



Validation of the Finding of a Qualitative Research on the Subject: "Explain the Lived Experiences of Men With Suicidal Tendencies in Kerman

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Abstract

Background and Objectives : The purpose of the present study is to validate the findings of a qualitative research on explaining the lived experience of suicidal men through modeling and confirmatory factor analysis of the model.

Method: The findings of literature review were identified in four main themes including causes of suicidal tendency, empirical consequences, reasons for choosing life, and spiritual perspective and Subsidiary themes include external pressures, interpersonal factors, psychosomatic problems, pervasive feeling, religious beliefs, love for the child, fear of death, responsibility, a positive view of spirituality, remorse, protest and a departure from spirituality, was achieved. In order to validate the findings, each sub-theme is introduced as a factor and for each factor, a statement that measures the validity of the factor is identified. Finally, a questionnaire with 12 items was prepared and after approval by 15 experts, 93 men with suicidal ideation who obtained the required score from the BSSI questionnaire were given to express their opinion in the likert range. After entering the answers into SPSS software, a suitable model was designed and this model was analyzed by confirmatory factor analysis with PLS software.

Results: The results showed that the findings of the study were validated, reliably and reliably through a questionnaire survey. Following this validation,

Conclusion: The results of this study can be used and applied in other studies as well as designing and developing therapeutic protocols with the target population of men with a suicidal tendency that is applicable in the therapeutic group.

Keywords: Life experience, suicidal tendency, validation, factor analysis,fulness education, interaction with parents, interaction with teacher and interaction with peers, oppositional defiant

Background and Objectives

Thinking about death is part of the current concerns of human life; due to human being's innate desire to continue living, s/he has always sought to marginalize the issue of death¹. Therefore, suicide had been considered a taboo in different societies, and a sin/ crime in most cultures and religions². According to the definition provided by the National Institute of Mental Health (NIMH), suicide is one's conscious attempt to end his/her life; this attempt may be tried or only emotionally felt by the person³. Suicidal thought or ideation goes through a continuous and slow evolutionary process from suicidal thoughts to suicide plans and attempts⁴. Suicide is a complex, multidimensional, qualitative, and context-based phenomenon with various psychological, social, economic, and cultural aspects. It is a function of a complex and interconnected network of various causes and factors. Suicide has been described as the final point of a spectrum beginning with suicidal ideations, going through planning and preparation for suicide, and ending in suicide attempts⁵.

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this multidimensional behavior, resulting from a variety of factors—such as mental disorders, especially major depression⁶, family history⁷, substance abuse⁸, disappointments⁹, and stressful life¹⁰, is defined as an intentional behavior to end one's own life¹¹. Some studies have introduced depression as the leading psychological cause of suicidal ideation. A strong relationship has been detected between depression and suicide, and depressive disorders include 80% of 95% of diagnosable mental disorders in people who attempt suicide¹².

The most disturbing symptom of depression, or the deadliest one, is one's tendency to have suicidal thoughts and behaviors¹². Although depression risk factors have been examined extensively, suicidal ideation cognitive risk factors have been neglected^{13,14}. Depression can lead to low self-esteem, addiction, and academic/occupational/familial/social^{15,16} dysfunction that impose high costs on society. One of the most well-known neurobiological patterns of major depression is achieved through the study of emotions involved in depression¹⁷. Among the personality traits related to suicidal ideation, low self-esteem, external locus of control, helplessness, impulsiveness, aggression, and extraversion can be mentioned¹⁸.

Psychological disorders and socio-biological factors are risk factors associated with this problem¹⁹. Among suicide risk factors, stress and psychological pressures due to academic, financial, and emotional failures can be mentioned²⁰. In stressful moments, the body reacts in a way to restore the lost balance and mobilize all forces to cope with the problem; in other words, the organism becomes ready to fight the stressful situation²¹. Stress can cause physical and mental illnesses. It is often accompanied by aggression, anxiety, and depression; chronic stress can affect people's moods and lead to depression. Despite the great importance of suicide, very few experimental studies have been conducted on it, and one of the reasons behind this limited

number of studies is the lack of a structured model to explain suicidal behavior²³.

The numbers of suicide attempts and unsuccessful suicides are always higher than the number of people who die as a result of suicide. This reveals the need for more scientific studies on suicide attempts or unsuccessful suicides. Given the importance of suicide and human mental health, and by considering the results of previous studies, it can be said that understanding the causes and consequences of suicide and the lived experience of people with suicidal tendencies is still an important concern of researchers in this domain. Thus, the present study was conducted to validate a research study clarifying various dimensions of the suicide phenomenon based on people's lived experience. Studying the issue of suicide and the growing trend of this undesirable social phenomenon has led researchers in various fields of study to examine and identify factors affecting the incidence of this phenomenon and to suggest strategies for reducing its rate or coping with it more properly²⁴.

In a study on patients with/without a history of suicide attempts, the researchers found that the average resilient score of patients with a history of suicide attempts was significantly lower than those who never attempted suicide. According to their results, low resilience was associated with suicidal thoughts and behaviors²⁵.

For quantitative validation, it was necessary to provide a structural model based on the qualitative research findings to reveal the relationships between observed and latent variables. For each factor (sub-theme), a set of Likert scale-based questions were designed; then, for each item, 3 questions were designed, which were confirmed by 15 experts in this field (the unconfirmed items were removed). The three questions for each item were:

- a. how important and necessary is this item ?
- b. how relevant is this item ?
- c. how clear is this item ?

After that, the items were turned into a questionnaire, which was distributed among 93

men with suicidal ideation. Their responses formed the basis of the present study's factor analysis. For this purpose, after entering the responses into SPSS software, Confirmatory Factor Analysis (CFA) was conducted via PLS software and reliability and validity of the questionnaire were examined .

a. From the findings of the mentioned qualitative research, four main themes and 12 sub-themes were obtained:

b. causes of suicidal tendencies with sub-themes of external pressures and intrapersonal factors

c. experimental consequences with sub-themes of psychosomatic problems and pervasive unpleasant feelings

d. reasons for choosing life with sub-themes of religious beliefs, love for children, fear of death and responsibility

e. spiritual perspective with sub-themes of positive view of spirituality, repentance from sin, protest perspective and getting away from spirituality .

The relationships between variables are presented in the form of a structural model in (Figure 1):...

Factor analysis is a way to investigate construct validity. A factor is a hypothetical variable affecting the observed scores of one or more variables²⁶. Factor analysis represents various mathematical methods to analyze internal correlations between a set of variables and to determine those correlations in terms of

a limited number of variables called 'factors.' As stated, a factor is a hypothetical variable that affects one or more variables. In other words, the purpose of factor analysis is to extract a small number of factors out of a large number of overlapping variables in such a way that

a. the factors must be shared by all variables

b. they must be substitutes for a large number of variables

c. they must not be correlated with each other

d. they must determine clear and meaningful constructs

Results

To test the study's hypotheses, the structural model of the findings was set to identify observed and latent variables, and the relationships between them. after designing the questionnaire based on the study's model and considering experts' views, those views were examined via PSL software in three sections: factor structure analysis, and reliability and validity evaluation .

H1: Findings from the lived experience of men with suicidal tendencies have an acceptable factor structure.

Since the measurement model was reflective, factors' and components' structures were examined first. To test this hypothesis, CFA was used. The results are presented in (Figure 1)

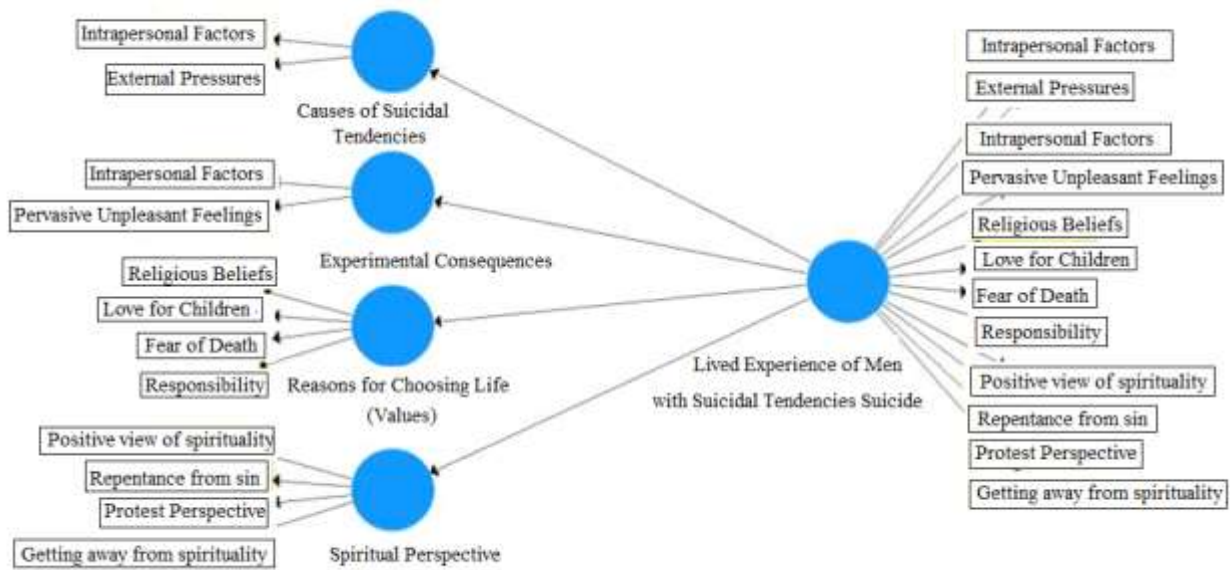


Figure 1. Hierarchy of components and components' questions

In the analysis of the PLS path, a hierarchical model of observed variables is frequently used for conceptualization. Thus, a lower-order latent variable can be created by all higher-order observed variables (i.e., questions). For example, as shown in (Figure 2), each of the first-order latent variables (i.e., the lived experience of men with suicidal tendencies) consists of four second-order latent variables, and each of them consists of several observed variables (i.e., items). In this hierarchical model, each first-order latent variable is identified using all observed variables of the second-order latent variables. Therefore, the observed variables are used twice :

- a. for the second-order latent variable (primary loads)
- b. for the first-order latent variable (secondary loads)

This approach can be developed into a higher-order hierarchical model, and latent variables' scores can be obtained from lower-order latent variables . One of the advantages of PSL is the evaluation of the hierarchical model. In the present study, the structure of the higher-order latent variable was evaluated using PSL.

Then, the structural model was used to examine the causal relationships between the constructs. The significance of between-constructs effects can be examined by considering the results of examining between-constructs relationships using the relevant coefficient. To evaluate the significance of path coefficients, the resampling method with 5000 samples -recommended in the partial least squares method (Davari & Rezazadeh, 2014)- was used. The results indicated that the model was well-validated (Table 1).

Table 1. Structural model of the first order to the second-order path

| First to the second-order path | | Factor loading | Significance coefficient of t-value | Coefficient of determination |
|--|------------------------------------|----------------|-------------------------------------|------------------------------|
| First-order | Second-order | | | |
| Lived Experience of Men with Suicidal Tendencies | Causes of Suicidal Tendencies | 0.72 | 12.89 | 0.511 |
| | Experimental Consequences | 0.82 | 17.63 | 0.667 |
| | Reasons for Choosing Life (Values) | 0.89 | 33.14 | 0.798 |
| | Spiritual Perspective | 0.85 | 30.4 | 0.714 |

*t-value significance coefficient > 1.96 (i.e., the relationship is significant at $p < 0.05$)

*t-value significance coefficient > 2.58 (i.e., the relationship is significant at $p < 0.01$)

*t-value significance coefficient > 3.23 (i.e., the relationship is significant at $p < 0.001$)

The significance of path coefficients only shows the accuracy of the relationships, not their intensities. Therefore, since the path coefficients shown in (Tables 1 & 2) were higher than 2.58, the relationships were significant at 0.99 confidence level.

The coefficient of determination (r^2) indicates the effect of the exogenous variable on the endogenous variable; this criterion can reduce errors in the measurement model, and increase the variance between construct and indicators (it is controlled only in PLS). Chin (1998) introduced three values of 0.19, 0.33, and 0.67 as weak, moderate, and strong values for the intensity of relationships. The present study's endogenous variables' coefficients of determination were in an acceptable range.

The Goodness-of-Fit (GOF) is an overall measure of model fit for Structural Equation Models (SEMs), which controls the fit of the overall model after examining the fit of measurement and structural sections of a study's model. This index was developed by Tenenhaus et al. (2004) (the following formula); they introduced the three values of 0.1, 0.25, and 0.36 as small, medium, and

large GOF values. The calculated GOF index for the present study's model was large.

$GOF = \sqrt{\text{Convergent validity} \times \text{Coefficient of determination}} = \sqrt{66.0 \times 684/0} = 671.0$

H2: Findings from the lived experience of men with suicidal ideation have acceptable reliability indicators.

As shown in (Table 2), Cronbach's alpha was calculated to assess the internal consistency of the measurement tool. Cronbach's alphas > 0.7 are considered acceptable. However, Moss et al. (1998) introduced 0.6 as the threshold or cut-off value for reliability coefficients of scales with a small number of questions. Composite reliability measures the adequacy of a latent variable's items in its measurement; it was introduced by Werts et al. (1974). A composite reliability coefficient higher than 0.7 indicates a good internal consistency of a scale. It is important to note that composite reliability is a better measure than alpha. In the present study, both Cronbach alpha and composite reliability values of all latent variables were in an acceptable range.

Table 2. Measurement model and reliability evaluation indicators

| Latent variable | Component | Factor loading | Significance | Cronbach's alpha | Composite reliability |
|------------------------------------|--------------------------------|----------------|--------------|------------------|-----------------------|
| Causes of Suicidal Tendencies | Intrapersonal Factors | 0.945 | 7.763 | 0.849 | 0.929 |
| | External Pressures | 0.919 | 33.827 | | |
| Experimental Consequences | Intrapersonal Problems | 0.931 | 27.197 | 0.852 | 0.931 |
| | Pervasive Unpleasant Feelings | 0.935 | 47.659 | | |
| Reasons for Choosing Life (Values) | Religious Beliefs | 0.695 | 13.472 | 0.759 | 0.848 |
| | Love for Children | 0.634 | 10.363 | | |
| | Fear of Death | 0.847 | 11.419 | | |
| | Responsibility | 0.865 | 14.517 | | |
| Spiritual Perspective | Positive view of Spirituality | 0.839 | 10.992 | 0.808 | 0.875 |
| | Repentance from Sin | 0.755 | 17.898 | | |
| | Protest against God | 0.852 | 16.688 | | |
| | Getting away from spirituality | 0.739 | 9.961 | | |

The standard factor loadings of all items are specified in (Table 2). Factors loadings above 0.35 indicate the significance of the relationship between each item and its underlying factors. Therefore, all questions in

the present study's questionnaire were significantly related to their underlying factors, indicating that the measurement model was acceptable in terms of its partial indicators.

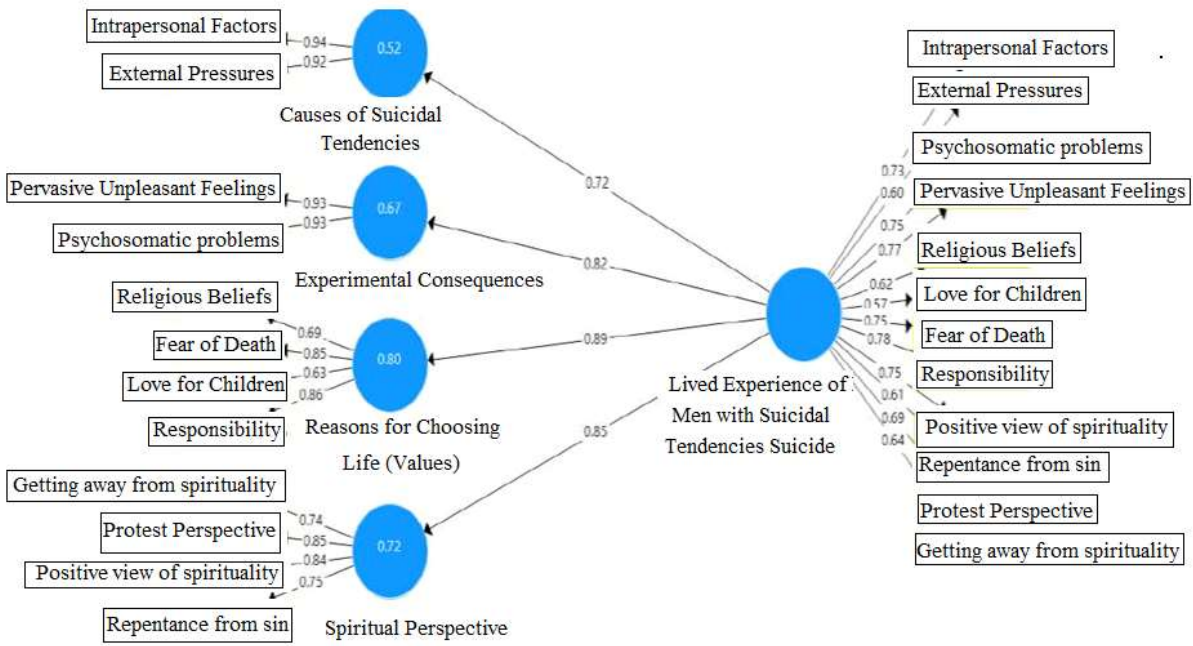


Figure 2. Model's factor loadings and determination coefficients

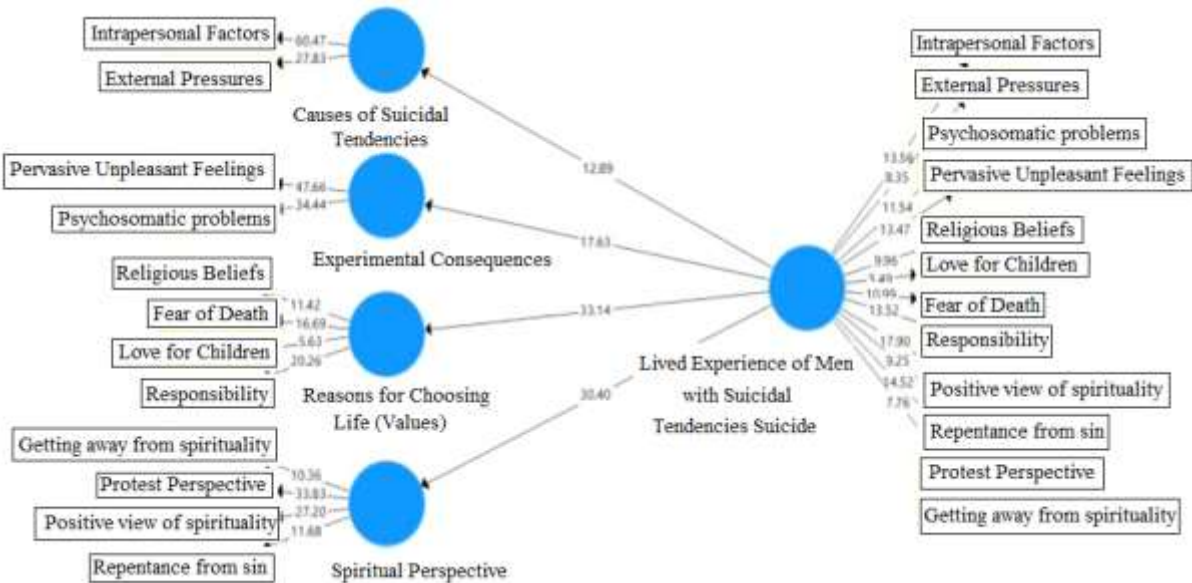


Figure 3. Model's t-value significance coefficients

H₃: Findings from the lived experience of men with suicidal tendencies have acceptable validity indicators.

Convergent validity is used to measure the degree to which the latent variable is described by its items, and the Average Variance

Extracted (AVE) was proposed by Fornell & Larcker (1987). Convergent validity values above 0.5 have been considered acceptable; but, Mata et al. (2015) considered values above 0.4 as also acceptable. As shown in (Table 3), all latent variables of this study had acceptable convergent validity values.

Table 3. Discriminant validity assessment matrix using Fornell-Larker's method

| | Variables | AVE | 1 | 2 | 3 | 4 | 5 |
|---|--|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Causes of Suicidal Tendencies | 0.868 | 0.932 | | | | |
| 2 | Experimental Consequences | 0.871 | 0.42 | 0.933 | | | |
| 3 | Reasons for Choosing Life (Values) | 0.587 | 0.555 | 0.73 | 0.766 | | |
| 4 | Spiritual Perspective | 0.636 | 0.52 | 0.571 | 0.614 | 0.798 | |
| 5 | Lived Experience of Men with Suicidal Tendencies | 0.48 | 0.719 | 0.819 | 0.895 | 0.847 | 0.693 |

As Fornell & Larcker (1987) believed, discriminant validity can be investigated by using a matrix (Table 3), in which a component -compared to other components- should be more distinct from its observables (questions) to have high discriminant validity. In discriminant validity, we seek to answer the question of “to what extent a factor, compared to external, unrelated and uncalculated factors, can explain the variance of the set of

questions?” when a factor explains the maximum amount of variance within a set of questions and is less correlated with unrelated factors, or in other words, when the square root of convergent validity of each factor is greater than its maximum correlation with other factors, it has a high discriminant validity numbers on the diameter of (Table 4). The results of this study indicated appropriate discriminant validity values.

Table 4. Discriminant validity assessment using the factor loading method

| Components | Causes of Suicidal Tendencies | Experimental Consequences | Reasons for Choosing Life (Values) | Spiritual Perspective |
|-------------------------------|-------------------------------|---------------------------|------------------------------------|-----------------------|
| Intrapersonal Factors | 0.945 | 0.437 | 0.558 | 0.559 |
| External Pressures | 0.919 | 0.336 | 0.47 | 0.395 |
| Intrapersonal Problems | 0.383 | 0.931 | 0.645 | 0.548 |
| Pervasive Unpleasant Feelings | 0.4 | 0.935 | 0.717 | 0.519 |
| Religious Beliefs | 0.353 | 0.509 | 0.695 | 0.444 |
| Love for Children | 0.286 | 0.465 | 0.634 | 0.449 |

| Components | Causes of Suicidal Tendencies | Experimental Consequences | Reasons for Choosing Life (Values) | Spiritual Perspective |
|--------------------------------|-------------------------------|---------------------------|------------------------------------|-----------------------|
| Fear of Death | 0.447 | 0.654 | 0.847 | 0.482 |
| Responsibility | 0.578 | 0.595 | 0.865 | 0.51 |
| Positive view of Spirituality | 0.525 | 0.515 | 0.538 | 0.839 |
| Repentance from Sin | 0.345 | 0.415 | 0.432 | 0.755 |
| Protest against God | 0.445 | 0.47 | 0.455 | 0.852 |
| Getting away from spirituality | 0.323 | 0.414 | 0.532 | 0.739 |

As shown in (Table 4), the correlations between questions of one construct and other constructs were compared. According to these results, the correlations between questions and their related constructs (bolded figures) were higher than the correlations between questions and other constructs, indicating an appropriate discriminant validity of the study's model.

Discussion and Conclusion

After this validation in the three sections of CFA, and validity and reliability assessment of the study's questionnaire, the results of this study can be used in other studies as well as in designing and constructing individual or group-based treatment protocols targeting the population of men with suicidal tendencies.

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