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ABSTRACT

The lack of systematic psychometric information on the Suicide Opinion Questionnaire (SOQ) was addressed by investigating the factor structure and reliability of the eight-factor clinical scale model (mental illness, cry for help, right to die, religion, impulsivity, normality, aggression, and moral evil), developed for interpreting responses to the SOQ. Participants were 237 undergraduates (93 males and 144 females) from a large university. Confirmatory factor analysis, exploratory factor analysis, and item analysis were performed to examine model fit. Three psychometric analyses of the eight clinical scales of the SOQ indicated major deficiencies within the measure. Rather than discarding it or continuing its use in an unsystematic fashion, it is suggested that efforts be made to develop a psychometrically stable interpretive structure for the measure. These results suggest a five-factor model (acceptability, perceived factual knowledge, social disintegration, personal defect, and emotional perturbation) that would appear to be an improvement over the eight-factor model, but further research is necessary before the five-factor model is used. (SLD)

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Reliability of the Suicide Opinion Questionnaire

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Using the Suicide Opinion Questionnaire (SOQ), researchers have investigated attitudes and beliefs regarding suicide in children (Domino, Domino & Berry, 1986), college students (e.g., Domino, 1988), mental health professionals (Swain et al., 1985), religious groups and members of the clergy (e.g., Domino, 1985), and groups of suicide attempters, contemplators, and non-attempters (Limbacher & Domino, 1985-1986).

Throughout these investigations, various methods of interpreting the SOQ responses have been applied. These procedures have included the use of scale scores based upon a factor analytically derived 5 factor model (Domino, 1980), a 7 factor model (Limbacher & Domino, 1985-1986), and two separate 15 factor models (Swain & Domino, 1985; Domino et al., 1982).

To reduce the interpretive confusion of the SOQ, Domino et al. (1988-1989) developed an 8 factor clinical scale model through what they described as a combined clinical and internal consistency approach. These 8 clinical scales are viewed by Domino as representing the most conceptually meaningful and statistically sound model developed for interpreting responses to the SOQ (G. Domino, personal communication, February, 20, 1990). Domino et al. (1988-1989) list the 8 SOQ clinical scales as: (1) Mental Illness, (2) Cry for Help, (3) Right to Die, (4) Religion, (5) Impulsivity, (6) Normality, (7) Aggression, and (8) Moral Evil.

The purpose of the present study was to address the lack systematic psychometric information on the SOQ by investigating the factor structure and the reliability of the 8 factor clinical scale model.

Method

Subjects

Participants in the study were 237 undergraduates from a large mid-western university. The 144 women and 93 men were enrolled in various psychology courses and received extra credit for their participation.

Procedures

First, to test the fit of Domino's eight factor model with the data, a confirmatory factor analysis was performed. The eight factor measurement model failed to account for the covariances between the SOQ items. The χ^2 -test for model fit was significant at $p < .001$ (indicating lack of model fit) and Bentler's normed fit index was .2607 (.90 is considered adequate model fit). Next, an exploratory factor analysis was performed to further investigate the factor structure of the SOQ. In brief, the clinically derived scales failed to hold up in the exploratory factor analysis. A large number of items which should load on a specific factor failed to do so. Many items which should have loaded together on the same factor, to maintain scale cohesion, failed to do so. Finally, many items loaded equally well across four or more factors.

Item analysis was used to clarify the reasons for the poor model fit of the confirmatory analysis and the confusing exploratory factor analysis results. At least one reason for the poor fit of the confirmatory analysis and the confusing exploratory factor analysis results is readily apparent from these simple item analysis results. The scale internal consistency reliabilities are: (1) Mental Illness=.52, (2) Cry for Help=.30, (3) Right to Die=.83, (4) Religion=.63, (5) Impulsivity=.26, (6) Normality=.56, (7) Aggression=.49, and (8) Moral Evil=.40. Further item-analysis results such as individual item-total correlations are available from the authors. Clearly, a

number of the scales are deficient. Rather than calling for a halt in the use of a potentially useful measure we believe that it would be more productive to revise the SOQ through a careful focus on individual item performance.

New Scale Development

To begin the item revision process, all items were considered to be related, at least to some extent, to a higher-order construct which we termed "attitudes toward suicide." With this premise in mind, we examined the item-total correlations where the total now consists of all the items used in the full 100 item SOQ. All items having an item-total correlation less than .15 were discarded unless they were deemed to have a strong theoretical relation to "attitudes toward suicide." Fifty three items successfully met the theoretical and/or psychometric criteria and were retained for further analysis.

A principal factors, factor analysis using a varimax rotation was performed on the remaining 53 items. Using scree plot analysis and the Kaiser criterion it was determined that a five factor solution best fit the empirical relationships among the items. The pattern of item loadings, using the five factor solution, was clear. Five distinct clusters of items emerged with little overlap among the various items and factors. The five factor solution accounted for 72% of the total variance among the item responses.

The factor analysis results were translated into five scales. With the possible exception of the final scale, all of the scales have acceptable reliabilities using fewer items than either the eight factor or the 15 factor SOQ. Tentative clinical interpretation of the revised SOQ is based upon the general focus of the items that comprise the individual scales. The first scale, "Acceptability" consists of items addressing the view of suicide as a sanctioned behavior. Scale two appears to tap the respondent's "Perceived

Factual Knowledge" regarding suicidal behavior. Scale three is labeled "Social Disintegration" and addresses the respondent's beliefs that suicide is related to poor interpersonal or societal relationships. The fourth scale, "Personal Defect", would indicate a belief that suicidal behavior is related to a constitutional or characterological weakness. Finally, the fifth scale, "Emotional Perturbation" would see the presence of heightened negative emotionality as a significant factor in suicidal behavior. The scale internal consistency reliabilities are: (1) Acceptability=.89, (2) Perceived Factual Knowledge=.75, (3) Social Disintegration=.73, (4) Personal Defect=.73, (5) Emotional Perturbation=.60. Again, more detailed item-analysis results of the revised scales, such as individual item-total correlations, are available from the authors.

Conclusion

Based on the present sample, the psychometric analyses of the eight clinical scales of Suicide Opinion Questionnaire indicates major deficiencies within the measure. Rather than discard the SOQ completely or continue its use in an unsystematic fashion, we suggest that efforts be directed at developing a psychometrically stable interpretive structure for the measure. To the extent that this is a feasible enterprise, the SOQ may yet become a valuable measure for assessing attitudes toward suicide. Although the five factor model presented in this study would appear to be an improvement over the eight factor model suggested by Domino et al. (1988-1989), further psychometric research is necessary before we would advise using it as an interpretive scheme in research.

Additionally, we would suggest that future researchers investigate the stability of both the eight factor model and the current five factor model in their samples. It is quite possible that the lack of support for the eight

factor model and the emergence of the five factor model in the present study is a sample specific result.