

Attempted Suicide: Psychopathology and Wartegg Test indicators

S. Daini, A. Manzo, F. Pisani and A. Tancredi

In this work we suggest the potential clinical utility of the Wartegg Test, on the pathway of patients attempting suicide. The Wartegg test is a projective procedure composed of eight panels with eight semi-structured stimulus-signs. The exploration of the projective dynamics seems to play an important role in gaining further in knowledge of psychopathological issues, which is the reason why a projective test administered as a simple and fast Wartegg test was chosen. The study comparatively analyzes the differences in the responses given to each test panel, drawn by subjects who attempted suicide, both with and without psychiatric disorders, and by a further group of depressed patients having no history of suicide attempts. The study was also aimed at carrying out an initial exploration of the Wartegg method as source indicators of suicidal risk. The survey sample consists of three groups registered as Attempted Suicide (AS= No. 25), Depression (D=No.29), Control (C=No.29). Groups AS and D consist of patients diagnosed and treated at the Day Hospital Service of the Gemelli Hospital. The control group consists of students of the Gemelli Hospital and other subjects who never received any kind of treatment. In conclusion, our work confirms the importance of the depressive component in suicide attempts, indicating a failure to differentiate between the results obtained by the group of patients who attempted suicide and the group of depressed patients. Significant differences appear to be more relevant for what concerns the control group. In this comparison, the suicide attempt seems connected to the emergence of a conflict in feelings.

Attempted suicide is a phenomenon of wide social significance, whose frequency varies according to age and cultural background. The psychological and social variables which may be taken as risk factors are many. Suicidal ideation or behaviours may appear in various forms in many psychiatric disorders, but suicide is more frequently associated with mood disorders, especially in cases of major depression. The hinge symptoms of its ideation are loss of hope and despair, e.g. often detectable in depression, or a lowering of the inhibition threshold in front of action, e.g. a common symptom in alcohol abuse. Each year suicide causes 1.5% of the 54 million deaths estimated to occur in the world. About two thirds are men, and half are Chinese, despite the Chinese population only accounting for 21.5% of the entire world population. Nowadays, suicide is considered to be one of the three main causes of death amongst individuals aged 15 to 44, for both sexes. Whereas attempted suicides are up to 20 times more frequent. Hence, suicide is obviously considered one of the largest public health problems of our time, also in light of the fact that during the past 45 years the world suicide rate grew by 65%, with a peak of 200-300% amongst the youth (data WHO 2002). It is interesting to note that the mean rate of suicides amongst the population decreases the further south you go. The highest rates of suicide (data WHO 2000) are recorded in Europe, and particularly in Eastern European countries such as Estonia, Latvia, Lithuania, Finland, Hungary, Russia, as much as

in Asian countries such as China and Japan. Latin America and Arab countries – e.g. Argentina, Brazil, Kuwait and Thailand – have the lowest rates. African countries do not provide sufficient data for an estimate. In absolute terms, the highest number of suicides occurs in China and India, accounting alone for approximately 30% of the overall number of cases. In general, according to the World Health Organization, risk factors can vary for each continent and country, depending on various cultural, social and economic variables.

For instance, every year in the United States – besides the 30,000 suicides occurring – about half a million people needs hospital treatment as a consequence of an attempted suicide. The ratio is higher for women and young people and lower for men and the elderly.

In Europe 90% of the 58,000 suicides (World Health Organization 2003) committed annually, plus a large number of attempted suicides, have at their basis a psychiatric disorder, in most cases a clinical depression (Lönngqvist et al., 1988). The data published in 2004 by the European Commission (relating to the number of deaths by suicide which occurred in 1999) have shown that the number of suicide cases varies greatly from country to country. The citizens who less exposed to this risk seem be those living in Mediterranean countries such as Greece, Portugal and Italy (8.3 suicides per 100,000 inhabitants), while

S. Daini, A. Manzo, F. Pisani and A. Tancredi, Psychiatry and Psychology Institute, Università Cattolica del Sacro Cuore, Rome, Italy Corresponding Author: **Silvia Daini**. Istituto di Psichiatria e Psicologia, Università Cattolica del Sacro Cuore, Roma, Largo Francesco Vito 1, 00168, Rome, Italy, Mobile Phone: 0039 339 3798428, Tel/fax (0)6 3054850, Email: dainikatamail.com

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the incidence of suicide seems to be particularly worrying in northern Europe, for example in Lithuania (43.7 cases per 100,000 inhabitants). In 2004, in Italy (ISTAT report) suicide had a rate of 5, 6 / 100.000 people, with prevalence in the north eastern regions and much lower values in southern Italy. The Italian region recording the highest rate is Friuli Venezia Giulia, with a percentage of 9,8%, and the lowest is Campania, with 2,6. Again in the year 2004, less than 1 percent of subjects that acted suicidal behaviour had 18 years of age, a little less than two-thirds were in working age (18 to 64 years of age) and more than a third was over 65. The suicidal tendency hence increases in percentage as the age increases. According to a 2005 European Commission report, every year there are about 58,000 cases of suicide occurring within the European Union. According to the research data, more men commit suicide than women, with age peaks ranging between 15 and 24, and between 25 and 34. In 2007, in Italy, the estimate number of suicides per year ranged between 3,500 to 4,000.

The complexity of the phenomenon is due to the interaction of multiple variables which are not always identifiable, making the phenomenon difficult to study. Also because, in social contexts where such as an act is condemned by cultural or religious principles, family members – or the patients themselves if survivors – tend to hide it and to avoid reporting the circumstances accurately. The relevant literature describes primary, secondary and tertiary Risk Factors (Rihmer et al 1996) as conditions and events showing a statistical correlation with suicide. In particular, primary risk factors are represented by Psychiatric disorders such as mood disorders, schizophrenia, drug abuse, or personality disorders such as borderline and antisocial behaviour, etc. Negative Life Events at a level of family, work, and health, are defined as secondary risk factors. Tertiary risk factors are represented by demographic variables. Moreover, risk factors may be divided into short-term and long-term, biological-clinical, and socio-demographic factors, and into generic risk factors or precipitating factors (Hawton 1987; Heikkinen et al 1993). These factors categories frequently intersect and overlap, and are closely interconnected. Risk factors are considered to have a predisposing nature. They act as acute precipitating factors, but are not considered to be necessary and sufficient in themselves; while chronic risk factors associated with acute events seem to be a necessary and sufficient condition for a suicide to occur (Rich et al 1986 Meneghel and De Leo 2002).

Other studies focus more on the definition of personality traits that can enable the prediction of suicide attempts. In most cases, objective personality tests investigating the personality structure have been used, such as MMPI, or stairs, created to identify personality traits like anxiety, anger, aggressiveness and impulsivity. Gieglin et al. in 2009 have conducted a study analysing the components of anger, aggressiveness and impulsivity, temperament, using self report stairs as a state-trait anger expression inventory (STAXI), Questionnaire for measuring aggression factors , FAF) and temperament/character (temperament and character inventory, TCI). They conclude that impulsivity and avoidance of damage (harm avoidance) are personality traits associated with auto-aggressive tendencies and that anger and self-directedness increase the likelihood of a suicide attempt. Other studies have used projective techniques to highlight personality traits tracers of the likelihood of suicide. Grava et al. demonstrated, through the administration of two projective tests – Rorschach and the Object Relation Technique –, that higher depression and borderline personality disorder have a strong relation with suicidal behaviour, when associated with a negative personal life balance. The Rorschach Comprehensive System's suicide constellation (S-CON; Exner, 1993; Exner & Wiley, 1977) has been validated by many studies that used it, proving the highly predictive nature of this composite index.

For example, Fowler et al. verified a high predictive validity of S-CON, particularly in patients with serious psychiatric disorders. The research sample included 104 subjects, amongst patients who had attended the Austen Riggs Center, with an average age of 29.3. The control group was formed by University students. Researchers explored the diagnostic efficiency, using a cut-off of 7 or more for the S-CON indicator: this level successfully predicted which patients would implement suicide attempts, compared to para-suicidal and non-suicidal patients, and to students. Another study examined the predictability of behaviour ideation in teenagers via the Human Figures Drawing (HFDT), stressing the possibility of using this projective technique as a detector of a suicidal trend (Zalsman et al.; 2000). The research sample was composed of thirty-nine teenage patients hospitalized after suicidal behaviour, and another 51 who had been hospitalized for other reasons. All participants performed HFDT. The authors analyzed the sample of adolescents with suicidal behaviours (n.19) and with suicide attempts (n.20), and compared it with the group of adolescents with other diseases

(n.51). This analysis yielded significant differences in test scores, mainly consisting of regression indicators. The indexes significantly associated with the risk of suicide were failure of defences (unstable lines), deficit of impulse control, immature drawings), psychosis indicators (symbolic rather than realistic images; shading, sharp lines), aggressiveness signs (nails emphasized). HFDT depression indicators (figures small, empty, undifferentiated, positioned in low or in corner in the top left of the sheet) were not significantly associated with suicide in this study. The authors interpreted this constellation of indices, expressing the character and an impulsive behaviour, as an angry ideation in adolescents.

The Wartegg test has not been investigated in terms of its predictive validity regarding suicidal behaviour. The purpose of our research was to study Wartegg differences between subjects who attempted suicide and subjects without psychiatric pathologies, and further compare them with a group of depressed subjects with no history of suicide attempts. The exploration of projective dynamics was an important part in the knowledge of psychopathology, to guide the therapeutic approach. Another aim of the work was to carry out a first exploration of the Wartegg method as a source of suicide risk indicators,

considering Wartegg is simpler and quicker to administer in emergency situations compared to other projective tests.

Methods:

Participants and procedures:

Three groups of subjects participated in the study: Attempted Suicide (AS), Depression (D), Controls (C). AS and D groups consisted in patients treated at the Day Hospital Service (DH) of the Gemelli Hospital. C group consisted in healthy subjects, who never received treatment for psychiatric disorders. The AS group was composed of 25 subjects (5 men and 20 women; mean age 36.58 ± 14.66). Five of them were already following a psychiatric or psychological therapy when the attempted suicide had occurred, while the others had contacted a psychiatric facility only after the suicidal episode had happened.

In terms of clinical stories, only 5 subjects had repeatedly attempted suicide. The time distance between the suicide behaviour and the administration of test was of six months. All subjects presented psychiatric comorbidity: depression in 10 subjects, eating behaviour disorders in 2 subjects, and histrionic or borderline personality disorders, obsessive

Table 1

Samples Characteristics

Group Socio-demographic Variables	Attempted Suicide (N = 25)	Depression (N = 29)	Controls (N = 29)
AGE (mean \pm SD)	36.58 \pm 14.66	37.28 \pm 10.48	39.95 \pm 11.26
Gender (M/F)	5/20	5/24	9/20
EDUCATION%			
Secondary school	29.41%	16%	4.76%
High school	65.29%	60%	61.90%
Degree	5.88%	24%	33.33%
OCCUPATION%			
Unemployed	22.22%	13.64%	6.90%
Student	22.22%	18.18%	13.79%
Dependent work	11.11%	31.82%	31.03%
Employed	33.33%	22.73%	17.24%
Professional	5.55%	13.64%	24.14%
Pensioner/retired	5.55%	Nil	6.90%

disorder, delirium. In 5 cases, suicidal behaviour had occurred after an affective abandonment, while for the others there was no evidence of a chronological correlation with a traumatic event.

The most frequent way to attempt suicide, for both men and women, was that of taking inappropriate medications. In one case, a fire-arm was used, and another one case toxic substances were assumed.

D group consisted of 29 subjects (5 men and 24 women; mean age 37.28 ± 10.48). All subjects presented a clinically relevant depression status, in some cases comorbid with other mood disorders or eating behaviour disorders. C group consisted of 29 subjects (9 men and 20 women; mean age 39.95 ± 11.26). Sample characteristics are shown in Table 1.

Measures:

The Wartegg test is a projective procedure. It is composed of eight panels with eight semi-structured stimulus-signs. The subject is invited to draw a meaningful picture for each of the eight panels starting from the stimulus-sign. Through these stimulus-signs, each panel suggests different psychological dimensions and elicits answers in profound areas of personality (Wartegg, 1957). From an integration of different proven interpretations in several studies (Falcone et Al., 1986), we can describe the panel's characteristics as the following: panel 1 is related to the actual state of identity; panel 2, vitality and sensibility; panel 3, ability to direct own psychic resources towards aims and objectives; panel 4, relation to rules and authority; panel 5, directionality of aggressive dynamics; panel 6, integrity of reality testing; panel 7, relation to femininity; and panel 8, social relations.

The tests were codified by independent scorers according to the A. Crisi scoring system (Crisi, 2007).

The Evocative character (EC), the Affective quality (AQ), the Formal quality (FQ) of graphic answers for each of the eight panels of all 83 tests were determined. For each test the EC, the AQ, the FQ total index and the Anxiety Index, and the Impulsivity Index were calculated. Each index was also subdivided into an Ego area index and an Es area index.

The number of Global Rejections was then calculated for each test panel. The Evocative character gives information on how the subject, both from a purely perceptive-gestalt and associative point of view, reacts to the stimulus-signs of the test. The EC focuses on

the perceptive function and the associative processes of the subject. It describes his symbolic ability to perceive and process stimuli in the environment. The scores vary between 0 if the evaluation of the picture completely fails the stimulus-sign of the panel; and 1 if the evaluation fully integrates the stimulus-sign.

The Affective quality evaluates the connotative meaning of the content of the drawing. The AQ describes the affective trend and quality of the subject's relation to the environment. The scores vary between 0 when the subject draws emotionally negative content; and 1 when the subject draws emotionally positive content.

The Formal quality evaluates the cognitive integrity of the subjects compared to their reality testing. The scores vary between 0 when the meaning is unclear or unrecognisable; and 1 when the meaning is immediately recognisable.

The Anxiety Index varies between 0 and 1. It is the ratio between the eight panels and those with deleting or blackening.

The Impulsivity index varies between 0 and 1. It is the ratio between the eight panels and those with an overtaking frame, where the drawing exceeds the panel margins.

Global Refusal is a particular phenomenon. The subject refuses to draw anything at all in a panel.

Statistical Analysis:

We first observed that the sample was homogeneous for age and gender variables, so we decided to use the statistical method of variance analysis (ANOVA) in order to analyse the group's incidence (factor or independent variable) for every dependent variable, and the Duncan's post hoc test to explore the differences in terms of group means. Statistical elaboration was performed with an SPSS 13.0 program.

Results:

Table 2 shows ANOVA results for fundamental indexes of the Wartegg test.

Affective quality (AQ) yields significant differences: subjects who attempted suicide showed significantly higher means than those of the Control group ($F = 3.739$; $p < .05$). A further analysis of AQ in terms of the Ego and Es areas highlighted that the difference depends on the Ego area ($F = 3.574$; $p < .05$), since there appear to be no significant differences at the level of the Es area between the AS group and the C group.

Another significant difference was found in Vulgar answers: Attempted Suicide group showed significantly higher means than those of both the Depression and the Control group ($F=4.640$; $p<.01$). This difference too only depends on the Ego area ($F=4.689$; $p<.01$).

The study found no significant means differences for what concerns the Anxiety Index, and the Impulsivity Index.

For what concerns the Refusal frequencies to the Wartegg panels, a compared analysis between the groups highlighted the absence of rejects in the Control group and a significant difference between the Control and Attempted Suicide group. The means of the AS group are indeed significantly higher than those of the C group ($F=3.387$; $p<.05$).

In terms of the distribution of Refusals for the eight Panels, no significant differences were found.

Moreover, the suicide ideation is highly frequent in depressed patients, but these patients rarely act out the suicide (Moscicki, 1995; Remberg, 2001).

Our study, just like Zalsman's study, does not highlight many differences between patients who attempted suicide and depressed patients, confirming the importance of depressive components in attempted suicide.

If we compare attempted suicide patients with depressed patients, the significant difference we observe regards the higher frequency of Vulgar answers in the first group. Subjects who attempted suicide seem to gloss over the common way to feel about things, mainly for what concerns their own identity, and their ability to organize their lives and think rationally about things. In overall terms, this could mean that subjects who attempted suicide do tend to rationalize, but they do it ineffectively,

Table 2

ANOVA Diagnosis (Attempted Suicide Group, Depression Group, Control Group)

Group Variables	AS (N=25) mean \pm SD	D (N=29) mean \pm SD	Controls (N=29) mean \pm SD	F Value	Duncan Post-Hoc Test
EC	68.50 \pm 17.07	64.34 \pm 16.18	71.77 \pm 16.33	0.293	-
AQ	58.75 \pm 17.68	63.58 \pm 13.16	69.40 \pm 12.08	3.739	AS < C*
FQ	72.84 \pm 19.87	75.19 \pm 22.97	79.31 \pm 13.37	0.800	-
V	37.25 \pm 23.67	25.86 \pm 13.54	24.35 \pm 11.85	4.640	AS > C**, AS > D**
ITI	0.52 \pm 0.47	0.61 \pm 0.57	0.59 \pm 0.43	0.240	-
II	0.17 \pm 0.20	0.18 \pm 0.20	0.18 \pm 0.20	0.70	-
IA	0.38 \pm 0.39	0.42 \pm 0.42	0.43 \pm 0.36	0.93	-
GR	0.52 \pm 1	0.14 \pm 0.74	0.03 \pm 0.18	3.387	AS > C*

* $P<0.05$; ** $P<0.01$

Discussion:

In studies on suicide behaviour, psychological and dynamic observations must be carried out after the attempt has occurred, and this represents a methodological and interpretative problem. Indeed, these observations will also include the reactions to the event and its traumatic consequences (emergency visits and subsequent therapies, psychological reactions of the family and of the social context, and the considerations of the Subject himself/herself on his/her suicidal behaviour). The elaboration of this kind of dynamic content requires a long process.

disinvesting from both their relationship with the external reality and from that with their own deeper instances.

A dynamic with external reality, which is totally or ambivalently refused, is inherent to attempted suicide: the Wartegg test seems to confirm the existence of this dynamic of reject as consequence of unconscious conflicts. This could explain why significant differences are observed only in the Ego area.

The fact that tests are completed after suicide has been attempted could explain the absence of

group differences in the Impulsivity Index. Suicidal behaviour could have a cathartic function regarding deep conflicts. So subjects who attempt suicide may show an Impulsivity Index on the average. An alternative interpretation could be that of taking into consideration the age of the subjects. Our sample was mainly made of adults, who are less impulsive towards projective test, unlike other samples like adolescents.

On the other hand, significant differences appear between the Attempted Suicide and the Control group. The attempted suicide group seems to be associated with affective conflicts onset, as suggested by the higher means in the AQ of the Ego area. The association is observed also when the attempted suicide is not historically connected with abandonment by an important relational figure. This affective object role could be represented by any other psychological object (work, hobby etc.).

Again compared with the Control group, the higher frequency of Global Refusal of subjects who attempted suicide could imply both a test disinvestment and a communicative difficulty of these subjects. In the first case, this dynamic data seems to show a possible resistance toward carers, whereas in the second case it could be associated with a relational disinvestment attitude.

In fact, clinical experience suggests that this specific group tends to have both a difficulty in disclosing with other persons and a difficulty and ambivalence in accepting psychological care. Within this comparative analysis, depressed subjects hold an intermediate position between subjects who have never treated and subjects who attempted suicide. Further studies could explore the vulgar answers and the Global Refusals roles as indicators of suicide risk in the Wartegg test.

References:

- Crisi A.: Il Manuale del Test di Wartegg. Magi Edizioni Scientifiche - 2007
- Exner, J.E. (1993), Structural data IV. Special indices, in J.E. Exner, The Rorschach: A Comprehensive System. Vol. 1. Basic foundation (3rd ed., pp. 453-458), New York, John Wiley.
- Exner, J.E., Wylie, J. (1977), Some Rorschach data concerning suicide, *Journal of Personality Assessment*, 41, 339-348.
- Fowler J. C., Piers C., Hilsenroth M. J., Holdwick D.J. Jr., Padawer J. R.: The Rorschach Suicide Constellation: Assessing Various Degrees of Lethality. *Journal Of Personality Assessment*, 76(2), 333-351 Copyright © 2001, Lawrence Erlbaum Associates, Inc.
- Giegling I., Olgiati P., Hartmann A. M., Calati R., Möller Hans-Jürgen, Rujescu D., Serretti A.: Personality and attempted suicide. Analysis of anger, aggression and impulsivity. *Journal of Psychiatric Research* xxx (2009) xxx-xxx
- Grava G., Berti Ceroni G., Rucci P., Scudellari P.: Suicidal Behaviors and Personality Structure. *Suicide and Life-Threatening Behavior* 36(5) October 2006 569-2006 The American Association of Suicidology
- Hawton K: Assessment of suicide risk. *British Journal of Psychiatry*, 1987, 150, 153-154; Heikkinen M, Aro H, Lonnqvist J: Life events and social support in suicide. *Suicide Life-Threatening Behaviour*, 1993, 23, 343- 358.
- Lönqvist J, Koskenvuo M. Mortality in depressive disorders; a 3-year prospective follow-up study in Finland. In "Depressive illness: Prediction of course and outcome". TDR Helgason (Ed.), 126-130, 1988.
- Martinotti G., Mandelli L., Di Nicola M., Serretti A., Fossati A., Borroni S., Cloninger C. R., Janiri L.: Psychometric characteristic of the Italian version of the Temperament and Character Inventory—Revised, personality, psychopathology, and attachment styles. *Comprehensive Psychiatry* 49 (2008) 514-522
- Meneghel G., De Leo D.: Il comportamento suicidario negli adulti e negli anziani. In: De Risio S, Sarchiapone M (eds) *Il Suicidio. Aspetti biologici, psicologici e sociali*. Masson, Milano, 2002
- Moscicki EK.: Epidemiology of suicidal behavior. *Suicide Life-Threat Behav* 25. 22-35, 1995.
- Renberg ES.: Self-reported life-weariness, death-wishes, suicidal ideation, suicidal plans and suicide attempts in general population surveys in the north of Sweden 1986 and 1996. *Soc Psychiatry Psychiatr Epidemiol* 36 (9) : 429- 436, 2001.
- Rich CL, Young D, Fowler RC: San Diego suicide study: I. Young vs old subjects. *Archives of General Psychiatry*, 1986, 43, 577-582.

Rihmer Z: Strategies of suicide prevention: focus on health care. Journal of Affective Disorders, 1996, 39, 83-91.

Zalsman, Gil M.D.; Netanel, Relli M.D.; Fischel, Tsvi M.D.; Freudenstein, Ornit M.A.; Landau, Edwina B.A.; Orbach, Israel Ph.D.; Weizman, Abraham M.D.; Pfeffer, Cynthia R. M.D.; Apter, Alan M.D. :Human

Figure Drawings In The Evaluation Of Severe Adolescent Suicidal Behavior".

Journal Of The American Academy Of Child & Adolescent Psychiatry: August 2000 - Volume 39 - Issue 8 - Pp 1024-1031;

World Health Organization. The World Health Report 2003

www.istat.it/dati/dataset/20090703_00/

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