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Family Dynamics and Disordered Eating: Development and Validation of a Clinical Evaluation Scale

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Abstract
This study presents the validation and development of a clinical evaluation scale to explore the connection between family dynamics or patterns of disordered eating behaviors. A sample of 400 individuals (200 men, 200 women) aged 16 to 25 years suffering from different disordered eating patterns selected for this study using purposive sampling. The development process of scale involved five stages: Stage 1: Domain Identification and Item Generation, where interviews conducted with 12 individuals (6 men, 6 women) with disordered eating from Lahore, Pakistan. Stage 2: Content Expert Validation, where five clinical psychologists evaluated the developed therapeutic assessment tool in terms of the items' clarity. Stage 3: Pilot Testing in which scale administered to 50 individuals (25 men, 25 women) to ensure that all the items in the scale are culturally appropriate, yielding a Cronbach's alpha of .80. Stage 4: Exploratory Factor Analysis (EFA) was administered to a sample of 400 (200 men and 200 women) individuals**,** confirming a KMO value of 0.69. EFA resulted in a 19-item scale divided into three factors: "Parental Authority and Emotional Distance", "Body Image Concerns and Eating Habits" and "Negative Feedback and Disordered Eating". Stage 5: Reliability and Validity Assessment where scale demonstrated test-retest reliability (0.967**). Convergent validity of the scale was assessed with the three-factor eating questionnaire (0.746**). Discriminant validity of the scale was assessed with the Multidimensional scale of Perceived Social Support (0.031). The scale demonstrated robust psychometric properties, providing a reliable tool for clinical and research applications.

Keywords: Disordered Eating Patterns, Family Dynamics, Clinical Evaluation Scale, Communication Patterns, Parental Expectation

Introduction
Family dynamics are the communication patterns, interactions, and relationships among a family unit. These dynamics influence the roles, behaviors, and expectations of its members and form the overall functioning of a family. These dynamics are prevalent and complex and can be influenced by many factors contributing to individual personalities and life experiences. The scope of family dynamics refers to the wide range of interdisciplinary perspectives, including family studies and how their relationship influences various behaviors. The degree of emotional bonding between family members handles stress levels and the ability of the family to adapt to change. Communication style plays a significant role in family dynamics, and the frequency of communication, level of openness, and how they communicate influence their behavior. Gender norms, strengths, and preferences can influence an individual's role and responsibilities. The

interaction and relationships within the family, such as with parents and siblings, provide practical support (Doherty & Hughes, 2009).

Family Dynamics and Disordered Eating Patterns

Family relationships play an important part in the occurrence of distorted eating patterns. The family represents an essential structure of society that meets the needs of each member of a society through which attitudes, behavior, and values are passed on over time. The family members influence children's behaviors through modeling and contingencies to refine the behavior through rewards and punishment. Parents are essential in the development of making these behaviors. The increasing rate of disordered eating patterns in individuals is associated with the various aspects of family behavior related to weight (e.g., comments about body size and expressed attitude regarding appearance) and food. Disordered eating patterns are improper eating behaviors that can have adverse effects on mental and physical health but may not meet the criteria for specific eating disorders. Family members exhibit specific behaviors, such as modeling the dieting of parents and focusing on attractiveness. Appearance is related to the more significant difficulties with disordered eating behaviors and weight concerns. Negative self-evaluation among women about body places individuals at high risk for subclinical disordered eating behaviors. Body image dissatisfaction is one of the several systems through which family force on thinness contributes to disordered eating patterns. Many studies link family dynamics with disordered eating patterns in individuals in adolescence and early adulthood; the family emphasis on eating, thinness, appearance, and weight plays an essential role in distorted eating behaviors (Kluck, 2008; Wertheim et al., 2002). Many factors of family dynamics may come up with the occurrence of distorted eating behaviors: In a family system where open communication about emotions and feelings is restricted, individuals may be involved in disordered eating behaviors as they cope with unresolved conflicts, anxiety, and stress. Family conflicts or stress can lead to the development of disordered eating patterns as an individual, as a means of escape or control from family challenges, may use food-released behaviors. Parental pressure on body shape or looks has a direct effect on eating distorted behaviors. In families where one child is designated as a “golden child” and awaits to shine in many areas, including appearance, the child may meet high expectations and be more disposed to developing disordered eating patterns (Anderson & Brown, 2015).

Significance of the Study

Family dynamics can significantly influence the occurrence of patterns of disordered eating. Inside a particular social context, the family environment influences the beliefs, attitudes, or behavior concerning body image, nourishment, and overall well-being. Understanding the connection between maladaptive eating and familial dynamics is essential for mental health research due to the significant effect that family environment can have on the well-being of an individual. Studies have shown that a low-income family's environment, such as lack of warmth, affection, and family conflicts, can restrain individuals in the family from receiving emotional support as well as problems in expressing emotions, which can cause serious mental health problems. Studying this relationship can develop a support system and more effective interventions for those fascinated by dysfunctional eating behaviors. It facilitates how the environment can shape the mental health of an individual.

Theoretical Framework Concerning Family Dynamics and Disordered Eating Patterns

The literature review explains the complex role of family dynamics in the occurrence and maintenance of disordered eating patterns. From previous research, by integrating findings, this literature searches to identify patterns and common themes, thereby providing an extensive understanding of how family dynamics contribute to the onset of disordered eating behaviors.

Family Systems Theory

This theory focuses on how individuals cannot be recognized in isolation from their social environments and family systems; it emphasizes that family members are interdependent and interconnected. According to Murray Bowen, a family is a unit, and emotional development is based on the connections among members encouraged by actions, thoughts, and feelings to develop an environmental interdependence. These connections help the family become supportive and united among its members. The emotional connections can become arduous if there is any tension and distress. Suppose any family member disposes to take the emotions and feelings of other family members and may take a helpful role, leading to isolation and overwhelming. Then, family members may become more easily targeted to depression, addictions, anxiety, and distorted eating behaviors (Bowen, 1978)). According to research, family dynamics have a role in shaping eating behaviors and suggest that disordered eating behaviors may arise as a response to maladaptive communication patterns and family conflicts (Minuchin et al., 1978).

Attachment Theory

In the context of family dynamics and disordered eating patterns, the attachment theory explains admirable insights into how previous caregivers' relationships form behaviors or attitudes of individuals towards body image, interpersonal connections, and food. According to attachment theory, the child shapes emotional bonds with the primary caregiver, especially with parents, to seek protection, security, and comfort. Attachment experiences their evolution and perception of their body and influences an individual's body weight (Bowlby, 1973). The study was conducted on parenting styles and their effect on eating behaviors and attitudes in adolescents. Permissive and authoritarian parenting styles characterized by cold, discouragement levels of control lead to a high level of maladaptive eating behavior and weaker body image (Slevec & Tiggemann, 2011). Berge and his colleagues conducted another study to investigate the effect of parenting style quality on individuals with distorted eating behaviors. It concluded that authoritative food practices such as providing structure and setting limits in eating were more likely to be associated with reduced risk of disordered eating and hygienic eating patterns among individuals (Berge et al., 2014). Tylka and his colleagues conducted a study to explore the role of mothers modeling appearance-related concern and self-image in forming daughters' eating patterns and body images. In young girls, disordered eating behaviors and body shaming were associated with behavior and appearance-related comments from mothers. It understood the behaviors and comments from parents directly linked to body image worries among children (Tylka et al., 2015). A study was conducted on autonomy support and parental control about patterns of disordered eating behaviors or attitudes among young girls. They found supportive autonomy parenting was associated with healthy eating behavior or attitudes, and a high range of control from parents in food choices and weight concerns were linked with a high level of developing risk of maladaptive eating patterns and behaviors (Rodgers et al., 2020). Shomaker and his colleagues highlighted the importance of increasing independence and autonomy in adolescents' eating attitudes and behaviors. They showed that the individuals who gained a high level of parental autonomy support were less likely to participate in disordered eating (Shomaker & Furman., 2009). The research highlighted that attachment between a child and parent harms the risk of developing eating disorders. Suppose the attachment between child and parent is insecure and characterized by more significant avoidance or anxiety; then many chances of occurrence of eating disorders. If the attachment between child and parent is secure, it promotes healthy eating behaviors or attitudes. Across the world, many researches have been directed on the dynamics of the family in occurrence of patterns of disordered eating. In Pakistan, there is a remarkable lack of research on this censorious issue and in individuals there is currently no clinical evaluation scale planned to evaluates the early signs detection of patterns of disordered eating in that Pakistani culture. This research gap highlighted the require to acknowledge the possible impact of family dynamics on

occurring disordered eating patterns. For the therapeutic evaluation, validating or developing a clinical evaluation tool by examining these dynamics of family. In Pakistan, it provides awareness into factors of family that may lead to disordered eating in Pakistani context.

Objective

The most crucial objective of the research is to explore the family dynamics in the development of disordered eating patterns and develop a clinical evaluation scale for Pakistan based on Bowen's Family Systems Theory, which was developed by Bowen (1978).

1. To create a psychometrically and comprehensive evaluation tool that encapsulates many family system factors relevant to patterns of distorted eating behaviours. This defines critical components such as conflict resolution strategies, communication patterns, family cohesion, body image, and parental attitudes toward food.
2. To comprise and identify factors and features of family dynamics that have been empirically and theorized contributed to the maintenance and occurrence of disordered eating patterns, such as occasional overeating, restrictive dieting, and other conditions, through rigid psychometric testing to establish validity or reliability of the clinical evaluation scale.
3. To ensure that scale is clinically and practically helpful in evaluating family dynamics with disordered eating patterns in individuals across multiple settings such as treatment intervention, research studies, and clinical practice.

Methodology

Research Design

A sequential exploratory mixed method design was used, as this study was conducted through a qualitative phase followed by a quantitative phase. The first phase was qualitative to explore the family dynamics in developing disordered eating patterns specific to Pakistani culture. In this phase, Semi-Structured interview was conducted with participants with disordered eating patterns to get insight into their family dynamics and experiences in order to gain a deeper understanding. The second phase was quantitative for developing and validating a clinical evaluation scale. In this phase, in-depth interviews were used for generating items, and the clinical evaluation scale was finalized after quantitative analysis.

Sample Recruitment and Participants Characteristics

Four hundred participants (200 men and 200 women) suffering from different disordered eating patterns between ages 16-25 were selected as a sample. First, the participants were screened through The Disordered Eating Behavior Scale' (Moazzam, 2011) and then recruited for further study. The age group is selected because disordered eating patterns often manifest during adolescence and young adulthood. Only those participants participated in the study who were: (a) Current residents of Lahore, Pakistan, to ensure that the participant's experiences reflect the cultural and familial dynamics in the city. (b) Both men and women were included to assess multiple familial dynamics in developing disordered eating patterns. (c) Participants with disordered eating patterns were included to explore the role of family dynamics in these conditions. (d) Willing to participate in interviews or assessments related to family Dynamics and disordered eating patterns and willingness to share their experiences for clinical evaluation scale development. (e) Individuals from different family structures (nuclear, extended, joint families, etc.) were included as sample to recognize how different family setups impact disordered eating development. Those participants were not included to participate in the study who was: (a) Below 12 or above 25 years of age, as disordered eating patterns might differ in other age groups. (b)Suffering from severe psychiatric conditions or comorbidities that affect their ability to participate in discussions about family dynamics related explicitly to disordered eating. (c) Participants having language barriers affecting their ability to communicate appropriately during

interviews or assessments. (d) Who could not provide informed consent due to cognitive impairments or other limitations.

Tools of Assessment

Informed Consent Form

In the consent form, the reason for the study was explained to the participant, and they were asked for their voluntary participation. Moreover, this form also included their written agreement for participation.

Demographic Information Sheet.

The demographic sheet included all essential information of the Participants, i.e., age, gender, religion, number of siblings, family system, family composition, relationship status of parents, educational background, socioeconomic status, and family history of disordered eating.

The Three-Factor Eating Questionnaire (TFEQ)

The Three Factor Eating Questionnaire is developed by Albert J. Stunkard and Samuel Messick in (1985). It is a self-report questionnaire to measure behaviors and attitudes linked with maladaptive eating habits. It consists of 18 items and has demonstrated good internal consistency, with Cronbach's alpha values typically ranging from 0.80 to 0.90. Example items include statements like "I consciously avoid eating between meals" and "I am often hungry enough to eat something sweet.''

The Perceived Social Support Scale (PSSS)

The Perceived Social Support Scale, initially developed by Gregory D. Zimet (1988) and translated by Tahira Jabeen (2015) is outlined to measure the perception of individuals of social support from friends, family and others. This support is linked to an ability of individual to cope with stress and maintain wellbeing. The PSSS consists of 12 items and has shown strong internal consistency, with Cronbach's alpha values typically ranging from 0.85 to 0.91. Example items include statements like "I get the emotional support I need from my friends" and "I can count on my family when things go wrong."

Procedure

The scale was developed into the following five stages:

Stage 1: Domain identification and item generation through interviews

Participants. Twelve adults (six men and six women) suffering from different disordered eating patterns between ages 16-25 were selected as a sample. First, the participants were screened through The Disordered Eating Behavior Scale (Moazzam, 2011) and then recruited for further study.

Procedure. Initial approval was sought from the Ethical Review Board of the Humanities Department of COMSATS University. The research was adhered to ethical guidelines and principles throughout its execution. Participants were recruited through purposive sampling, ensuring family dynamics. Before their involvement in the research, informed consent was gathered from each participant. Each member was asked to complete a demographic information sheet, providing necessary background information. Subsequently, semi-structured interviews were directed in a private or secure environment, permitting participants to express their experiences and perceptions openly. Interviews were audio-recorded with participants' consent. Then all the interviews were transcribed. Qualitative analysis was carried out by reading the transcribed interviews again and again and underlining the important dynamics and 21 items were identified and generated from interview's generated themes.

Stage 2: Content Expert Validation

Participants. Five clinical psychologists evaluated the developed therapeutic assessment tool in terms of the items' clarity and relatedness to the content in question.

Procedure. The scale was simple and self-administered. Each item was followed by five options that are Very strong = 5, Strong = 4, Moderate = 3, Weak = 2, Very weak = 1

Statistical Analysis. Mean ratings were computed to obtain the central tendency and variability of expert ratings on each item. The mean average of each item has been calculated and as all the items were above the average of 2.5, they were retained.

Stage 3: Pilot test

Participants. The researcher obtained data from 50 young adults (25 men and 25 women; Mean age= 22.80, SD= 3.14) through purposive sampling. The sample were selected from individuals with disordered eating behaviors in Lahore, Pakistan. Computing statistics on this population allow an understanding of general associations among variables related to eating behaviors which helped establish a baseline structure of factors that might have influenced eating behaviors and body image perceptions, and allowed tool refinement and validation.

Procedure. An informed consent form and demographic information sheet already developed in phase 1 were attached to the expert-validated questionnaire. The research instrument was administered, and the engagement of participants were observed. Subsequently, feedback was collected from participants, focusing on their understanding of questions. Analysis of this feedback was used in identifying common themes and issues. Based on these findings, necessary revisions were made to improve clarity and refine wording. Then, the scale reliability and internal consistency was calculated to finalize the items for the final administration of the measure. The participants were screened through The Disordered Eating Behavior Scale (Muazzam, 2011) and 21 items were in the scale after pilot testing.

Statistical Analysis. Cronbach's alpha was applied to measure internal consistency and how closely the set of items were related to the overall scale, indicating its reliability. Analysis was done through SPSS version 24. All the items were retained and 21 items were in the scale after pilot testing. Result shows moderate high internal consistency i.e., Cronbach's Alpha (.80) for the overall 21 items scale.

Stage 4: Exploratory Factorial Analysis

Participants. After pilot testing, the finalized version of the scale was administered to a sample of 150 (75 men and 75 women; Mean age=22.54, SD= 2.43) individuals with a disordered eating patterns from general population of Lahore Pakistan. The sample was selected through purposive sampling technique and were screened for presence of disordered eating patterns through the scale of Dr Amna Muazzam, 'The Disordered Eating Behavior Scale'.

Procedure. The procedure was commenced with data collection through the screening administration of a representative sample. Following data collection, factor analysis was carried out which identified the latent factors that affect the observed responses. An appropriate number of factors were determined to extract the item structure, which is crucial, often guided by statistical criteria, theoretical considerations, or previous research. The factor pattern matrix was then scrutinized to understand the relationships between the observed and extracted variables. Rotation methods were applied to simplify interpretation. This process refined the test, eliminated ambiguous items, and enhanced construct validity. 19 items were left after EFA.

Statistical Analysis. The analysis was based on the Exploratory Factor

Analysis (EFA) through SPSS version 24. This identified underlying factors within the scale items. EFA helped determine how items were group together and how much they measured the intended constructs.

Stage 5: Reliability and Validity Assessment

Participants. The developed scale administered on a sample of 200 individuals (100 men and 100 women; Mean age= 20.12, SD= 2.26) from the general population of Lahore, selected through purposive sampling through screening scale. It was ensured that the participants were having disordered eating patterns of clinical significance.

Reliability Assessment

Internal Consistency. Cronbach's alpha was applied to assess the degree of response consistency amongst tool items. It evaluated the degree to which the tool's elements measure of the same construct. Cronbach's alpha was calculated to determine the internal consistency through SPSS version 24.

Test-Retest Reliability. The scale was administered on the same sample again after two weeks. Pearson product-moment coefficient correlation was calculated to determine the stability of scores over time.

Validity Assessment

Convergent and Discriminant Validity. The degree to which the clinical evaluation scale of family dynamics and disordered eating patterns was theoretically related to a different measure i.e., its convergent validity, an established measure of The Three Factor Eating Questionnaire was used. This test is developed by Albert J. Stunkard and Samuel Messick in (1985). It is a self-report questionnaire to measure behaviors and attitudes linked with maladaptive eating habits. The Perceived Social Support Scale, initially developed by Gregory D. Zimet (1988) and translated by Tahira Jabeen (2015) was utilized to measure the discriminant validity of the developed scale. This determined discriminant validity was assessed through different constructs that were theoretically unrelated. Pearson product-moment coefficient correlation was calculated to determine convergent and discriminant validity through SPSS version 24.

Ethical Considerations

The research was conducted by getting the institution's approval and providing the participants with the correct information about the research proposal. Informed consent was taken in written form from all research participants. They were informed about the purpose, procedure, and confidentiality. Maintenance of their rights to withdraw from research were ensured. In the study, no participant was harmed or exploited. Results were not fabricated and disseminated as they were obtained.

Results

Table 1: *Demographic characteristics of the study variables.*

Variables	Frequency	Percentage
Gender		
Male	6	50
Female	6	50
Education		
Matriculation	3	25
Intermediate	2	16.7
Bachelors	7	58.3
Religion		
Muslim	12	100
Marital Status		
Married	4	33.3
Unmarried	8	66.7
Family System		

Nuclear	5	41
Joint	7	58
Mother Tongue		
Urdu	12	100
Profession		
Job	10	83
Business	2	16.7
Birth Order		
First	8	66.7
Middle	3	25
Last	1	8.3
Family Income		
Low	2	16.7
Middle	8	66.7
High	2	16.7

Note. N=12

Exploratory Factor Analysis

Table 2: *Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity.*

	KMO	**Bartlett's Test**		
Family Dynamics		Chi-Square	Df	Sig.
	.69	1094.64	210	.00

Note. N =150, $p < .05$

Table shows that the measure of sample adequacy i.e., Kaiser-Meyer-Olkin (KMO) is found to be .69 which is above the recommended value .5 suggesting that the sample is adequate for factor analysis. Bartlett's test is also significant

Table 3: *Communalities for 21 items of Family Dynamics and Disordered Eating Patterns Scale obtained through Principal Component Analysis.*

Item no	**Initial**	**Extraction**
Item 1	1.000	.77
Item 2	1.000	.68
Item 3	1.000	.65
Item 4	1.000	.54
Item 5	1.000	.32
Item 6	1.000	.29
Item 7	1.000	.50
Item 8	1.000	.44
Item 9	1.000	.34
Item 10	1.000	.40
Item 11	1.000	.48
Item 12	1.000	.15
Item 13	1.000	.33
Item 14	1.000	.12
Item 15	1.000	.40

Item 16	1.000	.34
Item 17	1.000	.24
Item 18	1.000	.30
Item 19	1.000	.43
Item 20	1.000	.57
Item 21	1.000	.54

Note. Communalities >.3 are boldface, ***N***=150

Table shows that communalities for most of the items after extraction are greater than .3 indicating that the data is suitable for factor Analysis.

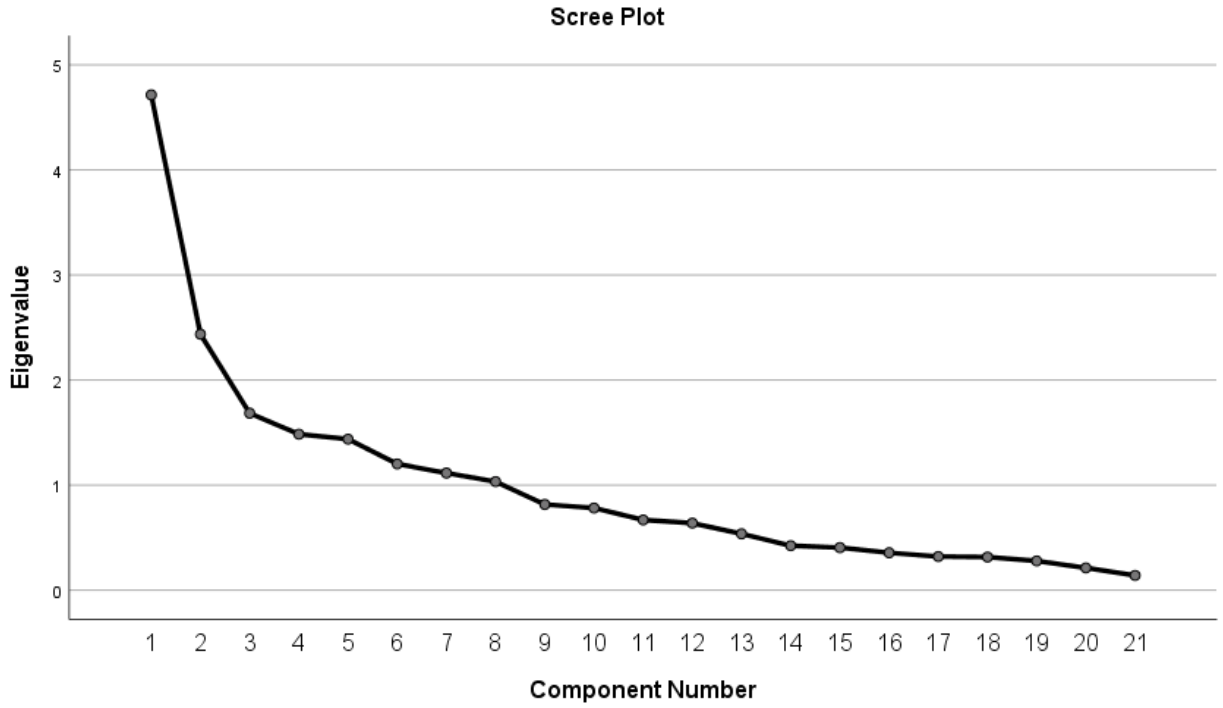

Figure 1. *Scree Plot of Family Dynamics and Disordered Eating Pattern Scale*

Table 4: *Rotated Component Matrix for items of Family Dynamics and Disordered Eating Patterns scale using Varimax.*

Item	**Component**		
	1	**2**	**3**
Item 1	.88		
Item 2	.81		
Item 3	.79		
Item 4	.72		
Item 5	.55		
Item 6	.46		
Item 7			.65
Item 8			.51
Item 9	.57		
Item 10		.61	
Item 11		.52	
Item 12		.36	
Item 15		.52	

Item 16		.57
Item 17		.48
Item 18		.54
Item 19	.59	
Item 20	.63	
Item 21	.73	

Note. Values >.3 are suppressed, N=150

Table shows three factors after rotation of factor structure in which item 1,2,3,4,5,6,9 is loaded on factor 1. Item 10, 11, 12, 15, 19, 20, 21 is loaded on factor 2 and Item 7, 8, 16, 17, 18 is loaded on factor 3. Moreover, item 13 and 14 were removed from the scale as item 13 had high loading on multiple factors and item 14 has factor loading less than 0.2. Therefore, they were removed and a 19-item scale having 3 factors was finalized after EFA.

Reliability Analysis

Table 5: *Reliability Analysis of Family Dynamics and Disordered Eating Patterns Scale.*

Scale	**Cronbach's Alpha**	**Total Items**
Family Dynamics and Disordered Eating Patterns Scale	.84	19

Note. N=200

Table shows moderately high internal consistency i.e., Cronbach's Alpha (.84) for the overall items of Family Dynamics and Disordered Eating Patterns scale.

Table 6: *Test-Retest Reliability of Family Dynamics and Disordered Eating Pattern Scale*

Scale	**R**	**Significance**
Family Dynamics and Disordered Eating Pattern Scale	.97 **	.00

Note. **. Correlation is significant at the 0.01 level (2-tailed), N=100

Table shows high positive correlation indicating high temporal stability of the scale.

Table 7: *Convergent validity of Family Dynamics and Disordered Eating Pattern Scale with The Three Factor Eating Questionnaire*

Variables	***R***	***Sig.***
The Three Factor Eating Questionnaire	.75**	.00

Note. **. Correlation is significant at the 0.01 level. N=100

Table shows a moderately high positive correlation of family dynamics and disordered eating scale with three factor eating questionnaire proving that two scales are correlated and theoretically measure the same construct.

Table 8: *Divergent validity of Family Dynamics and Disordered Eating Pattern Scale with The Perceived Social Support Scale*

Variables	***R***	***Sig.***
The perceived social support scale	.03	.76

Note. N=100

Table shows no correlation of family dynamics and disordered eating pattern scale with the perceived social support scale proving that two scales are not related. It suggests both the constructs are theoretically unrelated.

Discussion

The current study aimed to discover the family dynamics in the occurrence of disordered eating patterns, with the center of validating and developing a clinical evaluation scale that can evaluate these fluctuations in family system in clinical setting. There is a considerable amount of literature in which family plays an important role in shaping the attitudes of individuals towards self-worth, food and body image (Levine & Murnen, 2009). This study explores this knowledge by focusing on how specific family systems such as family's communication patterns, parenting styles and family behaviour towards appearance and weight may contribute to the development of disordered eating patterns. The aim of developing this scale is to do the early detection of disordered eating patterns that are associated to family dynamics. This scale encapsulates many family dynamics relevant to patterns of disordered eating behaviours. It defines the important components such as conflict resolution strategies, family cohesion, body image and attitudes. It helps in identifying factors and features of family dynamics that contribute to the emergence of disordered eating patterns such as occasional binge eating, overeating, restrictive dieting and other conditions and is an effective tool, established as a clinical evaluation scale. The scale showed strong psychometric properties that confirmed it validity and reliability in assessing the family dynamics and disordered eating patterns in individuals. Qualitative interviews were gathered from the participants that further provide insight us with an in-depth information of family dynamics and how these dynamics are affecting the life of individuals. Participants have reported about the family environment in which authoritarian parents, who are identified by low warmth and high control in their interaction with children were found to be forcing their children on Weight related issues and appearance. This creates an environment where children link their self-worth with their appearance and attribute unrealistic standards of beauty leading to behaviors such as purging, restrictive eating and binge eating. In families, poor communication specifically in relation to body image, emotions and food increases the emergence of disordered eating habits. The individuals feel isolated and misunderstood in families that discourage open communication about emotions and body image. This communication gap increases the chance of developing distorted eating habits. This study highlights the dimension in understanding the effect of family dynamics on disordered eating is the intersection with socioeconomic and cultural factors. The family stressors such as mental health issues and financial hardship lead to the emergence of disordered eating behaviours, in the environment where emotional support is hard to find, Individuals turn to food as a coping mechanism in lower socioeconomic families. Familial attitude has major role towards food, weight and dieting in shaping an individual's behaviour and beliefs. The families that highlight on idealized body type and thinness are more likely to upraise children who attribute these values, contributing to increase pressure to conform to societal level of beauty. The development of this scale was completed in a systematic step. In the qualitative phase, the first step was conducting the interviews from the participants who were engaged in disordered eating that provided researchers with different items that are related to the family dynamics faced by the individuals. Key themes that emerged were authoritarian parenting style, criticism and blaming, controlling communication, emphasis on physical appearance, pressure to conform and reinforcement of negative body shape. All these items underlined and 21 item scale is finalized. . Expert validation was conducted after finalizing the scale through interviews. Five clinical psychologists evaluated the 21-item scale in terms of the item's relatedness and clarity. After that, the professionals were given the feedback that resulted in rephrasing and refining the few items to make it suitable according to the culture. In the next step, pilot study was conducted for which data was collected from 100 disordered eating participants using purposive sampling and

Cronbach alpha was found to be .802, which states that scale has good internal consistency. Hence a 21-item scale was finalized with an internal consistency of .802. Next step was conducting the exploratory factor analysis and data was collected from 200 disordered eating participants using purposive sampling. When the items of the scale were analyzed through factorial analysis, they showed common variance. According to the KMO and Bartlett's Test of Sphericity, the sample was suitable to carry out factorial analysis. Finally, EFA was run on three factors, the KMO and Bartlett's Test value was found to be 0.69 that stated that sample is appropriate to carry the factor analysis. On the rotated component matrix, 7 items loaded on Factor 1, 7 items loaded on Factor 2, as well as 5 items loaded on Factor 3. Item 13 was loaded on three factors 1,2 and 3, and item 14 was not loaded on any factor, so these 2 items were removed and a 19-item scale was finalized. Qualitative analysis of items explained that factors loaded on Factor appeared to be a repetition of parental criticism and communication styles, so it was named "Parental Authority and Emotional Distance". The factors loaded on Factor 2 included the themes that were related to body image, societal pressure and family influence on eating habits so it was named "Body Image Concerns and Eating Habits". The factors loaded on Factor 3 included the themes that were related to cultural influence and eating habits so it was named as "Negative Feedback and Disordered Eating". These factors line up with those themes that were recognized in the interviews, thus proving the relevance of the scale. The reliability of the final 19-item scale was checked and it was found to be .838 that validated the internal consistency of the scale. In conclusion, this scale provides a helpful framework for addressing and exploring the Family factors that lead to disordered eating behaviors. As scale go through further refinement and validation.

Implications

The individuals who exhibit disordered eating behaviours, this validated scale can give as an important diagnostic tool for clinicians working with these individuals. Clinicians can recognize underlying family factors by assessing family dynamics, that may lead to or increase the chances of these eating behaviours, contributing to more authentic diagnosis. This scale can be used as empowerment of families as families can be empowered and educated to create a healthier related dynamic. In educational programs, this scale can be used as a tool to increase awareness about the effect of family dynamics on mental health. Public health campaigns can be useful for increasing awareness of family influences. It focused at educating the population about the role of family and relationship between family and siblings in the emergence of disordered eating patterns.

Limitations and Recommendations for Future Research

The present study has primary limitation was that sample was collected from the population of urban area, thus, results cannot be generalized to other population. It is important to determine if similar outcomes might increase in population from rural area, to given the diversity of Pakistani society. Other limitation of the study was the sample size and the sample size of the current study was not very large, for further studies it can be repeated on larger sample. In this study gender differences are not clear, as for both gender men and women the gender roles are different. The current study has significant limitation is that scale has not been validated against a large clinical population according to DSM-VTR in diagnosed with eating disorders. Other limitations where the scale depend on self-reported data, which suggest response bias. Participants may over report and under report specific family dynamics and eating behaviors due to lack of self-awareness and social feasibility bias regarding dysfunctional family environment.

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