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Original article

Self versus maternal reports of emotional and behavioral difficulties in suicidal and non-suicidal adolescents: An Israeli nationwide survey

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ABSTRACT

There is relatively little research addressing parent-adolescent agreement as regards to reporting on adolescent suicidal behavior in general and their behavioral and emotional difficulties in particular. The objective of this study was to compare maternal and adolescents' reports on behavioral and emotional difficulties among adolescents with and without suicidal behavior. This nationally-representative sample included 906 adolescents and their mothers. The mothers and adolescents were interviewed and evaluated separately using the Development and Well-Being Assessment Inventory (DAWBA) and the Strengths and Difficulties Questionnaire (SDQ). Self-rated SDQ scores of the suicidal adolescents were significantly higher in all SDQ problem scales compared to the non-suicidal participants. In contrast, maternal-rated SDQ assessments failed to discriminate between these groups, except the Hyperactivity scale. We demonstrated that mothers of suicidal adolescents in the community hardly recognize the emotional and behavioral difficulties of their offsprings.

Conclusion. – The mental examination of the adolescent patient should be maintained as the central and most reliable source of information regarding the suicidal adolescent. Mental health services planning of national suicide prevention programs should take into account these poor mother-adolescent agreement findings.

1. Introduction

Despite increasing awareness of adolescent suicidal behavior, rates of suicide are rising in this young age group [16]. Actually, suicide is currently the second or third leading cause of death among adolescents in the western world [15,16].

In the absence of laboratory tests predictive of suicidal behavior, multi-informant assessment of suicidal ideation and attempts remains the central and most essential component of risk assessment in child and adolescent psychiatry [34]. However, in many cases, informants report different information, and thus mental health professionals are faced with the challenge of integrating this information to establish an accurate diagnosis and proper risk assessment. Moreover, informant disagreement is a predictor of later development of major hazardous psychopathology such as deliberate self-harm and substance abuse as well as legal problems, expulsion from school, unwanted pregnancy and referral to mental health services [11].

Parent–child reporting agreement is a major issue in the field of child and adolescent psychiatry [37–39]. It has been established that parents and adolescents tend to give different reports in most childhood and adolescent-onset psychopathologies and in some physical disorders as well [1,6,8,9,20,24,30,33,36,42]. Thus, in most psychiatric scales and structured interviews, a separate interview of the parent and the child is recommended in order to achieve better accuracy in the evaluation of psychopathology [9,22,24,36,42]. This is particularly essential in the assessment of suicidal thoughts and behavior, which is critical for risk assessment [25].

There is relatively little research addressing parent-adolescent agreement about adolescent suicidal behavior in general and on reports of behavioral and emotional difficulties among adolescents with suicidal behaviors in particular [4,40].

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In a previous publication based on the nationwide Israel Survey of Mental Health among Adolescents (ISMEHA) Study [27], rates of suicidal ideation and attempts were assessed in a representative non-clinical sample of 14–17-year-old adolescents living in the community (Zalsman et al., Parents vs. Adolescents' Reports on Suicidal Behaviors: A Nationwide Survey, in preparation). This study, based primarily on the Development and Well-Being Assessment (DAWBA) Inventory, demonstrated that the agreement between mothers and adolescents was very low for suicide ideation and nonexistent for suicidal attempts.

The objective of this study was to compare maternal and adolescents' reports of behavioral and emotional difficulties among adolescents with and without suicidal behaviors, using the Strengths and Difficulties Questionnaire (SDQ) as an assessment tool. Our hypothesis was that the mothers of the suicidal adolescents would report higher scores in the following areas: peer relationships, prosocial behaviors, hyperactivity and inattention, conduct disorders and emotional state compared to the mothers of the non-suicidal adolescents.

2. Subjects and methods

We describe here only a short summary of ISMEHA Study's methods, while the fully detailed description of its sample, data collection, procedures and instruments has been published elsewhere [27].

2.1. Sample and procedures

The sample included 957 subjects, but complete data was available for 906 adolescents (age range 14–17 years) and their mothers. The sampling frame used was the Israeli National Population Register (INPR). This file included the name and home address of all legal residents of Israel born between July 2, 1987 and June 30, 1990, whether or not in school (n = 317,604). Only one child per family was included in the sample. Due to budgetary constraints, only settlements with more than 2000 inhabitants were included, which comprised 90% of the target population.

Mothers and adolescents were interviewed separately at home by two trained lay interviewers in the mother tongue of the participants. Twenty-two mothers refused to be interviewed but consented to their offspring's participation, while 51 adolescents refused to participate, despite their mothers' participation. Although multiple informant-based diagnoses are preferable, these cases were included because when using SDQ, diagnoses based on a single informant are common practice (Goodman, personal communication). Data on gender, population group and country of birth were obtained from the INPR. Additional sociodemographic data were provided by the interviewees and therefore denominators for the different variables vary.

The sample included 44 clusters, based on type of locality and gender. Taking into consideration cluster and design effects, the initial sampling included the 11 largest Israeli cities and the index adolescents in those cities were chosen through a systematic random sampling. All the smaller cities and towns were then stratified according to type of locality (Jewish and mixed Jewish/Arab cities or mainly Arab cities) and sampled with a probability proportional to size. In addition, 23 Jewish or mixed cities and 10 Arab cities were selected and 30 adolescents were sampled from each of these smaller cities through a systematic random sampling procedure. There were no replacements.

The total sample consisted of 1402 subjects. Response rate for the subjects whose address could be obtained and who were actually approached (located sample) (n = 1195) was 80% while for the total sample, which includes those subjects who could not be located even after major efforts as well as subjects who refused to participate, response rate was 68% (n = 957). No significant differences by gender or immigrant status were noted. The results were weighted back to the total population to compensate for clustering effects and non-responses.

The study was approved by the Israeli Ministry of Health Review Board. Written informed consents of the parents and their adolescent for the participation in the study were obtained after the nature of the study was fully explained.

2.2. Instruments

Diagnostic Assessment: self-reported and maternal-reported suicidal behaviors were assessed using the DAWBA [14]. The DAWBA, a multi-informant interview, combines a structured interview with open-ended questions regarding psychiatric symptoms and their impact on the adolescent's life and his or her family. Responses to the structured questions generated a computerized diagnosis according to the DSM-IV-TR [2] criteria. Senior child psychiatrists (I.F., A.A. & R.K.) relied on the recorded comments to verify these diagnoses.

Emotional and behavioral difficulties – both self- and maternal-rated – were evaluated using the Hebrew, Arabic and Russian versions of the SDQ [28] (available at http://www.sdqinfo.org). The SDQ is also a multi-informant questionnaire, designed for the screening of mental health problems in children and adolescents [13]. This tool contains 25 items, 20 of them related to problem areas such as peer relationship, hyperactivity and inattention, conduct disorders and emotional symptoms. The remaining five items comprise a prosocial behavior scale. The Total Difficulties score includes only the four problem scales. This measure is increasingly being used in both the community and clinical setting thanks to its relative brevity and availability in the public domain (http://www.sdqinfo.org). The psychometric properties of the Hebrew version of the SDQ (SDQ-H) were demonstrated to be acceptable compared to other translated versions [28].

2.3. Statistical analysis

Statistical analyses were conducted using an SPSS-17 complex sample analysis module (IBM-SPSS Inc, Chicago, IL). Raw numbers and weighted proportions are presented for the characteristics of the study population. Mean SDQ scales' scores and standard deviations according to adolescents' report of suicidal ideation and suicidal attempts were calculated. Given the small number of cases with suicide ideation and suicide attempts, we used Mann-Whitney U statistics to compare self and maternal SDQ ratings for suicidal and non-suicidal adolescents and z values and significance are presented.

3. Results

A total of 906 adolescents participated in the study (50.3% males). Seventy-six percent (n = 611) were Jewish and the rest were Arab (n = 238) or Druze (n = 57). Forty percent (n = 300) had a mother with a post high-school education. Nearly 14% (n = 110) lived with a single/divorced/widowed parent and more than half had three or more siblings (n = 518); 23% (n = 204) had fathers who were out of the work force and 14% (n = 124) of families were welfare care recipients. Table 1 shows selected sociodemographic traits of the study population. Further epidemiological data on this cohort were presented in our previous report [27].

Suicidal ideation in the 4 weeks preceding the interview was reported by 4.1% (n = 38) of the sampled adolescents and attempted suicide by 1.4% (n = 15). Table 2 shows that the