

RESEARCH ARTICLE

## Development and Validation of Existential Issues Scale for Breast Cancer Women: A Pakistani Context

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**Abstract:** This study sheds light on breast cancer women's existential issues. The literature review found few studies on Eastern breast cancer women's existential issues, thus the current research concentrated on them. This study's broad literature review found few measures to measure existential issues from breast cancer women's perspectives. Thus, this research sought to develop an Indigenous measure of Pakistani breast cancer women's existential issues. This study uses exploratory sequential mixed methods. Samples were taken via purposive sampling. Focus Group Discussions and semi-structured interviews with breast cancer women illuminated existential issues in a collectivistic society. Reflexive Thematic Analysis of qualitative data revealed culture-specific and universal themes of existential issues among breast cancer women. These themes were utilized to create a set of items to assess breast cancer patients' existential issues. A panel of experts evaluated each question and voted on its suitability for the test's target audience's target language competency. In addition, exploratory factor analysis (n=200) produced a two-factor model of existential issues for breast cancer women, called the "Personal Dimension" and the "Social Dimension." Confirmatory factor analysis confirmed this component structure in 30 items with factor loadings  $\geq 0.40$ . Moreover, both subscales had good internal consistency of .81 and .77 for existential issues (Cronbach's alpha = 0.78). The new EIS convergent and discriminant validity were assessed. EIS appears trustworthy for indigenous breast cancer women.

**Keywords:** Existential Issues, Breast Cancer, Focus Group Discussion, Semi-Structured Interviews, Reflexive Thematic Analysis

### Introduction

Existentialism may be traced back to the works of Socrates, Plato, and Aristotle, but Kierkegaard is often regarded as the revolution's philosophical forefather (Arnold-Baker & Van Deurzen, 2008). Self-determinism, free will, responsibility, individualism, and the need of discovering one's purpose in life are all themes shared by existential thinkers. A further similarity across the various theories is that they all sprang from the theorist's problems and experiences.

Three prominent thinkers contributed significantly to the development of existentialism. Victor Frankl, Rollo May, and Irvin Yalom have all made significant contributions to existentialist theory and practice over the last sixty years, and their work continues to serve as the cornerstone around which many contemporary existentialists build their work. The ideas of people like Fritz Perls and Carl Rogers are built on and expanded upon existential concepts (Eliason & Samide, 2009; Eliason et al., 2001, 2007).

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## Existential Issues

Existential issues encompass a range of fundamental questions and concerns related to human existence. These may include reflections on life's purpose, the nature of mortality, the search for meaning, questions about identity and selfhood, and exploration of spiritual or philosophical beliefs. Existential issues are central to human experience and can deeply influence a person's sense of well-being and overall outlook on life.

When a woman's prior knowledge and responses are inadequate to help her understand and deal with a new circumstance, she is said to be experiencing issues (Cullberg, [1975](#)). According to existential psychology, issues are an inevitable part of being human (Jacobsen, [2000](#); Van Deurzen-Smith, [1988](#)). These are ever considered existential because of the profound impact they have on the existence and very beings of those concerned. When dealing with a terminal illness like cancer, there is no avoiding the existence of existential issues. Both the individual and the relative member's existence and future are in danger. In this extreme circumstance (Yalom, [1980](#); Jacobsen, [2000](#); Benktson, [1976](#)), individuals are forced to face the ultimate reality of their life. Everyone affected by such a sickness must face serious existential issues (Sand, [2008](#)). Using an article, Koole et al., ([2006](#)) distinguished between major existential issues. The issues that existentialists have highlighted as seeming to be universal to the human condition (Arnold-Baker & Van Deurzen, [2008](#)). Existential issues encompass fundamental questions and concerns about human existence. They delve into the deep and often philosophical aspects of life. The following are some of the issues that existential ideology has recognized as being experienced by people daily (Arnold-Baker & Van Deurzen, [2008](#)).

Personal, societal, and physical elements are all involved in existential dilemmas, as stated by Gonzalez et al., ([2011](#)). Dimensions of human existence were first outlined by Binswanger ([1946](#)), elaborated upon by May ([1983](#)), and supplemented by Van Deurzen-Smith ([1988](#)).

## Existential Issues in Breast Cancer Patients

Cancer is an issue of existential dimension by highlights one's inevitable mortality and often shatters core assumptions about one's place in the world (Janoff-Bulman, [2010](#); Becker, [1997](#)). Toward the end of life, existential issues tend to relate to autonomy and dignified death, meaning and goals, relationships, and guilt (Cherny et al., [1994](#)). Cancer patient's existential issues stem from the notion that cancer is associated with eventual death (Strang, [1997](#)) thus, cancer is an existential trigger that can be traced back to Medieval times when people died shortly after diagnosis with advanced disease (Edmondson et al., [2008](#); Holland & Rowland, [1989](#)). Nakamura & Kawase ([2020](#)) explored that cancer patients after a cancer diagnosis have existential issues. Comprehensive evidence demonstrates that cancer patients frequently experience multiple existential issues that impact negatively on their health (Hench, & Danielson, [2009](#)).

Multiple losses, physical and symbolic can be faced by a patient with a life-threatening disease like cancer (Block, [2001](#)). In the medical literature, some of the most common existential questions were found that were related to the need to find meaning and purpose, fear of an insecure future and death, loss of relationships, feelings of regret, guilt, and some higher power (Lee, & Loiselle, 2012). Possible issues of loss can involve the patient's former self before the diagnosis and the designated identity of being a "cancer patient" (Gillies & Johnston, [2004](#); Hottensen, [2010](#)). Other potential losses may involve the loss of independence, decreased physical, and loss of one's role in the family (Hottensen, [2010](#)). Some examples of studies that have explored existential issues in cancer patients from around the globe include Australia (Kissane, [2000](#); Little & Sayers, [2004](#)), Israel (Baider & De-Nour, [1986](#); Blinderman & Cherny, [2005](#)), Japan (Morita et al., [2000](#)), North America (Breitbart et al., [2004](#); Chochinov et al., [2005](#); Lee et al., 2006), Norway (Landmark et al., [2001](#)), and Sweden (Bolmsjo, [2000](#); Jensen et al., [2000](#)).

Existential issues arose as an important aspect of living with diagnosed breast cancer (Landmark & Wahl, 2002). Caplette-Gingras & Savard ([2008](#)) and Vehling et al., ([2011](#)) study identified that women with breast cancer are at risk for existential distress and loneliness. Landmark and Wahl ([2002](#)) study revealed

that women with breast cancer face changes in their physic, female identity, meaningful activities, and social networks. Having breast cancer is also associated with feelings of helplessness and loss of control (Watson et al., [1991](#)). Mosher et al. ([2013](#)) study identified breast cancer may result in several concerns, including physical symptom burden, body image disturbance, and disrupt daily activities. Second, social constraints on disclosing breast cancer-related concerns may exacerbate patients' distress. Third, many breast cancer women search for meaning in their cancer experience. They stated that existential issues should be explored in greater detail by qualitative and quantitative research.

Landmark et al., ([2001](#)) study revealed that existential awareness was a central phenomenon in the breast cancer women's experience. Their study has shown that the existential aspects are central to recovery and survival. The study suggests that health professionals, by increasing their awareness of existential aspects, can assist breast cancer women and their families. That no study has examined the existential issues among eastern society women in the context of breast cancer.

### **Rationale of the Study**

In the East, where there is more research being done on the effects of breast cancer on patients' mental health, there is a wealth of information available on the topics of mental health and mental illness (Kiran & Malik, [2021](#); Mushtaq & Naz, [2017](#); Shaheen et al., [2014](#); Nisar & Rehman, [2012](#)). Nonetheless, despite the growing number of people diagnosed with breast cancer, there is a dearth of writing about the particular existential issues faced by women with the disease. Women with breast cancer confront many problems in life, but there is a growing awareness of the need of addressing the existential issues these women experience. Further study and analysis are required to analyze existential issues, as stated by Popescu ([2015](#)). Because of this, the study's focus will be on existential issues.

The current research was founded on the idea that it was important to draw attention to the philosophical and conceptual connections between breast cancer and existential issues among women. There is a lack of scientific research that has looked at the existential issues of breast cancer women in a collectivistic society like Pakistan. So, the purpose of this study is to investigate the existential issues of women with breast cancer. This project will gather data from a demographically and socioeconomically representative group of eastern women with breast cancer.

The relevant philosophical and operational deficiencies were identified through a thorough analysis of the existing literature on existential issues; they will be taken into account in the present investigation. According to Hamberg ([2001](#)), a large number of studies are planned on existential issues in western culture, and it is essential to undertake research in diverse cultures from various, developing nations within this framework. Given that this study examines existential issues based on a sample picked from eastern civilization, it would make a very important addition to current research.

There is also some doubt as to whether or not these tools can be utilized in other societies since most tools for the measuring of existential issues were designed in the United States and tested with an English-speaking population in the United States (Neimeyer et al., [2004](#); Van Bruggen et al., [2015](#)). Therefore, the primary purpose of the current study is to create a reliable scale for gauging existential issues in breast cancer women. A void currently exists in this field. When it comes to weighing existential issues, most scales focus on only one or two factors. There hasn't been any large-scale, collaborative research done on the existential issues that breast cancer women in Pakistan experience. Women with breast cancer are a group that has a high prevalence of existential issues, therefore these factors play a significant role in their lives. Consequently, the purpose of this research is to create a trustworthy and complete scale for measuring existential issues among breast cancer women.

According to Reese et al., ([2017](#)) existing assessment tools predominantly focus on clinical markers and physiological parameters, providing only a partial view of the complex psychosocial landscape

experienced by breast cancer women. There's a notable gap in assessing the existential issues, including questions of meaning, purpose, and the psychological impact of mortality.

Dolbeault et al., (2009) claimed that a specialized instrument for measuring existential issues will empower healthcare providers to offer more personalized and empathetic care to breast cancer survivors. An instrument tailored to measure these issues can provide vital insights for personalized interventions and support.

Loscalzo and Clark (2018) said that specialized measurement tool for existential issues empowers healthcare providers to engage in more comprehensive and patient-centered care. It enables a deeper understanding of the patient's psychological landscape, allowing for tailored interventions that address their unique concerns and also contribute to the development of sustainable coping strategies for post-treatment phases.

Hence, the current research has real-world relevance since it increases our understanding of existential issues. The present study aims to begin building an evidence-based knowledge of existential issues faced by breast cancer women in Pakistan by relying on existing western literature and scales. In light of this, to the best of our knowledge, this is one of the first attempts to investigate existential issues among Pakistani women with breast cancer.

It is concluded that the current study will make important discoveries, particularly regarding Pakistani women with breast cancer. This study would aid screening for existential issues in routine medical checkups for women who have been diagnosed with breast cancer by developing a psychometrically sound tool. Further explicit declarations about Goals will be made afterward in the dissertation.

## **Method**

An indigenous scale of the Liker type was created to investigate existential issues among women with breast cancer. There are eight steps involved in the development of scale. A breakdown of each stage is provided below.

### **Step I: Developing Guidelines for Conducting Interviews**

An interview question guide was drafted at this step. Based on the literature, the study author conceptualized existential issues. A guideline for in-depth interviews was developed.

### **Step II: Conducting Semi-Structured Interviews**

Semi-structured interviews were designed to an elaborate and thorough knowledge of existential issues phenomena from a native point of view and questions has been prepared.

**Sample:** Sixteen women participants made up the semi-structured interview sample. They were all locals of Punjab Pakistan. Women with a documented diagnosis of breast cancer between six months and one year before the start of this research were eligible to participate in interviews. In this study, only women above the age of 20 participated.

**Procedure:** Researchers conducted in-person interviews with breast cancer women after explaining the study's goals and obtaining written agreement using a Participant Consent Sheet. An assurance of privacy was given to all women. Between forty and fifty minutes were spent with each interviewee. No one gave a clear indication that they wanted their interviews recorded, therefore transcripts were written down word-for-word as the conversation proceeded. Both procedures required participants to read and sign a consent form, see a participant information document, and listen to a researcher's spoken instructions.

**Results:** Indigenous themes of existential issues were echoed at the end of several in-person interviews with breast cancer women. Experts in the field were consulted to determine the overarching themes. Issues discussed in interviews were analyzed using reflexive thematic analysis (Braun & Clarke, 2019).

Total 41 themes of existential issues were explored which represent the existential issues of breast cancer women. Themes, loss of autonomy, lowered self-esteem, pessimistic, abashment, mobility loss, loss of personal identity, demoralization, shame, disappointment, powerlessness, rejection, the burden to others, loss of dignity, integrity loss, loss of outdoor mobility, loss of family identity, loss of professional identity, loss of the social relationship that can be seen in Table 1 emerged as representative of Pakistani society.

### **Step III: Committee Approach through Subject Matter Experts**

**Objective:** The Committee Approach was developed so that we could hear professional feedback on the recurring themes revealed by Reflexive Thematic Analysis. Experts in the field were consulted. Experts in the field were given a comprehensive explanation of the study's objectives. Experts in the field gave the resulting theme their unique ratings. To determine the consistency of each reviewer inside their respective set, we examined their ratings using the Average Deviation Method. Calculating the average deviation involves finding the absolute value of every score's deviation from the average, adding up all of these variations, and then dividing by the overall number of variations.

**Procedure:** The process consisted of two distinct phases.

#### **Stage I: Rating Themes**

Dates with five specialists were sought out in advance. All of the specialists had advanced degrees in psychology and were fluent in two languages (English, and Urdu). A presentation was given to them outlining the goals of the study. It was also made clear to them that the data they provide would be useful in obtaining the facts about the existential issues of breast cancer women. Each specialist was given instructions on how to complete the grading form. Every theme was evaluated on how well it met those criteria. Each theme might be rated on a scale from 1 to 5 (1 = strongly agree to 5 = strongly disagree). The opinions of all reviewers were collected and used to evaluate the themes. The themes' ratings as determined by the experts are included. All experts agreed that most of the themes were suitable, but not all. Although they were not rated so poorly as to be eliminated from the pool of possible themes, so they were kept for further evaluation.

**Stage II Clustering of Themes into Broad Categories:** As a follow-up to assigning importance and suitability ratings to the themes, we then grouped them into overarching divisions. At the outset, it was proposed by a handful of subject matter experts that the themes surrounding existential issues may be divided into two main divisions. For the sake of this suggestion, we reached out to SMEs once again after obtaining their consent. Their advice was sought on the best way to integrate related themes. After careful deliberation and debate, all of the SMEs came to the same conclusion. The themes were separated into two main divisions: Personal Dimension and Social Dimension.

### **Step IV: Generation of Item pool & Finalization of Items Through Subject Matter Experts**

In this stage, we worked to create an item pool that would address the varied existential issues of breast cancer women.

**Objectives:** The deductive method technique was used for the item's creation at this step. On the information from the interviews the deductive technique was used along with the most up-to-date theories (Arnold-Baker & Van Deurzen, [2008](#)) for the conceptualization of existential issues. A similar hypothetical description of the phenomenon is used in the creation of questions and instrument development with the deductive procedure (Schwab, [1980](#)).

**Procedure:** A committee of four bilingual specialists, two women and two men, all with Ph. D.s in Psychology, was enlisted to aid in item creation. The specialist's linguistic skills and psychological practice was major factor in making the items constructed as appropriate and genuine as possible. The process ended up being split into three sections.

**Formation of the Item Pool:** One hundred seventy items were created at first, with four to five items devoted to each theme. The Urdu language was used to create the pool of items. Four bilingual specialists worked together to refine the items based on these criteria. (a) If there is a strong focus on existential issues in the item. (b) Does this item indicate the existential issue faced by those with breast cancer? (c) Does the item relate to a respondent's experience of existential issues? (d) Is it possible for a participant to exhibit disapproval of any given item? Using these criteria for filtering and reviewing we were able to narrow the pool of potential items down to 70, with a particular emphasis on indigenously researched classes of existential issues. The author took into account all of the professional reviewers' suggestions for improvements. At this refinement phase, just one or two items of each theme were retained. Three criteria were used to choose which items would be included in the final version: i) how closely they related to the topic, ii) how uncomplicated they were, and iii) their conciseness.

**Scoring Format of Existential Issues Scale:** All five options, ranging from 1 (strongly disagree) to 5 (strongly agree), were presented to the panel of experts for evaluation. Existential Issues scale responses were given in the form of a Likert scale.

To calculate a reliable coefficient alpha, Lissitz & Green ([1957](#)) state that tools with five or seven-point rating options have enough variation to allow for such investigations of item-scale correlations. The scale does not have any kind of reversal grading. We classified respondents into three classes, those with high, moderate, and low degrees of existential issues, according to their ratings on the tool. A subsequent section of the dissertation explains distinct classes of existential issues.

**Establishing Content Validity:** Newly developed items were put through a content validation process following the items creation phase. Construct validity of a freshly designed instrument begins with *content validation*, which is considered the least stringent psychometric condition for measurement adequacy. Before a measure is finalized and administered, its content compatibility will be thoroughly assessed so that any necessary adjustments may be made (Schriesheim et al., [1993](#)). Each item in the designed scale was given to a committee of four bilingual professional psychologists to ensure their content validity. The analysis focused on determining whether or not the items are predictors of existential issues in breast cancer women. Four items were rewritten by the author after being recommended by evaluators. After much debate and conversation about concepts, the research advisory panel agreed on forty items for inclusion in the final report. Items were kept because of their efficacy in measuring the concept, the quality of the material, sufficiently understandable, and ease of comprehension. The items were formed to portray the two most important dimensions of Existential Issues, the *Personal Dimension*, and the *Social Dimension*, following the theoretical basis and sociocultural comprehension of the concept.

### **Step V: Factor Structure of the Newly Developed Scale**

The factorial validity of a recently developed instrument was investigated via the exploratory factor analysis. To perform compression in dimensionality, as is done in the factorial analysis, evident and calculable factors are collapsed into implicit factors that are more closely related to one another but remain hidden from view (Bartholomew et al., [2011](#)). These intangibles are not measured in any way but instead serve as highly speculative models to better depict other factors (Cattell, [1973](#)).

**Objectives:** A factorial framework for the indigenously designed Existential Issues Scale is established.

**Method:** Forty-one items were created to assess the existential issues of women with breast cancer, and an exploratory factor analysis was done using Principal Component Analysis.

**Sample:** To conduct an exploratory factor analysis of the Existential Issues Scale, data from 200 breast cancer women in Pakistan's Punjab province were collected from the oncology ward of four govt hospitals. The study recruited only women above the age of 20. (Kugbey et al., [2019](#)).

**Procedure:** To reduce the number of variables and identify their shared variance, the current study investigated the factor structure. The Kaiser-Meyer-Olkin (KMO) evaluations of sample appropriateness and



the Barlett Test of Sphericity are used to determine whether the collected information is adequate and manageable enough to do factor analysis. KMO was 0.78, it's safe to assume the data can be used in factor analysis. A woman's factor score is a numeric value that describes how they perform on a certain factor. Factor scores were presumably obtained using Bartlett's approach. The ratings produced by the Barlett Method are completely independent of any other factors. The statistical information and linkage structure also passed a fairly high Barlett's Test of Sphericity (Table 1), indicating its factorability (Pallant, [2007](#)).

Table 1

*Kaiser-Meyer-Olkin and Bartlett Test of Sphericity for EIS (n=200)*

Measure	KMO Measures	Barlettt Sphericity	Df	P
EIS	0.78	14137.43	820	.00
Note. EIS= Existential Issues Scale. Df= Degrees of Freedom ***p <.001.				

The KMO score of .78 shown in Table 1 proves that the number of participants is enough for the factorial analysis. Results reveal that the p-value is less than .001 which indicates the significance level of Barlett's test of sphericity. Principal component analysis and subsequent varimax rotations were used to examine the complete sample size of 200. The column of the factor matrix was shrunk using Varimax Rotation so that associated factor compounds would appear and factors would be separated more understandably, in keeping with the purpose of the formation to refine and elucidate the data format. To assess the quantitative strength and relevance was the purpose of the author.

Principal components analysis was used to create a linear clustering of factors into components that explain all of the alterations in the statistical facts. For existential issues, principal components analysis "guesses" a linkage structure. Components in the principal component analysis are derived from the aggregate deviation of all variables, and the resulting minimized correlation structure incorporates communality estimates.

**Factor Ranking Criteria:** A cutoff larger than .3 was chosen by the scholar for this study. Analysis of the factor matrix revealed sizable factor loadings, indicating the matrix was suitable for factoring. The number of components to keep from the preliminary exploratory analysis was decided using the screen test and an eigenvalue larger than one. Employing Varimax rotation, we were able to reduce the 41 items on the Existential Issues Scale down to a two-factor response.

Results

Table 2

Item No.	Factor 1	Factor 2
1	.46	.09
2	.82	-.05
3	.75	-.10
4	.80	-.05
5	.46	-.03
6	-.38	.50
7	.26	.21
8	.42	-.47
9	.74	-.09
10	.66	.11
11	.09	.93
12	.46	.09
13	.57	.01
14	.31	.18

Item No.	Factor 1	Factor 2
15	.29	.18
16	.55	-.00
17	.15	.00
18	.46	-.31
19	.79	-.08
20	.05	.09
21	.63	.13
22	-.37	.49
23	.63	.11
24	.33	.17
25	.33	.17
26	.27	.04
27	.29	.09
28	.09	.95
29	.31	.16
30	.03	.09
31	.02	.09
32	.12	.94
33	.27	.05
34	.11	.94
35	.12	.93
36	.09	.31
37	.19	.15
38	.13	.92
39	.31	.09
40	.38	-.47
41	.25	.03

Note: Loadings on the factors above 0.3 have been listed (Rahn, [2014](#); Brown, [2015](#); Rafeh & Hanif, 2019).

Analysts' recommendations led to the sorting of the factors revealed by exploratory factor analysis into two broad divisions: the *Personal dimension* and the *Social dimension*. Item numbers 6, 22, and 32 were initially loaded in Factor II however, the expert's committee determined that they should be classified under Factor I, so these items were moved to Factor I. Conversely, item numbers 24, 29, and 39 were originally assigned to Factor I. According to the experts' opinion, these items should have been placed in Factor II, so they have now been relocated to Factor II.

**Table 3**

*Existential Issues Subscales detailed variance*

Dimension	% of Variance	Cumulative Variance
Personal	18.82	18.82
Social	16.61	35.44

Table 3 shows the figures of cumulative variance; 18.82, 35.44 and percentage of variance; 18.82, 16.61 explained by two dimensions (personal and social) of the Existential Issues Scale.

### Step VI: Confirmation of Factor Structure of Existential Issues Scale

Acknowledging the tool at work in eastern society necessitated figuring out the factor structure of the study tool. This led us to calculate a confirmatory factor analysis.



**CFA of Existential Issues Scale:** Two hundred women with breast cancer were employed to determine the confirmatory factor analysis of the Existential Issues Scale.

**Sample:** Two hundred women with breast cancer were chosen from the oncology departments of four government hospitals in Punjab, Pakistan, for inclusion in the instrument's confirmatory factor analysis. We limited our choices to women above the age of 20.

**Procedure:** The scale item's dimensionality was calculated using AMOS for the confirmatory factor analysis. Confirming that the dimension of research items corresponds with a researcher's understanding of the nature of a concept was another goal of confirmatory factor analysis. The facts were checked for consistency with the conceptual model fit, and CFA was also used to fine-tune and implement the exploratory scales from an indigenous viewpoint.

To find out whether Pakistani culture follows the identical factor structure as that seen in other civilizations, or if there are new dimensions or variables at play in our unique setting. When assessing whether or not a Model is a good match for the data, CFA relies on a battery of analytical techniques. CMIN/df, NFI, IFI, TLI, CFI, and RMSEA are all taken into account to determine model fit, along with factor loadings of 0.4 or higher (Stevens [1992](#); KILIC et al., [2020](#); Onde & Alvarado, [2020](#); Brown, [2015](#); Enders & Bandalos, [2001](#); Rafeh & Hanif, [2019](#)). Path analysis was used to anticipate the CFA model's requirements by fitting the reported values' fluctuation and covariances. To calculate the variance and covariance of the obtained facts, AMOS developed a covariance matrix. All factor loadings above .40 were considered valid in the standardized regression analysis (Field, [2009](#); Stevens, [1992](#); KILIC et al., [2020](#); Onde & Alvarado, [2020](#); Brown, [2015](#); Enders & Bandalos, [2001](#); Rafeh & Hanif, [2019](#)). Error covariance was inserted into the model to get it to fit.

Path analysis and chi-square value were calculated with the help of AMOS. Different criteria indices such as  $\chi^2$ , GFI, CFI, NFI, and RMSEA have been established in the present study (Joreskog & Sorborn, 1989; Bentler, [1990](#); Bentler and Bonett, [1980](#)). An appropriate fit has a IFI, CFI and TLI over 0.94 and an RMSEA below .07 (Hu & Bentler, [1999](#)).

**Results:** CFA statistics for EIS are shown below.

Table 4

Model-fit Indices for EIS among Breast Cancer Women (n=200)

	$\chi^2(df)$	NFI	IFI	TLI	CFI	RMSEA	$\Delta\chi^2(\Delta df)$
Model 1	1127.65(112)	.94	.94	.94	.96	.07	539.40(17)
Model 2	616.43(89)	.94	.95	.95	.95	.06	

Model 1= Default model of CFA for EIS.

Model 2= M1 after adding Error Covariance.

The Existential Issues Scale model fit indices are shown in Table 4. As a whole, the model included 30 variables. The results of CFI = .95, IFI = .95, NFI = .94, and RMSEA = .06 in Table 4 indicate a satisfactory level of fit.

Table 5

CFA Factor Loadings for EIS (n=200)

Factor 1		Factor 2	
Item	Personal Dimensions	Item	Social Dimensions
1	.44	11	.90
2	.49	24	.59
3	.79	28	.74
4	.98	29	.45

Factor 1		Factor 2	
Item	Personal Dimensions	Item	Social Dimensions
5	.49	34	.98
6	.49	35	.92
8	.59	36	.42
9	.78	38	.97
10	.44	39	.48
12	.44		
13	.78		
14	.49		
16	.89		
18	.98		
19	.42		
21	.41		
22	.57		
23	.89		
25	.47		
32	.98		
40	.42		

Note: Loadings on the factors above .40 have been noted (Stevens [1992](#); KILIC et al., [2020](#); Onde & Alvarado, [2020](#); Brown, [2015](#); Enders & Bandalos, [2001](#); Rafeh & Hanif, [2019](#)).

Step VII: Establishment of Descriptive Statistics, Reliability and Validity of EIS

Inspection of the descriptive and psychometric properties of the validated research tool and the identification of early structures of association among study components were the tasks of this step. To complete this step, the stages below were taken.

**Stage I Psychometric properties of study Items:** Mean, standard deviation, kurtosis (Ku), Skewness (Skew), and range were sought in Stage I. Furthermore, this phase is intended to calculate correlations to see connections between our variables.

**Sample:** Two hundred women with breast cancer were randomly recruited from the oncology ward of four govt hospitals in the Punjab province of Pakistan. Participants were enlisted using a purposeful sampling strategy.

**Procedure:** Participants were solicited in person to participate in the research. Questionnaire forms were used to gather all of the relevant facts. The instrument was written in Urdu, and a guidebook including demographic information Performa was included with the questionnaire Several statistical analyses were run on the datasets.

**Results:** In the following tables, we showcase the dissertation elements' psychometric properties.

Table 6

Descriptive Statistics of EIS (n=200)

Scales	Items	M	SD	$\alpha$	Skew	Ku	Potential	Actual
EIS	30	122.69	9.86	.78	-.35	.17	30-150	93-146
EIS(P)	21	86.79	8.67	.81	-.46	-.13	21-105	61-105
EIS(S)	9	35.90	5.73	.77	-.18	-.56	9-45	20-45

Note. EIS= existential issues scale. P = personal. S= social. M=Mean. SD= standard Deviation.  $\alpha$ = reliability coefficient. Skew= skewness. Ku= kurtosis

Based on these results, it is safe to say that the proposed tool is the best tool available for gauging existential issues of breast cancer women.

**Stage II Relationship among Study Items:** To see how the variables in the research are set up in relation to one another, bivariate correlations were computed. To further check whether or not the items were accurately measuring their respective constructs, the item total correlations of the variables were also imputed.

Table 7

Item Total Correlation for EIS (n=200)

Item No.	R	Item No.	R
1	.46**	28	.68**
2	.65**	29	.72**
3	.57**	32	.69**
4	.65**	34	.71**
5	.68**	35	.78**
6	.88**	36	.84**
8	.67**	38	.65**
9	.62**	39	.59**
10	.75**	40	.72**
11	.70**		
12	.69**		
13	.68**		
14	.67**		
16	.71**		
18	.63**		
19	.62**		
21	.61**		
22	.70**		
23	.77**		
24	.81**		
25	.84**		

\*\*p < .01

Table 8

Correlation Coefficient of the Study's variables (n= 200)

Variables	1	2	3
EI(T)	1		
EI(P)	.68**	1	
EI(S)	.71**	.64**	1

Note: EI(T)= existential issues total. EI(P)= existential issues personal. EI(S)= existential issues social.

\*\*p < 0.01

Stage VIII: Convergent and Discriminant Validity

To prove the construct validity of the newly developed EIS, we compared it to the Depression Anxiety and Stress Scale (Kausor & Zehre, 2009) for convergent validity and the ICP Subjective Well-Being Scale for discriminant validity (Moghal, 2012).

Table 9

Correlations Among total Existential Issues Scale for Breast Cancer Women, its Sub-Scales, Depression Anxiety and Stress Scale and ICP Subjective Well-Being Scale (N = 200)

Variables	1	2	3	4	5
Existential Issues (Total)	1				
Social Existential Issues	.678**	1			
Personal Existential Issues	.714**	.643**	1		
Depression Anxiety and Stress	.741**	.622**	.401**	1	
Subjective Well-Being	-.621**	-.342**	-.425**	-.114*	1

Note: EIS = Existential Issues Scale for Breast Cancer Women.

\**p* < .05. \*\**p* < .01.

According to the above table, there is a positive and significant association between the total EIS and the DASS, whereas there is a negative and significant relationship between the total EIS and the ICPSWBS The newly designed EIS for women with breast cancer showed promising results in terms of both discriminant and convergent validity.

Discussion

There is a lack of research on existential issues for breast cancer women, so this study explores the semantic understanding of existential issues from the perspective of breast cancer women to fill that gap.

Many themes emerged from the exploration of existential issues of women with breast cancer such as existential anxiety, death anxiety, meaninglessness, hopelessness, loneliness, loss of autonomy, lowered self-esteem, pessimistic, peace of mind, dissatisfaction, personal loss of control, personal responsibility, loss of personal relationships, demoralization, disappointment, helplessness, dependency, loss freedom of choice, a burden to others, futility, alienation, body image discomfort, abashment, loss of female identity, social isolation, loss of outdoor mobility, loss of social identity, loss of group identity, loss of family identity, loss of social relationships.

Step 1's qualitative approach to the concept led us to conclude that patients with cancer, and in particular breast cancer, are more likely to encounter existential issues than the general population of Pakistani women.

Unlike in the West, where existential concerns have been around for a while, they are a relatively new notion in Pakistan. Many studies in the West have reached contradictory conclusions on the existential issues of breast cancer patients. Many studies have shown a correlation between the specific kind of cancer and the specific kind of existential issues that patients face (Tacon, 2011). This study's indigenous qualitative analysis reveals that breast cancer is a significant contributor to the existential issues of Pakistani women (One of the women said during the in-depth interviews that *she often contemplated her mortality and found that it caused her and her loved ones a great deal of emotional distress*). Most Pakistani women aren't aware that fear of death is a major existential issue, which is in line with recent western results (Berlin & Von Blanckenburg, Berlin2022).

Similar to the West, eastern societies like Pakistan suffer from a widespread issue of *identity loss*. Because of the negative connotations associated with having breast cancer, many women experience a loss of identity within their personal and professional networks. Many Pakistani women are afraid to voice their ideas for fear of social stigmatization (Saeed et al., 2021), therefore they conform to the expectations of others. In their interviews, Mansoor & Abid (2020) found that Pakistani women attributed their breast cancer to a sense of loss of identity.

As a result of the qualitative analysis of the interview data, various culturally specific themes arose, such as *abashment* in front of family members and society, avoiding people to prevent embarrassment, and thus *loss of relationships* with family, society, and women consider themselves a *burden to others*. Women diagnosed with breast cancer in Pakistan tend to *isolation* from social interaction and experience increased *loneliness* as a result. The women face rejection from society so they lose outdoor mobility. Similarly, eastern women experience a *lowered self-esteem* after breast cancer screening, treatments, and attempts to manage the disease with medicine.

Many themes of existential issues such as *existential anxiety*, *death anxiety*, *loss of autonomy*, *meaninglessness*, *loneliness*, *hopelessness*, *social isolation*, *loss of freedom of choice*, and *loss of relationships* were explored among breast cancer women and these themes are congruent with the literature on existential issues among diverse cancer patients (Woodgate et al., [2014](#); Blinderman & Cherny, [2005](#); Weisman & Worden, [1977](#); Mayers et al., [2002](#); Breitbart et al., [2000](#); Bolmsjo, [2000](#); Arndt et al., [1998](#); Browall et al., [2010](#)). The current study's qualitative findings on existential issues are consistent with other studies' findings (Landmark et al., [2001](#)) and the current investigation gives a richer picture of existential issues among breast cancer women. To investigate the existential issues of breast cancer women each of the rising themes was then employed to develop items. Therefore, the Existential Issues Scale was developed as a scientific tool for assessing the prevalence of existential issues among breast cancer women.

Following scale construction, as part of the validation process, we looked at the component analysis of the EIS, as well as its reliability coefficients and item-total correlations, to determine its psychometric features. Furthermore, we look at the chain of causality between our study components.

The pilot study objective was to test EIS reliability and validity. This was done by calculating EIS item-total correlations and reliability. The largest Cronbach Alpha coefficient indicated that the Existential Issues Scale and its personal and social components were reliable and suitable for breast cancer women's existential issues. Table 8 shows that all EIS elements were strongly positively associated, indicating that each component helps form a more complete picture of the whole. Convergent and discriminant EIS and subscales validity were shown. EIS appears to be a reliable and promising treatment for indigenous breast cancer women. The Existential Issues Scale in this study was designed to assess breast cancer women's existential issues, so no prior research could inform its psychometric evaluation.

Scientific inquiry provided initial findings about the research elements' link. Existential issues scale subscales have statistically significant optimistic connections. We found some encouraging results in the EI scale and its subscales' component structure, construct validity, psychometric qualities, and connection tendencies. EIS and its scales were validated, reliable, and trustworthy. Correlations revealed patterns of association among study variables, which helped.

The findings of this study improve breast cancer women's holistic care by acknowledging their experience beyond the disease's physical symptoms, resulting in more patient-centered, effective, and compassionate care. The scale helps doctors tailor psychological support to breast cancer women's existential issues, and improve their coping or well-being. An existential understanding of a patient can guide treatment. This study helps create a patient-centered treatment plan. The findings help develop survivorship programs that address breast cancer women's existential issues and needs. The findings suggest training healthcare providers to address breast cancer women's existential issues and improve their care. The scale encourages honest discussions between patients and doctors by identifying existential issues. This eases patients' fears, uncertainties, and spiritual or philosophical questions.

## Limitations of the Study

Knowing study limitations improves future research. Current research has limitations:

1. The sample size in this research is insufficient. The study may include a national or international sample for further research. It will help establish scale norms, concurrent validity, and reliability.
2. While the psychometric properties of the scales developed in this research are sufficient, further analysis is needed to standardize and determine their norms. Further analysis is advised.
3. A self-rated scale instrument was used to measure the existential issues of women in this study. However, the score range and distribution suggest respondents answered honestly. External ratings from family, caretakers, nurses, and doctors should validate self-ratings. Caretaker ratings can be used. Although self-ratings are valid, they can be cross-validated with caretakers' ratings.

## Conclusion of the Study

Researchers fought for the philosophical and functional value of identifying Pakistani breast cancer women's existential issues, which inspired this study. A thorough data analysis revealed unexplored construct areas. Due to their adaptability and many approaches, existential issues are complex, and the current research has sought to understand them. Qualitative research was used to explore the variable. This study addressed the existential issues of breast cancer women in a collectivistic society and created a scale. This research's qualitative responses show that breast cancer patients face many personal and social existential issues. More research is needed on all study variables.

This study on Pakistani breast cancer women's existential issues could benefit future researchers in several ways: Future researchers could use this knowledge to design culturally sensitive and contextually relevant studies. This ensures Pakistani breast cancer patients receive tailored interventions and support.

Longitudinal studies can begin with Pakistani breast cancer patients' existential issues. These studies can track events over time to better understand how breast cancer affects women's existential well-being.

This study could inform future comparisons. Researchers may compare Pakistani breast cancer women's existential issues to those in other cultures to better understand their universal and culturally specific aspects. The research can help design interventions and support programs for Pakistani breast cancer women's existential issues. This could include counseling, spiritual care, and psychological support.



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