

Effect of Research Questionnaires on Satisfaction with Treatment Care in Suicidal Adolescents and their Parents

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Abstract

Objective: Few psychosocial treatment methods have been empirically validated as effective for the prevention of suicide in suicidal adolescents, in part due to concerns that research could compromise quality of care. The study assessed the impact of research batteries on satisfaction with psychiatric care in suicidal adolescents and their parents. **Method:** Suicidal adolescents presenting to the emergency department of a major urban pediatric hospital were divided into two groups, one receiving treatment as usual and the other exposed to psychometric testing of the type typically used in research protocols both before and after their treatment. Following treatment, the patients of both groups and their parents were given questionnaires to assess satisfaction with the services they had received. Differences between the two groups were analyzed. **Results:** No significant intergroup differences were found ($p > 0.05$) in either patients or their parents regarding treatment received from the emergency-room team, regardless of whether they had been subjected to the psychometric testing. **Conclusions:** There is no evidence in the study to support concerns that extensive psychometric testing of the type frequently encountered in research studies undermines patient satisfaction with the care they receive.

Key words: suicidal adolescents, research questionnaires, research in psychiatry, client satisfaction, treatment of suicidal patients

Résumé

Objectif: peu de méthodes de traitement psychosocial ont été validées empiriquement comme étant efficaces pour prévenir le suicide des adolescents, en partie parce que la recherche sur ce sujet risquait de nuire à la qualité des soins. Cette étude évalue l'impact de divers tests sur la satisfaction, face aux soins psychiatriques, des adolescents suicidaires et de leurs parents.

Méthodologie: les adolescents suicidaires qui se sont présentés à l'Urgence d'un hôpital psychiatrique d'une grande ville ont été répartis en deux groupes: l'un recevait un traitement classique, l'autre passait des tests psychométriques du type de ceux figurant dans les protocoles de recherche, avant et après traitement. Une fois le traitement terminé, les patients des deux groupes et leurs parents ont rempli un questionnaire destiné à évaluer leur satisfaction face aux services reçus. Les écarts entre les deux groupes ont été analysés. **Résultats:** aucun écart significatif entre les groupes n'a été constaté ($p > 0,05$) chez les patients ou leurs parents en ce qui avait trait aux traitements reçus à l'Urgence, que les patients aient ou non passé des tests psychométriques. **Conclusion:** rien ne prouve qu'un vaste éventail de tests psychométriques du type de ceux administrés dans le cadre de travaux de recherche nuise à la satisfaction des patients face aux soins qu'ils reçoivent.

Mots clés: adolescents suicidaires, questionnaires de recherche, recherche psychiatrique, satisfaction du client, traitement des patients suicidaires

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Introduction

Suicide is a leading cause of mortality in the adolescent population and creates an enormous public-health and personal burden. According to Centers for Disease Control and Prevention (CDC) data, suicide was ranked as the third-leading cause of death in 2003 among age groups 10-14 and 15-19 in the United States (Heron, et al., 2007). Few psychosocial treatment methods have been empirically validated as effective for its prevention (Macgowen, 2004). In response to this problem, the Institute of Medicine (IOM) has called for more intervention studies to establish what treatment programs are effective in reducing suicide attempts and completed suicides (Goldsmith, 2002).

Researchers, however, are hesitant to pursue such studies because “perceived liability risks, inadequate training in monitoring and treating suicidal cases, and unsupported assumptions that potential risks exceed the possible benefits of treatment have led to exclusion of persons with a history of suicide attempts or perceived to be at high risk for future suicide from clinical trials for most health disorders” (Pearson, et al., 2001). This mindset limits the data that can emerge on the effect of treatments on suicidal patients.

The question of whether being a subject in a psychiatric research study has an impact on patient outcomes has been explored in adult patients who are not necessarily suicidal. A systematic review of 46 studies regarding participant distress in psychiatric research found little evidence of long-term impact, with positive reactions following participation more often than negative ones (Jorm, et al., 2007). Marshall found that the common belief among therapists that research is necessarily intrusive and harmful was not supported by the data they collected; the results suggested minimal negative impact and a measurable positive impact (Marshall, et al., 2001). Rosen concluded in a study of adults with generally severe psychiatric disorders that such patients find participation in research beneficial (Rosen, et al., 2007).

We wondered whether comparable conclusions could be extended to a population of suicidal adolescents. We hypothesized that being exposed to a research interview would have little impact on the level of client satisfaction of patients or their parents regarding the treatment received. We designed a study assessing the satisfaction with treatment of suicidal adolescents presenting to the Montreal Children’s Hospital (MCH) emergency room during the course of a pilot study evaluating a rapid-response outpatient model for treatment. The results of the full-scale study that followed, which showed that hospitalization rates of suicidal adolescents presenting at an emergency department could be reduced using this outpatient model without causing a decrease in overall functioning or increase in patient suicidality compared to

standard treatment, have been published elsewhere (Greenfield, et al., 2002).

Methods

Suicidal adolescents presenting to the emergency room were divided into two groups: one recruited into an existing research study involving psychometric testing and standardized treatment, and another given the treatment only. At the end of their treatment, both groups and their parents were given questionnaires to systematically assess their satisfaction with the psychiatric services received. The two groups were compared to assess differences created by the exposure to the research protocol, including interviews and questionnaires.

Inclusion criteria for the study were that subjects were suicidal adolescents aged 12-17, were French- or English-speaking, did not require medical or surgical observation, had lived with family members for the last 12 months in the area served by the hospital, and were not being considered for foster care. Mental retardation was an exclusion criteria. Patients and their parents were asked to read and sign an informed-consent form approved by the MCH Ethics Committee at the time of their first meeting with a research assistant. Demographic data and characteristics of patients included in both groups are listed in Table 1.

To evaluate the effect of being submitted to such research interviews, a comparison was designed between two groups, measuring their satisfaction with treatment. The experimental group (Group A) was made up of patients who had been submitted to the entire study, including pre- and post-treatment research assessments. The control group (Group B) was made up of patients who were given the treatment without undergoing psychological testing other than limited post-treatment assessments. Both groups received treatment as usual. The treating psychiatrist was not involved in the recruitment of patients or administration of questionnaires to subjects. Following completion of treatment and (for Group A) participation in the study, measures were administered to both groups of patients as well as one of their parents during the last half of their final session to evaluate differences between the experimental and control groups. Patients were allocated to Group A or Group B on an alternating basis as they were recruited into the study. After 11 patients were recruited into both Group A and Group B, an additional 11 patients were recruited into Group B to increase the statistical power of the study with a larger control group. Analysis showed that there was no significant difference ($p > 0.05$) in either the measured demographic data or outcome measures between the earlier and later groups of patients and parents recruited into Group B. In total, 11 patients and parents were recruited into Group A (data for one patient was incomplete), while Group B was

Table 1. Demographic data & population characteristics		
Measure	Experimental group (n = 11)	Control group (n = 22)
Mean suicidality at presentation	3.0	2.7
Mean age at presentation	15.7 years	14.7 years
Male Sex	55%	45%
Mean CGAS at presentation	48.6	Not measured
Mean suicidality at discharge	1.3	Not measured
Mean number of diagnoses	4	Not measured
Frequency of Major Depression	100%	Not measured
Anxiety Disorder	73%	Not measured
Alcohol or drug abuse	36%	Not measured
Conduct disorder	9%	Not measured

Table 2. Battery Questionnaires administered to group A	
Pre-treatment battery	
Semi-structured interviews	
<ul style="list-style-type: none"> • Kiddie-SADS Epidemiological and Present Episode version (Chambers, et al., 1985) • Child Global Assessment Scale (Shaffer, et al., 1983) • 5-point Pfeffer Spectrum of Suicidal Behavior Scale (Pfeffer, 1986) 	
Self-reported questionnaires	
<ul style="list-style-type: none"> • Coddington Life Events Scale (Coddington, 1972) augmented with part of the Schibuk Family Violence and Resilience Interview (unpublished) • Part of the Precipitating Events of Child Suicide Potential Scale (Pfeffer, 1986) • Family Assessment Measure (Skinner, et al., 1983) • Index of Peer Relations (Hudson, et al., 1990) 	
Post-treatment battery	
Child Global Assessment Scale (Shaffer, et al., 1983)	
5-point Pfeffer Spectrum of Suicidal Behavior Scale (Pfeffer, 1986)	
International Personality Disorder Examination section pertaining to borderline personality disorder (Loranger, 1988)	

composed of 22 patients and their parents (data for one patient and two parents were incomplete).

The hypothesis was that exposure to the questionnaires would not significantly affect client satisfaction measures in either the patient or parent groups.

Measures

Group A Only

Prior to treatment, the patients in Group A were given a semi-structured interview administered by a research psychiatrist and completed self-reporting questionnaires. These assessments required approximately 3.5 hours to complete. Following treatment, a post-treatment battery was also

administered, which took approximately two hours to complete. The questionnaires administered to Group A are listed in Table 2.

Group B Only

Assessment of the suicidality of Group B at presentation using a 5-point scale based on the criteria of the Pfeffer Spectrum of Suicidal Behavior was made by an expert psychiatrist following a careful review of their charts to avoid subjecting them to a research questionnaire. No research questionnaires were administered to Group B either before or after their treatment, other than the outcome measures as outlined below.

Table 3. Results of post-treatment measures of satisfaction among patients and parents

Scale	Experimental patient group (n = 10)	Control patient group (n = 21)	<i>p</i>	Experimental parent group (n = 11)	Control parent group (n = 20)	<i>p</i>
Client Satisfaction Questionnaire Score	Mean=24.70 SD=5.66	Mean=22.45 SD=4.89	0.26	Mean=24.82 SD=5.21	Mean=24.38 SD=3.83	0.79
Ladder of Service Satisfaction Score	Mean=4.90 SD=0.88	Mean=4.60 SD=1.75	0.75	Mean=5.18 SD=1.08	Mean=4.75 SD=1.25	0.34
Ladder of Life Satisfaction Score	Mean=4.20 SD=1.48	Mean=3.05 SD=2.06	0.13	Mean=4.55 SD=0.93	Mean=3.67 SD=1.37	0.07

Groups A and B (outcome measures)

Both groups of patients and parents completed the Client Satisfaction Questionnaire-8 (CSQ-8) (Larsen, et al., 1979), a measure of established reliability and validity developed to assess satisfaction with health or mental-health services. Two graphic scales that have been established as significantly correlated with the CSQ, the Ladder of Service Satisfaction scale and the Ladder of Life Satisfaction scale (LeVois, et al., 1981), were administered to assess satisfaction with services and life in general.

Results

Data was analyzed using the Statistical Program for the Social Sciences (SPSS), version 17.0. Given our small sample size, we ran Kolmogorov-Smirnov Goodness of Fit tests for all scales independently to assess normality of the distributions. There was only one violation for patient ladder of service ($p=0.03$), requiring a non-parametric Mann-Whitney U test. Independent samples t-tests were conducted on each other outcome, independently for patients and parents. Results are listed in Table 3. No significant intergroup (patient and parents) differences were found ($p>0.05$) regarding treatment received from the emergency-room team, regardless of whether or not patients had been subjected to the psychometric testing. There were also no significant between-group differences on the Ladder of Service Satisfaction Scale or the Ladder of Life Satisfaction Scale. However, patients and parents in the experimental group revealed trends towards higher life satisfaction scores compared to their respective control groups.

Discussion

Within the studied population, neither patients nor their parents expressed a difference in their satisfaction with the mental-health services they received based on whether or not they were subjected to the psychiatric research test battery, as determined by the measures employed in this study. These

results are consistent with other studies that found that participation in psychiatric research does not inherently undermine the treatment of adult patients and may even confer positive benefits. This study extends such conclusions to a suicidal adolescent population.

A limitation of the study is its small sample size, which limited its power ($\alpha=0.05$ and $\beta=0.2$) and may have hidden a relationship between allocation to the experimental group and the outcome measures. With a study of this power, only a very large effect (approximately 1.3 sd) could have been detected. In this context, it is notable that all three outcome measures did favour the experimental group, but not at the level of $p>0.05$, and that there were trends toward participants in the experimental group experiencing higher levels of life satisfaction. These results suggest that the development of similar studies with larger samples would be of potential value.

The study was also limited in that it did not measure any change in the frequency of suicide attempts following participation in the study. In any event, the number of participants would have been too low to draw conclusions regarding such a rare event as suicide. In addition, it did not measure the impact of their treatment. Another limitation is that although suicidality at presentation was measured using the same scale for both groups, the experimental group measurement was based on clinical exam and the control group was based on chart review. This discrepancy may have hidden intergroup differences.

Because the studied population is considered to be fragile, there is a reasonable concern that they not be subjected to intrusive assessments for research purposes. However, their considerable need for care necessitates the development of effective interventions. These can only be established through research involving careful study of this population. Researchers should not make the *a priori* assumption that participation in psychiatric research batteries will compromise the treatment received by patients. To further challenge these

assumptions, further research to explore the safety and potential benefits of participation in psychiatric research by suicidal adolescents is warranted, including qualitative studies that may suggest mechanisms for potential protective effects of exposure to extended questionnaires. In addition, studies specifically evaluating the effect on treatment outcomes of research questionnaires in suicidal patients (both adult and adolescent) are warranted.

Acknowledgements / Conflicts of Interest

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References

- Chambers, W. J., Puig-Antich, J., Hirsch, M., Paez, P., Ambrosini, P. J., Tabrizi, M. A., & Davies, M. (1985). The assessment of affective disorders in children and adolescents by semistructured interview. Test-retest reliability of the schedule for affective disorders and schizophrenia for school-age children, present episode version. *Archives of General Psychiatry*, *42*(7), 696-702.
- Coddington, R. D. (1972). The significance of life events as etiologic factors in the diseases of children. II. A study of a normal population. *Journal of Psychosomatic Research*, *16*(3), 205-213.
- Goldsmith, S. K. (2002). *Reducing Suicide: A National Imperative* (No. 0309083214 (pbk.)). Washington, D.C.: Institute of Medicine Committee on Pathophysiology & Prevention of Adolescent & Adult Suicide.
- Greenfield, B., Larson, C., Hechtman, L., Rousseau, C., & Platt, R. (2002). A rapid-response outpatient model for reducing hospitalization rates among suicidal adolescents. *Psychiatric Services*, *53*(12), 1574-1579.
- Heron, M. P., & Smith, B. L. (2007). Deaths: leading causes for 2003. *National Vital Statistics Report*, *55*(10), 1-92.
- Hudson, W., Nurius, P., Daley, J., & Newsome, R. (1990). A Short-Form Scale to Measure Peer Relations Dysfunction. *Journal of Social Service Research*, *13*(4), 57-69.
- Jorm, A. F., Kelly, C. M., & Morgan, A. J. (2007). Participant distress in psychiatric research: a systematic review. *Psychological Medicine*, *37*(7), 917-926.
- Larsen, D. L., Attkisson, C. C., Hargreaves, W. A., & Nguyen, T. D. (1979). Assessment of client/patient satisfaction: development of a general scale. *Journal of Evaluation and Program Planning*, *2*(3), 197-207.
- LeVois, M., Nguyen, T. D., & Attkisson, C. C. (1981). Artifact in client satisfaction assessment: experience in community mental health settings. *Journal of Evaluation and Program Planning*, *4*(2), 139-150.
- Loranger, A. W. (1988). *Personality disorder examination (PDE) Manual*. Yonkers, New York: DV Communications.
- Macgowen, M. J. (2004). Psychosocial treatment of youth suicide: A systematic review of the research. *Research on Social Work Practice*, *14*(3), 147-162.
- Marshall, R., Spitzer, R., Vaughan, S., Vaughan, R., Mellman, L., MacKinnon, R., & Roose, S. (2001). Assessing the subjective experience of being a participant in psychiatric research. *American Journal of Psychiatry*, *158*(2), 319-321.
- Pearson, J. L., Stanley, B., King, C. A., & Fisher, C. B. (2001). Intervention research with persons at high risk for suicidality: safety and ethical considerations. *Journal of Clinical Psychiatry*, *62* Suppl 25, 17-26.
- Pfeffer, C. R. (1986). *The suicidal child*. New York: Guilford Press.
- Rosen, C., Grossman, L. S., Sharma, R. P., Bell, C. C., Mullner, R., & Dove, H. W. (2007). Subjective evaluations of research participation by persons with mental illness. *Journal of Nervous Mental Disorders*, *195*(5), 430-435.
- Shaffer, D., Gould, M. S., Brasic, J., Ambrosini, P., Fisher, P., Bird, H., & Aluwahlia, S. (1983). A children's global assessment scale (CGAS). *Archives of General Psychiatry*, *40*(11), 1228-1231.
- Skinner, H., & Steinhauer, P. (1983). Family Assessment Measure. *Canadian Journal of Mental Health*, *2*(91-105).