esposito and Clum (1999) found that some scales of the Children's Depression Inventory (CDI) predicted suicidal ideation in adolescent delinquents better than others. In a seven-factor solution for the CDI, low self-esteem and hopelessness were the predictors in a multiple regression.

Hardan and Sahl (1999) studied adolescents with developmental disabilities. Twenty percent showed suicidal behavior, predominantly suicidal ideation. Suicidality was more often encountered in individuals diagnosed with oppositional defiant disorder, depressive disorders, and post-traumatic stress disorder, and less often in the autistic and the severely/profoundly mentally retarded groups.

Schwartz and Petersen (1999) found that suicidality in a sample of schizophrenics was predicted by insight into the need for treatment (negatively), but neither insight into having a mental disorder nor insight into the social consequences of the disorder predicted ratings of suicidality.

Amir, et al. (1999) found that patients with PTSD scored higher for suicide risk than anxiety disorder patients and healthy controls. For the PTSD group, suicide risk was associated with the coping styles of mapping (collecting information), minimization and replacement (seeking alternative solutions) and positively with the coping style of suppression (avoidance).

In a sample of adolescent inpatients, Horesh, et al. (1999) found that clinician rated suicidality (using standardized interviews) was associated with

impulsivity, overt aggression and conduct disorder, with the association stronger in boys than in girls.

Attitudes toward Suicide

Domino, et al. (1999) found that Taiwanese adults were more accepting of suicide in general than American adults, although the reasons for suicide found to be acceptable differed. For example, Taiwanese were less accepting of suicide in cases of incurable illness, but more accepting of suicide for the elderly infirm,

Tonooka (1999) used data from a United States national survey to study approval of suicide. Tonooka found that age, race and sex, socioeconomic variables, religion, marital status and other variables were associated with approval of suicide. A multiple regression analysis was not conducted in order to identify the strongest predictors or to cluster the variables into factors.

Physician-Assisted Suicide

Kemmelmeier, et al. (1999) found that approval of physician-assisted suicide in American college students was positively associated with individualism scores and negatively with authoritarian scores.

In a sample of Michigan adults, Westman, et al. (1999) found that favoring physician-assisted suicide was negatively associated with religiousness, seeing suicide as a moral issue rather than a medical issue and viewing suicides as having a troubled mind.

Heath, et al. (1999) found that favoring physician-assisted suicide by Canadian physicians was stronger in those from British Columbia, Ontario and Quebec and in those who provided routine follow-up care or palliative care for those with HIV.

Fenn and Ganzini (1999) found that the personal religious beliefs of Oregon psychologists negatively impacted their approval of physician-assisted suicide.

Roscoe and Cohen (1999) found that caregivers of Alzheimer's patients were more in favor of physician-assisted suicide (PAS) than non-caregivers. However, this held for only one of the 4 questions. Depression scores did not

predict approval of PAS, but thinking that others could not deal with the stresses in their lives was associated with support for PAS.[3]

Berkman, et al. (1999) surveyed people with multiple sclerosis about their attitudes toward physician-assisted suicide. Approval was associated with religiosity, social support, depressive symptomatology, MS symptoms, years since diagnosis, and gender.

Grassi, et al. (1999) found that approval of physician-assisted suicide among Italian general practitioners was associated with non-Catholic religious affiliation, inexperience in treating terminally ill patients and burnout-depersonalization.

Schwartz, et al. (1999) studied psychiatrists, internists and family practitioners in Connecticut. Catholics were less supportive of physician-assisted suicide, as were non-whites, but the three groups of medical professionals did not diff in their attitudes.

In a sample of social workers, Csikai (1999) found that religious beliefs, educational level, the belief in the potential for abuse and ethics training of the respondents impacted their approval of assisted suicide. The amount of experience in medical social work influenced the social workers' attitudes about whether they would be willing to participate in assisted suicide.

Zehnder and Royse (1999) found that hospice volunteers were more in favor of assisted suicide than the general public. Approval was not associated with age and sex, but the more educated volunteers were more in favor while Catholics were less in favor than Protestants, as were those for whom religion was important.

The Language of Suicide

As a side note, it is notable that in this era (later 1990s), the physiological-oriented researchers into suicide often use the term *suicide victims* (e.g., Heilä, et al. (1999b).

[3] The data analysis and presentation in this paper is poor, making the results difficult to comprehend.

Egel (1999) objected to using the term *suicide* when the cultural norms demanded self-killing (or saw self-killing as acceptable). Egel suggested the term *sucism*, self-killing that is not culturally normative. Egel gave an example:

> In Germany prior to World War I, two men each shoot themselves in the head. One is a military officer who has just lost a battle due to incompetence; the other is a workman who has lost his wife. The former is not suicide *in that part of that subculture* and the second *is*. (p. 393).

Discussion

Personal Comments

Since this is my scholarly journal, let me begin with a few personal comments. So much of what I reviewed here has annoying qualities. First, the articles do not need to be so long. A simple result does not require 10 or more pages to report. People have fussed at me for my one-page notes in *Psychological Reports* and *Perceptual and Motor Skills*. But a one-page note is all that many of the articles reviewed here needed. Often, the Abstract contained all the necessary information. In one of the studies reviewed above, the result was that suicidal ideation was predicted by hopelessness, reasons for living and self-rated depression. The authors needed 12 pages to report this!!!!!

Worse than this, there are instances where the whole issue of a scholarly journal had no articles that I consider to have merit. This was true, for example, of one whole issue of the *Journal of Clinical Psychiatry*. This issue may have provided useful information about suicide to those who were not experts in suicidology, but I do not think that this is a task for scholarly journals.

Related to this, the articles are by scholars writing for other scholars. We do **NOT** need introductory paragraphs telling us that suicide is a worldwide problem with close to one million suicides every year, etc. You do not have to convince us that your study is important.

Another personal comment that may annoy some readers. I fail to see what any of the physiological studies contribute to suicidology. Do they really help us to understand why people die by suicide or why this person died by suicide. Do studies of serum cholesterol or chemicals in the brain throw light on why Ernest Hemingway or Yukio Mishima died by suicide? In addition, I suspect that many of

these physiological studies were carried out for another purpose and, because they used the brains of suicides, the researchers saw that they could get another publication out of their data.

What Have We Learned About Suicide?

In many ways, this review of research in 1999 is less stimulating than the review for1998. There are no new theoretically relevant ideas and only one new variable (whether the adolescent is one of the oldest in the class or one of the youngest) which is not of great interest or major importance.[4] I do not think that any of the research papers reviewed here advance our understanding of suicide.

What will the review for 2000 reveal? Stay tuned.

References

Alem, A., Kebede, D., Jacobsson, L., & Kullgren, G. (1999). Suicide attempts among adults in Butajira, Ethiopia. *Acta Psychiatrica Scandinavica, 100,* 70-76.

Alexopoulos, G. S., Bruce, M. L., et al. (1999). Clinical determinants of suicidal ideation and behavior in geriatric depression. *Archives of General Psychiatry, 56,* 1048-1053.

Altamura, C., VanGastel, A., et al. (1999). Seasonal and circadian rhythms in suicide in Cagliari, Italy. *Journal of Affective Disorders, 53,* 77-85.

Alvarez, J. C., Cremniter, D., et al. (1999). Low blood cholesterol and low platelet serotonin levels in violent suicide attempters. *Biological Psychiatry, 45,* 1066-1069.

Amir, M., Kaplan, C., Efroni, R., & Kotler, M. (1999). Suicide risk and coping styles in Posttraumatic Stress Disorder patients. *Psychotherapy & Psychosomatics, 68,* 76-81.

Appleby, L., Cooper, J., Amos, T., & Faragher, B. (1999). Psychological autopsy study of suicides by people aged under 35. *British Journal of Psychiatry, 175,* 168-174.

Apter, A., Laufer, N., et al. (1999). Serum cholesterol, suicidal tendencies, impulsivity, aggression, and depression in adolescent psychiatric inpatients. *Biological Psychiatry, 46,* 532-541.

[4] I was born June 1st and was the oldest boy in my class. Had I been born May 31st I would have the youngest boy in the class ahead of me.

Archer, R. P., & Slesinger, D. (1999). MMPI-A patterns related to the endorsement of suicidal ideation. *Assessment, 6,* 51-59.

Baumann, B., Danos, P., et al. (1999). Tyrosine hydroxylase immunoreactivity in the locus coeruleus is reduced in depressed non-suicidal patients but normal in depressed suicide patients. *European Archives of Psychiatry & Clinical Neuroscience, 249,* 212-219.

Baxter, D., & Appleby, L. (1999). Case register study of suicide risk in in mental disorders. *British Journal of Psychiatry, 175,* 322-326.

Bayard-Burfield, L., Sundquist, J., Johansson, S. E., &Träskman-Bendz, L. (1999). Attempted suicide among Swedish-born people foreign-born migrants. *Archives of Suicide Research, 5,* 43-55.

Beautrais, A. L., Joyce, P. R., & Mulder, R. T. (1999a). Cannabis abuse and serious suicide attempts. *Addiction*, *94*, 1155-1164.

Beautrais, A. L., Joyce, P. R., & Mulder, R. T. (1999b). Personality traits and cognitive styles as risk factors for serious suicide attempts among young people. *Suicide & Life-Threatening Behavior*, *29*, 37-47.

Beck, A. T., Brown, G. K., et al. (1999). Suicide ideation at its worst point. *Suicide & Life-Threatening Behavior*, *29*, 1-9.

Becker, E. S., & Strohbach, D. (1999). A specific attentional bias in suicide attempters. *Journal of Nervous & Mental Disease*, *87*, 730-735.

Bensley, L. S., Van Eenwyk, J., Spieker, S. J., & Schoder, J. (1999). Self-reported abuse history and adolescent problem behaviors. *Journal of Adolescent Health*, *24*, 163-172.

Berkman, C. S., Cavallo, P. F., Chesnut, W. C., & Holland, N. J. (1999). Attitudes toward physician-assisted suicide among persons with multiple sclerosis. (1999). *Journal of Palliative Medicine, 2*(1), 51-63.

Bhugra, D., Baldwin, D. S., Desai, M., & Jacob, K. S. (1999a). Attempted suicide in west London, II. *Psychological Medicine, 29,* 1131-1139.

Bhugra, D., Desai, M., & Baldwin D. S. (1999b). Attempted suicide in west London, I. *Psychological Medicine, 29,* 1125-1130.

Biggam, F. H., & Power, K. G. (1999a). A comparison of the problem-solving abilities and psychological distress of suicidal, bullied and protected prisoners. *Criminal Justice & Behavior, 26,* 196-216.

Biggam, F. H., & Power, K. G. (1999b). Suicidality and the state-trait debate on problem solving deficits. *Archives of Suicide Research, 5,* 27-42.

Birckmayer, J., & Hemenway, D. (1999). Minimum-age drinking laws and youth suicide, 1970-1990. *American Journal of Public Health, 89,* 1365-1368.

Blair-West, G. W., Cantor, C. H., Mellsop, G. W., & Eyeson-Anna, M. L. (1999). Lifetime suicide risk in major depression. *Journal of Affective disorders, 55,* 171-178. (1999).

Boardman, A. P., Grimbaldeston, A. H., et al. (1999). The North Staffordshire suicide study. *Psychological Medicine, 29,* 27-33.

Booth, H. (1999). Pacific Island suicide in comparative perspective. *Journal of Biosocial Science, 31,* 433-44

Brener, N. D., Hassan, S. S., & Barrios, L. C. (1999). Suicidal ideation among college students in the United States. *Journal of Consulting & Clinical Psychology, 67,* 1004-1008.

Brent, D. A., Baugher, M., et al. (1999). Age- and sex-related risk factors for adolescent suicide. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 1497-1505.

Brown, J., Cohen, P., Johnson, J. D., & Smailes, E. M. (1999). Child abuse and neglect. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 1490-1496.

Brown, M., & Barraclough, B. (1999). Partners in life and death. *Psychological Medicine, 29,* 1299-1306.

Bulik, C. M., Sullivan, P. F., & Joyce, P. R. (1999). Temperament, characters and suicide attempts in anorexia nervosa, bulimia nervosa and major depression. *Acta Psychiatrica Scandinavia, 100,* 27-32.

Burr, J. A., Hartman, J. T. & Matteson, D. W. (1999). Black suicide in U.S. metropolitan areas. *Social Forces, 77,* 1049-1081.

Canetto, S. S., & Lester, D. (1999). Motives for suicide in suicide notes from women and men. *Psychological Reports, 85,* 471-472.

Carlsten, A., Waern, M., & Allebeck, P. (1999). Suicides by drug poiso8.ning among the elderly in Sweden 1969±1996. *Social Psychiatry & Psychiatric Epidemiology, 34,* 609-614.

Carrington, P. J. (1999). Gender, gun control, suicide and homicide in Canada. *Archives of Suicide Research, 5,* 71-75.

Cavaiola, A. A., & Lavender, N. (1999). Suicidal behavior in chemically dependent adolescents. *Adolescence, 34,* 735-744.

Cavanagh, J. T. O., Owens, D. G. C., & Johnstone, E. C. (1999a). Life events in suicide and undetermined death in south-east Scotland. *Social Psychiatry & Psychiatric Epidemiology, 34,* 645-650.

Cavanagh, J. T. O., Owens, D. G. C., & Johnstone, E. C. (1999b). Suicide and undetermined death in south east Scotland. *Psychological Medicine, 29,* 1141-1149.

Cerel, J., Fristad, M. A., Weller, E. b., & Weller, R. A. (1999). Suicide-bereaved children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 672-679.

Chotai, J., Renberg, E. S., & Jacobsson, L. (1999). Season of birth associated with the age and method of suicide. *Archives of Suicide Research, 5,* 245=254.

Connolly, J. F., Cullen, A., et al. (1999). A comparison of suicide in two Irish counties. *Irish Journal of Psychological Medicine, 16*(4), 136-139.

Connor. K. R., Duberstein, P. R., & Conwell, Y. (1999). Age-related patterns of factors associated with completed suicide in men with alcohol dependence. *American Journal on Addictions, 8,* 312-318.

Coren, A., & Hewitt, P. L. (1999). Sex differences in elderly suicide rates. *Aging & Mental Health, 3*(2), 112-118.

Corruble, E., Damy, C., & Guelfi, J. D. (1999). Impulsivity. *Journal of Affective Disorders, 53,* 211-215.

Corcoran, E., & Walsh, D. (1999). Suicide in psychiatric inpatients in Ireland. *Irish Journal of Psychological Medicine, 16*(4), 127-131.

Cremniter, D., Jamain, S., et al. (1999). CSF 5-HIAA levels are lower in impulsive as compared to nonimpulsive violent suicide attempters and control subjects. *Biological Psychiatry, 45,* 1572-1579.

Crosby, A. E., Cheltenham, M. P., & Sacks, J. J. (1999). Incidence of suicidal ideation and behavior in the United States, 1994. *Suicide & Life-Threatening Behavior, 29,* 131-140.

Csikai, E. L. (1999). The role of values and experience in determining social workers' attitudes toward euthanasia and assisted suicide. *Social Work in Health Care, 30,* 75-95.

Cutchin, M. P., & Churchill, R. R. (1999). Scale, context, and causes of suicide in the United States. *Social Science Quarterly, 80,* 97-114.

Daigle, M., Alarie, M., & Lefebvre, P. (1999). The problem of suicide among female prisoners. *Forum on Corrections Research, 11*(3), 41-45.

Dannon, P. N., Iancu, I., et al. (1999). The relationship between cholesterol and suicide attempts in patients with either panic or major depressive disorders. *New Trends in Experimental & Clinical Psychiatry, 15*(1), 29-32.

Dean, P. J., & Range, L. M. (1999). Testing the escape theory of suicide in an outpatient clinical population. *Cognitive Therapy & Research, 23,* 561-572.

De Man, A. F. (1999). Correlates of suicide ideation in high school students. *Journal of Genetic Psychology, 160,* 105-114.

De Moore, D. M., & Robertson, A. R. (1999). Suicide attempts by firearms and by leaping from heights. *American Journal of Psychiatry, 156,* 1425-1431.

Domino, G. Shen, D., & Su, S. (1999-2000). Acceptability of suicide. *Omega, 40,* 293-306.

Dori, G. A., & Overholser, J. C. (1999). Depression, hopelessness, and self-esteem. *Suicide & Life-Threatening Behavior, 29,* 309-318.

Du, L., Faludi, G., et al. (1999). Frequency of long allele in serotonin transporter gene is increased in depressed suicide victims. *Biological Psychiatry, 45,* 196-201.

Duberstein, Conwell, Y., et al. (1999). Age and suicidal ideation in older depressed inpatients. *American Journal of Geriatric Psychiatry, 7,* 289-296.

Egel, L. (1999). On the need for a new term for suicide. *Suicide & Life-Threatening Behavior, 29,* 393-394.

Engström, G., Alling, C., et al. (1999a). Reduced cerebrospinal HVA concentrations and HVA/5-HIAA ratios in suicide attempters. *European Neuropsychopharmacology, 9,* 399–405.

Engström, G., Persson, B., & Levander, S. (1999b). Temperament traits in male suicide attempters and violent offenders. *European Psychiatry, 14,* 278-283.

Engström, G., & Träskman-Bendz, L. (1999). Blood folate, vitamin B12, and their relationships with cerebrospinal fluid monoamine metabolites, depression, and personality in suicide attempters. Nordic Journal of Psychiatry, 53, 131–137.

Engström, G., Westrin, A., Ekman, R., & Träskman-Bendz, L. (1999c). Relationships between CSF neuropeptides and temperament traits in suicide attempters. *Personality & Individual Differences, 26,* 13-19.

Eshun, S. (1999). Cultural variations in hopelessness, optimism, and suicidal ideation. *Cross-Cultural Research, 33,* 227-238.

Eskin, M. (1999). Gender and cultural differences in the 12-month prevalence of suicidal thoughts and attempts in Swedish and Turkish adolescents. *Journal of Gender, Culture, & Health, 4,* 187-200.

Esposito, C. L., & Clum, G. A. (1999). Specificity of depressive symptoms and suicidality in a juvenile delinquent population. *Journal of Psychopathology & Behavioral Assessment, 21,* 171-183.

Fenn, D. S., & Ganzini, L. (1999). Attitudes of Oregon psychologists toward physician-assisted suicide and the Oregon Death with Dignity Act. *Professional Psychology, 30,* 235-244.

Fergusson, D. M., Horwood, J., & Beautrais, A. L. (1999). Is sexual orientation related to mental health problems and suicidality in young people? *Archives of General Psychiatry, 56,* 876-880.

Fernquist, R. M. (1999). Gender equality and the sex differential in suicide rates using gender-age standardized data. *Archives of Suicide Research, 5,* 255-260.

Fitzgerald, M. (1999). Suicidal behaviour in children. *Irish Journal of Psychological Medicine, 16*(1), 34.

Foster, T., Gillespie, K., McClelland, R., & Patterson, C. (1999). Risk factors for suicide independent of DSM-1ll-R Axis I disorder. *British Journal of Psychiatry, 175,* 175-179.

Frank, E., & Dingle, A D. (1999). Self-reported depression and suicide attempts among U.S. women physicians. *American Journal of Psychiatry, 156,* 1887-1894.

Friedman, S., Smith, L., & Dogel, D. (1999). Suicidality in panic disorder. *Journal of Anxiety Disorders, 13,* 447-461.

Goldberg, J. F., Garno, J. L., et al. (1999). Correlates of suicidal ideation in dysphoric mania. *Journal of Affective Disorders, 56,* 75-81.

Golden, C. J., Jackson, M. L., et al. (1996). Neuropsychological correlates of violence and aggression. *Aggression & Violent Behavior, 1,* 3-25.

Goldston, D. B., Daniel, S. S., et al. (1999). Suicide attempts among formerly hospitalized adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 660-671.

Grant, B. F., & Hasin, D. S. (1999). Suicidal ideation among the United States drinking population. *Journal of Studies on Alcohol, 60,* 422-429.

Grassi, L., Magnani, K., & Ercolani, M. (1999). Attitudes toward euthanasia and physician-assisted suicide among Italian primary care physicians. *Journal of Pain & Symptom Management, 17,* 188-196.

Grilo, C. M., Sanislow, C. A., et al. (1999). Correlates of suicide risk in adolescent inpatients who report a history of childhood abuse. *Comprehensive Psychiatry, 40,* 422-428.

Grøholt, B., Ekberg, Ø., Wichstrøm, L., & Haldorsen,T. (1999). Sex differences in adolescent suicides in Norway, 1990-1992. *Suicide & Life-Threatening Behavior, 29,* 295-308.

Gunnell, D., Lopatatzidis, A., et al. (1999). Suicide and unemployment in young people. *British Journal of Psychiatry, 175,* 263-270.

Gurguis, G. N. M., Turkka, J., et al. (1999). Coupling efficiency of brain ***β***-adrenergic receptors to G_s protein in suicide, alcoholism and control subjects. *Psychopharmacology, 145,* 31-38.

Gutierrez, P. M. (1999). Suicidality in parentally bereaved adolescents. *Death Studies, 23,* 359-370.

Hardan, A., & Sahl, R. (1999). Suicidal behavior in children and adolescents with developmental disorders. *Research in Developmental Disabilities, 20,* 287–296.

Harkavy-Friedman, J. M., Restifo, K., et al. (1999). Suicidal behavior in schizophrenia. *American Journal of Psychiatry, 156,* 1276-1278.

Hawton, K., Fagg, J., et al. (1999b). The geographical distribution of suicides in farmers in England and Wales. *Social Psychiatry & Psychiatric Epidemiology, 34,* 122-127.

Hawton, K., Houston, K., & Shepperd, R. (1999a). Suicide in young people. *British Journal of Psychiatry, 175,* 271-276.

Heath, K. V., Wood, E., et al. (1999). Experience in treating persons with HIV/AIDS and the legalization of assisted suicide. *AIDS Care, 11,* 501-510.

Heisel, M. J., & Fusé T. (1999). College student suicide ideation in Canada and Japan. *Psychologia, 42,* 129-138.

Herrell, R., Goldberg, J., et al. (1999). Sexual orientation and suicidality. *Archives of General Psychiatry, 56,* 867-874.

Heilà, H., Heikkinen, M. E., et al. (1999a). Life events and completed suicide in schizophrenia. *Schizophrenia Bulletin, 25,* 519-531.

Heilà, H., Isometsä, E. T., et al. (1999b). Suicide victims with schizophrenia in different treatment phases and adequacy of antipsychotic medication. *Journal of Clinical Psychiatry, 60,* 200-208.

Hendin, H. (1969). *Black suicide*. New York: Basic Nooks.

Hopes, L. M., & Williams, A. (1999). Depression, self-defeating and self-destructive behaviors as predictors of suicide ideation in males and females. *Psychological Reports, 84,* 63-66.

Horesh, N., Gothelf, D., et al. (1999). Impulsivity as a correlate of suicidal behavior in adolescent psychiatric inpatients. *Crisis, 20,* 8-14.

Hourani, L. L., Warrack, L. G., & Coben, P. A. (1999). Suicide in the U.S. Marine Corps, 1990 to 1996. *Military Medicine, 164,* 551-555.

Hovey, J. D. (1999a). Religion and suicidal ideation in a sample of Latin American immigrants. *Psychological Reports, 85,* 171-177.

Hovey, J. D. (1999b). Moderating influence of social support on suicidal ideation in a sample of Mexican immigrants. *Psychological Reports, 85,* 78-79.

Huff, C. O. (1999). Source, recency, and degree of stress in adolescence and suicidal ideation. *Adolescence, 34,* 81-89.

Iancu, I., Horesh, N., et al. (1999). Alexithymia, affect intensity and emotional range in suicidal patients. *Psychotherapy & Psychosomatics, 68,* 276-280.

Jarosz, M. (1999). Suicide as an indicator of disintegration of the Polish society. *Polish Sociological Review. 3, #127,* 427-444.

Jessen, G., Andersen, E., et al. (1999b). Temporal fluctuations and seasonality in attempted suicide in Europe. *Archives of Suicide Research, 5,* 57-69.

Jessen, G., & Jensen, B. F. (1999). Postponed suicide death? *Suicide & Life-Threatening Behavior, 29,* 272-283.

Jessen, G., Jensen, B. F., et al. (1999a). Attempted suicide and major public holidays in Europe. *Acta Psychiatric Scandinavia, 100,* 412-318.

Jiang, G. X., Rasmussen, F., & Wasserman, D. (1999). Short stature and poor psychological performance. *Acta Psychiatric Scandinavia, 100,* 433-440.

Jonasson, B., Jonasson, U., & Saldeen, T. (1999). Suicides may be overreported and accidents underreported among fatalities due to dextropropoxyphene. *Journal of Forensic Sciences, 44,* 334-338.

Johnson, J. G., Cohen, P., et al. (1999). Personality disorders in adolescence and risk of major mental disorders and suicidality during adulthood. *Archives of General Psychiatry, 56,* 805-811.

Joiner, T. E., Rudd, M. D., & Rajab, M. H. (1999). Agreement between self- and clinician-rated suicidal symptoms in a clinical sample of young adults. *Journal of Consulting & Clinical Psychology, 67,* 171-176.

Kaplan, K. J., & Harrow, M. (1999). Psychosis and functioning as risk factors for later suicidal activity among schizophrenia and schizoaffective patients. *Suicide & Life-Threatening Behavior, 29,* 10-24.

Kaplan, M. S., & Geling, O. (1999). Sociodemographic and geographic patterns of firearm suicide in the United States, 1989-1993. *Health & Place, 5,* 179-185.

Kaplan, S., Pelcovitz, D., et al. Adolescent physical abuse and risk for suicidal behaviors. *Journal of Interpersonal Violence, 14,* 976-988.

Kebede, D., & Alem, A. (1999). Suicide attempts and ideation among adults in Addis Ababa, Ethiopia. *Acta Psychiatric Scandinavica, 100,* 35-39.

Kelleher, M. J., Cambers, D., & Corcoran, P. (1999). Suicide and religion in Ireland. *Archives of Suicide Research, 5,* 173-180.

Kelly, C. B., & Rafferty, T. (1999). Effect of increased antidepressant prescribing on suicide rate in Northern Ireland. *Psychiatric Bulletin, 93,* 484-486.

Kennedy, H. G., Iveson, R. C. Y., & Hill, O. (1999). Violence, homicide and suicide. *British Journal of Psychiatry, 175*, 462-466.

Kessler, R. C., Borges, G., & Walters, E. E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry, 56,* 617-626.

Kemmelmeier, M., Burnstein, E., & Peng, K. (1999). Individualism and authoritarianism shape attitudes toward physician-assisted suicide. *Journal of Applied Social Psychology, 29,* 2613-2631.

Kingree, J. B., Thompson, M. P., & Kaslow, N. J. (1999). Risk factors for suicide attempts among low-income women with a history of alcohol problems. *Addictive Behaviors, 24,* 583-587.

Klimes-Dougan, B., Free, K., et al. (1999). Suicidal ideation and attempts. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 651-659.

Krug, E. G., Kresnow, M. J., et al. (1999). Suicide after natural disasters: retraction. *New England Journal of Medicine, 340,* 148-149.

Kryzhanovskaya, L., & Pilyagina, G. (1999). Suicidal behavior in the Ukraine, 1988–1998. *Crisis, 20,* 184-190.

Kunugi, H., Ishida, S., et al. (1999). No evidence for an association of polymorphisms of the tryptophan hydroxylase gene with affective disorders or attempted suicide among Japanese patients. *American Journal of Psychiatry, 156,* 774-776.

Laederach, J., Fischer, W., Bowen, P., & Ladame, F. (1999). Common risk factors in adolescent suicide attempters revisited. *Crisis, 20,* 15-22.

Lall, R., Bongar, B., et al. (1999). Efficacy of the Millon Clinical Multiaxial Inventory-II in discriminating mental health patients with and without suicidal ideation. *Military Psychology, 11,* 423-432.

Leenaars, A. A. (1999) Suicide across the adult life span. *Archives of Suicide Research, 5,* 261-274.

Leenaars, A. A., & Lester, D. (1996). Gender, gun control, suicide and homicide. *Archives of Suicide Research, 2,* 223-234.

Leenaars, A. A., & Lester, D. (1999a). Gender and the impact of gun control on suicide *Archives of Suicide Research, 5,* 77-79.

Leenaars, A. A., & Lester, D. (1999b). Domestic integration and suicide in the provinces of Canada, *Crisis, 20,* 59-63.

Leenaars, A. A., Lester, D., & Wenckstern, S. (1999). Suicide notes in alcoholism. *Psychological Reports, 85,* 363-364.

Lester, D. (1987). Social deviancy and suicidal behavior. *Journal of Social Psychology, 127,* 339-340.

Lester, D. (1995). Combining opposing methodologies in studies of suicide and homicide. *Quality & Quantity, 29,* 67-72.

Lester, D. (1999a). The suicide rate in Finnish prisons. *Psychiatria Fennica, 30,* 93-96.

Lester, D. (1999b). Pace of life and suicide. *Perceptual & Motor Skills, 88,* 1094.

Lester, D. (1999c). Variation in national suicide rates over time. *Perceptual & Motor Skills, 88,* 1126.

Lester, D. (1999d). Suicide and homicide in Caribbean nations. *Perceptual & Motor Skills, 88,* 1350.

Lester, D. (1999e). Seasonal variation in suicide and the methods used. *Perceptual & Motor Skills, 89,* 160.
Lester, D. (1999f). Obesity and suicide in Native Americans. *Perceptual & Motor Skills, 89,* 218.
Lester, D. (1999g) Implications of the sex ratio for suicide and homicide. *Perceptual & Motor Skills, 89,* 222.
Lester, D. (1999h). Neuropsychological correlates of violence and aggression. *Perceptual & Motor Skills, 89,* 389-392.
Lester, D. (1999i). Age and intelligence as mediators of anger in Black suicide attempters. *Perceptual & Motor Skills, 89,* 338.
Lester, D. (1999j). Climatic data and suicide and homicide rates. *Perceptual & Motor Skills, 89,* 1036.
Lester, D. (1999k). Locus of control and suicidality. *Perceptual & Motor Skills, 89,* 1042.
Lester, D. (1999m). Native American suicide rates, acculturation stress and traditional integration. *Psychological Reports, 84,* 398.
Lester, D. (1999n). Effect of changing alcohol laws in Iceland on suicide rates. *Psychological Reports, 84,* 1158.
Lester, D. (1999p) State and trait depression and suicidality. *Psychological Reports, 85,* 162.
Lester, D. (1999q). Predicting the suicide rate of children in America. *Psychological Reports, 85* 212.
Lester, D. (1999r). Wine consumption and suicide rates. *Psychological Reports, 84,* 1054.
Lester, D. (1999s). Suicidality and risk-taking behaviors. *Perceptual & Motor Skills, 88,* 1299-1300.
Lester, D. (1999-2000). The social causes of suicide. Omega, 40, 307-321.
Lester, D. (2002). The scientific study of suicide requires accurate data. *Crisis, 23,* 133-134.
Lester, D. (2014). A review of research on suicide in 1998. *Suicide Studies, 5*(2), 2-6.
Lester, D., & Abdel-Khalek, A. M. (1999). Manic-depression, suicidality, and obsessive-compulsive tendencies. *Psychological Reports, 85,* 1100.
Lester, D., & Akande, A. (1999). Depression and suicidal preoccupation in South African students. *Psychological Reports, 85,* 242.
Lester, D. Agarwal, K., & Natarajan, M. (1999). Suicide in India. *Archives of Suicide Research, 5,* 91-96
Lester, D., & Surault, P. (1999). Domestic social integration and suicide in Ferance. *Psychological Reports, 85,* 856.

Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself. *Journal of Consulting & Clinical Psychology, 51*(2), 276–286.

Lipschitz, D. S., Winegar, R. K. et al. et al. (1999). Perceived abuse and neglect as risk factors for suicidal behavior in adolescent inpatients. *Journal of Nervous & Mental Disease, 187,* 32-39.

Lynch, T. R., Johnson, C. S., et al. (1999a). Correlates of suicidal ideation among an elderly depressed sample. *Journal of Affective Disorders, 56,* 9-15.

Lynch, T. R., Johnson, C. S., et al. (1999b). New onset and remission of suicidal ideation among a depressed adult sample. *Journal of Affective Disorders, 56,* 49-54.

Madge, N., & Harvey, J. G. (1999). Suicide among the young. *Journal of Adolescence, 22,* 145-155.

Magne-Ingvar, U., & Öjehagen, A. (1999). Significant others of suicide attempters. *Social Psychiatry & Psychiatric Epidemiology, 34,* 73-79.

Malmström, M., Sundquist, J., Ekedahl, E., & Johansson, S. E. (1999). Prescribing patterns for analgesics in relation to Underprivileged Area (UPA) score, mortality and suicide in 33 municipalities in the province of Skåne, southern Sweden. *Social Psychiatry & Psychiatric Epidemiology, 34,* 259-264.

Manetta, A. A. (1999). Interpersonal violence and suicidal behavior in midlife African American women. *Journal of Black Studies, 29,* 510-522.

Mann, J. J., Waternaux, C., Hass, G. L., & Malone, K. M. (1999). Toward a clinical model of suicidal behavior in psychiatric patients. *American Journal of Psychiatry, 156,* 181-189.

Marcenko, M. O., Fishman, G., & Friedman, J. (1999). Reexamining adolescent suicidal ideation. *Journal of Youth & Adolescence, 28,* 121-138.

Marušič, A. (1999). Suicide in Slovenia. *International Review of Psychiatry, 11,* 212-218.

Mazza, J. J., & Reynolds, W. M. (1999). Exposure to violence in inner-city adolescents. *Journal of Abnormal Child Psychology, 27,* 203-213.

McGarvey, E. L., Kryzhanovskaya, L. A., et al. (1999). Incarcerated adolescents' distress and suicidality in relation to parental bonding styles. *Crisis, 20,* 164-170.

McNamara, R. K., Hyde, T. M., Kleinman, J. E., & Lenox, R. H. (1999). Expression of the myristoylated alanine-rich C kinase substrate (MARCKS) and MARCKS-related protein (MRP) in the prefrontal cortex and hippocampus of suicide victims. *Journal of Clinical Psychiatry, 60*(supplement 2), 21-26.

Modestin, J., & Bangerter, W. (1999). Does dexamethasone suppression test predict completed suicide? *European Journal of Psychiatry, 13,* 243-246.

Moksony, F. (1990). Ecological analysis of suicide. In D. Lester (Ed.) *Understanding suicide* (pp. 121-138). Philadelphia: Charles Press.

Morrell, S., Taylor, R., Slaytor, E., & Ford, P. (1999). Urban and rural suicide differentials in migrants and the Australian-born, New South Wales, Australia 1985-1994. *Social Science & Medicine, 49,* 81-91.

Moussas, G. I., Dadoutis, G., Botsis, A., & Lykouras, L. (1999). Impulsivity, suicide and violence risk in hospitalized alcoholics. *Psychiatriki, 10,* 228-235.

Nasser, E. H., & Overholser, J. C. (1999). Assessing varying degrees of lethality in depressed adolescent suicide attempters. *Acta Psychiatrica Scandinavica, 99,* 423-431.

Neeleman, J., & Wessely, S. (1999). Ethnic minority suicide. *Psychological Medicine, 29,* 429-436.

Novins, D. K., Beals, J., Roberts, R. E., & Manson, S. M. (1999). Factors associated with suicidal ideation among American Indian adolescents. *Suicide & Life-Threatening Behavior, 29,* 332-346.

O'Connor, R. C., Sheehy, N. P., & O'Connor, D. B. (1999a). The classification of completed suicides into subtypes. *Journal of Mental Health, 8,* 628-637.

O'Connor, R. C., Sheehy, N. P., & O'Connor, D. B. (1999b). A thematic analysis of suicide notes. *Crisis, 20,* 106-114.

Olson, L., Huyler, F., et al. (1999). Guns, alcohol, and intimate partner violence. *Crisis, 20,* 121-126.

Olsson, G. I. (1999). Violence in the lives of suicidal adolescents. International *Journal of Adolescent Medicine & Health, 11,* 369-379.

Orbach, I., Mikulincer, M., et al. (1999). Ther subjective experience of problem irresolvability and suicidal behavior. *Suicide & Life-Threatening Behavior, 29,* 150-164.

Osman, A., Kopper, B. A., et al. (1999). Validation of the Adult Suicidal Ideation Questionnaire and the Reasons for Living Inventory in an adult psychiatric inpatient sample. *Psychological Assessment, 11,* 115-123.

Palermo, G. B., & Ross, L. E. (1999). Mass murder, suicide, and moral development. *International Journal of Offender Therapy & Comparative Criminology, 43*(1), 8-20.

Pandey, G. N., Dwivedi, Y., et al. (1999). Low phosphoinositide-specific phospholipase C activity and expression of phospholipase C β1 protein in the prefrontal cortex of teenage suicide subjects. *American Journal of Psychiatry, 156,* 1895-1901.

Partonen, T., Haukka, J., et al. (1999). Association of low total serum cholesterol with major depression and suicide. *British Journal of Psychiatry, 175,* 259-262.

Papassotiropouios, A., Hawellek, B., et al. (1999). The risk of acute suicidality in psychiatric inpatients increases with low plasma cholesterol. *Pharmacopsychiatry, 32,* 1-4.

Pawlak, C., Pascual-Sanchez, T., et al. (1999). Anxiety disorders, comorbidity, and suicide attempts in adolescence. *European Psychiatry, 14,* 132-136.

Pendse, B., Westrin, A., & Engström, G. (1999). Temperament traits in seasonal affective disorder, suicide attempters with non-seasonal major depression and healthy controls. *Journal of Affective Disorders, 54,* 55-65.

Persson, M. L., Geijer, T., et al. (1999a). Lack of association between suicide attempt and a polymorphism at the dopamine receptor D4 locus. *Psychiatric Genetics, 9,* 97-100.

Persson, M. L. Runeson, B. S., & Wasserman, D. (1999b). Diagnoses, psychosocial stressors and adaptive functioning in attempted suicide. *Annals of Clinical Psychiatry, 11,* 119-128.

Phillips, M. R., Liu, H., & Zhang, Y. (1999). Suicide and social change in China. *Culture, Medicine & Psychiatry, 23,* 25–50.

Pilowsky, D. J., Wu, L. T., & Anthony, J. C. (1999). Panic attacks and suicide attempts in mid-adolescence. *American Journal of Psychiatry, 156,* 1545-1549.

Pirkis, J., Burgess, P., & Jolley, D. (1999). Suicide attempts by psychiatric patients in acute inpatient, long-stay inpatient and community care. *Social Psychiatry & Psychiatric Epidemiology, 34,* 634-644.

Pirkola, S. P., Marttunen, M. J., et al. (1999a). Alcohol-related problems among adolescent suicides in Finland. *Alcohol & Alcoholism, 34,* 320-329.

Pirkola, S. P., Marttunen, M. J., et al. (1999b). Female psychoactive substance-dependent suicide victims differ from male. *Comprehensive Psychiatry, 40,* 101-107.

Ponizovsky, A. M., & Ritsner, M. S. (1999). Suicide ideation among recent immigrants to Israel from the former Soviet Union. *Suicide & Life-Threatening Behavior, 29,* 376-392.

Ponizovsky, A. M., Ritsner, M. S., & Modai, I. (1999). Suicidal ideation and suicide attempts among immigrant adolescents from the former Soviet Union to Israel. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 1433-1441.

Preti, A., & Miotto, P. (1999a). Suicide and unemployment in Italy, 1982-1994. *Journal of Epidemiology & Community Health, 53,* 694-701.

Preti, A., & Miotto, P. (1999b). Suicide among eminent artists. *Psychological Reports, 84,* 291-301.

Preti, A., & Miotto, P. (1999c). Social and economic influence on suicide. *Archives of Suicide Research, 5,* 141-156.

Prigerson, H. G., Bridge, J., et al. (1999). Influence of traumatic grief on suicidal ideation among young adults. *American Journal of Psychiatry, 156,* 1994-1995.

Prigerson, H. G., & Slimack, M. J. (1999). Gender differences in clinical correlates of suicidality among young adults. *Journal of Nervous & Mental Disease, 187,* 23-31.

Quan, H., & Arboleda-Flórez, J. (1999). Elderly suicide in Alberta. *Canadian Journal of Psychiatry, 44,* 762-768.

Radomsky, E. D., Haas, G. L., Mann, J.J., & Sweeney, J. A. (1999). Suicidal behavior in patients with schizophrenia and other psychotic disorders. *American Journal of Psychiatry, 156,*1590-1595.

Reiach, J. S., Li, P. P., et al. (1999). Reduced adenylyl cyclase immunolabeling and activity in postmortem temporal cortex of depressed suicide victims. *Journal of Affective Disorders, 56,* 141-151.

Renaud, J., Brent, D. A., et al. (1999). Suicide in adolescents with disruptive disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 846-851.

Rigby, K., & Slee, P. (1999). Suicidal ideation among adolescent school children, involvement in bully-victim problems, and perceived social support. *Suicide & Life-Threatening Behavior, 29,* 119-130.

Rissmiller, D., Steer, R. A., Frieman, M., & DeMercurio, R. (1999). Prevalence of malingering suicidal psychiatric inpatients. *Psychological Reports, 84,* 726-730.

Rockett, I. R. H., & Thomas, B. M. (1999). Reliability and sensitivity of suicide certification in higher-income countries. *Suicide & Life-Threatening Behavior, 29,* 141-149.

Roscoe, L. A. & Cohen, D. (1999). Cognitive attributions, depressive symptoms and hopelessness as predictors of perceived desirability of physician-assisted suicide in Alzheimer's caregivers. *American Journal of Alzheimer's Disease, 14*(3), 165-171.

Rossow, I., & Lauritzen, G. (1999). Balancing on the edge of death. *Addiction, 94,* 209-219.

Rossow, I., Romelsjö, A., & Leifman, H. (1999). Alcohol abuse and suicidal behaviour in young and middle aged men. *Addiction, 94,* 1199-1207.

Roy, A. (1999). Suicidal behavior in depression. *Neuropsychobiology, 39,* 71-75.

Ruiz-Doblado, S. (1999). Suicide attempts in rural southern Spain. *British Journal of Psychiatry, 175,* 189.

Russ, M. J., Kashdan,T., Pollack, S., & Bajmakovic-Kacila, S. (1999). Assessment of suicide risk 24 hours after psychiatric hospital admission. *Psychiatric Services, 50,* 1491-1493.

Safran, S. A., & Heimberg, R. G. (1999). Depression, hopelessness, suicidality, and related factors in sexual minority and heterosexual adolescents. *Journal of Consulting & Clinical Psychology, 67,* 859-866.

Scheel, K. R., & Westefeld, J. S. (1999). Heavy metal music and adolescent suicidality. *Adolescence, 34*(134), 253-273.

Schmidtke, A., Fricke, S., & Lester, D. (1999a). Suicide among German federal and state police officers. *Psychological Reports, 84,* 157-166.

Schmidtke, A., Weinacker, B., Stack, S., & Lester, D. (1999b). The impact of the reunification of Germany on the suicide rate. *Archives of Suicide Research, 5,* 233-239.

Schnyder, U., Valach, L., Bichsel, K., & Michel, K. (1999). Attempted suicide. *General Hospital Psychiatry, 21,* 62-69.

Schwartz, H. I., Curry, L., Blank, K., & Gruman, C. (1999). The physician-assisted suicide policy dilemma. *Journal of the American Academy of Psychiatry & the Law, 27,* 527-539.

Schwartz. R. C., & Petersen, S. (1999). The relationship between insight and suicidality among patients with schizophrenia. *Journal of Nervous & Mental Disease, 187,* 376-378.

Shah, A., & Ganesvaran, T. (1999). A possible clinical classification for the psychopathology of suicidal intent among psychiatric inpatients committing suicide. *International Journal of Psychiatry in Clinical Practice, 3,* 199-204.

Sharma, V. (1999). Retrospective controlled study of inpatient ECT. *Journal of Affective Disorders, 56,* 183-187.

Shioiri, T., Nishimura, A., et al. (1999). The Kobe earthquake and reduced suicide rate in Japanese males. *Archives of General Psychiatry, 56,* 282-283.

Simmons, N. A., Peterson, J. W., & Hale, C. (1999). Surveillance of suicidal behavior in Kitsap County, Washington. *Public Health Nursing, 16,* 337-340.

Smyth, N. J., Dunn, M. N., Myer, J. W., & Maccio, E. (1999). Rick factors for suicidal behavior among alcoholics. *Journal of Human Behavior in the Social Environment, 2*(3), 79-98.

Soreni, N., Apter, A., et al. (1999). Decreased platelet peripheral-type benzodiazepine receptors in adolescent inpatients with repeated suicide attempts. *Biological Psychiatry, 46,* 484-488.

Squires, T., Gorman, D., et al. (1999). Reduction in drug related suicide in Scotland 1990-1996. *Journal of Epidemiology & Community Health, 53,* 436-437.

Stack, S. (1999). Suicide among carpenters. *Omega, 39,* 229-232.

Starcevic, V., Bogojevic, G., Marinkovic, J., & Kelin, K. (1999). Axis I and Axis II comorbidity in panic/agoraphobic patients with and without suicidal ideation. *Psychiatry Research, 88,* 153-161.

Steblaj, A., Tavcar, R., & Dernovsek, M. Z. (1999). Predictors of suicide in psychiatric hospital. *Acta Psychiatrica Scandinavica, 100,* 383-388.

Stephens, J. H., Richard, P., & McHugh, P. R. (1999). Suicide in patients hospitalized for schizophrenia. *Journal of Nervous & Mental Disease, 187,* 10-14.

Stewart, S. M., Lam, T. H., Betson, C., & Chung, S. F. (1999). Suicide ideation and its relationship to depressed mood in a community sample of adolescents in Hong Kong. *Suicide & Life-Threatening Behavior, 29,* 227-240.

Stoupel, E., Abramson, E., & Sulkes, J. (1999). The effect of environmental physical influences on suicide. *Archives of Suicide Research, 5*, 241-244.

Suominen, K., Isometsä, E., et al. (1999). Consultation versus research diagnoses of mental disorders among suicide attempters. *Nordic Journal of Psychiatry, 53,* 253-256.

Tassava, S. H., & Ruderman, A. J. (1999). Application of escape theory to binge eating and suicidality in college women. *Journal of Clinical & Social Psychology, 18,* 450-466.

Tatarelli, R., Mancinelli, I., Taggi, F., & Polidori, G. (1999). Prison suicides in Italy in 1996-1997. *European Psychiatry, 14,* 109-110.

Taylor, S. (1990). Suicide, Durkheim and sociology. In D. Lester (Ed.) *Understanding suicide* (pp. 225–236). Philadelphia: Charles Press.

Taylor, C., Cooper, J., & Appleby, L. (1999). Is suicide risk taken seriously in heavy drinkers who harm themselves? *Acta Psychiatric Scandinavica, 100,* 309-311.

Tejedor, M. C., Diaz, A., Castillón, J. J., & Pericay, J. M. (1999). Attempted suicide. *Acta Psychiatric Scandinavica, 100,* 205-211.

Thompson, A. H., Barnsley, E. H., & Dyck, R. J. (1999a). A new factor in youth suicide. *Canadian Journal of Psychiatry, 44,* 82-85.

Thompson, E. A., & Eggert, L. L. (1999). Using the Suicide Risk Screen to identify suicidal adolescents among potential high school dropouts. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 1506-1514.

Thompson, M. P., Kaslow, N. J., et al. (1999b). Partner abuse and posttraumatic stress disorder as risk factors for suicide attempts in a sample of low-income, inner-city women. *Journal of Traumatic Stress, 12,* 59-72

Tomori, M. (1999). Suicide risk in high school students in Slovenia. *Crisis, 20,* 23-27.

Tondo, L., Baldessarini, R. J., et al. (1999). Suicide attempts in major affective disorder patients with comorbid substance use disorders. *Journal of Clinical Psychiatry, 60*(supplement 2), 63-69.

Tonooka, F. (1999). Determinants of social attitudes toward suicide. *Michigan Sociological Review. 13,* 80-104.

Tsai, S. J., Hong, C. J., & Wang, Y. C. (1999a). Tryptophan hydroxylase gene polymorphism (A218C) and suicidal behaviors. *NeuroReport, 10,* 3773-3775.

Tsai, S. Y., Lee, J. C., & Chen, C. C. (1999b). Characteristics and psychosocial problems of patients with bipolar disorder at high risk for suicide attempt. *Journal of Affective Disorders, 52,* 145-152.

Turecki, G., Brière, R., et al. (1999). Prediction of level of serotonin 2A receptor binding by serotonin receptor 2A genetic variation in postmortem brain samples from subjects who did or did not commit suicide. *American Journal of Psychiatry, 156,* 1456-1458.

Underwood, M. D., Khaibulina, A. A., et al. (1999). Morphometry of the dorsal raphe nucleus serotonergic neurons in suicide victims. *Biological Psychiatry, 46,* 473-483.

Upadbyaya, A. K., Conwell, Y., et al. (1999). Attempted suicide in older depressed patients. *American Journal of Geriatric Psychiatry, 7,* 317-320.

Van Wormer, K., & Odiah, C. (1999). The psychology of suicide-murder and the death penalty. *Journal of Criminal Justice, 27,* 361-370.

Velting, D. M. (1999). Suicidal ideation and the five-factor model of personality. *Personality & Individual Differences, 27,* 943-952.

Verdoux, H., Liraud, F., et al. (1999). Suicidality and substance misuse in first-admitted subjects with psychotic disorder. *Acta Psychiatric Scandinavica, 100,* 389-395.

Vijayakumar, L., & Rajkumar, S. (1999). Are risk factors for suicide universal? *Acta Psychiatric Scandinavica, 99,* 407-411.

Viren, M. (1999) Testing the "natural rate of suicide" hypothesis. *International Journal of Social Economics, 26,* 1428-1440.

Wai, B. H. K., Hong, C., & Heok, K. E. (1999). Suicidal behavior among young people in Singapore. *General Hospital Psychiatry, 21,* 128-133.

Waller, S. J., Lyons, J. S., & Costantini-Ferrando, M. F. (1999). Impact of comorbid affective and alcohol use disorders on suicidal ideation and attempts. *Journal of Clinical Psychology, 55,* 585-595.

Weissman, M. M., Bland, R. C., et al. (1999). Prevalence of suicide ideation and suicide attempts in nine countries. *Psychological Medicine, 29,* 9-17.

West, M. I., Spreng, S. W., Rose, S. M., & Adam, K. S. (1999). Relationship between attachment-felt security and history of suicidal behaviours in clinical adolescents. *Canadian Journal of Psychiatry, 44,* 578-582.

Westrin, A., Ekman, R., & Träskman-Bendz, L. (1999). Alterations of corticotropin releasing hormone (CRH) and neuropeptide Y (NPY) plasma levels in mood disorder patients with a recent suicide attempt. European *Neuropsychopharmacology, 9,* 205-211

Westman, A., Hunt, E., Cicillini, V., & Lewandowski, L., (1999). Relationships among assisted suicide and religiousness, resources available, denial of dying, and autonomy. *Psychological Reports, 85,* 1070-1076.

Wolfersdorf, M., Straub, R., et al. (1999). Depressed inpatients, electrodermal reactivity, and suicide. *Archives of Suicide Research, 5,* 1-10.

Yang, B., & Lester, D. (1999). The misery index and an index of misery. *Psychological Reports, 84,* 1086.

Yoder, K. A. (1999). Comparing suicide attempters, suicide ideators, and nonsuicidal homeless and runaway adolescents. *Suicide & Life-Threatening Behavior, 29,* 25-26.

Zehnder, P. W., & Royse, D. (1999). Attitudes toward assisted suicide. *Hospice Journal, 14*(2), 49-63.

Zonda, T. (1999). Suicide in Nógrád County, Hungary, 1970–1994. *Crisis, 20,* 64-70.

Zonda, T., Csiszér, N,, & Lester, D. (1999). Blood groups among attempted and completed suicides. *European Journal of Psychiatry, 13*(1), 58-60.

Suicide Studies, 2024, 5(3), 64-74

RELIGION, RELIGIOSITY AND HEALTH IN CHINA[5]

Jie Zhang
Department of Sociology, Central University of Finance and Economics, Beijing, China
Department of Sociology, SUNY Buffalo State University, NY, USA

Lulu Zhao
Department of Sociology, Central University of Finance and Economics, Beijing, China

& David Lester
Department of Psychology, Stockton University, New Jersey, USA

Abstract: Research has found that religious beliefs and religiosity are positively associated with both physical and mental health. The present study explored whether this association is found in China. We used a Chinese national database (10,702 individuals; 47% male; mean age 50; collected in 2015) to estimate self-reported religion and religiosity and their associations with physical health and depression, controlling for age, gender, SES and education. Significant negative correlations were found between having a religious belief and physical and mental health. Although the religious population has increased from 5% about 30 years ago to about 11% in 2015, religious belief is still stigmatized in China today, and this may account for these findings.

Keywords: Religion; Physical Health; Mental Health; Suicide; China

Introduction

According to the Chinese General Social Survey (CGSS), the proportion of religious believers in China increased by 120% between 2003 and 2010, with an average annual growth rate of 18% (Ruan, Zheng & Liu, 2014). China recognizes five religions - Buddhism, Catholicism, Daoism, Islam, and Protestantism - and some 10% of the population believes in a religious faith

[5] Address correspondence to Dr. Jie Zhang, SUNY Distinguished Professor, Department of Sociology, SUNY Buffalo State College, Buffalo, New York 14222, USA; Phone: 716-878-6425; E-mail: zhangj@buffalostate.edu.

(https://www.cfr.org/backgrounder/religion-china). According to the China Space Religious Analysis System developed at the University of Michigan, Purdue University and Wuhan University, the average number of new places for religious activities (such as churches and mosques) after 1980, was about 1,600 per year (Zhou, Zhou & Ruan, 2018). Therefore, it is clear that the number and size of religious groups in China is expanding, and the available places for religious worship have greatly improved compared with the umber before 1980.

Previous research has indicated that religious belief contributes to people's health (Nan, et al., 2013). Believing in a God and in a life-after-death may bring comfort to people living a stressful life. In addition, the lifestyles and behavioral patterns accompanying religious beliefs may have an impact on health by providing meaningful activities and social support from fellow believers. For example, a six-year prospective study in the United States found that people who participated in religious activities at least once a week had a lower risk of death from stroke (Colantonio, et al., 1993). Brown and Tierney (2009) reviewed research and concluded that both developed and developing countries show a strong positive correlation between religious participation and well-being, especially for women and the elderly, although Koenig (2009) found that this did not apply to those who were unmarried.

Religion in China

In China, having a religious belief is relatively uncommon, and it is rare for religious believers to hold high positions in government. Social and peer support may also be lower among religious believers in China. Furthermore, some Chinese people believe that religious belief is synonymous with superstition. Therefore, the status of religious believers is low, and they often suffer from discrimination. During the Cultural Revolution (1966-1976**),** religious sites were sometimes destroyed. Previous research has found that that there is a negative correlation between religion and health in China (e.g., Zhang, et al., 2018**)**. This is contrast to what has been found in Western countries (McCullough & Willoughby, 2009; Smith, McCullough & Poll, 2003).

There may also be a difference in the impact of religion on men and women in China. Women's household duties, as opposed to work and occupational demands, gives them more time to participate in religious activities than do men. On the other hand, Zhang and Liu (2012) found that belief in the Confucian ethic

of female subordination was associated with depression and suicide in Chinese women, especially married Chinese women.

The present research study used data from a large database to test whether religious beliefs and church attendance have an impact on subjective evaluations about physical health and mental health and whether this impact differs for younger and older adults.

Method

Participants

The data came from the 2015 Chinese General Social Survey (CGSS 2015). The Chinese General Social Survey began in 2003 and uses multi-level stratified probability sampling, covering 478 villages in 28 provinces, municipalities and autonomous regions in China. It records the marital status, educational level, interpersonal relationships, career development, income level, physical health and mental health in urban and rural residents. The survey data are on the official website of China National Survey Database (CNSDA). Data for the year 2015 were available for 10,702 individuals (5,018 males and 5,684 females). The mean age of the sample was 50.40 (SD = 16.87; range 18-94).

Measurement

Religious belief was coded as yes = 1 and no = 0. The degree of religious belief was measured using the frequency of religious attendance. Participants were asked: “How often do you participate in religious activities?” Response choices were coded as never = 1, less than once a year = 2, about 1 to 2 times a year = 3, several times a year = 4, about once a month = 5, two to three times a month = 6, almost every week = 7, weekly = 8, several times a week = 9. Overall, 10.8% of the sample reported having a religious belief, and the mean level of religious participation was 1.45 (SD = 1.36).

Physical health and depression were assessed with two questions: “What do you think of your current physical health?” and “How often have you felt depressed in the past four weeks?” Physical health was coded on a scale of 1 (very poor) to 5 (excellent). The frequency of depression was coded on a scale 1 (never) to 5 **(**always**).** The mean score for physical health was 3.61 (SD = 1.07), and the mean score for depression was 2.16 (SD = 0.92).

The control variables were sex, educational level, socio-economic status. Sex was coded as male = 1, female = 0. Educational level was coded as: 1, no education; 2, home literacy; 3, primary school; 4, junior high school; 5, vocational high school; 6, high school; 7, secondary school; 8, technical school; 9, adult higher education; 10, formal higher education; 11, adult higher education at the undergraduate level; 12, formal higher education at the undergraduate level; 13, education at or above the postgraduate level. The mean educational level was 4.87 (SD = 3.11). SES was coded as 1, "the individual's social and economic status is far below the average level," 2, "below the average level," 3, "average," 4, "above the average level," 5, "the individual's social and economic status is much higher than the average level." The mean SES was 2.65 (SD = 0.72).

Statistical Analyses

SPSS-27 was used for the data analysis, including t-tests, chi-square tests and regression analyses.

Results

Table 1 presents descriptive statistics for the sample and sex differences for these variables. There were no significant differences in age between males and females in the sample. There were significant differences between men and women in whether they have religious beliefs (the females responded yes more often) and the degree of religious beliefs (the females participated in religious activities more often). The males reported higher levels of education and physical health while the females reported higher levels of depression.

Table 1: Characteristics of the sample and the gender differences for major variables

Variable	Total n=10,702	Male n=5,018 (47%)	Female n=5,684 (53%)	*t*	*p*
Age	50.30 (16.87)	50.30 (SD=16.95)	50.31 (SD=50.31)	t=0.013	n.s.
Religious	10.8%	8.1%	13.2%	$X^{2=}$8.555	<0.001
Religious Participation	1.45 (SD=1.36)	1.34 (SD=1.14)	1.55 (SD=1.52)	t=8.30	<0.001
Physical Health	3.61 (SD=1.07)	3.69 (1.05)	3..54 (SD=1.09)	t=7.21	<0.001
Depression	2.16 (SD=0.92)	2.10 (SD=0.91)	2.21 (SD=0.93)	t=6.05	<0.001
Education	4.87 (SD=3.11)	5.25 (SD=3.03)	4.54 (SD=3.15)	t=11.87	<0.001
SES	2.65 (SD=0.72)	2.67 (SD=0.73)	2.64 (SD=0.71)	T=1.54	n.s.

Table 2 shows the correlations between religious belief and physical and mental health. Having a religious belief was associated with lower physical health and greater depression. This association was statistically significant because of the large sample size, but the association was small. For those admitting to having a religious belief, religious attendance was not significantly associated with physical health or depression.

Table 2: Religion and health (Pearson and point-biserial correlations

	Religion (n=10,702)	Religious attendance (n=1,158)
Depression	r = +0.052, p<.001	r = -0.002
Physical Health	r = -0.054, p<.001	r = +0.014

In the multiple regressions, having a religious belief was associated with worse physical health and greater depression (see Table 3). For those admitting to having a religious belief, the frequency of religious activities was not associated with either physical health or depression.

In order to examine whether the results would differ for younger versus older adults, the sample was divided into two groups. The median age lay between 49 and 50, and so the multiple regressions were run for those aged 18-49 and those aged 50-94 (see Tables 4 and 5). The impact of religion on physical health (negative) and depression (positive) was found only for the younger adults. For the

religious adults, the impact of religious attendance remained non-significant for both the younger and older adults.

Table 3: Multiple regressions with health as the dependent variables (beta coefficients shown)

	Model1 (n=10,702		Model2 (n=1,158)	
	Physical Health	Depression	Physical Health	Depression
age	-0.339***	+0.066***	-0.279***	-0.051
gender)	+0.057***	-0.040***	+0.081***	-0.069*
education	+0.061***	-0.112***	+0.018	-0.171*
religion	-0.028***	+0.036***		
Religious attendance			-0.050	-0.020
SES	+0.198***	-0.182***	+0.195***	-0.180***
R^2	0.200	0.073	0.139	0.041

*** p<.001, ** *p*<0.01, * *p*<0.05

Table 4: Multiple regressions with health as the dependent variables (beta coefficients shown) for those aged 18-49 (n=5,169)

	Model 1 (n=51,69)		Model 2 (n=705)	
	Physical Health	Depression	Physical Health	Depression
age	-0.234***	+0.071***	-0.255***	-0.004
gender	+0.044***	-0.026	+0.145***	-0.093*
education	+0.058***	-0.073***	-0.003	-0.103*
religion	-0.052***	+0.080***		
Religious attendance			+0.010	-0.023
SES	+0.184***	-0.150***	+0.219***	-0.090*
R^2	0.124	0.053	0.161	0.035

*** p<.001, ** *p*<0.01, * *p*<0.05

Table 5: Multiple regressions with health as the dependent variables (beta coefficients shown) for those age 50-94 (n=5,533)

	Model 1 (n=5,533)		Model 2 (n=785)	
	Physical Health	Depression	Physical Health	Depression
age	-0.151***	+0.003	-0.102**	-0.078*
gender	+0.076***	-0.046***	-0.011	-0.028
education	+0.058***	-0.138***	+0.063	-0.124***
religion	+0.008	+0.004		
Religious attendance			+0.003	-0.043
SES	+0.225***	-0.205***	+0.219***	-0.242***
R^2	0.093	0.078	0.066	0.080

*** p<.001, ** p<0.01, * p<0.05

Discussion

The results of this study indicate that holding a religious belief in China was associated with worse physical health and greater depression. Because of the correlational nature of the data set and statistical analysis, cause-and-effect conclusions cannot be drawn. However, it may be that having a religious belief creates stress for believers, resulting in higher levels of depression. This is a hypothesis worthy of future research. Zhang and Liu (2012) found that there was a positive correlation between the traditional Confucian ethic of female subordinate and depression, which might explain why there is a higher percentage of women in Chinese religious groups.

Older age predicted worse physical health, as might be expected, but also greater depression. There is a general consensus in the medical, physiological and social sciences fields about the deleterious effect of age on physical health.

Regarding sex (males were coded as 1 and females as 0), being male predicted better physical health and less depression. Women were more religious than men, which is consistent with previous studies (Nan, et al., 2013). The legal retirement age in China is 60 for men and 55 for women. Men need to earn money to support their parents and their children. For elderly Chinese women, the children have grown up, and they are able to pay attention to their inner world. They have more free time and, therefore, can participate in religious activities regularly. In

some rural areas (as in Yanguan), many elderly women chant in the Buddhist tradition.

A higher level of education predicted better physical health and lower levels of depression. Using data from the China Health and Nutrition Survey (CHNS), Mao and Feng (2011) also found that education level had a positive impact on health status. In the present study, the individual's socio-economic status predicted better physical health and less depression, which is consistent with the previous research results. Some scholars have also found that there is a positive relationship between income and health (Yang, 2011).

Limitations

The correlational nature of the data makes drawing cause-and-effect conclusions impossible, but the results suggest that longitudinal studies would be worthwhile, especially research that explores which children and adolescents are drawn into religious beliefs. Is it simply the result of the influence of the parents (who may already be religious believers) or do other societal factors play a role? In addition, are some religions better at reducing depression than others, and are some religions more stigmatized in China than others? Finally, the distribution of religious believers varies considerably across China (Lu & Zhang, 2016), and the density of religious believers may play a role in the impact of religion on physical and mental health.

Another limitation of the study is the simplicity of the measurements of religiosity and health. Another limitation is that cross-sectional data do not permit drawing causal relations between religion and health. Time series data would help in understanding possible causal relationships.

Conclusions

In conclusion, believing in religion is not a mainstream behavior in China and is often a stigmatized behavior (Zhang, Zhao & Liu, 2017) in contrast to religion in the Western world. In the West, believers typically contribute to their churches and mosques, and so the religious institutions become strong. In contrast, in China, churches are strictly controlled. Religious practices are often treated as superstitious practices, and Christians are excluded from the mainstream culture.

Compliance with Ethical Standards: This paper is written using the China General Social Survey (CGSS) data, and all the procedures used in developing the manuscript are in line with ethical standards.

Funding: The authors of this study did not receive funding for the research or writing the paper.

Conflict of Interests: The authors of the study do not have a conflict of interest in publishing this paper.

Ethical Approval: This study is based on the secondary data from the China General Social Survey (CGSS), available online and, therefore, ethical approval is not required.

References

Braam, A. W., & Koenig, H. G. (2019). Religion, spirituality and depression in prospective studies: A systematic review. *Journal of Affective Disorders,* 257, 428-438.

Bonelli, R. M., & Koenig, H. G. (2013). Mental disorders, religion and spirituality 1990 to 2010: a systematic evidence-based review. *Journal of Religion & Health 52,* 657-673.

Brown, P. H., & Tierney, B. (2009). Religion and subjective well-being among the elderly in China. *Journal of Socio-Economics 38,* 310-319.

Colantonio, A., Kasl, S. V., Ostfeld, A. M., & Berkman, L. F. (1993). Psychosocial predictors of stroke outcomes in an elderly population. *Journal of Gerontology 48,* 261-268.

Fu, H., & Gao, J. (2013). [Health is not only a state, but also a resource: Understanding and interpretation of who concepts of health.] *Chinese Journal of Health Education 29*(1), 3-4.

Koenig, H. G., & Larson, D. B. (2001). Religion and mental health: evidence for an association. *International Review of Psychiatry 13*(2), 67-78.

Koenig, H. G. (2001). Religion and medicine II: Religion, mental health, and related behaviors. *International Journal of Psychiatry in Medicine 31,* 97-109.

Koenig, H. G. (2002). Religion, congestive heart failure, and chronic pulmonary disease. *Journal of Religion & Health 41,* 263-278.

Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *Canadian Journal of Psychiatry 54,* 283-291.

Liu, Y. J. (2014). Religious coping methods of Taiwanese folk religion. *Journal of Religion & Health, 53,* 1138-1145.

Lu, Y., & Chunni Zhang, C. (2016). [A survey of the present situation of Christianity in contemporary china based on CGSS and CFPS survey data.] *The World Religious Cultures*, (1):34-36.

Mao, Y., & Feng, G. (2011. [Study on the effect of education on health and its transmission mechanism.] *Population & Economics*, (3):87-93.

McCullough, M. E., & Willoughby, B. L. B. (2009). Religion, self-regulation, and self-control: Associations, explanations, and implications. *Psychological Bulletin, 135,* 69–93.

Park, N. S., Lee, B. S., Fei, S., Klemmack, D. L., & Koenig, H. G. (2013). Typologies of religiousness/spirituality: Implications for health and well-being. *Journal of Religion & Health 52,* 828-839.

Qi, Y. (2014). [Reliability and validity analysis of self-rated general health.*]* *Chinese Journal of Sociology, 34*(6), 196-215.

Ruan, R, Zheng, F, & Liu, L. (2011). [Religious belief, religious participation and subjective welfare: Are religious churches happy?] *China Rural Survey*, (2):74-86.

Ruan, R, Zheng, F, & Liu, L. (2014). [The power of belief: Does religion help entrepreneurship?] *Economic Research Journal*, (3), 171-84.

Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129*, 614.636.

Yang, M. (2011). [China's rural income, income gap and health.] *Population & Economics* (184), 76-81.

Zhang, J., Lester, D., Zhang, Y., & Tuo, Y. (2018). Factors associated with depression among Chinese college students. *Clinical Depression, 4*(3), #1000136, 1-4.

Zhang, J., & Liu, E. Y. (2012. The Confucian ethic of female subordination and depression among young people in rural China. *Interdisciplinary Journal of Research on Religion 8*, #3, 1-12.

Zhang, J, Zhao, S., & Liu, J. (2017). Does believing in a religion relate to individuals mental health? An initial study among Chinese college students. *International Journal of School & Cognitive Psychology 4*(4), 1-7.

Zhou, Z., Zhou, P., & Ruan, R. (2018). [The influence of religion on rural residents' labor participation and willingness to work outside: An empirical analysis based on CGSS 2010.] *Population & Development 24*(4), 24-36.

Suicide Studies, 2024, 5(3), 74-90

UNDERSTANDING THE LINK BETWEEN SUICIDAL IDEATION, MENTAL DISORDERS AND DIGITAL SELF-HARM[6]

Martha McLaughlin, Calli Tzani, David Lester,
Thomas James Vaughan Williams & Maria Ioannou

Abstract

Introduction: Self-harm has been explored multiple times in empirical research with many projects identifying factors that could lead to such behavior. However, as technology and social media evolve, so do the means of self-harm. Digital self-harm (DSH) is an emerging concern involving self-cyberbullying and engagement with hurtful online content. There is currently little exploration of suicide ideation as a correlate of DSH or exploration of the risk factors for physical self-harm versus DSH.

Methods: The present study uses thematic analysis to examine three cases of individuals using DSH, identifying five major themes: low self-esteem, suicidal ideation, attention-seeking, compulsion, and mental illness.

Results: The findings indicate similar risk factors for physical self-injury and DSH, as well as a link between mental disorders, suicide ideation and DSH.

Conclusion: The results support a link between mental disorders, suicide ideation and DSH.

Keywords: Self-harm; Adolescence; Online-Suicide; Risk-factors; Thematic-analysis; Risk Assessment; Mental health

Self-harm is defined as an act of self-injury, irrespective of motivation (Troya, et al., 2019) and can also be defined as deliberate self-injury that can be carried out with the absence of conscious suicidal ideation or intent (Laye-Gindhu & Schonert-Reichl, 2005). There is debate around whether self-harm is a direct

[6] Corresponding author: Dr Calli Tzani, University of Huddersfield, Department of Psychology, UK (Email: Calli.Tzani@outlook.com)
Martha McLaughlin: marthaindia99@hotmail.com
Calli Tzani: Calli.Tzani@outlook.com
David Lester: David.Lester@stockton.edu
Thomas James Vaughan Williams: Thomas.Williams@hud.ac.uk
Maria Ioannou:M.Ioannou@hud.ac.uk

indicator of suicide or whether they are two separate terms. Troya, et al's (2019) research indicates that self-harm is a common risk factor for suicide. However, research suggests, in many cases, those who self-harm have no suicidal ideation or intent despite the terms being used interchangeably (Dieter & Pearlman, 1998). Among young people, self-harm is one of the main reasons for hospital visits (Doyle, et al., 2015; Hawton, et al, 2006), and research studies have estimated that one in eight adolescents have reported having a long-term history of self-harm (Doyle, et al., 2015, 2017).

Likewise, individuals with a diagnosis of major depressive disorder, anxiety disorders, schizophrenia, post-traumatic stress disorder, eating disorders and personality disorders are all at high risk of self-harming behavior (Haw, et al., 2001). It is also claimed that those with personality disorders, especially cluster B disorders, are significantly at higher risk of suicide ideation and self-injury (Krysinska, et al., 2006). Cluster B disorders include antisocial, histrionic, borderline, and narcissistic (Kraus & Reynolds, 2001), and their symptomatology is related to more persisting interpersonal issues and episodes of mood instability (Daley, et al, 1998).

The Role Pro-Suicidal Internet Use Plays on Suicide Ideation and Self-Harm

Social media has allowed for easy access to information on specific suicidal methods, and so an increase in suicide risk could be predicted for young and susceptible individuals (Wong, et al, 2013). Internet sites and forums specifically promoting suicidal ideation and self-harm have recently attracted attention (Harris, et al., 2019). The fact that suicide and self-harming is heavily propagated and facilitated online emphasizes the possibility of an increase in risk for suicidal individuals (Durkee, et al., 2011). Sueki (2013) found that depression, anxiety and loneliness are associated with suicide-related internet use. Thus, it is possible that mental disorders may be linked with suicide-related Internet use, as there is an association between diagnosed anxiety and depression and negative online usage (Sueki, 2013).

These results may indicate that the Internet has a negative impact especially on those predisposed to mental illness because of the high incidence of psychiatric symptoms found in suicide-related internet users (Mok, et al., 2016). However, Jacob, et al, (2017) interviewed adolescents with a history of self-harm and found that the Internet played a role in normalizing self-harm, but participants also found a sense of community and gained emotional support from others after engaging

with self-harming and suicidal content. Bell (2014) reviewed research looking into the positives of suicide-related internet use and found that posting freely online about one's current emotional state may serve a positive aspect through gaining the emotional support from others that they may not be receiving offline.

Despite the current research looking into pro-suicidal behavior online, there have been few attempts to investigate the different types of suicide risk for individuals who engage with pro-suicidal websites. Currently, most research merely compares suicide-related users and non-suicide related users as their sample (Bell, 2014).

Digital Self Harm: Definitions and Motivations

Research on Internet aggression directed towards others, otherwise known as cyberbullying, has increased in recent years. However, the phenomenon of individuals directing this online aggression towards themselves has recently been described. The term digital self-harm (DSH) has been defined as "the anonymous posting, sending or otherwise sharing of hurtful context about oneself" (Patchin & Hinduja, 2017) and includes self-cyberbullying, cyber self -harm and self-trolling[7].

Social media plays a large role in DSH, and multiple cyberbullying promoting apps have been reported as contributors to the prevalence of DSH(Kar & Arafat, 2021). Within these social media apps, such as Tumblr, subgroups and communities engage in the promotion of behaviors detrimental to vulnerable adolescents. Pater and Mynatt (2017) discussed some types of online communities that allow for DSH, such as online eating disorder communities and physical self-injury communities. Eating disorder-focused communities promote pro-anorexia and pro-bulimia content with subgroups promoting thinspiration images. This content is used to promote this as a lifestyle choice rather than as a mental disorder (Syed-Abdul, et al., 2013) and portrays their disordered eating behaviors as normal (Pater & Mynatt, 2017). While supportive language may be included, much of the content gives exposure to harmful images which influences adolescents to engage with or continue engaging in physically self-harming behaviors (Pater & Mynatt, 2017).

[7]We are aware that DSH has a long-standing meaning in suicidology of deliberate self-harm (Silverman, et al., 2007). Unfortunately, DSH for digital self-harm has also become commonly used.

The Aims and Rationale of the Present Study

By taking this previous research into account, understanding the impact of the effects and motivations for DSH is highly significant in encouraging awareness and specialist support for the victims of DSH. Given the gaps in the literature related to DSH, this project aims to investigate the clinical importance of DSH and how it also corresponds to physical self-harm. It aims to show a link between DSH and suicidal ideation by examining online cases of digital self-harmers that provide insight into the current affect-state of digital self-harmers and motivations for DSH participation. Additionally, the present study aims to show an association between DSH and mental disorders.

Method

Cases

To identify cases of DSH that demonstrate a link between suicidal ideation and mental disorders, a search was conducted using relevant keywords in Google search engine, Google Scholar and YouTube. The relevant keywords and phrases used for case identification were “digital self-harm”, “suicide and digital self-harm”, “self-cyberbullying”, “digital suicidal behavior”, “suicidal online use” and “online self-harm”.

Three cases were identified that were significant enough to carry out an extensive analysis: Julian and Sophie (pseudonyms) located via Google and a case found from a YouTube video.

Case Study 1 - Julian

Julian was a 22-year-old student, who used to engage in DSH by sending himself hateful messages via Tumblr when he was 15 years old. Feeling vulnerable after a fight with his friend, he thought that turning to DSH would gain him back his friendships through sympathy from others. Julian saw how other Tumblr users were receiving hate and thought this could boost his following if he was receiving hateful messages too.

Case Study 2 - Sophie

Sophie used to send herself hateful messages and comments via Tumblr when she was in high school. Sophie was dealing with anxiety, and she thought

trhat, if she exposed herself through a hateful message, then she could open about her anxiety. The message read; "Saw you crying in the toilets at school, everyone knows you're just attention-seeking". Sophie used this opportunity to reply to the message she sent herself, to explain how she felt anxious and was going through a hard time, which is why she was caught crying at school. This sparked positive responses from her friends, and she was called "brave" for talking so openly about her struggle with mental health.

Case Study 3 - Lexruins

A case on Youtube was identified which involved a 10-minute video created by Lexruins, a 19-year-old girl, discussing her involvement and engagement with digital self-harming. The video was titled *Digital Self Harm (not that one, the other one),* which started with the girl holding a piece of paper to the screen with a sad face drawn. The video included the girl talking in-depth about how she harmed herself through online usage. She digitally self-harmed by opening a *curious cat* account, an anonymous question and answer system, to allow others to send her anonymous abuse and harassment. She was labeled as abusive and other things by anonymous users despite having not done anything. She continued to leave her curious cat account open to enable the harassment to continue until she was convinced by friends to take it down. The girl explains in the video how her method of digitally self-harming differs from the general definitions of DSH and self-cyberbullying, and hence the title of her video stating, “not that one, the other one”.

Analysis

A thematic analysis (Braun & Clarke, 2006) of the above cases was used to identify themes and patterns that show a relationship between DSH, suicidal ideation and mental disorders.

The themes were categorized into common and uncommon based on the research by Nilsson et al., (2019). Common themes were themes found in two or all three of the cases, and uncommon themes were individual themes shown in each case.

Ethics

Ethical approval was granted by the board of ethics of the University of Huddersfield. There were no issues with informed consent as informed consent was not necessary, due to data being sourced from publicly available secondary sources.

Results

Themes

Common and uncommon themes were identified through the thematic analysis. The themes common for both Julian and Sophie were self-cyberbullying, mental illness, and low self-esteem. The themes common for both Julian and Lexruins were compulsion, mental illness, low self-esteem, and suicidal tendencies. The themes common for both Sophie and Lexruins were mental illness and low self-esteem.

The non-common themes identified in at least one of the individual cases were: attention-seeking, anxiety, helplessness, self-hatred, self-blame, history of self-harm, worthlessness, and allowing harassment from others.

Examples of Themes

Low self-esteem

Low self-esteem was present in all three cases. Lexruins mentioned twice in her video that:

So I left my curious cat open, not for clarification questions but because I thought I deserved harassment

I was allowing people to send hate messages to me because I thought I deserved it.

The feeling of deserving harassment highlights an individual's level of self-worth and self-esteem. Low self-esteem is strongly correlated with depression as an affective disorder (Junker, et al., 2019). Research conducted by McGee, et al., (2001) found that hopelessness and suicidal ideation were characteristic of lowered self-esteem, which is supported by Lexruin’s case as she expressed a strong sense

of worthlessness and helplessness, emphasizing the thought that she does not believe she deserves any better.

Julian's justification for sending himself hateful messages online implied a lack of confidence within his group of friends:

It was kind of a way to gain sympathy from my friends so that they wouldn't just hate me at the time.

The idea that Julian felt as though he needed to seek sympathy from his friends as a way for them not to hate him implies lowered self-esteem. Despite the difference in motivation between these two cases, low self-esteem is present. Sophie also gave the same indication through the quote:

Nobody really cared about what I have to say.

This also suggests a sense of worthlessness as she is having thoughts that she is not valued enough for people to take an interest in her problems. Therefore, she used self-cyberbullying as a way for people to understand and take an interest in her.

Compulsion/addiction

The idea that digital self-harm is an addictive method of self-harm and can become a dangerous compulsion to those who engage, was indicated in Lexruin's and Julian's case. For Lexruin:

When I was cutting I wanted to be hurt but if I'm not cutting then what other ways can I find to hurt myself so that is like why I didn't close my curious cat for a while, finally people convinced me to close it.

Whether I deserved it or not I let it keep happening and I didn't close my curious cat until other people convinced me too.

I feel a lot better, but I've had the urge to reopen it.

I gotta quit self-harming, I can't do it anymore is not healthy for me.

Here, it appears that Lexruin's feels as though she cannot stop harming herself and has swapped one form of self-harming for another. Lexruin had the 'urge to reopen it' ' despite her mood improving, conveying the idea that, like other forms of self-harming, it can become addictive (Davies & Lewis, 2019, Gordon, et al., 2010).

Julian also expressed this theme:

A bunch of people I was friends with online would tell me not to listen to the hate and that kind of gave me some satisfaction - like when someone likes your post on Instagram., it gave me that feeling.

I think it can become a bit of an addiction.

Julian felt a sense of satisfaction from his friends, providing sympathy because of the negative messages they saw Julian receive. The positive reinforcement received from digital self-harm can encourage repetition of that behavior (Gordan et al., 2010), creating a compulsion to repeat the behavior.

Suicidal Tendencies

Suicidal tendencies were present in the cases of Lexruin and Julian, although in different ways. Lexruin's displayed signs of suicidal tendencies and ideation:

My drive to want to kill myself allowed it to keep happening

I have had to call suicide hotlines

Lexruin's states she has a drive and motivation to kill herself, indicating that she has consistent suicidal ideation. She has spoken to suicide hotlines, This highlights a relationship between DSH and suicidal tendencies as she says she, "allowed it to keep happening", indicating that she engaged in the self-harassment and engagement in DSH to continue as a way to cope with and perhaps encourage these suicidal thoughts.

On the other hand, Julian expressed suicidal tendencies and ideation through the messages he was sending himself:

You should hang yourself

You don't deserve to be alive

Both quotes imply suicidal ideation, perhaps to gain sympathy or to provoke a positive response from his friends.

Self-Cyberbullying

Self-cyberbullying was a theme presented in two of the three cases. DSH can be done in various ways such as self-harassing oneself by anonymously writing mean questions to oneself and answering them publicly for others to see (Boyd, 2010). Sophie and Julian both engaged in DSH in this way by secretly bullying themselves online via sending themselves hateful messages using Tumblr. Examples of messages sent to themselves were:

You should hang yourself

You don't deserve to be alive (Julian)

Saw you crying in the toilets at school, everyone knows you're just attention-seeking (Sophie)

This method of digital self-harming demonstrates how adolescents send themselves anonymous hate messages online due to a variety of motivations and triggers to provoke responses.

Allowing Harassment from Others

Allowing harassment from others is a non-common theme that was only shown in the case of Lexruin through her YouTube video expressing her engagement with DSH. Lexruin engaged in DSH through allowing other online users to send harassment and abuse through an online question and answer website:

The form of digital self-harm that I was doing was allowing people to send hate messages to me because I thought I deserved it

As a result of other issues in Lexruin's life, people she knew had reason to send her harassing posts, with messages calling her abusive and other negative

attributes. Lexruin allowed the harassment to continue because she felt that she deserved these harassing messages because of her lowered self-esteem and the need to hurt herself, whether that was hurting herself directly or by allowing other people to hurt her.

Anxiety

Anxiety was a theme that emerged in Sophie's case:

I always seemed like a confident person, but I also wanted people to know that I couldn't always be ok because I was secretly dealing with really bad anxiety

Here, it appears that Sophie was suffering from anxiety of which no one close to her was aware. To inform people around her that she had anxiety, she sent herself messages online so she could explain her anxiety diagnosis through her response to these messages, thereby giving her the opportunity to tell her friends about what she was going through.

History of Self-harm

Lexruin revealed that she has a history of self-harm, and her issues with physical self-injury were still ongoing as she admitted to recently cutting herself:

I have a history of self-harm and cutting myself since I was 12 or 13 and I'm almost 20 now

If I don't cut myself like I've been trying to quit and if I don't do that I try to find other ways to harm myself inadvertently even if it's like not obvious that its self-harm

When I was cutting, I wanted to be hurt but if I'm not cutting then what other ways can I find for myself to hurt myself

I am still struggling with cutting

Lexruin verbalized that she has tried to quit physical self-harm and has engaged in DSH as a substitute. Having a history of previous self-harm is a strong risk factor for engaging in other methods of self-harm later (Larkin et al., 2014). Lexruin also revealed she has a long-term history (7 to 8 years) of self-harming,

putting her at a greater risk for further self-harm and suicidal ideation (Chan, et al., 2016).

Self-hatred, worthlessness, self-blame

Self-blame and self-hatred were evident in Lexruin's case. In her video, she expresses how she can only blame herself despite the fact it was others sending her abuse and harassment:

I don't wanna you know pin the blame on people for myself harm because it's kinda shitty but I let it and allowed it to fuel my drive for self-harm

I don't wanna blame that on anyone but it's just like me kinda saying like the stress of this has just caused me to fall apart a little bit and I feel like partially that's my fault for you know knowing this is the internet people are gonna be pieces of shit

I let it and allowed it

I feel like it's partially my fault

Despite her leaving her account active and enabling the harassment to continue, it was other people's harassment and bullying that reinforced her negative emotions and self-harming behaviors resulting from her history of lowered self-esteem and self-harm.

Attention Seeking

Attention seeking as a motivation for self-cyberbullying was present in Julian's case:

I didn't have many followers at the time, so I thought sending myself a hate message might be a good way to get attention.

Here, he explains how sending himself anonymous hate online may trigger attention and positive compliments from other individuals, resulting in an increase of followers on Tumblr, thereby illustrating attention-seeking as a motivation for DSH.

Discussion

The purpose of the present study was to extend prior research on DSH by assessing whether suicidal ideation and particular mental disorders are present in adolescents who engage in DSH. The results support the previously identified motivations for DSH such as wanting to show resilience, seeking sympathy, substance misuse, victimization via cyberbullying, and depression (Englander, 2012;Patchin & Hinduja, 2017).

In support of previous DSH research, it was shown in the three cases analyzed that DSH was engaged into seek validation and acted as a cry for help. In Julian's case, he self-cyberbullied in order to gain sympathy from friends and to gain approval and friendship. Sophie sent herself hateful messages to give herself an opportunity to reply and open up about her anxiety to her friends indirectly, which could also be interpreted as a cry for help. These findings build upon existing literature showing that those who self-cyberbully by sending themselves negative and hateful messages online are doing it to seek sympathy from peers and as a cry for help (Boyd 2010; Englander, 2012).

The present study identified distinct themes in the cases of DSH. In Julian's and Sophie's case, it appeared that they self-cyberbullied through the act of sending themselves hateful messages online. The present study identified two different ways of digitally self-harming, which have not previously been noted. The YouTube case (Lexruin), explained how she purposefully left open her curious cat account to allow other people to send her harassment and hateful messages as a form of self-harm. Another method of DSH identified in the present study was the engagement with negative content online to self-harm. As Bell (2014) proposed, the Internet can be used as a device by which individuals seek out particularly damaging content and online discussions on self-harming and suicide methods. Individuals who seek out this online content typically display signs of depression, anxiety, and loneliness (Sueki, 2013). In line with this, cases from the present study displayed anxiety, depression and other motivations leading them to seek out suicide-related internet use. Thus, seeking pro-suicidal online behavior can be a form of DSH.

Themes were identified that were consistent with prior DSH research, including depressive symptoms, low self-esteem, self-hatred, and self-blame. In all three cases (Julian, Sophie and Lexruin), depressive symptoms were present,

especially in Lexruin. Low self-esteem was common in all three cases, and this is a risk factor for self-injury (Laye-Gindhu & Schonert-Reichl, 2005).

There are findings from the present study which establish a link between suicide ideation and DSH. Lexruin's suicidal thoughts were the main drive for her engagement with DSH, and her admission of having to call suicide hotlines in the past indicates strong suicidal ideation. Julian also expressed suicidal ideation and thoughts. This supports the research of Mok, et al (2016) and Bell, et al (2018) who highlighted the level of suicide risk in individuals who engage with DSH.

Doyle, et al (2017) discussed this, finding that worthlessness, suicide ideation and managing emotions are all risk factors for self-harm, which were all identified as common or uncommon themes throughout the present analysis of cases of DSH.

|A common theme discovered was a compulsion and addiction to DSH. Both Lexruin and Julian expressed finding DSH addictive and that they had developed a compulsion for this behavior. They either expressed a strong urge to continue, a satisfying feeling afterwards which developed into an addiction, or said that DSH gives the same addictive effects of physical self-harm. This indicates that DSH provides positive reinforcement, and the negative feelings and sensations that the individual was previously experiencing were diminished after engagement with DSH. These findings are supported by Gordon, et al's (2010) theory that repetition of physically self-harming behaviors occurs because of the positive reinforcement it provides, and they serve an emotionally regulating function.

Implications

The presence of suicidal ideation and mental disorders in those who engage in DSH indicates the need for appropriate prevention strategies (Bell, 2014). Intervention and prevention strategies should attempt to flag any inappropriate and specifically harmful content that individuals are using to self-harm. Offering supportive chat rooms when specific negative keywords are looked up through apps such as Tumblr and Reddit would be helpful.

Limitations

The present study is not without limitations. A limitation of the present study is the small number of cases used for the thematic analysis (only three).

Additionally, the news article in which Julian's and Sophie's cases were found gave limited information about each case, and there is the possibility that false information was given.

Conclusions

The findings presented in the present study reveal the importance of Internet use in the new digital era for adolescent mental health. They also emphasize the relevance of risk factors for suicidal behavior and physical self-harm in the occurrence of adolescent DSH. The results support a link between mental disorders, suicide ideation and DSH and, therefore, the establishment of boundaries for Internet use and the promotion of prevention strategies for the popular social media apps and web pages to reduce engagement with DSH.

References

Arafat, Y., & Kar, S. K. (2021). Raised C-reactive protein in medication overdose: A report of two cases. *SAGE Open Medical Case Reports, 9*(1), 1-3.

Bell, J. (2014). Harmful or helpful? The role of the internet in self-harming and suicidal behaviour in young people. *Mental Health Review Journal, 19*(1), 61-71.

Bell, J., Mok, K., Gardiner, E., &Pirkis, J. (2018). Suicide-related internet use among suicidal young people in the UK: Characteristics of users, effects of use, and barriers to offline help-seeking. *Archives of Suicide Research, 22*(2), 263-277.

Boyd, D. (2010, December 7). *Digital Self-Harm and Other Acts of Self-Harassment*. https://www.zephoria.org/thoughts/archives/2010/12/07/digital-self-harm-and-other-acts-of-self-harassment.html

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Chan, M. K., Bhatti, H., Meader, N., Stockton, S., Evans, J., O'Connor, R. C., ... & Kendall, T. (2016). Predicting suicide following self-harm: systematic review of risk factors and risk scales. *British Journal of Psychiatry*, *209*(4), 277-283.

Daley, S. E., Hammen, C., Davila, J., & Burge, D. (1998). Axis II symptomatology, depression, and life stress during the transition from adolescence to adulthood. *Journal of Consulting & Clinical Psychology*, *66*(4), 595-603.

Daley, S. E., Burge, D., & Hammen, C. (2000). Borderline personality disorder symptoms as predictors of 4-year romantic relationship dysfunction in young women: Addressing issues of specificity. *Journal of Abnormal Psychology*, *109*(3), 451-460.

Davis, S., & Lewis, C. A. (2019). Addiction to self-harm? The case of online postings on self-harm message boards. *International Journal of Mental Health &Addiction*, *17*(4), 1020-1035.

Deiter, P. J., & Pearlman, L. A. (1998). Responding to self-injurious behavior. In P. M. Kleespies (Ed.) *Emergencies in mental health practice: Evaluation and management* (pp. 235–257). New York: Guilford.

Doyle, L., Sheridan, A., & Treacy, M. P. (2017). Motivations for adolescent self-harm and the implications for mental health nurses. *Journal of Psychiatric &Mental Health Nursing*, *24*(2-3), 134-142.

Doyle, L., Treacy, M. P., & Sheridan, A. (2015). Self-harm in young people: Prevalence, associated factors, and help-seeking in school-going adolescents. *International Journal of Mental Health Nursing*, *24*(6), 485-494.

Durkee, T., Hadlaczky, G., Westerlund, M., & Carli, V. (2011). Internet pathways in suicidality: a review of the evidence. *International Journal of Environmental Research &Public Health*, *8*(10), 3938-3952.

Englander, E. (2012). *Digital self-harm: Frequency, type, motivations, and outcomes.MARC Research Reports.* Paper 5. http://vc.bridgew.edu/marc_reports/5. Bridgewater State University, MA.

Gordon, K. H., Selby, E. A., Anestis, M. D., Bender, T. W., Witte, T. K., Braithwaite, S.,….. & Joiner Jr, T. E. (2010). The reinforcing properties of repeated deliberate self-harm. *Archives of Suicide Research*, *14*(4), 329-341.

Harris, K. M., McLean, J. P., & Sheffield, J. (2009). Examining suicide-risk individuals who go online for suicide-related purposes. *Archives of Suicide Research*, *13*(3), 264-276.

Hawton, K., Rodham, K., & Evans, E. (2006). *By their own young hand: Deliberate self-harm and suicidal ideas in adolescents*. London, England: Jessica Kingsley Publishers.

Hawton, K., Bergen, H., Kapur, N., Cooper, J., Steeg, S., Ness, J., & Waters, K. (2012). Repetition of self-harm and suicide following self-harm in children and adolescents: Findings from the Multicentre Study of Self-harm in England. *Journal of Child Psychology &Psychiatry*, *53*(12), 1212-1219.

Jacob, N., Evans, R., & Scourfield, J. (2017). The influence of online images on self-harm: A qualitative study of young people aged 16–24. *Journal of Adolescence*, *60*, 140-147.

Junker, A., Nordahl, H. M., Bjørngaard, J. H., &Bjerkeset, O. (2019). Adolescent personality traits, low self-esteem and self-harm hospitalisation: a 15-year follow-up of the Norwegian young-HUNT1 cohort. *European Child &Adolescent Psychiatry*, *28*(3), 329-339.

Kraus, G., & Reynolds, D. J. (2001). The "abc's" of the cluster b's: Identifying, understanding, and treating cluster b personality disorders. *Clinical Psychology Review*, *21*(3), 345-373.

Krysinska, K., Heller, T. S., & De Leo, D. (2006). Suicide and deliberate self-harm in personality disorders. *Current Opinion in Psychiatry*, *19*(1), 95-101.

Larkin, C., Di Blasi, Z., & Arensman, E. (2014). Risk Factors for Repetition of Self-Harm: A Systematic Review of Prospective Hospital-Based Studies. *PLOS ONE*, *9*(1), 1-13.

Laye-Gindhu, A., & Schonert-Reichl, K. A. (2005). Nonsuicidal Self-Harm Among Community Adolescents: Understanding the "Whats" and "Whys" of Self-Harm. *Journal of Youth and Adolescence*, *34*(5), 447-457.

McGee, R., Williams, S., & Nada-Raja, S. (2001). Low self-esteem and hopelessness in childhood and suicidal ideation in early adulthood. *Journal of Abnormal Child Psychology*, *29*(4), 281-291.

Mok, K., Jorm, A. F., &Pirkis, J. (2016). Who goes online for suicide-related reasons? *Crisis*, *37*(2), 112-120.

Nilsson, M. G., Pepelasi, K. T., Ioannou, M., & Lester, D. (2019). Understanding the link between Sextortion and Suicide. *International Journal of Cyber Criminology*, *13*(1), 55-69.

Patchin, J. W., & Hinduja, S. (2017). Digital self-harm among adolescents. *Journal of Adolescent Health*, *61*(6), 761-766.

Pater, J. A., Farrington, B., Brown, A., Reining, L. E., Toscos, T., & Mynatt, E. D. (2019). Exploring indicators of digital self-harm with eating disorder patients: A case study. *Proceedings of the ACM on Human-Computer Interaction*, *3*(CSCW), 1-26. New York: Association for Computing Machinery.

Pater, J., & Mynatt, E. (2017, February). Defining digital self-harm. In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing* (pp. 1501-1513). New York: Association for Computing Machinery.

Prasad, B. D. (2008). Content analysis. *Research Methods for Social Work*, *5*, 1-20.

Silverman, M. M., Berman, A. L., Sanddal, N. D., O"Carroll, P. W., & Joiner, T. E. (2007). Rebuilding the tower of Babel: A revised nomenclature for the

study of suicide and suicide behaviors. *Suicide & Life-Threatening Behavior, 37*(3), 264-277.

Sueki, H. (2013). The effect of suicide-related Internet use on users' mental health. *Crisis*, *34*(5), 348-353.

Syed-Abdul, S., Fernandez-Luque, L., Jian, W. S., Li, Y. C., Crain, S., Hsu, M. H., ... & Liou, D. M. (2013). Misleading health-related information promoted through video-based social media: anorexia on YouTube. *Journal of Medical Internet Research*, *15*(2), e30.

Troya, M. I., Babatunde, O., Polidano, K., Bartlam, B., McCloskey, E., Dikomitis, L., & Chew-Graham, C. A. (2019). Self-harm in older adults: systematic review. *British Journal of Psychiatry*, *214*(4), 186-200.

Wong, P. W. C., Fu, K. W., Yau, R. S. P., Ma, H. H. M., Law, Y. W., Chang, S. S., & Yip, P. S. F. (2013). Accessing suicide-related information on the internet: a retrospective observational study of search behavior. *Journal of Medical Internet Research*, *15*(1), e3.

Suicide Studies, 2024, 4(3), 91-97

A RANDOM WALK HYPOTHESIS FOR THE SUICIDE RATE AND ITS IMPLICATION FOR DURKHEIM'S THEORY OF SUICIDE[8]

Bijou Yang

Ever since Durkheim's (1897) seminal work on suicide was published, numerous theoretical and empirical works have been published in the field of suicidology in order to unveil the mystery of the societal suicide rate (e.g., Lester, 1989; Lester & Yang, 1993).[9] However, none of these investigations have looked into the variation of the suicide rate over time itself.[10] This paper attempts to use econometric techniques in order to explore the characteristics of the time-series suicide rate and to show that the findings are compatible with Durkheim's original data and theoretical framework.

The essay is organized as follows. The next section will introduce the concept of a random walk and its implications for the suicide rate. Then follows a section discussing the testing procedure involved and test results. The final section summarizes the conclusions and explores their implications for suicide prevention.

A Random Walk Hypothesis of The Suicide Rate

If we assume that the suicide rate is a stochastic process, then the time-series suicide rate could be stationary or nonstationary. Stationarity means that the characteristics of the stochastic process do not change over time, whereas nonstationarity means that those characteristics change over time.[11]

---

[8] This article is reprinted from Yang (1994).

[1] While Lester (1989) provides a detailed review of the theoretical literature, Lester and Yang (1993) focus more on empirical studies, especially about the relationship between the macroeconomic environment and the suicide rate. Both books review numerous investigations in the field of suicidology.

[2] The one exception might be the circadian variation examined by Motohashi (1990) with a spectral analysis using the maximum entropy method and the cosinor method.

[11] Most applications of the time-series analyses focus on the nonstationary process, especially in economics. For example, Nelson and Plosser (1982) found that most macroeconomic time-series are better characterized as nonstationary stochastic processes rather than as stationary fluctuations around a deterministic trend. Nonstationary stochastic processes have been applied also to financial market variables such as futures contracts (Samuelson, 1965), stock prices (Samuelson, 1973), dividends (Kleidon, 1986), and spot and forward exchange rates (Meese and

Among the nonstationary stochastic processes, the sources of nonstationarity might be due to the underlying stochastic process (difference nonstationarity) or to a linear trend (trend nonstationarity) (Nelson and Plosser, 1982). A good example of the former type of nonstationarity is the movement of stock prices over time, while a good example of the latter type of nonstationarity is a sinusoidal wave along an upward linear trend. The difference between these two types of nonstationary stochastic processes is that the former has a unit root. Any nonstationary stochastic process, if found to have a unit root, is called a random walk. Therefore, a random walk refers to a nonstationary stochastic process with a unit root.

By drawing from research in econometrics, two relevant characteristics of a random walk can be identified: (1) the basic characteristics of a time-series are found to change over time, and (2) a portion of any disturbance to the stochastic process of concern will persist through time (Diebold and Nerlove, 1990, p. 37; Rudebusch, 1990).[12] The first property is derived from the fact that a random walk is nonstationary. The second property has interesting and important implications for suicide, that is, major societal events (e.g., a war or an economic recession) which affect the suicide rate will have a permanent effect on the suicide rate. This, in turn, implies that suicide is a chronic process.

It is interesting that we can find traces in Durkheim's writings which are compatible with these two features of a random walk. First, Durkheim called suicide the ransom-money of civilization (Durkheim, 1951, p. 367) because the culturally-advanced European countries experienced increases in the suicide rate during the Nineteenth Century. For example, the suicide rate rose 411 percent in Prussia from 1826 to 1890, 385 percent in France from 1826 to 1888, and 318 percent in German Austria from 1841 to 1877. The extent of the increase in the suicide rate in those days seems to suggest that the basic nature of the suicidal phenomenon changed dramatically in many regions of Europe during the period. This implies that the suicide rate may not be a stationary time series over long periods of time.

Singleton, 1983).

[12] One property included in Yang's (1992) paper indicated that individuals use available information rationally. Applied to suicide, this brings up a psychological issue which was, apparently, ignored by Durkheim (1897) since he was concerned only with sociological dimensions of the suicide problem.

Second, social regulation and social integration were the two fundamental concepts proposed by Durkheim (1897) in his theory of the etiology of suicide. Regulation refers to a "spirit of discipline" and integration to "attachment to social groups" (Besnard, 1988). Both concepts are long-term variables because both seem to be the result of interaction among people in the community and because the formation of discipline and social groups involves a process of trial-and-error over a long period of time.[13] It is interesting to note that, when confronted with both long and short-term perspectives, Durkheim seemed to emphasize the long-term perspective. For example, in his discussion of anomie, Durkheim was mainly interested in and preoccupied by chronic anomie rather than acute anomie (Besnard, 1988). Anomie, according to Durkheim, results from a lack of social regulation.[14]

Even though detailed annual data were not available for testing the nonstationarity of the European suicide rates in the 19th Century, it would be interesting to see whether the hypothesis is supported by modern data. We tested for the existence of a unit root in the time-series suicide rate for recent American suicide rates, since a nonstationary stochastic process with a unit root implies that the suicide rate follows a random walk. This, in turn, would support the hypothesis that suicide is a chronic process. Yang (1992) suggested that a possible test procedure for this would involve two steps.

First, the sample autocorrelations of the time-series suicide rate are examined. The sample autocorrelations will indicate whether the time-series follows an autoregressive stochastic process, a moving-average stochastic process,

---

[13] This does not exclude the observation that some events of a short-term nature may still increase the risk of suicide. It has been documented that the correlation between unemployment and suicide is positive when it is statistically significant (Platt, 1984; Lester and Yang, 1993; Yang, 1992). In addition, suicidologists also acknowledge that publicity of suicide stories by the media is a major cause of an immediate, short-term, increase in the suicide rate (Bollen and Phillips, 1982; Phillips, 1974, 1989; Wasserman, 1984).

[14] There seems to be a dispute among contemporary sociologists about the meaning of the concept of anomie as used by Durkheim. Merton (1957, 1964), one of the leading American sociologists, and his followers maintain that anomie results from a disjunction between culturally prescribed goals and socially institutionalized means for achieving these goals. His French counterpart, Besnard (1988) argues, on the other hand, that anomie is a situation characterized by "indeterminate goals and unlimited aspirations.....in a context of expansion or increasing upward mobility." It is interesting to note that Merton's definition is more static in nature whereas Besnard's provides a dynamic dimension. Therefore, the two views can be taken as complementary aspects of the same theoretical framework.

or a mix of the two, namely, an autoregressive moving-average stochastic process. The autocorrelations also indicate whether the time-series is stationary or not. Second, the Dickey-Fuller test (Dickey and Fuller, 1981) is employed to test directly whether the suicide rate has a unit root.

Test Results

Since the sample autocorrelation functions of all of the suicide rates for the U.S.A. from 1933 to 1987 examined in Yang's study followed a gradual decay pattern instead of oscillation between consecutive lags, this provided empirical support for the autoregressive model rather than the moving-average model or the autoregressive moving-average model (Box and Jenkins, 1970; Pindyck and Rubinfeld, 1981). Secondly, the sample autocorrelation functions of all of the suicide rates examined took ten to twenty years to become zero, and this raised doubts about the stationarity of the annual time-series suicide rate. Both conclusions suggested the need for the Dickey-Fuller test.

The results of the Dickey-Fuller test for the total population and for different sociodemographic groups supported the hypothesis that the time-series suicide rates are a second-order autoregressive process with a unit root (without drift). (Yang studied the time-series suicide rates for six age groups and four sex-by-race groups.)

Yang has also applied the same Dickey-Fuller test to the monthly suicide rates for the total population of the United States for the period 1957 to 1986 and obtained evidence for the same conclusion as the results for the annual suicide rate. In order to explore this phenomenon further, the two-step test was applied to the annual Australian suicide rates for the total population, for males, and for females for the time period 1901 to 1985 using data obtained from Hassan and Tan (1989). The results of the tests matched exactly those for the United States data, namely, the autocorrelation functions of those three time-series decayed to zero with a lag of nine to twenty years, and the time-series appeared to fit a random walk process. Unfortunately, monthly data for Australian suicides were not available for examination.

Conclusions

If the annual suicide rate is a random walk process, then any disturbance to the societal suicide rate will have a permanent impact. As a consequence, the

annual suicide rate has the properties of a long-term or chronic process. This random walk hypothesis of the suicide rate is supported by Durkheim's theory of suicide, for Durkheim explicitly mentioned that social regulation tended to take time to have an impact on the societal suicide rate (Durkheim, 1951).[15]

The support for the random walk hypothesis for the annual suicide rate provided by the annual American and Australian data implies that traumatic events at the societal level will have a permanent long-term effect. It also indicates the importance of chronic processes as a major determinant of the societal suicide rate.

The implication of these results for suicide prevention is that governments should focus on actions which will have a major impact on the society, for disturbances to the societal suicide rate will probably have a permanent impact. Recently, Lester (1992) has shown that states in America which instituted programs to prevent youth suicide witnessed a beneficial change in youth suicide rates. These programs included legislation, Governor involvement, commission task forces, manuals and brochures, school curricula, training conferences, direct services and special studies. This study suggests the kinds of government initiatives which may have a long-term impact on suicide rates. Governments should also consider the potential impact of major changes in the social and economic conditions of the society on the suicide rate.

References

Besnard, P. The true nature of anomie. *Sociological Theory*, 1988, 6(1), 91-95.

Bollen, K., & Phillips, D. P. Imitative suicides. *American Sociological Review*, 1982, 47, 802-809.

Box, G. E. P., & Jenkins, G. M. *Time Series Analysis*: *Forecasting and Control*. San Francisco: Holden-Day, 1970.

Dickey, D. A., & Fuller, W. A. Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 1981, 49, 1057-72.

Diebold, F. X., & Nerlove, M. Unit roots in economic time series: a selective survey. In T. B. Fomby & G. F. Rhodes, (Eds.) *Advances in Econometrics: Cointegration, Spurious Regressions, and Unit Roots*. Greenwich, CT: JAI press, 1990, Volume 8, 3-69.

[7] It is not clear whether Durkheim thought that social integration could also be a chronic process. On the other hand, Durkheim (1951) mentioned that the way in which industrial revolution affected the society clearly illustrated how social regulation could change over a long period.

Durkheim, E. *Le Suicide*. Paris: Felix Alcan, 1897.
Durkheim, E. *Suicide*. Translated by J. A. Spaulding & G. Simpson. New York: Free Press, 1951.
Hassan, R., & Tan, G. Suicide trends in Australia, 1901-1985: analysis of sex differentials. *Suicide & Life-Threatening Behavior*, 1989, 19, 362-380.
Kleidon, A. W. Variance bounds tests and stock price valuation models. *Journal of Political Economy*, 1986, 12, 141-53.
Lester, D. *Suicide from a Sociological Perspective*. Springfield, IL: Charles Thomas, 1989.
Lester, D. State initiatives in addressing youth suicide. *Social Psychiatry & Psychiatric Epidemiology*, 1992, 27, 75-77.
Lester, D., & Yang, B. *Economic Perspectives of Suicide*. New York: AMS Press, 1993.
Meese, R. A. & Singleton, K. J. On unit roots and the empirical modeling of exchange rates. *International Economic Review*, 1983, 24, 1029-35.
Merton, R. K. *Social theory and social structure*. New York: Free Press, 1957.
Merton, R. K. Anomie, anomia and social interaction. In M. B. Clinard (Ed.) *Anomia and deviant behavior*. New York: Free Press, 1964, 213-243.
Motohashi, Y. Circadian variations in suicide attempts in Tokyo from 1978 to 1985. *Suicide & Life-Threatening Behavior*, 1990, 20, 352-361.
Nelson, C. R., & Plosser, C. I. Trends and random walks in macroeconomic time series. *Journal of Monetary Economics*, 1982, 10, 139-162.
Phillips, D. P. Recent advances in suicidology: the study of imitative suicide. In R. F. W. Diekstra, R. Maris, S. Platt, A. Schmidtke, & G. Sonneck, (Eds.) *Suicide and Its Prevention*. Leiden: Brill, 1989, 299-312.
Pindyck, R. S., & Rubinfeld, D. L. *Econometric Models and Economic Forecasts*. 2nd Edition. New York: McGraw-Hill, 1981.
Platt, S. D. Unemployment and suicidal behavior. *Social Science & Medicine*, 1984, 19, 93-115.
Rudebusch, G. D. Trends and random walks in macroeconomic time series: a reexamination. Paper presented at the annual meeting of the American Economic Association, Washington, D.C., 1990.
Samuelson, P. A. Proof that properly anticipated prices fluctuate randomly. *Industrial Management Review*, 1965, 6, 41-50.
Samuelson, P. A. Proof that properly discounted present values of assets vibrate randomly. *Bell Journal of Economics and Management Science*, 1973, 4, 369-74.
Wasserman, I. Imitation and suicide. *American Sociological Review*, 1984, 49, 427-436.

Yang, B. Is the time-series suicide rate of the U.S.A. a random walk? Paper presented at the annual meeting of the American Economic Association, New Orleans, 1992.

Yang, B. A random walk hypothesis for Durkheim's theory of suicide. In D. Lester (Ed.) *Emile Durkheim*. Philadelphia: Charles Press, 1994, 319-324.

Suicide Studies, 2024, 5(3), 98-100

CAN ONE DIE OF BOREDOM?

Josefa Ros Velasco[16]
Complutense University of Madrid

Boredom is no joke. The unpleasant experience of boredom, surely familiar to most readers in its lighter version, can become a problem leading to death when it lasts over time and becomes chronic. However, we don't tend to take boredom too seriously. An example of this are the countless and useless guides to combat it that plague the internet. The German philosopher Hans Blumenberg said that, of all complaints about pain, suffering and discomfort, that of boredom has always been considered the least important, even if those who report suffering from boredom add the adverb "mortally." Dying of boredom seems more like something out of novels, says Professor Peter Toohey. Nothing could be further from the truth: it may be a matter of time for the deadly component of boredom to go from metaphor to literality.

Boredom can kill us through agency and passivity. There are many thinkers who, throughout history, have warned that helplessness in the face of boredom can be the germ of suicide. Seneca wrote that people of all ages and conditions have decided to shorten their lives when they have become too tedious. John Chrysostom pointed out that acedia, medieval boredom, was the cause of despair that borders on suicide. For Kant, those who fell into the clutches of boredom felt such horror that their insistence on ending the pain led them to consider ending their lives. Gustav Flaubert confessed to his beloved Luoise Colet that the nausea of boredom drove him to wish for death. Esquirol said that the boredom of life often led to self-murder. And Durkheim dedicated an entire treatise to the question of suicide in which he explained that those who suffered from unfathomable boredom could be predisposed to kill themselves. In the last century, specialists such as Edmund Bergler defined boredom as an entity of the disease that could cause suicide. Even at the beginning of the new millennium, Harvard University Professor of Psychiatry John T. Maltsberger has once again highlighted this phenomenon.

There are also numerous real cases, then and now, in which boredom

[16] josros@ucm.es; www.josefarosvelasco.com

appears to be responsible for suicidal ideation. Baudelaire attempted suicide at twenty-six, leaving a note to his mother in which he said, “I kill myself because I find the tedium of going to sleep and the tedium of getting up unbearable.” The aforementioned Durkheim wrote about a girl who, seized by inexplicable boredom, wanted nothing more than to die. A famous case was that of the British actor George Sanders, who began his suicide letter with the words “Dear world, I am leaving because I am bored.”

Ten years ago, eighteen-year-old Colombian Edison Trujillo took his own life after making it clear to his family and friends that he did not want to continue living because he was bored. And more recently, in 2016, the musician Elihu Gil confirmed to the press that he had attempted suicide at twenty-five because he could no longer tolerate boredom. You only have to take a look at the internet to see the number of people who seek solace among strangers in the face of the desire to die that their boring lives evoke. Without a doubt, returning to Blumenberg, “boredom reveals our most intimate desires for death.”

It is not only young people who are driven to suicide due to boredom. Scientific literature has confirmed that this problem occurs especially among older people. Boredom is a clear and recognized risk factor in aging because it is the breeding ground for both physical and mental problems that affect the development of life. Their suffering leads to states of anger, irritation and frustration, agitation and nervousness, sleep disorders, eating disorders, a decrease in functional abilities and perceived health, a feeling of loneliness, disinterest in the world, depressive symptoms, increased alcohol consumption and medication, episodes of violence and suicidal ideation, among many others. This rises exponentially in those who are institutionalized.

Focusing solely on suicide, some works tell the sad situation of those who have been completely deprived of their agency after moving to live in a nursing home, seeing their days become little more than *an oasis of horror in a desert of boredom*—quoting from again to Baudelaire—who have tried to recover it by making a final decision of their own, which is to end life. For example, researcher María Cecilia de Souza Minayo collected, in 2016, the story of a sixty-nine-year-old man who had tried to die by suicide twice, one of them at the nursing home, to end boredom. In 1971, Jesús Calvo Melendro warned that boredom was a major pathology in older people and that, if nursing homes were not organized around a person-centered model, capable of offering meaningful activities to inmates, they would be forced to have to deal with depression and suicidal behavior sooner or

later.

Of course, this is not just a thing of institutionalized life. Richard W. Bargdill conducted a study in 2000 involving a sixty-seven-year-old woman who lived in her home and who had attempted suicide because she could not find any other way to relieve her boredom. I want to emphasize this: boredom in older adults—after certain changes such as retirement, widowhood or when they live institutionalized—is not nonsense.

Plutôt la barbarie que l'ennui [barbarism rather than boredom], exclaimed Théophile Gautier. Boredom is a negative and reactive emotion that can lead to extreme behaviors, resulting in fatal consequences, depending on the environment and the psychological conditions of the person who suffers from it. But boredom is not always a motive for action. Sometimes it presents as a passive state that slowly induces death. William Lovell, the character in Ludwig Tieck's play of the same name, was addicted to boredom because only thanks to it did he avoid facing the world and having to make decisions (at least until he gets old and begins to realize that he will soon die). How can boredom kill us without doing anything? The writer George Sand declared that her mother had died as a result of the disease of boredom and that she was going to die of the same thing. In reality, doing nothing to alleviate boredom can be as harmful as acting excessively when faced with it.

In 2010, a study of 7,000 people over more than two decades showed that people who were frequently bored had a shorter life expectancy because they were twice as likely to die from heart disease or stroke. Martin Shipley, co-author of the article in which these conclusions were published, saw a clear link between boredom and premature death because those who are characterized by a high propensity to be bored tend to lead unhealthy and sedentary lifestyles.

Without a doubt, boredom not only shortens the lives of people, and especially that of the older adults with mobility limitations or cognitive disorders, but it can lead many to the conclusion that it is not worth the effort to extend it. Complaints about boredom, especially in dependent people, should not be taken lightly. Sometimes, the option of relieving their boredom falls entirely in our hands, in those of us who live with them and are responsible for their care. So the next time someone tells you “I'm dying of boredom”, use your five senses to pay attention to them. That person may be asking for help.

Suicide Studies, 2023, 5(3). 101-111

UNDERSTANDING THE SUICIDE OF A YOUNG WOMAN[17]

David Lester[18]

Jay Valusek sent me the memoir that he wrote about the suicide of his daughter, Beth (Valusek, 2022). We have never met, but we have exchanged many emails, in some of which Jay expresses his frustration with suicidologists and their published works. I have turned some of these into an article (in this issue of *Suicide Studies*). Jay has asked me what I think of his book and what thoughts I have about Beth's suicide. I have been reluctant to do this because I do not want to offend or upset Jay. Dealing with the loss of his daughter is difficult enough. In addition, I do not yet know what I think about Beth's suicide. My style is to think as I type. Therefore, first I will present the notes that I took as I read Jay's memoir and then I will see what I think about Beth's suicide.

Beth's Life

Beth died by suicide at the age of 28, in July 2018 by jumping off the Royal George Bridge in Colorado, the highest suspension bridges in the Unted States.

Jay, her father, came from a relatively normal childhood but suffered from bedwetting into his teenage years, sometimes wetting himself in public. His older brother and sister tormented him about it, but his mother, also a bedwetter in her youth, was supportive. Jay says that he learned from this that he was defective and would never find love.

Cathy, her mother, came from a poor religious family. Both the mother and father verbally abused her, telling her that she was bad and unwanted. She remembered her father telling her when she was five that he never wanted "another fucking girl." Judged, invalidated and ignored, Cathy grew up experiencing fear, guilt, shame and anxiety.

---

[17] A four chapter excerpt of the book can be found at https://www.researchgate.net/publication/366158040_Girl_of_Light_Shadow_A_Memoir_of_My_Daughter_Who_Killed_Herself

[18] david.lester@stockton.edu

At the age 16, Jay turned to what he calls a hip brand of spirituality, and he later met Cathy, a fellow Jesus freak, and proposed. Cathy accepted. They married in 1975 and quickly realized that it was a mistake. Jay was repressed while Cathy was promiscuous. In 1979, while Jay was at college, Cathy told Jay about her affairs but never apologized.[19] She stayed with him, she later said, because she had nowhere else to go, not because of love. She became sexually addicted, she later said after their divorce, and had sex with maybe three dozen men.

Yet they stayed together. Jay got a master's degree in mining and a job as a geoscientist, and they decided to start a family. Cathy had cervical cancer from which she recovered and then had an abortion as a result of a pregnancy that was probably not Jay's child. This was followed by a miscarriage. Eventually, a son was born (six weeks premature) in 1986, and Beth was born in April 1990, six days overdue and a breech baby requiring a cesarian section.

For the first five months, Jay seemed to Cathy to be angry at Beth. He admits that he felt that Beth's birth would end their marriage. Whereas he loved John from the moment of his birth, it took Jay five months to feel the same kind of love for Beth. The change came about after Cathy panicked because she thought that Beth had stopped breathing. The paramedics and then a female pediatrician subjected Beth to horrendous tests in the hospital until Jay refused further torture and took Beth home.

Soon after that, Cathy confessed to Jay that she didn't know whether she wanted to live, and Jay started sleeping in his study rather than their bedroom. Jay feared that, if he tried to take the children way from Cathy, then she would decide to die by suicide. Jay thinks that Beth sensed her mother's withdrawal from life, her frequent emotional vacancy and, on occasions, physically disappearing (hiding in a closet). Jay describes Beth as becoming anxious, insecure and clingy.

In the Spring of 1994, Jay went to a retreat where he met Barbara, the spiritual director. With the help of advice from a counselor, Jay decided to end the marriage. He describes the "discussions" as intense, on his part shouting and screaming and smashing objects in the house in front of the children. He left for an

[19] Cathy was working as a waitress.

apartment one mile away from their house in December 1994.[20] The divorce was finalized in March 1996, whereupon Jay and Barbara moved into a house together just around the corner from the kids' elementary school.

John reacted with sadness to the separation of his parents, but Beth was angry at her father. At first, she refused to visit Jay's apartment but, when she did, she slept with him in his bed and, in the morning, told him that she loved him

After the divorce, Cathy' house degenerated into a dirty, disordered and littered mess. The two kids slept on beds piled high with stuffed animals, and then they acquired real animals, pets, including two dogs that added to the mess. Soon afterwards, Jay says that Cathy went mute without telling us was that literal or not. She became severely depressed and retreated into a bare existence (her words). With a little financial inducement, Cathy agreed to let the kids stay alternate weeks with Jay and Barbara.

Beth had started writing a journal when she was in first grade and soon turned to writing fiction as well as keeping a blog. In 3rd grade, the school magazine published one of her stories, and Jay told her that she had beaten him into print by 8 years. She also loved reading and was top of the class in reading in 4th grade (135 hours of reading during the school year). From ages 10 to 13, Beth won prizes for her writing at school and statewide.

In 1998, Jay and Barbara decided to move from Houston to Colorado. Because Cathy was broke, almost fired from her teacher's aide job and about to be evicted, they decided to take Cathy with them. When they went to load her boxes into a moving van, the house was in disorder - chaos - so they drove off Cathy to handle the move. The children never lived with their mother again, and Cathy had a marginal existence in Colorado some 40 miles from Jay and the children. The children still visited her for a day or two most weeks.

Later, Beth described her childhood as *rough*. Jay asked her about it (apparently online), and Beth wrote about: Jay blowing up and moving out, her parents using the children like ping-pong ball back and forth, dragging her to Colorado thereby losing all of her friends and the dogs too, making her mother at

[20] When he was 20, Jay's parents divorced, revealing that their marriage had been bad for a long time, yet hiding it from the kids.

first homeless and then living in a cramped apartment.[21] Beth said that she loved her mother and missed her and was heartbroken. A day or two visit now and then was not enough.

At first in Colorado, Beth cried most nights over her lost dogs. She was inconsolable. Jay bought her a green quartz heart (he had a similar one) and taught her to hold it and meditate (his house had a meditation room) to symbolize all she had loved and lost. That helped Beth to adjust a little.

In Colorado, Beth excelled. In 5th grade, she mastered the material in minutes rather than hours, won spelling bees and published poems. She joined the choir and participated in stage performances. In 6th grade, she said she wanted to be an actress and singer. She began to focus on her appearance (clothes) and became a vegetarian, reflecting her love of animals. She joined the basketball team.[22] However, Beth gradually became focused on being popular rather than being smart. For example, she purposely failed a spelling qualifier for the spelling bee contest. Because Beth was changing from being a copy of her father to her own self, Jay feels that she began to withdraw from him.

The major trauma for Beth in those years was the loss of her cats and kittens. The one cat that Cathy had taken to Colorado escaped. The two kittens that Cathy let the children adopt were kept indoors, and they often mated.[23] All of their offspring were born dead or quickly died. Each time, Beth's grief was intense. A year later, Cathy was evicted, put the two cats into a shelter, and moved to another state to live with family members.[24]

Entering middle school, Beth adopted a persona at school that she named Elissa, while she remained Beth at home. Jay began to know less and less of what was going on in his daughter's mind and life. Later (in 2012), Beth told a therapist that she never could talk to her mother and had not been able to talk to her father since middle school. Jay admits that he was a know-it-all. His son, John, wrote to Jay when he was 19 and told him that talking to his father made him feel small,

---

[21] Jay still paid Cathy some alimony.
[22] In earlier grades, Beth and other girls had been excluded from spontaneous sports activities in the playground by the boys because they were girls.
[23] Cathy was too poor and too thoughtless to get them neutered.
[24] John seems to have begun distancing from his mother in those years. He often did not go to visit on weekends.

childish and stupid. It seems, perhaps, that Beth stopped talking to people because no one was listening to her.

It is clear that Beth had experienced many losses: when her father moved out in 1994, her dogs when they all moved to Colorado and, in effect, her mother when she moved to Texas and, Jay suspects, her teachers who were not as good as those Beth had in Texas. In 2012, Beth reflected that she had a few friends in middle school but spent most of her time alone.

In 8th grade, one year after she changed her name to Elissa, she gave up on being a good student in school and spent more time alone, both at school and at home. Around this time, on a holiday road trip, Jay told his wife and children about his parents, how they split because his mother was a bisexual and moved in with another woman.

However, high school was better. Beth got into sports, especially running, and she was good. She won lots of prizes and awards of which Jay knew nothing at the time. He never attended one of her races. She never invited him, and he never went anyway.

Jay notes that Beth was apparently bisexual too, although she never told him at the time. He knew nothing about her friends or what she did with them. When he tried to get her to get out of her room and get a life, she told him that he sounded like a therapist rather than a father. Once she told him that, although she loved him, she did not want a father anymore.

At 15, Beth was arrested for under-age drinking at a friend's party and had to go to a diversion program, and the same thing happened a few months later.

After poor grades in her junior year at high school (3 Cs and2 Ds), Jay and Barbara moved to Boulder, Colorado, and so Beth had a new high school. Her guidance counselor asked her whether she wanted to go to college. She said that she guessed she did.[25] Jay had already told her that he could not afford to pay for it, and that she would have to work and get grants, although he would try to jump start her college career. Her guidance counselor told her that, right then, she had no chance of going to college. Beth promised to change and ended up with a 3.83

[25] John decided not to go to college, married his high school girlfriend and became a father one year later.

GPA that year. Although she joined the track team, Beth had few friends, but she started keeping a journal again (which read after her suicide).

Just before the end of July, Beth arranged a date with a senior whom she had admired from afar all senior year, but he drowned just before the date.[26] Just at the time that she started college, Beth had to deal with the grief from this loss, and she had to deal with it alone. In her senior year, the class had to write a list of 50 things they wanted to do before dying. Beth's first was sky-diving, and many more items on the list were like that. (Number 10 was to join the Peace Corps.) In September of her freshman year, Beth got close to the first item on her list by bungee jumping off the Royal George Bridge, the bridge from which she later jumped to her death.[27]

In 2004, Jay wrote back to Cathy's mother in Texas (with whom Cathy was now living) detailing the sordid life history of Cathy's married life with him. (Jay later notes that Cathy abused alcohol too.). Jay thinks that Beth read his published memoir and came to know the details too, but she and her father never spoke of it until 2017, a year before her suicide. Jay notes that both his family and Cathy's family were not close to one another and to him and his family. When Beth graduated from high school, no other family member came to the graduation.

Jay never drank alcohol, and he thinks that this contributed inadvertently to Beth's drinking in college and her blackout drinking spree when in the Peace Corps. He did not model socially acceptable drinking when they ate dinner, for example. Beth did not drink alone. She did not drink in order to down out her sadness and depression. She drank socially to overcome her shyness and her fear of being socially judged. Beth was a socially anxious introvert who thought herself to be boring and uninteresting. She described her social anxiety as "the constant inner voice that won't shut up." She admitted to a counselor to drinking 6 or more drinks 3 times a week.[28]

At college, Beth wrote in her journal that she was not good at anything with no talent and nothing to write about. In fact, she graduated Summa Cum Laude with two degrees, joined Phi Sigma Pi, a national honor society, volunteered at the

---

[26] When she started high school in 2004, she "lost" her mother who moved to Texas.
[27] Beth went to the University of Botswana in 2011 for a semester abroad and, along with friends, bungee jumped off a bridge near Victoria Falls.
[28] Beth also smoked marijuana.

Global Refugee Center and the Weld County Food Bank and interned at a mental health facility.

In the Fall of 2011, Beth spent a semester abroad at the University of Botswana studying psychology and public health. While there, she reaffirmed her desire to join the Peace Corps, and she also continued her regular binge drinking. One night, after drinking, Beth and her friends were attacked by a group of boys who stole their cell phones.

Beth's mother Cathy had a stroke just after Christmas 2011 and was placed in a hospice to die. John and Beth had the responsibility to take life support away.[29] But she surprised everyone by surviving which meant living in a nursing home until her death in 2017, in what Beth saw as purgatory.

Back at college, Beth got a job at a fast-food restaurant, and she met and fell in love with Brendan, a student at the same college, studying science. Beth was studying psychology and community health. Beth flourished with this relationship, both academically and personally, and Beth told him about her bisexuality. Beth pushed Brendan away for a about a month but decided to resume their rich relationship.

Brendan had epilepsy and, just a few days after the resumption their relationship, Brendan had an epileptic fit and died after hitting his head on a coffee table as he fell. Another loss. Beth fell apart. She wanted to die, she wrote, but not to choose suicide. In September 2012, Beth sought counseling at the college's counseling center where the doctor had her committed. This involved interrogation, a strip search, a drug test and placement in a locked "safe" environment. She was released into Jay's custody the following day (after paying $350) and went home with him. She never trusted counselors again.

At the beginning of 2013, Beth dropped out of college and stayed in the basement of Jay's house. Eventually, Jay lost patience with her, screamed at her, and told her to get on with her life. Beth never trusted him again.[30] He did not learn until later that she earned some money in order to survive by positing salacious pictures online of which she was later ashamed.

---

[29] Jay notes here that Cathy was supporting /Beth at college with $200 a month.

[30] Jay notes that he hoped that Beth would eventually change and realize that she needed him just as he needed her!

She graduated from the University of North Colorado, Greeley with honors and worked at a residential psychiatric facility as a direct care provider and then as a medication technician. She took a vacation in Guatemala and other countries in Central America. She considered getting more counseling and taking medications, but she knew that doing so would make her ineligible for the Peace Corps.

Beth applied to join the Peace Corps hoping to go to Mozambique which had a high rate of AIDS. To increase her chances of being accepted, she had volunteered at the AIDS project in Boulder County. She was accepted in November 2016 as a Health Outreach Volunteer, one of 56 volunteers. She began service in April 2017. On June 25 she saw on her Facebook page that her mother had died, and so she went back to the United States for a few days. While there, she heard a conversation between Jay and Cathy's sister in which he revealed the truth about their extremely toxic marriage. He notes that it was probably not a good thing for Beth to hear this.

Back in Mozambique, Beth worked well, got on with the families there and was judged to be excellent – extremely competent and with humor. In October, armed militants attacked villages near where Beth was stationed, and she was moved to a new village. Her grandmother (Jay's bisexual mother) died in December, but all went well, until….

At a conference for the volunteers in March 2018, Beth went on a drinking binge with fellow volunteers, missed sleep because of the hangover and a talkative roommate, and tried to compensate with lots of caffeine. The result was a psychotic breakdown. She barricaded herself in her room and, when finally interviewed said that her father killed her mother and that she was afraid he would kill her too. From then on, Beth was in a medically oriented psychiatric system, both in Mozambique and when flown back to the United States, diagnosed as probably bipolar and psychotic. Jay's wife and his son John picked Beth up at the Denver airport and, after more psychiatric evaluation, she was discharged from the psychiatric facility and dismissed from the Peace Corps. By April 6, she was hiding in an Airbnb in Boulder. Three months later, she jumped from the bridge to her death.

It seems that she went back to Mozambique to visit her friends there and flew back to the United States three weeks before her suicide. Jay does not detail the details of this trip but, when he recovered her luggage from that trip, he found

her cell phones packed in the suitcase. He realized that Beth had deleted all her social media accounts before flying home and so had planned her suicide while there on the visit. Perhaps that visit revealed to her how wonderful and fulfilling her life would have been had she not screwed it up.

In one year, Beth had lost her mother, her grandmother, her friends, her adopted country, and her purpose in life.

Comments

Suicide in transactional analysis is seen as deriving from injunctions given to the child (Woollams, et al., 1977). Infants need permission to exist and belong in the world. From the moment of birth, infants receive messages, both verbal and nonverbal, from parents and significant others about whether they really want him or her around. The infant or child can receive a “Don't exist” message at any age and in various ways. Perhaps the infant is handled stiffly or with distaste. Perhaps a parent actually says, "I wish you'd never been born." If several significant others make such *Don't exist* injunctions, then the injunction will be stronger than when only one significant other makes the injunction.

Jay admits that he did not love Beth in the first 5 months of her life, and his wife described him as acting as if he were angry at her. We do not know, however, what Cathy’s attitude toward and feelings for Beth were. I asked Jay how Cathy was as a mother.

> I'm ambivalent about that. I used to say she was a decent mother. She took care of the kids, never abused them, and loved them in her own truncated way. In reviewing her life, my life, and the kids’ lives, however, I'd she was a terrible mother, and caused irreparable damage to her kids (much less to me), for which I never quite forgave her, as I noted in the book.

It seems possible that both parents communicated a *do not exist* injunction to Beth. On one visit to his apartment, Beth drew a picture of a little girl with bright clothes and earrings and on the back of the sheet of paper a picture of a girl in dark clothes. Her explanation was that she did not want to waste paper. Jay writes that now he knows that one of those girls would kill the other. There was, literally and metaphorically, a dark side to Beth.

And there is more to the relationship between Jay and his children later in life. As noted above, His son, John, told him that talking to his father made him feel small, childish and stupid. Perhaps Beth had similar feelings. Her psychotic statements that Jay killed his wife and that she was afraid that he would kill her are perhaps an exaggerated form of those thoughts, resulting from how Jay made his family members feel at times.

Beth experienced many losses in her life: a tempestuous but stable home life while both parents lived together, the loss of her mother geographically and then by death, the loss of two boyfriends, and the loss of her pets. However, I think that the biggest loss was the loss of her aspirations when she was dismissed from the Peace Corps. This loss was caused by her own behavior, her binge drinking and resulting breakdown, a very different loss from the other losses in her life.

After the dismissal from the Peace Corps, Beth isolated herself. There is the possibility, therefore, that Beth felt *shame* (Lester, 1997). The difference between guilt and shame can be illustrated by the phrase, *How could I have done that?* If it is How could I have done **THAT**?, then one can say, I'm sorry I did that. I won't do it again. The guilt is easily expunged. If it is How could **I** have done that?, then no apology is possible. In shame, one wants to simply disappear because there is something defective in oneself. Isolating oneself is, therefore, a solution in order to avoid facing others in one's defective condition. [31]

There are other decisions that Beth made which impaired her life. She excelled at many activities, intellectually (she was an outstanding student) and at athletics. She performed well in the Peace Corps. At times, however, she suppressed her skills and sought popularity, a not uncommon theme in the lives of adolescents and young adults today.

This is perhaps more common for young girls than for young boys, but Beth had an additional problem. By becoming bisexual (like her grandmother, Jay's mother), she opened herself up not only to the stigma of being LGBTQ?,[32] but also the stigma in the gay community about being bisexual. [33]

---

[31] Jay has told me that Beth died from loneliness, but I think shame is more likely.

[32] In the past, being gay would disqualify you from the Peace Corps. I do not know whether it would today.

[33] Jay documents how gay people often despise bisexuals for being "wishy washy."

Finally, her binge drinking caused additional stress for Beth. Jay accepts some responsibility for this in not demonstrating responsible drinking behavior at home. He notes that Beth drank socially to overcome her shyness and her fear of being socially judged, a not unreasonable tactic except that, in Beth's case, this turned into regular binge drinking with bad consequences adding to her stress.

There is one positive thought about Beth's suicide. Beth enjoyed bungee jumping. We cannot expect dying to be enjoyable but, as Beth jumped to her death, most of that jump would have recalled to her the fun of her bungee jumping.

References

Lester, D. (1997). The role of shame in suicide. *Suicide & Life-Threatening Behavior, 27,* 352-361.

Valusek, J. E. (2022). *Girl of light & shadow*. Longmont, CO: Light, Cloud & Darkness Books.

Woollams, S., & Brown, M (1978). *Transactional analysis*. Dexter, MI: Huron Valley Institute Press.

Woollams, S., Brown, M., & Huige, K. (1977). What transactional analysts want their clients to know. In G. Barnes (Ed.) *Transactional analysis after Eric Berne*, pp. 487-525. New York: Harper's College Press.

Suicide Studies, 2024, 5(3), 112-123

SPONTANEOUS ALTRUISTIC SUICIDES ON THE BATTLEFIELD

Adam Czabański[34]
Akademia im. Jakuba z Paradyża w Gorzowie Wielkopolskim

Abstract: In extreme situations, a person can show behavior that is most beautiful, but also what is most shameful. This article analyzes cases of the extraordinary heroism of people sacrificing their lives to save other people. We are constantly fascinated by individuals who, in extreme and highly traumatic situations, take actions that are contrary to the natural human instinct of self-preservation. Spontaneous altruistic suicides on the battlefield are such behaviors. This article aims to present examples of such unusual suicides and attempt to examine the mechanisms that govern such actions.

Altruistic Suicides during War

War creates a series of circumstances that lead to suicides with surprising motives and unusual courses. We are talking about altruistic suicides. We learn about altruistic suicides from Durkheim's classic work *Le Suicide*. It is here that his suicide typology is presented; egoistic, anomic and altruistic suicides. According to Durkheim, altruistic suicides occur most often in primitive societies and in modern armies.

Altruistic suicide is one in which death is not the goal, but only a means. The real goal of such suicide is to achieve good for other people, save their lives and health, and draw attention to social injustices and human wrongs. The sociological perspective shows that such behavior is the result of the suicide's excessive integration with his society.

The detailed motives behind the behavior of altruistic suicides include:

• protecting your colleagues from revealing their names during the investigation (examples of suicides of conspirators),
• diverting the attention of pursuers from their escaping companions,

[34] aczabanski@interia.pl

• inflicting the greatest possible losses on enemy forces (the phenomenon of suicide formations),
• a spontaneous desire to save comrades on the battlefield.

This last example requires detailed discussion later in this article.

Examples of Altruistic Suicides on the Battlefield during World War II.

The examples analyzed here concern exceptional individuals undertaking their activities in extremely difficult conditions resulting from armed combat. The review of spontaneous altruistic suicides on the battlefield begins with examples from World War II.

In his three-volume description of the battles for Monte Cassino, Melchior Wańkowicz gives examples of the extraordinary sacrifices of Polish soldiers. On May 17, 1944, two companies of the 13th Battalion attacked the northern slopes of Widmo Hill. Soon, these troops were covered by massive artillery fire. This is what M. Wańkowicz writes about it:

> "There is not a single sapper left - the path is cleared by infantrymen (...). Shooter Bułak, a simple Orthodox boy from the Vilnius region, goes first - a pressure mine tears off his foot. He rises on one leg, stands... They look at him in amazement because he turns away from the enemy, raises his hands as if he wanted to silence the noise. He is swaying - he looks huge and bloody: - Guys, I'm making way for you... Before they knew it - he fell full length onto the path forward. The mine exploded. They came through him ."

For a long time he was considered dead. However, it turned out that he was not killed, and the Germans carried the wounded man from the battlefield. After this incident, he became an invalid, losing an arm, a leg and an eye.

An incident that took place on the same day (May 17, 1944) during the fighting of the 6th battalion in Gardziel borders on a suicidal act. During the assault, two platoons of Lieutenant Brzozowski came under massive fire from three German bunkers. Then, when all the Polish soldiers were in danger of death, senior gunner Jarnutowski, manning a machine gun, regardless of his own safety and without any cover, opened fire from a standing position on the three German bunkers that were massacring his colleagues.

Jarnutowski focused the attention of the German soldiers solely on himself and all the bunkers concentrated their fire on him. He died, simply torn apart by bullets. While he was distracting the enemy's attention from his comrades, the commanders of both platoons, Second Lieutenant Kantorski and Second Lieutenant Babiuch, managed to lead the remaining soldiers out of this trap.

During the fighting for Passo Corno, there was a fight for the second line of German bunkers. Tadeusz Hass, a signalman and member of the light cavalry, told Wańkowicz how the Germans were throwing grenades at Polish positions, while Lieutenant Popiel's soldiers had run out of grenades. In such circumstances, 17-year-old Miarkowski, a soldier from the Carpathian Uhlans, began to crawl around the area and find scattered grenades so that his comrades could use them to fight the German soldiers. "It was he who brought six and went to get the seventh and died, suppressing the grenade with his own body and saving the lives of his friends ." In another fragment we read: "(...) seriously wounded, when he was unable to throw away the grenade due to lack of strength, he crawled on it, saving his friends with his torn body ."

During the extremely fierce fighting for Iwo-Jima in February and March 1945, the Medal of Honor, the highest American military decoration awarded for exceptional bravery on the battlefield, was awarded to 27 American soldiers. Here are examples of extremely brave soldiers who, by committing spontaneous suicide on the battlefield, saved their colleagues:

On the night of March 3, 1945, Corporal Charles J. Berry of the 1st Battalion, 26th Marine Regiment, 5th Marine Division was with two colleagues in a trench near "Nishi's Ridge". A group of Japanese soldiers slipped through the American lines and threw a grenade into a trench occupied by the Americans. Cpl. Berry, seeing what was happening, without hesitation, threw himself on the grenade and covered it with his own body. He died instantly but saved the lives of his friends.

Private William Caddy of the 3rd Battalion, 26th Marine Regiment, 5th Marine Division, north of Airfield No. 3, and two of his colleagues were fired upon by a Japanese sniper for two hours and took shelter in a shell crater. Approximately at 4 pm, one of the American soldiers leaned over the edge, trying to locate the shooter. Then a Japanese soldier threw a grenade at them. Caddy lunged at the grenade and muffled the explosion. He died instantly.

Private James D. La Belle of the 2nd Battalion, 27th Marine Regiment, 5th Marine Division, standing with two other soldiers, was attacked by a Japanese soldier who threw a grenade at them. La Belle managed to warn his colleagues and at the same moment he threw himself on the grenade, protecting his comrades. It happened on March 8, 1945.

On February 20, 1945, on the second day of the fighting for Iwo-Jima, Private Jacklyn H. Lucas from the 1st Battalion, 26th Marine Regiment, 5th Marine Division together with two other American soldiers, came under Japanese fire in the area of airfield No. 1. Suddenly, Japanese grenades were thrown between them. Lucas then covered one of the grenades with his own body and then grabbed the other one and also hid it under himself. He managed to survive the explosion. He spent many months in hospital and came out with a partially paralyzed arm.

An 18-year-old soldier, Private George Phillips of the 2nd Battalion, 28th Marine Regiment, 5th Marine Division, threw himself on a grenade, saving three of his colleagues from death.

Private Donald J. Ruhl of the 2nd Battalion, 28th Marine Regiment, 5th Marine Division, died on February 21, 1945, when he and his platoon commanding sergeant found themselves in a camouflaged Japanese bunker. They started firing at the Japanese when a grenade fell inside. Then, without hesitation, Ruhl covered a comrade with his own body, saving his friend's life.

Staff Sergeant Major William G. Walsh of the 3rd Battalion, 27th Marine Regiment, 5th Marine Division, stormed Hill 362 A. He captured the hill but was soon driven from it by the Japanese. He immediately organized a force for a counterattack and again reached the top of the hill and, there, he and six of his colleagues occupied a trench. Grenades were thrown into the trench. Immediately, Walsh threw himself at the nearest grenade and muffled the explosion with his body. He died instantly.

During the greatest war in history, such spontaneous suicides on the battlefield occurred especially during intense fighting, when the distance between the fighting forces was shortened and the battle turned into hand-to-hand combat. The cases described above took place at the distance of a grenade throw.

Examples of Altruistic Suicides on the Battlefield from the Wars in Iraq and Afghanistan

From 2003, fighting continued in the Iraq war. American forces were engaged in fierce fighting with Iraqi forces from the beginning. During these fights, spontaneous suicides on the battlefield often occurred. Here are some examples of such unusual incidents:

On April 14, 2004, 23-year-old Corporal Jason Dunham commanded a patrol in the area of the Husayba military base. During this patrol, Dunham's unit was unexpectedly shot at by a civilian car. American troops returned fire, and the entire column of vehicles was stopped. During a routine search of one of the cars, a man sitting in it jumped at Dunham. During a fierce hand-to-hand fight, a grenade fell out of the Iraqi's pocket. Dunham then quickly covered the grenade with his body to save his soldiers from certain death. He suffered serious wounds and, although he was immediately transported from the field hospital to a hospital in the United States, he died eight days later.

On November 15, 2004, Mexican-born Marine Sergeant Rafael Peralta gave his life in Iraq to save his comrades in arms. This happened while searching houses in Fallujah. He was shot there several times in the face and torso. While he was lying wounded, a grenade thrown by an Iraqi fighter landed next to him. Peralta pushed the grenade under his body, dying instantly from the explosion. He saved the lives of four of his soldiers.

Sergeant Michael Anthony Monsoor was a member of the elite Navy SEAL force that was deployed to the city of Ramadi. He had been stationed there since April 2006. On September 29, 2006, Monsoor's platoon, supported by Iraqi army units, participated in military operations on the streets of Ramadi. Monsoor, together with three SEAL snipers and Iraqi soldiers deployed on one of the roofs to have a view of the battlefield. All nearby streets were blocked by civilians supporting the militants. At one point, a grenade was thrown from the street onto the roof, hitting Monsoor in the chest before he fell to the ground. Although he could have avoided the deadly explosion, he instead immediately threw himself at the grenade, covering it with his body. In this way, he saved three American commandos and eight Iraqi soldiers. With serious injuries, he was immediately transported by helicopter to hospital, where he died half an hour later.

19-year-old Warrant Officer Ross McGinnis was deployed to Baghdad in August 2006. McGinnis operated a machine gun in a Humvee military vehicle as a gunner. On December 4, 2006, his vehicle entered the outskirts of Baghdad to conduct an operation against terrorists. While patrolling the streets of Adamiya, a suburb of Baghdad, a grenade was thrown into the vehicle. Without a moment's hesitation, McGinnis rushed at the driver and covered him with his body. The entire momentum of the explosion was directed at him. He died on the spot but saved the remaining soldiers from the vehicle's crew.

All of the soldiers mentioned were posthumously awarded the Medal of Honor.

In Afghanistan, on November 21, 2010, during a fight with local forces, William Kyle Carpenter saved the life of his unit by throwing his body onto an enemy grenade. He survived the explosion, but his facial bones were broken, and numerous fragments were embedded in his body. Over the course of 30 months, he underwent over 40 surgeries, and he eventually recovered. He received the Medal of Honor for his heroic act.

Examples of Spontaneous Altruistic Suicides on the Training Ground and in Other Circumstances outside the Battlefield.

In times of peace, similar incidents also occur when, for example, improper use of a grenade results in a threat to the lives of bystanders. Such incidents sometimes occur on training grounds during exercises.

On October 8, 2013, soldiers from the Toruń garrison took part in grenade throwing exercises. Captain Grzegorz Nicke, commanding 40 soldiers, ordered the soldiers to enter a shelter, and he stood in a trench on a raised platform and watched his soldiers throw blanks first and then live grenades.

> The soldiers approached along a 50-meter tranche. Along the way, everyone is given an F-1 defensive grenade and a separate fuse, and the doctor checks whether anyone is panicking in front of real ammunition. Then - under the supervision of the activity commander, you have to arm the load, press the spoon to the shell, pull the pin, take a swing and get rid of the iron, aiming between two steel silhouettes nearby. (...) Grenades explode regularly - within five seconds of releasing the spoon.

Suddenly, one of Captain Nicke's subordinates threw a grenade, which landed on the embankment in front of the trench, only 40 centimeters from where he was standing. Captain Nicke immediately sensed the threat. If he had stayed where he was, nothing would have happened to him, only the private would have died. According to Major Ireneusz Bandura, commander of the Toruń garrison, Captain Grzegorz Nicke rushed to save his subordinate out of reflex. He didn't think about it, he didn't have time. He jumped up to the soldier and, covering him with his body, dragged him into the trench. He saved the soldier, but he himself was exposed to a shower of shrapnel that stuck behind the edge of his helmet. The seriously injured officer died 11 days after the accident, without regaining consciousness. He was posthumously awarded the Cross of Merit for Bravery and promoted to the rank of colonel.

Another example concerns events in South Africa. During a training session at a police center near Buffelskloof in southern South Africa, seven instructors were preparing for classes. One of them accidentally released a grenade. 24-year-old Sergeant David Johannes Kruger noticed this and immediately grabbed the grenade from the instructor to throw it out of the room. Due to the time and place, he decided to throw a grenade into the corner of the room and then covered it with his own body to save his friends. He died on the spot, saving the lives of several people who were in the room. The policemen whom he protected with his body were injured but survived.

On April 30, 1975, in Słubice (Poland), a tragedy occurred at an open door in a military unit while grenade was being demonstrated in front of the entire youth class. Here is the description of the event:

> One of the groups of primary school students was to be guided around the school by a younger ensign, a boy. In accordance with the procedure and customs prevailing in the unit, he went to the tradition room. On the way, he only stopped at the weapons warehouse and received the items needed for the demonstration from the platoon leader manning the arsenal. (...) It was a normal class. Runaway, noisy. It was an attractive trip for the kids. More so for the boys, who immediately ran into corners, having to touch everything. The girls, being more polite and less interested in military matters, gathered around the teacher and the junior ensign. He just started presenting how the grenade works. And the moment he pulled out the pin, he heard a characteristic crunch (...) At that moment he knew that the grenade had worked, that it was not a practice one, but a real one. He also knew that he

> was about to explode and was aware of the consequences. (...) The ensign hugged the grenade so that the force of the explosion was as small as possible and his body reduced it. He couldn't throw away the explosive grenade because the room was full of children. The window, in turn, was secured with bars and mesh, and the door was far away.

Soldiers remember this event slightly differently. According to them, the incident took place not in the lecture hall, but in the square between the garages. All the soldiers came to help, carried the injured children out, and then volunteered to donate blood.

> As a professional soldier, I witnessed those events. This ensign's fault was that, after the grenade demonstration, he put the fuse back on. When he was talking about the next exhibit, he heard that the fuse had worked, It was like a shot from a percussion cap. It turned out that one of the boys launched a grenade. “The standard-bearer sacrificed himself.

This tragedy was the result of a mistake by the platoon's weapons storekeeper, who issued an armed grenade instead of a training grenade. The greatest hero was Junior Ensign Eugeniusz W (24), who died by covering an exploding grenade with his body. Moreover, the explosion killed Lieutenant Andrzej M (27), who was standing nearby, as well as a teacher and one student. 14 students were injured in the accident.

The last example presented here of spontaneous altruistic suicide committed to counter a terrorist attack concerns a Jesuit cleric who was killed in Cambodia on October 17, 1996. 26-year-old Filipino Michael Richard (“Richie”) Fernando SJ was practicing as a missionary in Cambodia. He died from a grenade explosion in the classroom where he was teaching classes for disabled students injured by the war. Here is an excerpt from his notes:

> When I die, I want people to remember not how great or strong or talented I was, but that I served the truth and spoke on its behalf; that I have testified to what is right and have been sincere in all my words and deeds. In other words, I loved and followed Christ.

The incident took place in the premises run by a Jesuit technical school in Ang Snuol (Phnom Penh district). The school's principal, Sr. Denise Coghlan, wrote:

> The tragedy of the disabled students is (among other things) that one of them brought the fatal grenade that ended Richie's life... He entered a classroom full of students with a grenade in his hand. Richie must have noticed that the desperate student had a grenade in his hand and grabbed it, trying to stop him. During this time, some students ran away from the classroom, others threw themselves on the floor. Shrapnel from an exploding grenade injured Richie in the neck. He lost consciousness immediately and probably didn't even feel pain. His actions, out of love, saved the lives of many, including the one who brought the grenade.

The examples presented here show that such events occur during ongoing combat, during training at the training ground, and in the context of counteracting the effects of terrorist attacks. The final conclusions include thoughts on the mechanisms causing people to sacrifice themselves in acts of spontaneous altruistic suicide in order to save other people.

Final Conclusions

Altruistic suicides on the battlefield are undertaken instantly and are shaped by dynamically occurring events. Combat conditions, therefore, make it impossible to undertake complex, extensive reflection. It may sound controversial to say that actions are taken in such conditions in the same way as in animals, on the basis of a stimulus and a subsequent reaction. Is this really the case?

It seems that this type of self-destruction (spontaneous suicide on the battlefield) bears all the hallmarks of altruism in its purest form. Therefore, we are dealing here with a completely selfless act, and its goal is to save other people's lives at the expense of our own. It is worth noting that such a sacrifice was most often intended to save companions, people well known to the person offering their lives. This was the case during the fights at Monte Cassino, Iwo-Jima, during the war in Iraq and also during the terrorist attack at a school in Cambodia. However, the sacrifice of life is also made to people who are strangers to the donor, as clearly demonstrated by the example of Private George Phillips, who had just arrived at Iwo-Jima and had not yet had time to meet his colleagues from the unit.

The goal of spontaneous suicide on the battlefield is to save other people's lives at the expense of your own. Although, as we have already said here, such suicide seems to be an act undertaken instinctively, reflexively, it usually happens

in units with high morale, a sense of mutual responsibility for each other and strong integration through bonds born during shared traumatic experiences. A community of this kind especially fosters the development of this sense of mutual responsibility. This responsibility for others, combined with strong imperatives to work as a team, builds the feeling and obligation to be loyal to your team members. This is somewhat reminiscent of the concept of *asabija* by the medieval Berber scholar Ibn Khaldun. This concept means strong bonds between members of a given community, strengthened by a unique sense of responsibility for the rest of the group. In such extraordinary circumstances, some people succumb to a specific battle frenzy that makes them capable of truly heroic deeds.

It can therefore be assumed that the command of mutual loyalty, socialized and then internalized in difficult combat conditions, causes the apparent automatic nature of the actions of this type of suicide.

However, the analyzed phenomenon cannot be fully explained by referring only to the specific nature of the strong mutual bonds that unite the members of the unit into a coherent team. Referring to the process of socialization and internalization of the sense of loyalty and mutual responsibility also does not fully explain spontaneous suicides on the battlefield. Not all witnesses of these events, but only a few individuals, were capable of throwing themselves on a grenade.

It is therefore necessary to consider the personality of these heroic soldiers who gave their lives to save their comrades. However, this goes beyond the scope of sociological analyses. Based on the available information, we can assume that these are people who strongly internalize the sense of loyalty and responsibility in the team, and are able to act quickly, cold-bloodedly, and with great determination.

This seems to be confirmed by American research, which shows that altruistic suicides, referred to here as *heroic altruistic suicides* and identified with sacrifice, occurred more often in more cohesive than less cohesive groups, more often among privates than among professional officers and non-commissioned officers. Also noteworthy is the research conducted among heroes awarded the Congressional Medal of Honor. Based on 125 cases of people who committed heroic altruistic suicides in combat, it appears that, in line with Durkheim's claims, altruistic suicides were more common among non-commissioned officers than officers, more common among soldiers of elite units than in units showing less cohesion, and more common among soldiers holding command positions than among privates.

The generators of such unusual spontaneous suicides on the battlefield are specific sets of circumstances under the influence of which these people find themselves undertaking heroic actions, seemingly automatically, thoughtlessly or instinctively.

To sum up, it can be said that in the case of these suicides, their microstructure and social context comes to the fore. Long-term, shared traumatic experiences unite and integrate the team (*brotherhood in arms*), build friendships saturated with loyalty and mutual responsibility for each other which, combined with the specific social situation on the battlefield at a given time and in a given place, gives extraordinary individuals the impulse to undertake heroic deeds. As in the case of other altruistic suicides, here too the opposite mechanism to the mechanism of dispersion of responsibility is revealed, namely the mechanism of concentration of responsibility.

This fits into Durkheim's classic theory of suicide, according to which individuals who are too strongly integrated into a group are capable of sacrificing their lives in exchange for saving their comrades in arms.

References

Blake J.R., Death by Handgranade: Altruistic Suicide in Combat, "Suicide and life-threatening behaviour", 1978, vol. 8, no. 1, s. 46-59.

Czabański A., Samobójstwa w Poznaniu podczas wojny 1939 – 1945. Socjologiczna analiza zjawiska, Wydawnictwo „Rys", Poznań 2003.

Czabański A., Samobójstwa altruistyczne. Formy manifestacji, mechanizmy i społeczne reperkusje zjawiska, Zakład Wydawniczy NOMOS, Kraków 2009.

Durkheim E., Samobójstwo, przeł. Krzysztof Wakar, Oficyna Naukowa, Warszawa 2006.

Hołyst B., Suicydologia, Wydawnictwo LexisNexis, Warszawa 2002.

http://gron.co/2018/07/22/mlodzieniec-który-oddal-zycie-za-przyjaciol/, data wejścia 21.II.2024 r.

https://plus.poranny.pl/tragedia-w-jednostce-dzieci-zginely-chociaz-przykryl-granat-wlasnym-cialem/ar/5446412, data wejścia 21.II.2024 r.

http://17wbz.wp.mil.pl/pl/99.html , data wejście 20.II.2024 r.

https://wiadomosci.onet.pl/nauka/czterej-zolnierze-pokazali-inny-obraz-wojny/3r7w3, data wejścia 20.II.2024 r.

http://wyborcza.pl/1,87648,14866390,Uratowal_podwladnego_przed_wybuchem_Zginal_Zdecydowaly.html , data wejścia 21.II.2024 r.
http://www.konflikty.pl/aktualnosci/wiadomosci /krzyz-za-smierc-w-obronie-kolegow/, data wejścia 20.II.2024 r.
https://www.wykop.pl/wpis/27574495/sierzant-david-johannes-kruger-z-policji-republiki/ , data wejścia 21.II.2024 r.
Riemer J.R., Durkheim's „Heroic Suicide" in Military Combat, "Armed Forces & Society", 1998, vol. 25, no. 1, s. 103-120.
Stack S., Emile Durkheim and Altruistic Suicide, "Archives of Suicide Research", 2004, vol. 8, no. 1, s. 9-22.
Wańkowicz M., Bitwa o Monte Cassino, tom I, Wydawnictwo Ministerstwa Obrony Narodowej, Warszawa 1989.
Wright D., Iwo-jima 1945. Gwiaździsty sztandar na Suribachi, Amercom S.A., Poznań 2011.

Suicide Studies, 2024, 5(3), 124-132

COLLECTIVISM-INDIVIDUALISM AND SUICIDE

David Lester[35]
Stockton University, New Jersey, USA

Abstract: Durkheim's (1897) theory of suicide would predict that individualist societies should have higher rates of suicide than collectivist societies. The available research on countries suggests that the opposite is the case – countries whose residents obtain higher scores on measures of individualism tended to have lower suicide rates. It is noted, however, that the research available to examine this association has several major limitations, and that more research is needed before we can draw reliable conclusions about this association.

One of the classic sociological theories of suicide was proposed by Emile Durkheim in 1897. The basic concepts in Durkheim's (1897) analysis of suicidal behavior are social integration and social regulation. A society is integrated insofar as its members possess shared beliefs and sentiments, interest in one another, and a common sense of devotion to common goals (Johnson, 1965). Gibbs and Martin (1964) defined social integration as the extent to which its members possess durable and stable social relationships.

Suicidal behavior is common in societies where there is a high degree of social integration (altruistic suicide) and in societies where there is a low degree of social integration (egoistic suicide). Societies with a moderate degree of social integration have the lowest incidence of suicide. Egoism results from excessive individualism, and the individual is protected from egoism by religions with strong group ties, family ties, especially where children are involved, or political affiliations. When the ties in a society are minimal, then suicide becomes more likely. At the other extreme, people can be too closely integrated and identified with a particular group. They may take their lives, for example, as a religious sacrifice or as a result of political or military allegiances.

[35] david.lester@stockton.edu

The second social variable that Durkheim proposed was social regulation. A society is regulated insofar as the society has control over the emotions and motivations of the individual members. Suicidal behavior is common in societies with a high degree of social regulation (fatalistic suicide) and in societies with a low degree of social regulation (anomic suicide). Fatalistic suicide may result when the person is so regulated that he or she feels oppressed, and suicide is an escape from the oppression, but it may also occur when the society demands that the individual die by suicide, as in the Indian practice of forcing women to throw themselves on their husband's funeral pyre (Lester, 2013). Too little social regulation may leave the individual feeling alienated from society, with little meaning to life. Societies with a moderate degree of social regulation have the lowest incidence of suicide. Johnson (1965) noted that it was possible to assume from Durkheim's writings that the incidence of suicide in a society is determined by the degree of social integration and the degree of social regulation acting independently upon the members of the society.

Johnson (1965) set out to show that Durkheim's four types of suicide were reducible to one. The categories of altruistic and fatalistic suicide were considered by Johnson to be dispensable since Durkheim could produce very few contemporary and documented examples of their occurrence. For example, most of the instances of altruistic suicide came from primitive societies for which Durkheim had no adequate statistics. The information available to Durkheim in these cases was confined to ancient authors and the impressions of travelers. Durkheim was restricted to the same sources for his information as to the degree of integration and regulation in those societies. The only example of altruism that Johnson considered to be valid was that occurring in military society.

The reasons for ruling out fatalism were similar. Most of the examples were found in pre-modern and non-Western societies. In addition, Durkheim himself considered fatalism to be of minor importance. Two examples of fatalistic suicide were ruled out by Johnson because Durkheim had not attributed the cause to purely social reasons. For example, very young husbands were considered by Durkheim to be prone to fatalism because their passions were too strong, and they were too self-confident to be willingly subjected to severe rules. Johnson noted that the strength of the passions, and not the nature of marriage, was crucial here and that this, therefore, was not a social cause. Johnson, therefore, arrived at a reformulation of Durkheim's theory: the more integrated a societal group is, the lower its suicide rate.

This brief overview of Durkheim's theory of suicide makes it quite clear the concept of collectivism-individualism should be associated in some way with suicide rates.

Collectivism is, in part, a construct that emphasizes the group and its interests. Collectivism focuses on communal, societal, or national interests. Collectivism can be construed as horizontal, where equality is emphasized and people engage in sharing and cooperation, or as vertical, where a hierarchy is emphasized and people submit to authorities. Horizontal collectivism is based on the assumption that each individual is more or less equal, stresses common goals, interdependence and sociability, and favors democratic decision-making. Vertical collectivism expects individuals to sacrifice themselves for the in-group if necessary, promotes competition between different in-groups, and favors a stricter chain of command.

Collectivism is the opposite of individualism. Individualism emphasizes the worth of the individual. Individualism promotes the pursuit of the individual's goals and desires, values independence and self-reliance, and advocates that the interests of the individual should have precedence over those of the state or a social group. Individualism opposes external interference with the individual's own interests by society or by institutions such as the government.

Individualism in a society should, therefore, result in less social integration and less social regulation. In Durkheim's theory, then, such a society would have higher rates of egoistic and anomic suicide. In contrast, collectivism in a society should result in greater social integration and social regulation and, therefore, result in higher rates of altruistic and fatalistic suicide. If we follow Johnson's argument reviewed above, altruistic and fatalistic suicide are rare, and so individualistic societies should have higher rates of suicide than collectivist societies. Is there any empirical evidence on this issue?

First, let us look at some general correlates of collectivism-individualism.

Collectivism-Individualism, Personality and Behavior

Tychmanowicz, et al. (2021) compared groups of Polish and Ukrainian students, and the results differed for the two groups. For example, for the Polish students, horizontal individualism was associated with openness to experience and

emotional stability (positively) and agreeableness (negatively) whereas for the Ukrainian students, horizontal individualism was associated with openness to experience, agreeableness and extraversion (positively).

In a study of Chinese mainlanders, Kolstad and Gjesvik (2014) found that those who held collectivist attitudes saw minor mental health problems as challenges in daily and relationship strain rather than as psychiatric disorders or illnesses. This impacts their use of mental health professionals in times of distress.

Wheeler, et al. (1989) compared the social interactions of students in the United States (an individualist culture) and Hong Kong (at that point in time a collectivist culture). The students in Hong had longer but fewer social interactions (over the two-week period of study), interactions with fewer people, but with greater self- and other-disclosures.

Way and Lieberman (2010) found that the residents of countries that differ in collectivism-individualism also differ in the presence of genes that impact central neurotransmitter systems involving serotonin, a neurotransmitter that is thought to impact depression and anxiety.

These are only a few studies of the consequences of having a collectivist versus an individualist orientation, but they serve to make the point that collectivism-individualism impacts personality and social behavior and, perhaps, may be associated with genetic predispositions to psychiatric disorders such as depression. All of these variables (personality traits, social behavior and genetics) most likely influence the appearance of suicidal behavior in people and in cultures.

Collectivism-Individualism and Suicide

Studies of Countries

Triandis et al. (1986) gave a questionnaire to college students in eight countries (Chile, Costa Rica, France, Greece, Hong Kong, India, the Netherlands and the USA) to measure collectivism-individualism, defined as the extent to which cooperation, competition and individualism are emphasized in social situations. Lester (1992) found that the average scores of students in these eight countries was not significantly associated with the suicide rates of the countries, even after controlling for the gross domestic product per capita. However, this study used a very small sample of nations.

Hofstede (1980) measured individualism using a psychological inventory for a sample of employees of one company with offices in 39 nations. Lester 1988) compared these scores with the suicide rates of 18 of the nations and found a negative association (Pearson r = -0.43, p = .04). Hofstede (1991) updated his data set and increased the sample size of nations, and Lester (2002) found that suicide rates remained significantly associated with the measure of individualism, but not after controls for the gross domestic product per capita of the nations.

Spector et al. (2001) also measured individualism in managers in a sample of nations using a psychological inventory, and Lester (2005) found that individualism was negatively, but only weakly, associated with the suicide rates of 19 of these nations (Pearson r = -0.40, two-tailed p < .10).

Ronald Inglehart (World Values Study Group, 1994) administered a questionnaire to individuals in 43 nations of the world, and Suh et al. (1998) used the scores that Inglehart obtained to devise a measure of individualism-collectivism for these nations. Lester (2000) found a nonsignificant association between this score and the suicide rates of 43 of the nations, (Pearson r = 0.20, p = .19). Controls for the gross domestic product per capita did not change this result. This lack of an association was replicated on a smaller sample of 27 nations (Lester, 2003).

The conclusion appears clear that ratings of individualism of countries have a weak negative association with suicide at best.

However, Braun and Genkin (2014) argued that a collectivist society would find it easier to recruit *suicide bombers* and lower societal backlash against those who carry out such attacks. They studied of 414 terrorist organizations for the period 1981 to 2006, assigning a collectivism-individualism scores based on their ethnic group. For example, Turkish terrorist groups in Turkey were assigned the score for Turkey, while Armenian terrorist groups in Turkey were assigned the score for Armenia. Overall, 25% of the terrorist groups with collectivism scores above the median used suicide bombings as compared to only 6% of those with collectivism scores below the median. Controlling for other variables (such as Islam and democracy) did not eliminate this difference.

Studies of Individuals

Brougham and Haar (2013) studied Maoris in New Zealand who are considered to be more collectivist as a culture than other New Zealanders. They found that high collectivism scores and high cultural knowledge of their person background predicted low depression scores, and high cultural knowledge and high cultural language skills predicted low depression and anxiety. Since depression, and to a lesser extent anxiety, are positively associated with suicidal behavior, this study suggests that a collectivist orientation reduces the risk of suicidal behavior.

Kemmelmeirer, et al. (1999) found that American college students with higher scores for individualism were more approving of physician-assisted suicide.

In a study of American adults, Yoon, et al. (2020) complicated the picture by finding that holding patriarchal values was associated with higher depression, and research has shown that depression predicts suicidal behavior in individuals. In particular, holding patriarchal values was associated with depression at high levels of vertical individualism and low levels of vertical collectivism. It is likely, therefore, that other variables mediate and modify the association between collectivism-individualism and suicidal behavior and suicide attitudes.

Based on this limited research, a collectivist attitude I n people tends to lower the risk of suicide.

A Mohave Theory of Suicide

The Mohave are a small group of Native Americans situated on the banks of the Colorado River in Arizona and California. The Mohave attributed the high suicide rate of white Americans to a lack of mutual support in White American society. They attributed their own rising suicide rate to increasing distress resulting from their romantic and marital relationships, accompanied by a reduction in the affective commitment to and emotional dependence on the kin group and the tribe as a whole (Devereux, 1961). In the past, the Mohave's primary commitment was to the society which provides the Mohave with an identity. The switch to dependence on a few intimates means that rejection by a single individual now had the same impact as rejection by the whole society. For the Mohave, therefore, the rise in individualism may have resulted in a rising suicide rate.

Richard Lynn's Study of National character

Lynn (1991) gave a questionnaire to 150 male and 150 female college students in 41 countries. Although his personality inventory did not measure individualism, it measured competitiveness and, separately, achievement via conformity, two concepts related to individualism-collectivism. Lester and Lynn (1993) studied the association of these scores with the suicide rates of 30 of the countries and found a negative association with competitiveness ($r = -0.58$, two-tailed $p < .01$) and also a negative association with achievement via conformity ($r = -0.38$, two-tailed $p < .05$). The latter association suggests that achievement motivation outweighs the method by which it is sought (via conformity or otherwise). Indeed, achievement motivation per se was negatively associated the national suicide rates ($r = -0.42$, two-tailed $p < .05$). These results, therefore, support a negative association between individualism and suicide at the societal level.

The Motives for Suicide

A more meaningful question to ask about individualistic and collectivist societies is whether the motives for suicide differ in these two types of nations. Are the motives for suicide for those living in individualistic societies more egocentric while the motives for suicide of those living in collectivist societies more interpersonal? There are no data on this presently.

Lester and Gunn (2012) have shown how this question might be answered. They took samples of suicide notes from several countries (Australia, Canada, China, Germany, Russia and the USA) and rated the notes for the presence of themes of feeling that one is a burden to others and of thwarted belongingness. Unfortunately for present purposes, the notes from the different countries were not comparable (the notes from China were all from young people), and the themes chosen were not particularly relevant to individualism-collectivism. But the study does illustrate a possible methodology for future research on the association between individualism-collectivism and suicide at the individual level of analysis.

Discussion

The results of the research reviewed in this chapter suggest that countries whose residents have high scores on measures of individualism may have lower suicide rates. This association was not always statistically significant, and the

countries used in the studies were not chosen specifically to test the association between individualism-collectivism and suicide rates. For example, almost all of the countries in the samples were industrialized countries.

A further limitation was that little research on individuals was found. There is some weak evidence that people with high scores on a measure of individualism are less, likely to be suicidal, which is consistent with the studies of societies as a whole. More research on this topic is needed to clarify the association between individualism and suicidal behavior.

If, as the research reviewed in this chapter suggests, countries higher in individualism have lower suicide rates, this implies that individualistic countries do not have higher rates of egoistic and anomic suicide in contrast to predictions from Durkheim's theory of suicide.

References

Braun, R., & Genkin. M. (2014). Cultural resonance and the diffusion of suicide bombings. *Journal of Conflict Resolution, 58,* 1258-1284.

Brougham, D., & Haar, J. M. (2013). Collectivism, cultural identify and employee mental health. *Social Indicators Research, 114,* 1143-1160.

Devereux, G. (1961). *Mohave ethnopsychiatry*. Washington, DC: Smithsonian Institution.

Durkheim, E. (1897). *Le suicide.* Paris, France: Felix Alcan.

Gibbs, J. P. & Martin, W. T. (1964). *Status integration and suicide*. Eugene, OR: University of Oregon Press.

Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.

Hofstede, G. (1991). *Cultures and organizations*. London, UK: McGraw-Hill.

Johnson, B. D. (1965). Durkheim's one cause of suicide. *American Sociological Review, 30,* 875 - 886.

Kemmelmeier, M., Burnstein, E., & Peng, K. (1999). Individualism and authoritarianism shape attitudes toward physician-assisted suicide. *Journal of Applied Social Psychology, 29,* 2613-2631.

Lester, D. (1988). National character and rates of personal violence (suicide and homicide). *Personality & Individual Differences, 9,* 423.

Lester, D. (1992). Collectivism-individuals and rates of personal violence (suicide and homicide). *Psychological Reports, 71,* 714.

Lester, D. (1997). Note on a Mohave theory of suicide. *Cross-Cultural Research, 31,* 268 - 272.

Lester, D. (2000). Individualism and suicide. *Perceptual & Motor Skills, 91*, 826.
Lester, D. (2002). National character and rates of suicide and homicide. *Psychological Reports, 91*, 192.
Lester, D. (2003). Nations' rated individualism and suicide and homicide rates. *Psychological Reports, 92,* 426.
Lester, D. (2005). Individualism and suicide. *Psychological Reports, 97,* 576.
Lester, D. (2013). Sati. In E, Colucci & D. Lester (Eds.), *Suicide and culture* (pp. 217–236). Cambridge, MA: Hogrefe.
Lester, D. (2014). Oppression and suicide. *Suicidology Online, 5*, 59 - 73.
Lester, D., & Gunn, J. F. (2012). Perceived burdensomeness and thwarted belonging. *Clinical Neuropsychiatry, 9,* 221 - 224.
Lester, D. & Lynn, R. (1993). National character, suicide and homicide. *Personality & Individual Differences, 14,* 853 - 855.
Lynn, R. (1991). *The secret of the miracle economy*. London, UK: The Social Affairs Unit.
Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, D., Sparks, K., Bernin, P.,….&Yu, S. (2001). Do national levels of individual and internal locus of control relate well to well-being. *Journal of Organizational Behavior, 22,* 815 - 832.
Suh, E., Diener, E., Oishi, S. & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across culture. *Journal of Personality & Social Psychology, 74,* 482 - 493.
Triandis, H. C. (2018). *Individualism and collectivism*. New York: Routledge
Triandis, H. C., Bontempo, R., Betancourt, H., Bond, M., Leung K., Brenes, A.,….. & de Montmollin, G. (1986). The measurement of aspects of individualism and collectivism across cultures. *Australian Journal of Psychology, 38,* 257 - 267.
Tychmanowicz, A., Filipiak, S., & Sprynska, Z. (2021). Extravert individualists or introvert collectivists? *Current Psychology, 40,* 5947-5957.
Way, B. M., & Lieberman, M. D. (2010). Is there a genetic contribution to cultural differences? *Social, Cognitive & Affective Neuroscience, 5,* 203-211.
Wheeler, L., Reis, H. D., & Bond, M. H. (1989). Collectivism-individualism in everyday life. *Journal of Personality & Social Psychology, 57,* 79-86.
World Values Study Group (1994). *World values survey, 1981-1984 and 1990-1993* (ICPSR version) [Electronic data file]. Ann Arbor, MI: Institute for Social Research.
Yoon, E., Chang, H., & Adams, K. (2020). Interrelations of patriarchal beliefs, gender, collectivism/ individualism, and mental health. *Counseling Psychology Quarterly, 33,* 199-217.

Suicide Studies, 2024, 5(3), 133-139

A CONVERSATION BETWEEN A SURVIVOR AND A SUICIDOLOGIST

Jay E. Valusek & David Lester[36]

Jay: I've been thinking about you, and your long career, and why it's bothering me. few thoughts and/or questions, maybe criticisms,

I very quickly scanned through your Toward a New Theory of Suicide today (Lester, 2024a). As an aside, I found the little section about my daughter's suicide fit nicely into your two-self theory, insofar as I could discern. It seems, from my brief foray into your mind, that you may know more about the field than almost anyone on earth, yet, in the final analysis, you still can't explain suicide. In fact, my sense, especially from reading the book about Katie's diary (Lester, 2004b), is that, at some level (unconscious perhaps) you don't actually want to explain suicide in any general in a manageable or understandable way. I'm beginning to suspect that you just want to study suicide to death, but you never reach any clear or concrete conclusions. I'm sure I'm being unjust now, but this is what it looks like, from my seat far up in the bleachers. Even as you inch "toward" a theory of suicide, it feels like you are wandering into a forest and getting choked to death in a thicket of theories, like angels, dancing on the head of a pin. I'm mixing metaphors, but I'm reminded of the old saying: You can't see the forest for the trees.

David: It's not that I don't want to understand suicide. It is that I think that we never can or will be able to. I have been cited for saying that[37]. I think that we might sometimes understand this person's suicide, but not the majority and certainly not with one theory, like Joiner (2005) mistakenly argues.

Jay: Unlike Baumeister or Williams or Joiner or Klonsky or O'Connor or even Gunn (2017) in his paper, *The Social Pain Model*, all of whom appear to have sought (whether rightly or wrongly) to distill, or extract, or condense, or simplify the vast morass of suicide research and theory into something at least comprehensible to an educated layperson, seeking, for example, to understand why

[36] david.lester@stockton.edu

[37] For example, https://brainposts.blogspot.com/2013/09/notes-on-suicide-in-us-freakonomics.html; https://freakonomics.com/podcast/the-suicide-paradox/

a loved one killed themself. But you seem not to have attempted that. If your latest book (Lester, 2024a) is an attempt to do so, it strikes me as absolutely unapproachable. Perhaps you're not interested in making sense to a layperson, but it feels kind of sad or disappointing or mysterious that your incredible knowledge lies frozen in hundreds of thousands or millions of words that offer almost nothing for a person like me. If suicide is so utterly, vastly, stupefyingly, mind-bogglingly inexplicable that it is impossible to boil it down to some sort of "model" that one could outline in, say, a single paper, in plain English, then why bother talking about it at all anymore?

David: I the end book with typologies. There cannot be one theory of suicide. We need a comprehensive typology of suicides with a theory for each one. I cite the 5-typolgies proposal (Van Hoesel, 1983), but five is far too few. And I am not sure that anyone will come up with a good typology, let alone come up with a good theory for each type. But we desperately need a good typology first.

Jay: I'm frustrated, David, partly because, to me, suicide is almost completely comprehensible, if one can come down to earth, and sort through the morass to find a few Linnean categories that nearly everyone agrees on, and stop multiplying useless theories no ordinary human can wrap their heads around. Some of us out here (not your primary audience, I know) need to "make sense" of suicide without getting a PhD. As a professional writer for 30 years, I learned that you can make sense of even the most profoundly complex, technical subjects if you are willing to try. My take, therefore, on suicide, after reading and comparing and thinking about it for a mere five years now, is that there are common elements that rise to the top of the horrific morass of studies and specialists publishing ad nauseum, which would speak to those of us left behind, therapeutically, so we could avert complicated grief, or MDD, or PTSD, or any number of other disorders I no longer believe in. If you, the world's greatest brains in suicidology cannot or will not do it, then move aside because the generalists and communicators like me are going to do it for you.

David: You must remember that I am not writing for survivors. I am a scholar writing for fellow scholars. However, you should find Sheidman's 10 commonalities useful (Shneidman, 1996), but maybe you have already. They seem ideal for the lay person.

1. The common purpose of suicide is to seek a solution

2. The common goal of suicide is cessation of consciousness

3. The common stimulus of suicide is psychological pain (psychache)

4. The common stressor in suicide is frustrated psychological needs

5. The common emotion in suicide is hopelessness-helplessness

6. The common cognitive state of suicide is ambivalence

7. The common perceptual state in suicide is constriction

8. The common action in suicide is escape

9. The common interpersonal act in suicide is communication of intention

10. The common pattern in suicide is consistent with life-long styles of coping

Jay: Why not be the Carl Sagan of Suicidology, David? Why not break it down for the rest of us? Why not take a chance and diagram it for us? Give us a better rendition of Joiner's venn diagram. I've got one. Shouldn't you? Do you really want to be remembered for your 10,000 publications without any concrete conclusion? For your angelic dance steps? Even Einstein broke down relativity for the masses. Surely suicide isn't more complex than that? Even I can grasp the gist of quantum mechanics.

David: I don't want to be remembered for my work. If you read my autoethnography in *Suicide Studies* (Lester, 2024c), I wanted to be a physicist. I switched to psychology out of anxiety that I had reached my intellectual limit in physics. I should not have switched. As I write elsewhere, if I let go of the pen in my hand, it will fall to the ground. If I find that the data shows that depression is associated with suicidal behavior, there is a 5% probability or a 1% probability that I have drawn an incorrect conclusion. Psychology is not a science.

If you read the end of my review of 1998 suicide research in Suicide Studies (Lester, 2024d), you will see that I am very critical of most research into suicide, including my own. These days, scholars merely keep re-inventing the wheel. They don't even read the old research from the last few decades and realize that their study has already been done by others - many many times. There is so much

published on suicidal behavior these that it is possible only to read the most recent articles (and editors and reviewers demand recent citation).

Jay: The introduction to my proposed book on social pain and entrapment is going to take the entire field of suicidology to task for obfuscating so egregiously as to be useless or, worse, blatantly harmful to those of us (millions every year, in the United States alone) who need to understand what the happened to our loved-ones who died by suicide. As I see it, we do know enough to offer something to these poor souls, even if it's imperfect or incomplete. We know something about suicide 125 years since Durkheim, don't we?

David: I disagree. We do not know much more.

Jay: Has it ever occurred to you why, in fact, Joiner's theory rose out of the fog of suicidology to land on the throne where, as far as I can tell, it still reigns supreme? The answer is staring us all in the face. It is simple enough for anyone to comprehend.

David: One can understand it. But it applies only to a small minority of suicides. It is merely one type, and it applies to only a few suicides. Look at what Lester and Gunn (2022) found in their study.

Is perceived burdensomeness present in the lives of famous suicides? A lack of support for the interpersonal theory of suicide?

David Lester and John F. Gunn

ABSTRACT The Interpersonal Theory of Suicide (IPTS) proposes that suicide is the result of three constructs: perceived burdensomeness, thwarted belonging, and the acquired capability for suicide. To explore the presence of these constructs in suicides, two raters read 72 summaries of biographies of famous suicide for the extent to which each construct was present. Only 11 of the 72 (15.3%) suicides were judged to have perceived burdensomeness compared to 65 (90.3%) and 48 (66.7%) for thwarted belonging and the acquired capability, respectively, indicating that a sense of burdensomeness is not commonly found in suicides.

Jay: David, it's not really you that I'm angry at. It's the field. Specialists analyzing the tiniest psychological quirks, publishing papers, talking to each other, and

leaving us out here, high and dry, where, like it or not, the only theory any of us laypeople and ordinary citizens know is the mental illness model of suicide (propagated, to this day, by the likes of AAS, AFSP, NAMI, and every single mental health and suicide prevention non-profit in America). Hilariously, there is no such thing as the mental illness theory in any published paper anywhere. But that is the only theory most people know. You and your friends have never even come close to knocking that model off the pedestal.

David: I agree with you. This is an extract of what I have written (Lester, 2014).

The Issue of Psychiatric Disorder

In this chapter, I will discuss the critical issue of whether the presence of a psychiatric disorder in individuals precludes them from making rational decisions. In doing so, I will present a strong critique of the field of psychiatry which, in my opinion (and that of others such as Thomas Szasz [1974]) has departed from the tenets of good scientific theory and even those tenets of the model on which it is based (the scientific study of medical diseases). I will present my argument as a series of objections.

Objection 1: The Diagnostic System

To introduce you to my major objection, let us assume you have a headache and a fever. You go to your family physician, and he tells you that you have a disease called headache/fever, or HF for short. What would you do? You'd run as fast as you could out of his or her office and look for a good doctor. Medical illnesses are based on causes. What is causing your fever? What is causing your headache? Is it caused by a virus or bacteria? If so, which ones? Lyme's disease or swine flu? Is it because of a brain tumor and, if so, is it malignant or benign?

Psychiatric disorders or mental illnesses are not defined by causes. They are defined by clusters of symptoms. Let us say you are depressed. Maybe it is because you do not have enough serotonin in certain regions of the brain. Maybe you have suppressed and repressed anger felt toward significant others in your life so that you are no longer conscious of the anger (a Freudian, psychoanalytic view). Maybe it is because you have learned from your life's experiences that you cannot get of the traps in which you find yourself (learned helplessness). Maybe it is because there are not enough rewards (positive reinforcers) in your life, either

because you are in unrewarding relationships and employment or because you lack the skills to obtain rewards from others (a learning theory perspective)……

Psychiatry is worse than psychology as a science.

Jay: I had an impression about your work had gotten my hopes up that maybe you, of all people, would, at last, actually produce a new theory of suicide grounded in that vast range of studies lodged in your prodigious brain, but no. Just more of the same. We're left to flail, ignorantly, while the PhDs pile higher and deeper, the funding pours down yet another rabbit hole to Wonderland, and our loved ones just keep killing themselves, willy nilly, for no apparent reason, or a million apparent reasons. And suicidology remains yet another utterly irrelevant academic discipline, accomplishing nothing.

David: Not true. To be cynical, we get tenure and promotion for our research. Do we find the truth? Rarely. But I have made an effort to understand one suicide, a woman I have called Katie (Lester, 2004; Gunn & Lester, 2022). There are chapters outlining her life, chapters from her sister and boyfriend, and a dozen from suicidologists, including researchers, psychotherapists and survivors like yourself. Read them and tell me, can we really understand Katie's suicide?

References

Gunn, J. F. (2017). The social pain model. *Crisis, 38,* 281-286.

Gunn, J. F., & Lester, D. (Eds.) (2022). *Perspectives on a young woman's suicide*. New York: Routledge.

Joiner, T. (2007). *Why people die by suicide*. Cambridge, MA: Harvard University Press.

Lester, D. (Ed.) (2004). *Katie's diary.* New York: Brunner-Routledge.

Lester D. (2014). *Rational suicide: Is it possible?* Hauppauge, NY: Nova Science.

Lester, D. (2024a). Toward a new theory of suicide. *Suicide Studies, 5*(1), 2-90.

Lester, D. (Ed.) (2024b). Lester, D. (Ed.) *Katie's diary*. New York: Brunner-Routledge.

Lester, D. (2024c). David Lester: An autoethnographic essay. *Suicide Studies, 5*(2), 113-124

Lester, D. (2024d). A review of research on suicide in 1998: *Suicide Studies, 5*(2), 2-61

Lester, D., & Gunn, J. F. (2022). Is perceived burdensomeness present in the lives of famous suicides? A lack of support for the interpersonal theory of suicide? *Death Studies, 46,* 1801-1806.

Shneidman, E. S. (1996). *The suicidal mind*. New York: Oxford University Press.

Van Hoesel, F. M. T. (1983). *An empirical typology of suicide*. Master's thesis, American University. Ann Arbor, MI: Proquest Dissertations Publishing.

Suicide Studies, 2024, 5(4), 140-150

AN EVALUATION OF SOME SPECIFIC SUICIDE PREVENTION TACTICS: PART 1

David Lester

Abstract: This essay reviews recent research on some tactics for suicide prevention: suicide at hot spots, fencing in bridges, restricting access to paracetamol (acetaminophen), locking up pesticides and insecticides, suicide prevention centers and hotlines, mobile apps, and following-up suicidal patients.

Suicides at Hot Spots

Occasionally, hot spots develop for suicide. Suicides have been common at Niagara Falls (USA: Lester & Brockopp, 1971), Beachy Head (England: Surtees, 1982) and Aokigahara, a forest in Japan (Takahashi, 1988). Apart from placing telephone help lines in such hotspots, little has been done to prevent suicides in these places and no research to evaluate their effectiveness.

Recently, a hotspot for suicide developed in Hong Kong. People traveled to Cheung Chau, an island in Hong Kong to die by suicide using burning charcoal. Sometimes they died alone, but often there were suicide pacts. (Interestingly, residents of the island used hanging for suicide rather than charcoal burning.) The use of charcoal burning for suicide became popular in Hong Kong (and elsewhere in Asia) after media reports of such suicides, and the use of this method in Cheung Chau was reported in mass media, leading to a spate of suicide by visitors to the island.

Several actions were taken by a group of concerned agencies and individuals:

1. Positive thinking was promoted by putting posters around holiday apartments; e.g., “Difficulties will pass, a bright future is waiting for you,” “Life is beautiful, cherish life and live the best”
2. The media was encouraged to about reduce the contagious effects generated by using responsible suicide reporting practices (such as avoiding sensational reporting, photographing apartments where the suicides occurred)
3. Placed hotline numbers in all holiday apartments

4. Holiday apartment owners would not rent their properties to somebody who was alone and looked unhappy, depressed, or emotional
5. Raised the awareness of holiday apartment owners about visitors who behaved strangely or who might be in need of mental health or crisis intervention
6. Approach tenants proactively
7. Increased patrols by police (at least once every hour)
8. Established 24-hour help hotline to provide emergency support to people in need and made referrals to the hotline
9. Social workers and psychologists were made ready to provide services
10. Provided round-the-clock hotline services by police officers, and social workers (with training in suicide prevention)
11. Provided round-the-clock face-to-face services

Wong, et al. (2009) found that prior to the program, there were 37 deaths in 51 months whereas there were 6 deaths in the subsequent 42 months. Suicide pacts decreased from 7 to one. No changes occurred in comparable islands, and there were no changes in suicides by residents of Cheung Chau.

The Impact of Fencing in Bridges

Two popular bridges in Washington DC in America for suicides are the Taft Bridge and the Duke Ellington Bridge over Rock Creek Park. Barriers were installed on the Duke Ellington Bridge in 1986. From 1979-1985, there were 24 suicides from the Duke Ellington Bridge, 12 from the Taft Bridge and 8 from all other bridges in the area. After barriers were installed on the Duke Ellington Bridge, from 1987-1989, there were no suicides from the Duke Ellington Bridge, 7 from the Taft Bridge and 8 from all other bridges (see Table 1). The average number of bridge suicides dropped from 6.3 suicides per year before the barriers were installed to 5.0 afterwards (Lester, 1993). These results are encouraging, but too small for adequate statistical tests of the change. The numbers are also too small to see whether the barrier had an impact on suicides in the city from bridges as a whole, by jumping from any place or on the overall suicide rate (O'Carroll, et al., 1994).

Berman, O'Carroll and Silverman (1994) examined suicides from these same bridges. Before the barrier was erected (1979-1986), 25 suicides jumped from the Ellington Bridge and 12 from the Taft Bridge. Afterwards (1986-1990), the numbers were 1 and 10, respectively. Clearly, the barriers prevented suicides from jumping from the Ellington Bridge. However, Berman, et al. pointed out that

using the Taft Bridge for comparison is not methodologically sound since other possibilities (using all kinds of methods in addition to jumping) for killing yourself existed for Washington DC residents. They noted, therefore, that an adequate study had not been done to explore whether any suicides were prevented by fencing in the Ellington Bridge or whether potential suicides simply switched methods.

Table 1. The results of fencing in the Duke Ellington Bridge in Washington DC

		Ellington Bridge (per year)	Taft Bridge (per year)	Other Bridges (per year)	Total (per year)
Lester (1993)					
1979-1985	7 years	3.4	1.7	1.1	6.3
1987-1989	3 years	0	2.3	2.7	5
Berman, et al. (1994)					
1979-1986	8 years	3.7	1.7	?	
1986-1990	5 years	0.2	2	?	

In England and Wales, barriers were erected on the Clifton Suspension Bridge in 1998. Bennewith, et al. (2007) compared suicide in the region for the five years prior to this and for the five years afterwards. The number of bridge suicides was cut in half, from 8.2 per year to 4.0. Suicides by jumping from other sites increased from 6.2 to 8.4, a non-significant increase and a result of the increase in suicides by jumping by women in the region (and in the whole of England and Wales). (In the five years prior to the erection of the barrier on the bridge, only one out of the 41 suicides was female.) The number of suicides per year from jumping from any site dropped from 14.4 to 12.4 (a non-significant change), while the suicide rate in the area declined from 11.2 per 100,000 per year to 10.5, a non-significant decline. Thus, erecting barriers on the bridge reduced suicides from the bridge and does not appear to have been accompanied by displacement to other methods for suicide.

Pelletier (2007) compared suicide by jumping from the Memorial Bridge in Augusta, Maine, before and after the installation of safety fences in 1983. From 1960 to 1982, there were 14 suicides from the bridge versus none afterwards (from

1984 to 2005). During these same two periods, there were 9 and 9 suicides by jumping from a high place in Augusta (other than from the Memorial Bridge), respectively, which indicates that those who might have jumped to their death from the Memorial Bridge did not jump from other high places.

Reisch and Michel (2005) investigated the impact of placing a fence on part of the Berne Muenster Terrace in 1998 in Switzerland which is in a park overlooking a river and part of the old town and which had become a "hot spot" for suicides. The fence was built to protect those under the bridge from injury and psychological trauma caused by the suicides. However, the fence did not enclose all of the possible places in the park from which to jump, and there were other bridges visible from the park which could be used for suicide. Despite this, whereas six people jumped in the four years before the erection of the fence, none did so in the four years afterwards. Surprisingly, the number of suicides by jumping from any place in Berne declined after the erection of the fence. Reisch and Michel suggested that the fence not only prevented suicides from that place, but had a psychological impact on suicide by jumping in general. Reisch and Michel noted also that media reports in Berne about suicide by jumping increased in the years before the installation of the fence and declined thereafter. Media publicity may, therefore, have played a role in the decline of suicide by jumping. Unfortunately, Reisch and Michel did not carry out any statistical tests of whether suicides in Berne switched to other methods for suicide after the fence was installed.

Removing Barriers

Beautrais (2001) took advantage of a decision by a town council in somewhere in Australia or New Zealand (Beautrais did not want to name the town) to remove safety barriers from a bridge on the grounds that (i) they were unsightly, (ii) they impeded rescue efforts, and (iii) they did not prevent suicide. In the four-year periods before and after the removal of the barriers, the number of suicides increased from 3 to 15, with estimated rates of 0.29 per 100,000 per year before removal of the barrier, rising to 1.29 afterwards.

Beautrais also looked for switching. Did more suicides occur by jumping elsewhere in the city? Focusing on the two-year periods before and after removal of the barriers, the number of suicides by jumping remained constant (14 in each two-year period), but the location did switch to the newly unfenced bridge, a

change that was statistically significant. These data suggest that switching did occur.

Beautrais noted that the majority of the suicides from the bridge were men, schizophrenics and either inpatients or in residential care at the time. Those jumping from other sites included more women, were somewhat older and were somewhat less likely to be schizophrenics or psychiatric inpatients, but the numbers were too small for reliable conclusions to be drawn about the differences in the two groups. If the groups did differ in characteristics, then this would argue against switching. Instead, the removal of the safety barriers may have increased the rate of suicide among some groups of the population (in this case, schizophrenics).

Beautrais, et al. (2009) examined the impact of removing safety barriers from the Grafton Bridge in New Zealand. The number of suicides from the bridge increased fivefold after the removal. After the safety barriers were replaced, there have been no more suicides from the bridge.

Placing Call Boxes and a Police Presence on Bridges

Glatt (1987; Glatt, et al., 1986) studied the effect of putting two suicide prevention telephones on the Mid-Hudson Bridge in Poughkeepsie, New York. In the first two years, the telephones were used 30 times, and only one of these callers jumped. Nine other people did not use the telephones, and five of these jumped. Thus, it is clear that the telephones were used, but unfortunately Glatt did not present any data on the number of jumpers prior to and after the telephones were installed.

The Sunshine Skyway Bridge in St. Petersburg, Florida, provides a 155-foot plunge (Lester, 2005). The bridge opened in 1954 and the first suicides occurred in November 1957. Since then, 127 suicides have occurred from the bridge. In the year 2000, the Florida state police began staffing the bridge full-time, and one officer reported talking seven suicides out of jumping while 19 others did jump. Six emergency call boxes were placed on the bridge after July 1999, which connect directly to the Crisis Center in Tampa and also alert the bridge police. Since then, 18 people have called, and none of these jumped. From 1996-1998, 25 suicides took place from the bridge; from 2000-2002, 19 suicides took place. These numbers are too small to detect a significant change.

Paracetamol (Acetaminophen)

It became common in England to use paracetamol for attempting suicide, resulting occasional deaths. (In addition, paracetamol can cause severe liver damage.) In an effort to reduce the use of paracetamol of suicidal behavior, tablets were sold in packets containing fewer numbers of pills and in plastic blisters which slowed people down in their endeavor to obtain a large number of pills for an overdose.

Hawton, et al. (2001) studied the impact of these moves on the use of paracetamol and salicylates for suicidal behavior. In the year following this move, deaths from suicide using paracetamol decreased by 21% and the number from salicylates by 48%. Liver transplants after overdosing with paracetamol decreased by 66%. The number of non-fatal suicide attempts using paracetamol decreased by 11%.

Pesticides and Insecticides

It has long been recommended that those using pesticides and insecticides keep them locked up since they are a popular method suicide in some countries. The role of pesticides was demonstrated by Kong and Zhang (2020) who compared suicides aged 15-34 in rural China with living controls and found that access to pesticides, especially insecticides) differentiated the two groups. Roughly two-thirds of the suicides used pesticides (66.2%).

A review of research on this tactic by Reifels, et al. (2019) identified only 5 methodologically sound studies that evaluated this tactic, they used four approaches: non-pesticide-based management of pests, providing central, lockable pesticide storage boxes, providing household-based lockable pesticide storage containers, and bans of certain pesticides. Four studies reported positive results, and one reported no impact on suicidal behavior. Unfortunately, this latter study was judged to be the most robust and methodologically sound study, and it focused on providing household lockable storage containers (Pearson, et al., 2017).

In the study by Pearson, et al. in Sri Lanka, farmers in 90 villages were given lockable containers for storing pesticides while farmers in another group of 90 villages were not. Posters and 6-month reminders were provided for the farmers in the intervention group. The sample sizes were 114,168 and 109,693 individuals respectively. There were no significant differences in suicide attempts, both fatal

and non-fatal, using pesticides (the rates were 293.3 per 100,000 per year and 318.0, respectively). There was also no evidence of differences in switching to other methods for suicide.

However, Reifels, et al. (2019) concluded that the introduction of non-pesticide management, storing pesticides in central storage facilities, and local bans of specific insecticides show promise and merit further study.

Suicide Prevention Centers and Hotlines

Beginning in the 1950s, suicide prevention centers were established, usually with telephone access and less often with walk-in clinics. Currently, there is a hotline in the United States with a simple telephone number (988: Suicide and Crisis Lifeline: hours: available 24 hours: languages - English, Spanish). The way in which this lifeline has been established means that no evaluation of its effectiveness can be made because there is no control region (a comparison of regions with and without access to the lifeline).

However, in the early days, efforts were made to explore whether a suicide prevention telephone service did have an impact on suicide. For example, Lester (1974a) studied 24 American cities and compared those with suicide prevention centers in 1967 and by 1969 and those without centers. Comparing suicide rates in those cities in 1960 and 1969 indicated that the presence of a suicide prevention center had no significant impact on changes in the suicide rate. Furthermore, Leenaars and Lester (1995) failed to find a statistically significant effect in a study of Canadian suicide rates. Bridge, et al. (1977) found that suicide prevention centers in the counties of North Carlina had no impact on the suicide rate. Medoff (1986) found that states with more suicide prevention centers experience a reduction in the suicide rate.

In a review of 14 studies, Lester (1997) found that seven studies provided some support for a preventive effect, one study found an increase in the suicide rate, and six studies failed to find any impact. Since that time, there seem to have been no evaluations of the effectiveness of suicide prevention centers.

Suicide hotlines provide needed crisis counseling for communities, and this is testified by the volume of calls that such hotlines receive. Despite the fact that the hotlines have not been shown conclusively to prevent suicide, they should be

fully funded and made available to all (for example, by making counseling available in more languages). The current 988 hotline is a welcome resource.

Mobile Apps

Sarubbi, et al. (2022) reviewed research on the effectiveness of mobile apps for helping suicidal individuals. Mobile apps provide constant availability, greater access, equity of mental health resources, immediate support, anonymity, tailored content, lower cost and increased service capability and efficiency. They also help those in geographically less populated areas that are far from resources. App-delivered interventions have been shown to be useful in the treatment of several psychiatric disorders, such as depression, anxiety, substance abuse disorders and chronic insomnia. In a review of 32 studies on mobile apps for suicide prevention, Sarubbi, et al. found that the apps were judged by participants to be acceptable and helpful,. However, their impact on suicide rates has not yet been studied. Sarubbi, et al. concluded that mobile apps could represent a helpful supplement to traditional prevention tactics, providing real-time monitoring of at-risk persons, personalized tools to cope with suicidal crises, and immediate access to specific support.[38]

Following-Up Attempted suicides

O'Connor, et al. (2022) reported on the use of telephone contacts with patients who had attempted suicide after release and after a safety planning session. Although the patients liked the process, there was no evaluation of the impact on suicidal behavior.

Motto and Bostrom (2001) studied patients wo had refused ongoing care after hospitalization for depression or suicidal behavior. Half of the patients were contacted by letter at least four times a year for five years. Patients in the contact group had a lower suicide rate in the 5-year follow-up period than those in the group that was not contacted. This impact lessened over time and, by year 14, the groups did not differ.

The follow-up of suicidal individuals has promise, but more research needs to be conducted to evaluate its effectiveness in preventing suicide. However, like

[38] See also, Shin, et al. (2022).

suicide prevention centers and hotlines, follow-ups may provide useful counseling and support to patients.

References

Beautrais, A. L. (2001). Effectiveness of barriers at suicide jumping sites. *Australian & New Zealand Journal of Psychiatry*, 35, 557-562.

Beautrais, A. L., Gibb, S. J., Fergusson, D. M., Horwood, L. J., & Larkin, G. L. (2009). Removing bridge barriers stimulates suicides. *Australian & New Zealand Journal of Psychiatry, 43,* 495-497.

Bennewith, O., Nowers, M., & Gunnell, D. (2007). Effect of barriers on the Clifton suspension bridge, England, on local patterns of suicide. *British Journal of Psychiatry*, 190,266-267.

Berman, A. L., O'Carroll, P. W., & Silverman, M. M. (1994). Community suicide prevention. *Suicide & Life-Threatening Behavior*, 24, 89-99.

Bridge, T. P., Potkin, S. G., Zung, W. W. K., & Soldo, B. J. (1977). Suicide prevention centers. *Journal of Nervous & Mental Disease, 164,* 18-24.

Glatt, K. M. (1987). Helpline. *Suicide & Life-Threatening Behavior* 17, 299-309.

Glatt, K. M., Sherwood, D. W., & Amisson, T. J. (1986). Telephone helplines at a suicide site. *Hospital & Community Psychiatry*, 37, 178-180.

Hawton, K., Townsend, E., Deeks, J., Appleby, L., Gunnell, D., Bennewith, O., & Cooper, J. (2001). Effects of legislation restricting pack sizes of paracetamol and salicylate on self poisoning in the United Kingdom. *British Medical Journal, 322,* 1-7.

Kong, Y., & Zhang, J. (2010). Access to farming pesticides and risk for suicide in Chinese rural young people, *Psychiatry Research, 179,* 217-221.

Kua, E. H., & Tsoi, W. F. (1985). Suicide in the island of Singapore. *Acta Psychiatrica Scandinavica, 71,* 227-229.

Leenaars, A. A., & Lester, D. (1995). Impact of suicide prevention centers on suicide in Canada. *Crisis, 16,* 39.

Lester, D. (1973). Suicide-prevention centers and prevention of suicide. *New England Journal of Medicine, 289,* 380.

Lester, D. (1974a). Effect of suicide prevention centers on suicide rates in the United States. *Health Services Reports, 89,* 37-39.

Lester, D. (1974b). Suicide prevention centers: data from 1970. *Journal of the American Medical Association, 229,* 394.

Lester, D. (1993). Suicide from bridges in Washington, DC. *Perceptual & Motor Skills*, 77, 534.

Lester, D. (1997). The effectiveness of suicide prevention centers. *Suicide & Life-Threatening Behavior, 27*, 304-310.

Lester, D. (2005). Suicide by jumping from bridges. *Perceptual & Motors Skills*, 100, 628.

Lester, D. & Brockopp, G. W. (1971). Niagara Falls suicides. *Journal of the American Medical Association, 215*, 797-798.

Medoff, M. H. (1986). An evaluation of the effectiveness of suicide prevention centers. *Journal of Behavior Economics, 15*(3), 43-55.

. Journal of Behavioral Economics,

Motto, J. A., & Bostrom, A. G. (2001) A randomized controlled trial of postcrisis suicide prevention. *Psychiatric Services, 52*, 828-833.

O'Carroll, P. W., Silverman, M. M., & Berman, A. L. (1994). Community suicide prevention. *Suicide & Life-Threatening Behavior*, 24, 89-99.

O'Connor, R. C., Smillie, S., et al. (2022). SAFETEL: a pilot randomised controlled trial to assess the feasibility and acceptability of a safety planning and telephone follow-up intervention to reduce suicidal behavior. *BMC: Pilot Feasibility Study, 8*(1). #856.

Pearson, M., Metcalfe, C., Jayamanne, S., Gunnell, D., Weerasinghe, M., Pieris, R., et al. (2017). Effectiveness of household lockable pesticide storage to reduce pesticide self-poisoning in rural Asia: A community-based, cluster-randomised controlled trial. *Lancet, 390,* 1863–1872.

Pelletier, A. R. (2007). Preventing suicide by jumping. *Injury Prevention*, 13, 57-59.

Prevost, C., Julien, M., & Brown, B. P. (1996). Suicides associated with the Jacques Cartier Bridge, Montreal, Quebec 1988-1993. *Canadian Journal of Public Health*, 87, 377-380.

Reifels, L., Mishara, B. L., Dargis, L., Vijayakumar, L., Phillips, M. R., & Pirkis, J. (2019). Outcomes of community-based suicide prevention approaches that involve reducing access to pesticides. *Suicide & Life-Threatening Behavior, 49,* 1019-1031.

Reisch, T., & Michel, K. (2005). Securing a suicide hot spot. *Suicide & Life-Threatening Behavior*, 35, 460-467.

Reisch, T., Schuster, U., & Michel, K. (2007). Suicide by jumping and accessibility of bridges. *Suicide & Life-Threatening Behavior*, 37, 681-687.

Sarubbi, S., Rogante, E., Erbuto, D., Cifrodelli, M., Sarli, G., Polidori, L., Lester, D., Berardelli, I., & Pompili, M. (2022). The effectiveness of mobile apps for monitoring and management of suicide crisis. *Journal of Clinical Medicine, 11*, #5616.

Shin, H. D., Zaheer, J., et al. (2022). Information and communication technology-based interventions for suicide prevention implemented in clinical settings: A scoping review. *BMC Open, 12*, e056232.

Surtees, S. J. (1982). Suicide and accidental death at Beachy Head. *British Medical Journal, 284,* 321-324.

Takahashi, Y. (1988). Aokigahara-jukai: suicide and amnesia in Mt. Fuji's Black Forest. *Suicide & Life-Threatening Behavior, 18,* 164-175.

Wong, P. W. C., Liu, P. M. Y., Chan, W. S. C., Law, Y. W., Law, S, C. K., Fu, K. W., Li, H. S. H., Tso, M. K., Beautrais, A. L., & Yip. P. S. F. (2009). An integrative suicide prevention program for visitor charcoal burning suicide and suicide pact. *Suicide & Life-Threatening Behavior*, *39*, 82-90.

Suicide Studies, 2024, 5(3), 151-161

PERCEIVED STRESS, HOPELESSNESS AND THWARTED BELONGINGNESS PREDICTS SUICIDAL BEHAVOR AMONG THE YOUTH OF KASHMIR

Imran Hameed Lone[39] & Humera Shafi
University of Kashmir

Abstract: "Suicide is when people harm themselves with the goal of ending their life, and they die as a result" (National institute of Mental Health). Suicide is a global issue with over 700,000 people losing their lives due to suicide each year. Suicide is one of the leading causes of death among youth around the globe. (WHO, 2021). The state of Jammu and Kashmir, particularly the Kashmir division, has witnessed many atrocities since 1989. (Wani, et al., 2013). As a result, mental and psychological health has declined. This mental and psychological affliction ultimately paved the way for suicide among the people. The present study aims to assess suicidal ideation, inter-correlations between perceived stress, hopelessness, thwarted belongingness and suicidal ideation and, therefore. assess the predictive power of the factors studied. The participants for the present study include youth of Kashmir between the age group of 15-19-years-old. The results indicated that there is significant positive inter-correlations between the variables studied. Furthermore, a multiple regression analysis revealed that the independent variables significantly predicted suicidal ideation.

Keywords: Perceived Stress, Hopelessness, Thwarted Belongingness, Suicidal Ideation

Introduction

Suicide is one of the globally recognized problems with over 700,000 people losing their lives from suicide each year (WHO.2021). Suicide is the fourth leading cause of death among the 15-29 age group in 2019 (WHO. 2021), paving the way to suffering for families and impacting communities.

In India, according to (NCRB. 2021), the suicide rate had increased from 10.4 per 100,000 per year to 11.3 in 2020, and the total number of suicides during

[39] imranlonepsy@gmail.com

2020 was 153,052. Daily wage earners are the top contributors of suicide in 2020 with 24.6%t, followed by housewives with 14.6%. Self-employed persons' contribution was 11.3% followed by unemployed persons with 10.2% (NCRB. 2021).

In Jammu and Kashmir 287 suicidal deaths were reported by NCRB in 2020. NCRB reported twenty causes of suicidal deaths including causes "not known" and "other causes". "Unemployment" was the highest contributor towards suicidal deaths in Jammu and Kashmir (n=46). In India employment is 6th leading cause of death in the age group of 18-30 years old. Jammu and Kashmir has the second highest unemployment rate in the country at 46 per cent, (*The Indian Express*, 20th March, 2022)

Dispute over Kashmir has led to killings, rapes, torture, forced labor, disappearances, property destruction, and human rights violations, seriously harming the mental and psychological health of the Kashmiri people. Recent repeal of article 370/ 35 A (2019) and the Covid-19 pandemic lockdown added greatly to the already existing mental distress of the people of Kashmir. This prolonged mental distress ultimately paves way for suicide among the people. Stress, depression, and hopelessness are the factors resulting from unemployment, and these factors are associated with suicidal behavior. Increase in the levels of stress and hopelessness increase the risk of suicide.

Previous studies have suggested that depression is strongly related with suicidal behavior, but it is not enough to predict suicidal behavior accurately. (Handley, et al., 2018) Therefore, there is a need to identify other related risk factors for suicidal behavior in order to prevent suicide. Researchers have explored many others risk factors of suicidal behavior in different combinations. Among all these combinations perceived stress, hopelessness, and social isolation were found to be strongly related with suicidal behavior (Elliott & Frude, 2001; Mitchell, Crane, & Kim, 2008; Zweig & Hinrichsen, 1993; Minkoff et at., 1973; Beck et al., 2006; Beck, Kovacs, & Weisman.,1 975; Raffaella Calati, et al., 2018)

Suicidal Behavior

Suicidal behavior refers to thoughts and behaviors related to an individual intentionally taking their own life. These behaviors include suicidal ideation (thoughts or thinking about suicide), suicide plans to end one's life; and suicide

attempts in which there is at least some intention of dying as result of the behavior (Rory & Matthew, 2017)

Perceived stress can be defined as "The feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period" (Phillips, 2013)

Hopelessness: Hopelessness can be defined as negative expectations regarding the existing problems of an individual and the belief of an individual that the existing situation will remain static and that his problems are insoluble. Therefore, the individual desires to escape from existing situation (Beck, Kovacs, & Weissman., 1975; Beck, Brown, Berchick, Stewart, &Steer, 2006)

Suicidal behavior: Suicidal behavior or suicidal thoughts means having thoughts, ideas or ruminations about the possibility of ending one's own life (WHO, 2020)

Perceived stress and hopelessness are assumed to be associated with suicidal behavior. Many studies have found a relationship between perceived stress and hopelessness with suicidal behavior. Stress perception and hopelessness are significantly related to thoughts of suicide. Vilhjalmsson, et al. (1997) in a longitudinal study on adolescents found that perceived stress is a strong risk factor for suicide ideation. Higher levels of perceived stress were found to be associated with suicidal behavior among depressed adolescents (Abdollahi, et al., 2016). Perceived stress was also found to be a risk factor for suicidal behavior among young adults (Anastasiades, et al., 2017). Perceived stress, hopelessness and thwarted belongingness are well established risk factors for suicidal behavior.

Thwarted belongingness: The person's detachment from his family, friends, society or other valued groups is a state of social alienation. For example, they may feel "*I am alone*". Social alienation is a risk factor for suicidal behavior. Loneliness and the absence of reciprocal care are two dimensions of social alienation.

Objective of the Present Study

- To assess the association of perceived stress, hopelessness and thwarted belongingness with suicidal behavior among the youth of Kashmir

Hypotheses

H_1: There is significant positive correlation between perceived stress and suicidal behavior
H_2: There is significant positive correlation between hopelessness and suicidal behavior
H_3: There is significant positive correlation between thwarted belongingness and suicidal behavior

Method

Sampling Technique

The data for the present study were collected by using an online data collection method. A Google form was developed, and the link of the Google form was shared by using different means of communication, such as social media platforms, email, Gmail, etc.

Sample

The present study was carried out on a sample of youth of Kashmir in the age group of 15-29-year-olds. The data was collected across the Kashmir valley. The total number of participants was 173 youth of Kashmir with 91 males and 82 females (see Table 1)

Measures

The data for the present study were collected by using a self-report questionnaire: Perceived Stress Scale to measure the levels of stress; Beck's Hopelessness Scale to measure hopelessness, and thwarted belongingness was measured by using Interpersonal Needs Questionnaire. The Suicide behavior Questionnaire-Revised (SBQ-R) was used to assess suicidality.

Description of Scales

The ***Perceived Stress Scale (PSS) (Cohen, 1994):*** was used to measure the level of stress. The scale consists of 10 items with a 5-point Likert scale, where 0 stands for "Never" and 4 stands for "Very often". Items 4, 5, 7 and 8 are reverse

coded. Scores range from 0 to 40 with higher score indicates higher perceived stress.

Beck Hopelessness Scale (BHS) (Beck, Weissman, Lester, & Trexler, 1974). The BHS consists of 20 true-false statements that assess the extent of negative expectancies about the immediate and long-range future. Each of the 20 statements is scored 1 or 0. Of the 20 true-false statements, 9 are keyed FALSE, and 11 are keyed TRUE to indicate endorsement of pessimism about the future. The item scores yield to total score that can range from 0 to 20 with higher scores indicating greater hopelessness.

Interpersonal Need Questionnaire (INQ) (Van Orden et al., 2012): The 15-item INQ measures Perceived Burdensomeness and Thwarted Belongingness. The first 6 items measures Perceived Burdensomeness on a 7-point Likert scale, and 9 items measure Thwarted Belongingness on 7-point Likert scale ranging from 1 (Not at all true for me) to 7 (Very true for me). Thwarted belongingness scores range from 9 to 63, while perceived burdensomeness scores range from 6 to 42. For the present study we included only thwarted belongingness items.

Suicidal Behavior Questionnaire revised (SBQ-R) (Osman et al, 2001): The SBQ-R is a four item self-report questionnaire. Each item taps a different dimension of suicidality: (1) the presence of lifetime suicidal thoughts and suicidal behaviors, (2) the frequency of suicidal thoughts in the past, (3) communications of threat of suicide to others, and (4) the likelihood of attempting suicide in the future. The possible score range for the SBQ-R is 3 to 18. Every item has different response ranges.

Item 1: Never, (2) It was just a brief passing thought, (3a) I have had a plan at least once to kill myself but did not try to do it, (3b) I have had a plan at least once to kill myself and really wanted to die, (4a) I have attempted to kill myself, but did not want to die, (4b) I have attempted to kill myself, and really hoped to die

Item 2: (0) Never, (1) Rarely (1 time) (2) Sometime (2 times) (3) Often (3-4 times) (4) Very Often (5 or more times)

Item 3: (0) No, (2a) Yes, at one time, but did not really want to die (2b) Yes, at one time, and really wanted to do it (3a) Yes, more than once, but did not want to do it (3b) Yes, more than once, and really wanted to do it

Item 4: (0) Never, (1) No chance at all, (2) Rather Unlikely, (3) Unlikely, (4) Likely, (5) Rather Likely, (6) Very Likely

Descriptive statistics for the scales are shown in Table 1.

Data Analysis

The data were analyzed using SPSS version 26. The frequencies of all the four variables were computed, and then the normality of data was assessed by taking skewness and kurtosis into consideration. The values of both skewness and kurtosis were well within the range of +/-1.0. Bivariate correlations were used to assess the relationships between the constructs, followed by multiple regressions and independent t-tests.

Results

Table 1: Scale characteristics of Perceived Stress, Thwarted Belongingness, Hopelessness and Suicidal Behavior

Measures	Items	Response range	N	Mean	SD
PSS	10	0-5	174	19.90	6.02
INQ	9	1-7	174	35.11	9.78
BHS	20	0-1	174	5.44	4.33
SBQ-R	4	0-6	174	5.85	3.74

Reliability analysis was assessed using Cronbach's Alpha. The result of reliability analysis revealed reliable and high reliability for each of the constructs in the study results are shown in Table 2.

Table 2: Reliability Analysis

S.no	Measuring tools	Cronbach's Alpha
1	PPS-10 items	.711
2	INQ-9 items (TB)	.741
3	BHS-20 items	.859
4	SBQ-R-4 items	.813

Table 3: Distribution of Perceived Stress Scores

Low (<13)	**Moderate (14-26)**	**High (27-40)**
n=25 14.4%	**n=127 73.4%**	**n=22 12.74**

Table 4: Distribution of Hopelessness Scores

minimal (0-3)	**mild (4-8)**	**moderate (9-14)**	**severe (>14)**
n=74 42.5%	**n=62 35.6%**	**n=30 17.2%**	**n=7 4.0%**

Table 5: Distribution of Thwarted belongingness Scores

Low (<29)	**Moderate (30-40)**	**High (>41)**
n=49 28.2%	**n=79 45.4%**	**n=45 25.9%**

Table 6: Distribution of Suicidal Behavior Scores

Low (<3)	Moderate (4-6)	High (>7)
n=68 39.3%	**n=52 29.9**	**54 31.2%**

Table 7: Correlations of Perceived Stress, Hopelessness and Thwarted Belongingness with Suicidal behavior

	PSS	HLS	TB	SI
1.Perceived Stress	1			
2 Hopelessness	.466**	1		
3 Thwarted Belongingness	.353**	.446**	1	
4 Suicidal behavior	.417**	.377**	.234**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7 presents the correlations between hopelessness, perceived stress and thwarted belongingness with suicidal behavior. As can be seen in the table, all the correlations were positive and statistically significant. In a multiple regression (see Table 8), only hopelessness and perceived stress contributed significantly to the prediction of suicidal behavior.

Table 8. Multiple regression of Perceived Stress, Hopelessness, and Thwarted Belongingness with Suicidal Behavior

Variable	B	t	p
Perceived stress	0.189	3.873	<.000
Hopelessness	0.193	2.735	.007
Thwarted belonging	0.011	0.359	0.720

F(3,169)=1884.34

Conclusion

The present study indicated that 31% per cent of youths in Kashmir obtain high scores on the Suicidal Behavior Questionnaire revised (SBQ-R), results which are in line with the studies previously conducted by Shah (2018) and Nisa (2019). of 28.3% and 29.3%, respectively.

Furthermore, the results indicated that there are significant and positive inter-correlations between all the variables under the study. The results of the multiple regression indicated that perceived stress and hopelessness are potential predictors of suicidal behavior among the youth of Kashmir.

References

Abdollahi, A., Hosseinian, S., Zamanshoar, E., Beh-Pajooh, A., & Carlbring, P. (2018). The moderating effect of hardiness on the relationships between problem-solving skills and perceived stress with suicidal ideation in nursing students. *Studia Psychologica, 60*(1), 30-41.

Accidental Deaths and Suicide in India 2018. NCRB Report. from Chapter-2 (ncrb.gov.in

Anastasiades, M. H., Kapoor, S., Wootten, J., & Lamis, D. A. (2017). Perceived stress, depressive symptoms, and suicidal ideation in undergraduate women with varying levels of mindfulness. *Archives of Women's Mental Health, 20*(1), 129-138

Beck, A. T., & Weishaar, M. E. (1990). Suicide risk assessment and prediction. *Crisis, 11*(2), 22-30..

Beck, A. T., Brown, G., Berchick, R. J., Stewart, B. L., & Steer, R. A. (2006). Relationship between hopelessness and ultimate suicide: A replication with psychiatric outpatients. *Focus, 147*(2), 190-296.

Beck, A. T., Brown, G., Berchick, R. J., Stewart, B. L., & Steer, R. A. (2006). Relationship between hopelessness and ultimate suicide: A replication with psychiatric outpatients. *Focus, 147*(2), 190-296.

Beck, A. T., Kovacs, M., & Weissman, A. (1975). Hopelessness and suicidal behavior: An overview. *Journal of the American Medical Association, 234*(11), 1146-1149.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: the hopelessness scale. *Journal of Consulting & Clinical Psychology, 42*(6), 861-865.

Cohen, S., 1994). *Perceived stress scale*. Mind Garden. https://www.northottawawellnessfoundation.org/wp-content/uploads/2018/04/PerceivedStressScale.pdf

Conejero, I., Olié, E., Courtet, P., & Calati, R. (2018). Suicide in older adults: Current perspectives. *Clinical Interventions in Aging, 13*, 691-600.

Elliott, J. L., & Frude, N. (2001). Stress, coping styles, and hopelessness in self-poisoners. *Crisis, 22*(1), 20-26.

Gautam, A., & Kumar, U. (2014). Perceived stress, self-efficacy and reasons for living as predictors of suicidal ideation. *Journal of Psychosocial Research, 9*(2), 359-367.

Lone, I. H. (March 8, 2024). Spike in Suicidal Cases in Kashmir. *Greater Kashmir*. https://www.greaterkashmir.com/todays-paper/spike-in-suicidal-cases-in-kashmir

Joiner Jr, T. E., Van Orden, K. A., Witte, T. K., & Rudd, M. D. (2009). *The interpersonal theory of suicide: Guidance for working with suicidal clients*. Washington, DC: American Psychological Association.

Minkoff, K., Bergman, E., Beck, A. T., & Beck, R. (1973). Hopelessness, depression, and attempted suicide. *American Journal of Psychiatry, 130*(4), 455-459.

Mitchell, A. M., Crane, P. A., & Kim, Y. (2008). Perceived stress in survivors of suicide: psychometric properties of the Perceived Stress Scale. *Research in Nursing & Health, 31*(6), 576-585.

National institute of Mental Health, NIMH. Suicide Prevention (nih.gov)

Nisa, S. U. (2019). Psychache and hopelessness as correlates of suicide ideation among Kashmiri youth. *Journal of Emerging Technologies & Innovative Research, 6*(2), 245-255.

Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. X. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. *Assessment, 8*(4), 443-454.

Shah, R. A. (2018). Prevalence of Suicidal Ideation and Attempts among youth of Srinagar district of J&K. *AGU International Journal of Research in Social Science & Humanities, 6*(January-June), 638-642

The Indian Express, (2022) Indian Express Delhi, Sun, 20 Mar 22

Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner Jr, T. E. (2012). Thwarted belongingness and perceived burdensomeness: construct validity and psychometric properties of the Interpersonal Needs Questionnaire. *Psychological Assessment, 24*(1), 197-215.

Vilhjálmsson, R., Sveinbjarnardottir, E., & Kristjansdottir, G. (1998). Factors associated with suicide ideation in adults. *Social Psychiatry & Psychiatric Epidemiology, 33*(3), 97-103.

Wani, H. A., Suwirta, A., & Fayeye, J. (2013). Untold stories of human rights violations in Kashmir. *Educare, 6*(1), 55-68.

WHO (World Health Organization). (2021). *Suicide worldwide in 2019: global health estimates*. Geneva, Switzerland: WHO

Zweig, R. A., & Hinrichsen, G. A. (1993). Factors associated with suicide attempts by depressed older adults: a prospective study. *American Journal of Psychiatry, 150*(11), 1687-1692.

Suicide Studies, 5(3), 162-165

A SPIKE IN SUICIDES IN KASHMIR

Imran Hameed Lone[40]
University of Kashmir

Kashmir has recently witnessed a spike in suicidal deaths. This sudden spike could be attributed to lockdown since the repeal of article 370/35A from August 2019 followed by Covid-19 lockdown up. The negative outcome of lockdown seems the major factor responsible for the spike in suicides. In order to understand how lockdown leads people to die by suicide and how it can be prevented in our society, it is highly important to understand the causes of suicide and ultimately prevent further suicides.

Over 700,000 people die by suicide every year globally, while for every death an additional 10-20 attempts are made (WHO, 2021). For the last three decades, the suicide rate in India was 10 per 100,000. More than 100,000 people lose their lives by suicide every year in India (Vijayakumar, 2010). Kashmir has a higher suicide rate than Uttar Pradesh, Nagaland, Manipur, and Bihar (NCRB, 2019). Kashmir recorded 2,612 suicidal deaths from 2010 to 2018, which means on an average 290 people die every year by suicide according to the NCRB, Police Crime Branch Record and the reports published in leading English Newspapers. These were the reported cases, but what about those cases which never get reported. We cannot deny the fact that social desirability plays its role in our society. As a result of social desirability, many cases remain unreported. Sometimes people report suicides as accident cases in order to avoid the social stigma which follows.

A study conducted by Pathare, et al (2020) reported that there was a 67.7 percent increase in suicide in India during Covid-19 lockdown. The major negative outcomes of lockdown are financial crises, relationship issues, mental health issues and mood related disorders, particularly depression. Any stressful life event that has the potential to change life can trigger a person into depression, and it is more dangerous if that event persists for a long period of time. Lockdown changed people's lives to a large extent. It can turn a normal person into a depressed person. Unfortunately, depression can pave the way to suicidal behavior.

[40] imranlonepsy@gmail.com

It is pertinent to point out that Kashmir has had a history of intermittent lockdowns and shutdowns in the past. However, these were intermittent which allowed communities to somehow manage the social and financial crises while at the same time managing the working of all socio-economic institutions, educational institutions and so on. The 2-year Covid lockdown put an end to almost every aspect of human life in Kashmir.

Since 2008 Kashmir witnessed many lockdowns, as well as internet and tele-communication shutdowns for months, causing financial and other crises in the state. Unemployment was already large scale. In August 2019, when the government took a decision to repeal Article 370/35A, they put the entire state under strict lockdown and barred every means of communication. When people hoped for lockdown to be lifted, another lockdown was imposed due to Covid-19, in March 2020 continuing the already 8-month long lockdown, further disappointing the hopes of people and adding fuel to existing problems. Hopelessness, the empirically tested predictor of suicide, became a major factor in the rise of suicides. Distress from hopelessness, unemployment, physical illness, and the belief that one's existence is burden on one's family leads a person to generate 'liability' and low self-esteem, self-blame and shame, and agitation leading an individual to develop 'self-hate'. According to the Interpersonal Psychological Theory of Suicide (IPTS), feeling that one is a liability and self-hate together result in perceived burdensomeness.

> "Perceived Burdensomeness is a perceptive view of an individual when he feels his existence as a burden on his family, friends, society and other valued groups."

Persistent lockdown caused people to develop a sense of both liability as well as self-hate, ultimately leading to perceived burdensomeness and thwarted belongingness. Feeling of burdensomeness can result in suicidal ideation. Thwarted belongingness means the person's detachment from his family, friends, society or other valued groups, and a state of social alienation develops due loneliness and the absence of reciprocal care. Loneliness occurs when an individual has a little or no social support and a non-intact family, whereas absence of reciprocal care occurs due to family conflict, loss through death/divorce, domestic violence, or social withdrawal. Therefore, loneliness and absence of reciprocal care leads an individual to thwarted belongingness. According to IPTS (Joiner, 2005) thwarted belongingness has a positive correlation with suicidal

ideation. When an individual simultaneously holds two related but different psychological states (perceived burdensomeness and thwarted belongingness) for a long period of time and develops hopelessness regarding these two psychological states, passive suicidal ideation (thoughts about suicide) transforms into active suicidal ideation (continuously thinking about suicide and considering suicide as an option to get away from existing problems). Thus, suicidal desires are aroused in an individual.

People often lost their family members due to the covid-19 pandemic. Lockdown caused financial crises, paving way for many other issues like domestic violence, family conflict, divorce, and so on. These issues have direct or indirect association with suicide as proposed by the ITPS.

In order to prevent suicide, it is time to take the problem seriously and put tactics in place for preventing suicide. Suicide prevention begins with the identification of symptoms and taking them seriously. Governments should take serious notice of this growing problem and develop interventional programs to help people from taking their lives. This could be done by creating awareness among people through various awareness programs about the symptoms indicating potential suicide and prevention programs for family members. Mental health professionals need to be appointed to identify those people at risk of suicide. Suicide does not happen out of the blue without any prior symptoms and warnings. If we are able to recognize these symptoms early and provide treatment to such people, the rising suicide rate will decline before it takes complete hold in our society.

Furthermore, at the family level, we should keep an eye on our young and other vulnerable members of the family. If any of the symptoms such as suicidal thoughts, isolation, hopelessness, thwarted belongingness, burdensomeness, drug abuse, excessive self-carelessness, self-harming, or significant changes in mood are observed, the person needs to be taken to consultation with a mental health professional without wasting time. If there are any recent deaths within the family or a recent divorce, family members need to be kept under observation while interacting with them and sympathizing with them and, if the need persists, they should consult with a mental health professional. The suicide of a friend or family member may result in the development of a similar idea of suicide. A sense of failure in relationships, relationship breakups and career/education failures may potentially trigger suicide. Individuals with failed suicidal attempt are likely to reattempt, they should be observed well. In these tough times people should give

emotional support to one another and sympathize and empathize with one another. Mental health professionals should come forward with efforts to save lives.

The government has to take serious notice of mental health crises caused by the lockdown and any future lockdowns. The lockdown may have controlled covid-19 but, at the same time, it gave rise to serious mental health issues. We must learn from our experience with the covid-19 lockdown to better manage any future lockdowns that may occur.

Reference

Joiner, T. A. (2005). *Why people die by suicide*. Cambridge, MA: Cambridge University Press.

Pathare, S., Vijayakumar, L., Fernandes, T., et al. (2020). Analysis of news media reports of suicides and attempted suicides during the COVID-19 lockdown in India. *International Journal of Mental Health Systems, 14*(1), #88, 1-9.

Suicide Studies, 2024, 5(3), 166-171

SUICIDE MOTIVATED BY SHAME: EXAMPLES FROM THE MOVIES

Steven Stack, Barbara Bowman & David Lester

Abstract: Examples of suicide motivated by shame are given from movies.

The role that shame might play in suicidal behavior was first mentioned in doctoral dissertations (e.g., Shreve, 1988), but a more formal presentation of the role of shame in suicidal behavior was made by Lester (1997). There also appeared empirical data connecting shame with suicide. For example, Lester (1998) found that a measure of shame, but not guilt, was associated with current and past suicidal ideation for male college students but not for female students.

Guilt is a result of thinking: How could I have done **that**? It is easy to atone by saying: I am so sorry that I did that. Shame is a result of thinking: How could **I** have done that? One cannot apologize for this. The person simply wishes to hide from others.

An example given by Lester (1997) was that of Jocasta in Sophocles' play *Oedipus Rex*. It is clear that Jocasta knows that she has married her son whom she ordered to be killed. Not only does she say that he looks like her dead husband, but he also has swollen feet (hence his name – swollen foot) from where he was staked to the ground as a baby. Jocasta begs Oedipus to stop seeking the answer to the mystery of his father's murder, indicating that she is prepared to live as his wife only if the truth does not come out into the open. When Oedipus refuses to stop his search for answers, Jocasta chooses to die by suicide.

Another example given by Lester was of Mike Boorda, Chief of Naval Operations, who had falsely claimed to have served in combat in the Vietnam War. Boorda shot himself when he learned that correspondents from *Newsweek* were coming to interview him about this false claim.

Research into suicidal behavior typically focuses on samples of psychiatric patients and more often on college students, who are given psychological inventories (scales) to measure traits that might be associated with suicidal ideation

or attempted suicide. The problem with studying suicides (those who die as a result of the attempt) is that their motives are often obscure. Roughly a quarter of suicides leave suicide notes, but Yang and Lester (2011) argued that these notes are a way of presenting the self to others after the suicidal act and do not necessarily reflect the true state of the suicide's mind.

Examples of suicide as a result of shame, therefore, may be found more readily in movies than in real life. The purpose of this essay is to examine the role of shame in movies.

Stack and Bowman on Shame as a Motive for Suicide

Stack and Bowman (2011) examined movies from 1900 to 2009 and coded the acts of suicide in those movies. They found 1,158 movies in which 1,377 suicides occurred. Almost half (46.7%) had personal motives or reasons for choosing to die by suicide, of which 21.4% were for traditional psychiatric motives and 18.4% for nontraditional psychiatric motives (e.g., psychopathic).[41] The remaining suicides were motivated by external or social motives, with 52.9% from strain in social relationships, and shame was included in this category. Specifically, Stack and Bowman found 208 of the movie suicides to be motivated, at least in part, by shame (15.1%), which makes shame a common motive for suicide.

As noted above, suicide motivated by shame has the aim of avoiding social ridicule and public humiliation. Shame is experienced in relation to others and involves fear of exposure and of the social reaction of others. However, shame can also be internally generated if the person has behaved in a way that offends his or her own moral standards.

Let us look at some examples.

Shame Resulting from Societal Reaction

In *Hard Candy* (2006), Jeff Kohlver lives a secret life as a child molester, obtaining his victims through the use of internet chat rooms. 14-year-old Hayley gets herself lured into his home in order to expose him. She overpowers him and

[41] A further 6/9% were for medical reasons (pain, physical illness and disabilities).

threatens him with exposure to his girlfriend. She gives him the option of suicide, which he chooses.

in *All the King's Men* (1949), Judge Stanton has lived a prosperous and apparently righteous life. However, when the Governor of Louisiana (Huey Long) threatens to expose his wrongdoing from the distant past unless he supports the Governor's corrupt plans, the judge chooses to die by suicide motivated by the fear of exposure of his deviant behavior.

In *Girl Interrupted* (1999), Daisy has a variety of psychiatric disorders (including bulimia), but it is exposure of incestuous relationship with her father that leads her to choose suicide.

Vicarious Shame

In some cases, the shame is not over what you did, but rather over what another (such as a husband or wife) did. In *Freeway* (1996), the wife of a therapist is shocked to discover that her husband is a rapist and murderer. When the police come to arrest him, she chooses to die by suicide to avoid personal shame and the social stigma that will follow his arrest. We may label this *vicarious shame*.

Avoiding Bringing Shame to Others

In the *The Net* (1995), the Under Secretary of State has been (mis)diagnosed with AIDS. He chooses suicide, in part, to avoid the ordeal of a slow death and the shame it would bring to his family.

In *The Last Sunset* (1960), an aging alcoholic gunfighter, Brendan O'Malley, visits an old girlfriend who he has not seen in 20 years. He falls in love with her daughter, Melissa, but her mother reveals that he is her father. He eventually admits to himself that he is in an incestuous relationship. Not wanting Melissa to find out and face a negative social reaction, he engages in a duel with a local lawman, but before the duel, O'Malley is shown emptying his gun of bullets. This is one of the very first cinematic portrayals of a *suicide by cop* (Lindsay & Lester, 2004).

In *L'Apache* (1919), Helen, an immigrant from America, has been the mistress of the leader of an underworld gang called L'Apache in Paris. This has been kept a secret from her family in the United States. When she hears that her

beloved grandfather, Professor Armstrong, is coming to Paris to visit her, she drowns herself. She could not endure him seeing how far she had fallen and the shame it would have brought to her family back in the United States.

Feeling Shame for One's Own Behavior: The Motivation to Escape

In the example above of *L'Apache* (1919), Helen chooses suicide in part because of her own shame at her own choices.

In *Mishima: A Life in Four Chapters* (1985), a movie based on the life of the Japanese novelist Yukio Mishima, Mishima holds a Japanese General hostage while he urges the soldiers to rebel and restore imperial rule. The soldiers laugh at him, and he dies by *seppuku* (a ritual form of suicide in ancient Japan) because of the humiliation he has brought upon himself.

In *Electra Glide in Blue* (1973), a motorcycle patrolman has always wanted a flashy, but expensive, top of the line motorcycle, but would never be able to buy it on his regular wages. He steals $5,000 from a crime scene and buys his dream bike. When exposed, he dies by suicide in a suicide-by-cop incident.

In *American Gangster* (2007), the head of the New York City drug control unit has been corrupted by drug interests. When he is about to be exposed, he dies by suicide in shame for his workplace crimes.

In *Spartan* (2004), the bodyguard of the President's daughter has a sexual affair with her. He lets his guard down, and she is kidnapped. His dereliction of duty contributes to the perception that he is not qualified for his position, and the shame at being exposed motivates his suicide.

In *Eraser* (1996), the CEO of a defense firm violates the law by dabbling in the illegal arms trade. About to be exposed for his crimes, he dies by suicide.

In *In Harm's Way* (1965), Commander Paul Eddington commandeers an Allied plane to get much needed information on Japanese ship convoy locations. He ignores repeated orders to turn back before Japanese spot him and shoot him down. Although there are altruistic aspects to his behavior, he had experienced the death of his wife who had repeatedly betrayed him. He was also under investigation for the rape of a young nurse, the girlfriend of the son of his

commanding officer. His suicide was motivated by a wish to escape military shame and a court martial, as well as social isolation and betrayal in his marriage.

In *The Big Knife* (1955), Charles Castle, an actor, is about to be exposed for his involvement in a hit and run accident which resulted in the death of a child. This revelation would end his acting career and hurt the chances of any reconciliation with his wife, while also involving jail time. He was able to live with his secret as long as he was not caught, but when about to be publicly exposed, he chooses to die by suicide.

In *The Man Who Wasn't There* (2001), a married woman, impregnated in an extramarital affair, opts for suicide to avoid the shame when this is discovered.

In *Smashing the Vice Trust* (1937), 'Lucky' Lombardi begins to kidnap pretty high school girls to work for him as prostitutes. One of the girls is liberated by the police but dies by suicide to avoid public humiliation.

In *Damaged Lives* (1933), Joan Elise, an escort, has a casual sexual encounter at a party with a young executive who then marries his girlfriend and has a baby. Joan finds out that she has syphilis and has passed it on to the young executive, and she dies by suicide.

Discussion

Research on suicides is limited by the sparse information that researchers can discover about the lives of the suicides. The inability to talk to them also means that no information can be obtained about the thoughts and emotions that are in their minds prior to their suicide. Shame, therefore, has rarely been studied in suicides. The research on shame and suicide relies on studies of suicidal ideation and attempted suicide in those who are alive and able to answer questionnaires.

Some suicides, as noted above, do leave suicide notes, but no research has appeared on suicide notes rating them for the presence of shame.

These examples of suicides motivated, at least in part, by shame in movies provide excellent examples of the situations in which shame can play a part in suicide. In some cases, the motivation for the suicide is altruistic, to spare loved ones from shame. In some cases, the shame that others ought to experience passes on to someone close to them (such as a family member). In most cases, however,

the person cannot face exposure of his or her misdeeds to others. Shame motivates, therefore, escape desires. The common saying about this is: I wish I could have fallen through a hole in the floor. Suicide accomplishes the same end.

References

Lester, D. (1997). The role of shame in suicide. *Suicide & Life-Threatening Behavior, 27,* 352-361.

Lester, D. (1998). The association of shame and guilt with suicidality. *Journal of Social Psychology, 138,* 535-536.

Lindsay, M., & Lester, D. (2004). *Suicide by cop*. Amityville, NY: Baywood.

Shreve, B. W. (1988). Constructing a measure of shame-proneness and its relation to treatment outcome for hospitalized suicidal individuals. *Dissertation Abstracts, 49*(4-A), 735.

Stack, S., & Bowman, S. (2011). *Suicide movies: Social patterns 1900-2009*. Cambridge, MA: Hogrefe.

Yang, B., & Lester, D. (2011). The presentation of the self. *Suicidology Online, 2,* 75-79.

Suicide Studies, 2024, 5(3), 172-173

BOOK REVIEW

David Lester

Adam Czabański & Małgorzata Czabańska-Rosada: *The Self-Immolation of Oskar Brüsewitz Compared to Other Suicides Committed as a Political Protest*. Frankfurt am Main, Germany: Peter Lang, 2017.

This fascinating book is divided into two parts. The first part reviews cases of protest suicide, mainly by self-immolation, throughout the world and throughout history right up to protest suicides in the 21st Century in Tibet and Bulgaria and during the Arab Spring. The authors present many cases in detail so that we are able to see beyond the simple act of protest. Here are some of the examples that Czabański and Czabańska-Rosada provide.

Suicide as a protest has obviously occurred frequently, but it is possible to see that the act of protest also has other, albeit minor, goals for the individual. The major goal can, of course, be viewed as *altruistic* suicide in the typology of Durkheim (1897). For example, the many self-immolations in Vietnam in the 1970s were carried out to protest the persecution of Catholics by the regime of Ngo Dinh Diem, the most publicized being that of Thich Quang Duc on June 16th, 1963.

Not all self-immolations, although altruistic, were political protests. Karol Levittoux was arrested in 1841in Europe for participating in an anti-tsarist conspiracy. He set himself on fire on July 7th, 1841, in Warsaw, Poland, to avoid betraying his comrades.

Historically, in Hinduism and Buddhism, sacred self-immolation was a way of transmigrating into a new body. As such, it has elements of *escape*. It reveals contempt for the body and was a means of rebirth to a higher existence. Buddhists obtained positive karma (the relationship between a person's mental or physical action and the consequences following that action) by means of the act. This suggests also an *egoistic* motive. Israfil Shiri, a 30-year-old seeking asylum from Iran set himself on fire on September 3rd, 2003, in England because he was in danger of being deported back to Iran, again an *escape* motive.

Ryszard Siwiec set himself on fire in Warsaw, Poland, September 12th, 1968, to protest the Russian invasion of Czechoslovakia. His wife visited him in the hospital as he was dying and said: Ryszardziu, you did it…you are a hero. Again, elements of (non-Durkheimian[42]) *egoistic* motives in the desire to be remembered and viewed as a hero.

Self-immolation by widows in India engaging in sati by throwing themselves on the funeral pyre of their husbands was often forced by the family and the community and has elements of *fatalistic* suicide.

To point out these other elements to some self-immolations and protest suicides does not mean that they are not altruistic in nature. It merely points out that, obviously, behavior is complex in its motivation. This book by Adam Czabański & Małgorzata Czabańska-Rosada presents so many cases of protest suicide that it is bound to stimulate ideas in the reader.

The second part of the book describes the life and protest suicide of Oskar Brüsewitz in detail, a Lutheran pastor born in Lithuania and who died by suicide in East Germany on August 22nd, 1976. No case of protest suicide has previously been presented in such detail, and, therefore, this book is a valuable contribution to the study of suicide.

Reference

Durkheim, E. (1897). *Le suicide*. Paris, France: Felix Alcan.

[42] Durkheimian egoistic suicide results from too little social integration.