CHAPTER 12

PSYCHOLOGICAL DISTRESS BECAUSE OF ASKING FOR SUICIDAL THOUGHTS. A RANDOMIZED CONTROLLED TRIAL AMONG STUDENTS

Abstract

To investigate the effect of the items of the Beck Scale for Suicide Ideation on psychological well-being among healthy participants.

Methods

A randomized controlled study. 301 participants answered the same four questionnaires on psychopathology. The experimental group additionally answered 21 items of the Beck Scale for Suicide Ideation. The control group answered 19 items on Quality of Life.

Results

The experimental condition showed a significant smaller decrease of negative affect compared to the control condition. When analyzing participants with elevation of distress, 80% were part of the experimental condition.

Conclusions

For most participants, answering suicide items does not affect their mood. A small group of participants did react with distress to the suicide items. As the suicide items were administered immediately before the items on negative affect, the suicide items could have worked as a negative mood challenge. Future experimental research should further investigate the effect of suicide items among healthy participants, especially on the long term.

Keywords

Suicide, Screening, Iatrogenic effect

Accepted as:

showed no more change in depression or suicide ideation after answering suicide items when compared to controls. The same results have been found among Taiwanese students (Harris et al., 2011). 259 students were divided at random into either the experimental or the control group. Students in the experimental group answered seven questionnaires about psychopathology on the computer. One questionnaire contained several suicide items. The control group completed the same questionnaires as the experimental group, but answered questions on quality of life instead of the suicide items. Psychological distress was operationalized as change on the Positive and Negative Affect Schedule (PANAS) conducted before and after the other questionnaires. In this study, also no effect on negative or positive affect because of the suicide items was found. Participants that scored high on the depression questionnaires did experience a negative mood change, but this effect was seen in both the experimental and the control group. In the current study, we replicated the study of Harris among Dutch students. We were particularly interested in possible distressing effects of answering the self-report version of the Beck Scale for Suicide Ideation (BSS, (Beck et al., 1979). The BSS is one of the most widely used self-report questionnaires in suicide research (Brown, 2013). Analogue to Harris we hypothesized that asking for suicidal ideation via the BSS would not result in higher negative affect or lower positive affect when compared to the control group. We also hypothesized that when selecting high risk students (high score on depression, loneliness or negative affect at baseline) still no effect of suicide items would be found. As it is know that a small percentage of participants (generally <10%) in psychiatric research does get distressed (Jorm et al., 2007; Biddle et al., 2013) we also investigated the distribution of these expected 10% of participants among the experimental and the control condition.

Introduction

In the Netherlands, safety for participants in research is regulated by law since 1999 (Ministry of Health, 1999). (Para) medical studies have to be approved by medical ethic committees. Normally, committees approve asking about psychopathology via questionnaires. But on the topic of suicidality, committees become more stringent. An international survey among medical committees showed that the main concern is that asking about suicide might reinforce such thoughts or acts (Lakeman & Fitzgerald, 2009). Several studies, both experimental and observational, have examined this possible iatrogenic effect of suicide items ((Biddle et al., 2013; Crawford et al., 2011; Cukrowicz et al., 2010; Gould et al., 2005; Harris et al., 2011; Mathias et al., 2012; Reynolds et al., 2006). Two of these studies showed that asking about suicide in high risk populations (borderline, adolescents who experienced inpatient care, chronically suicidal patients) did not result in differences in mean scores on mood and suicidality (Reynolds et al., 2006; Mathias et al., 2012). The same result was found after a much more intense suicide intervention. 30 suicidal participants answered several questionnaires and were exposed to images of suicide. No increase in suicide ideation was found after the tests. The authors concluded that research among individuals at high risk is possible when a good safety procedure is available (Cukrowicz et al., 2010). The pooled results of four different studies on the experiences of vulnerable participants in qualitative research on the topic of suicidality showed that most participants actually benefited from participating in the study (Biddle et al., 2013). A systematic review showed that positive reactions following participation in psychiatric research are generally more common than negative ones and that no long term effects of distress or effects on functioning were found (Jorm et al., 2007).

In clinical settings, asking about suicidality is part of daily treatment. When developing screeners for suicide risk, research is conducted among the general population, i.e. participants not in a protected treatment environment. The possible iatrogenic effects of suicide screeners (questionnaires, interviews) in general population are not well studied according to Gould et al (2005). She conducted a study on the effect of screening for suicidality among adolescents. In the experimental condition, 1172 adolescents completed numerous questionnaires, which included 22 items on suicidality. The control group (n = 1170) was asked the same questions as the experimental group, but the suicide items were omitted. Mood and suicidality were assessed before and after answering the questions. On average, adolescents in the experimental condition showed no more stress or change in mood when compared with the control group. Also, adolescents at risk for suicide (high scores on depression questionnaires, substance abuse)
Methods

Design

The study was a randomized controlled trial conducted at the VU University in the Netherlands.

Participants

Eligible participants had to be 18 years or older, registered as a student at a Dutch University and fluent in Dutch.

Experimental Procedure

We replicated the design of Harris et al (2012). From 15 April 2012 until 25 April 2012, participants were recruited at the student computer facility of the faculty of Psychology and Education of the VU University Amsterdam. Participants were told they were attending a study to validate different questionnaires that measure emotional problems. They were offered 3.5 euro or course credits for participation. They were randomly assigned to a computer cubicle and provided an informed consent. Each cubicle had an anonymous link to either the experimental or the control condition on its desktop. In both conditions, the participants were asked to fill in seven questionnaires (fig1). The two groups differed only in the fifth questionnaire. In the experimental condition the fifth questionnaire contained 21 items of the BSI. The control condition answered 19 items on Quality of Life as the fifth questionnaire. Special care was taken to debrief the participants in both conditions. The total study (questionnaires and debriefing) took approximately 30 minutes per student.

Questionnaires

The Positive and Negative affect Schedule (PANAS (Watson & Clark, 1988))
Psychological distress was operationalized as change in score on the pre (T0) and post (T1) measurement of the PANAS. Both the Positive affect (PA) and the Negative affect (NA) subscale have been found to be able to detect change in mood (Watson & Clark, 1988). Total scores ranged from 10-50.

Center for Epidemiologic Studies Depression Scale (CES-D (Redloff, 1977))
The CES-D is a self-report questionnaire that measures depressive symptoms in general population. The scores range from 0-60. Internal consistency is good (Redloff, 1977).

World health organization Quality of life abbreviated (WHOQOL-BREV (Skevington et al., 2004)).
The instrument measures the following broad domains: physical health, psychological health, social relationships, and environment (Skevington et al., 2004).

**De Jong Gierveld Scale For Loneliness** (De Jong-Gierveld, 1987)
The loneliness scale is a widely used and cited scale for scientific usage (Jong Gierveld & Tilburg, 2010). The scale consists of 11 items. Minimum score is 11, maximum score is 55.

**Beck Scale of Suicide Ideation** (BSI, (Beck et al., 1988))
Our intervention is the Beck Scale for Suicidal Ideation (BSI), a well validated and widely used instrument (Beck et al., 1979). The BSI consists of 21 self-report items. The first 19 items measure the severity of actual suicidal wishes and plans. Item 20 assesses the number of previous suicide attempts and item 21 the severity of the last suicide attempt.

**Social Support Questionnaire** (Kempen & Eijk, 1995)
We measured social support with a 12 item version of the Social Support Questionnaire (Kempen & Eijk, 1995). A high score reflects a low level of perceived social support.

**Debriefing**
After the task, participants were taken into a separate room for a structured debriefing. Participants were asked how they experienced the questions in general, if they had trouble with any of the questionnaires, and if their mood changed because of answering the items. If a participant reported change in mood, a note with the telephone number of the specialized psychologists was provided with a clear invitation to contact the psychologist if the participant kept feeling negative. No participant contacted the specialized psychologist during or after the study.

**Approval from Medical Ethics Committee**
Approval from the Medical Ethics Committee of the VU University Medical Center was requested and obtained (registration number 2012/121).

**Statistical analysis**
To analyze the effect of answering suicide items on Negative Affect (NA) at T1, a univariate ANCOVA was performed. Fixed factor was condition, and NA at T0 was used as a covariate. We conducted the same analysis for different selections of high risk participants. (CESD > 15, CESD> 22, Loneliness > 30, NA T0> 22). The same analysis were done for the subscale Positive Affect (PA). Finally, we looked at the distribution over condition of participants who reported a positive change of NA of at least 1.5 standard deviation above the mean change in NA.

**Results**
301 participants were included in our study. All data assumptions were met. The control and the experimental groups showed comparable demographics and scores at baseline. Average mean (SD) on the BSS in the experimental group was 0.9 (2). 14 participants scored >2 on the BSS.

**Effect of the BSS on the NA scale**
For the total sample we found a significant effect of condition on the mean of NA at T1, \(F(1,295) = 7.36, p <0.01, \) effect size = 0.3. When controlling for NA at T0, NA at T1 was significantly higher in the experimental group when compared to the control group. No effect for the different subgroups was found.

**Effect of the BSS on the PA scale**
The same analyses with the five different subgroups of participants were done for the scores on the PA. No significant effects were found for condition on PA T1.

**Distribution of participants that showed elevated NA**
To investigate clinical relevant rise in affect, we selected participants that showed an elevation of NA of 1.5 standard deviation above the mean change in NA (i.e. a change score of 3.9 or higher). 24 participants met this criteria. 19 of these participants were part of the experimental condition. The distribution between condition and whether or not a participant scored 1.5. standard deviation above the mean was significant (\(\chi^2 (1) = 11, p =0.001\)). Seven participants in the experimental condition scored higher than the highest score on the control condition. Three participants in the experimental condition showed an increase of NA of 20% (= increase of 10 points or higher). Multivariate analyses showed that the 24 participants with elevated NA were characterized by significant higher scores on loneliness compared to the other 273 participants.
Discussion

Our study suggests that the answering of suicide items does result in distress for a small minority of more vulnerable individuals. For most participants, answering the suicide items of the Beck Scale for Suicide Ideation does not affect their mood, but when looking at the distribution of participants who showed significant elevation of NA, most (80%) were part of the experimental condition. Our results differ from other studies that showed no negative effect of suicide items.

A possible explanation for the found effect could be that in our study, the suicide items worked as a negative mood priming challenge, as the BSS was administered just before the items on negative affect. Several studies have shown that negative mood can be induced in healthy participants by listening to negative self-statements, or thinking about a personally upsetting event (Robinson et al., 2012). No negative long term effects of these mood induction methods are documented. A follow up study should replicate the design with a few questionnaires between the BSS and the negative affect scale to further investigate any possible priming effect of the BSS.

Another explanation could be found in the Theory of Terror Management (Greenberg et al., 1992). The theory states that self-esteem protects people from the anxiety that awareness of their vulnerability and mortality would create. In our present study, we ask participants first about their level of loneliness, perceived social support, and then about suicide. If a participant is reminded that he has no friends and that he actually is lonely, and then is reminded about his own mortality via suicide items, according to the Theory of Terror Management it should come as no surprise that mood decreases.

Strengths and limitations

The strength of this study is the experimental design and the relative large sample size, which makes it possible to investigate the effect of answering the BSS. A limitation of this study is that, as all of the participants studied at the university, our results are not to be generalized among all 18-24 olds. Furthermore, the sample of this study scored relatively high on the psychopathology questionnaires 30% of our sample scored above the cut off score of 16 on the CESD, which is comparable to other studies among undergraduates (Regestein et al., 2010) but high compared to the general population (Redloff, 1977). Also, given the small number of participants in the different subgroups (for example, only 48 participants scored CESD > 22), we need to be cautious about the robustness of our findings. Most importantly, we did not include a follow up. One wants to know if the effect of the items prolongs for hours or perhaps days. Although a systematic review found little indication of any longer-term harm to participants, following research should include a long term follow up.

Implications and conclusions

Most participants, even participants at high risk, showed no distress from answering suicide questions. We did find that a small group of participants reacted with distress to the suicide items. This group was characterized by higher but not extreme scores on loneliness, depression, perceived lack of social support and negative affect at baseline. Although experimental studies should investigate whether our effect was as a result of negative priming, and whether it has any long effect, researchers should be aware of the possible adverse effect of suicide research and make sure to develop a sufficient safety protocol. Both researchers and Medical Ethical Committees should consider the likelihood and impact of distress against the importance of new research when using the BSS.

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Authors’ contributions

AK was the initiator of the study. DP drafted the manuscript. All authors contributed to the execution of the study, and to the manuscript writing.
References


